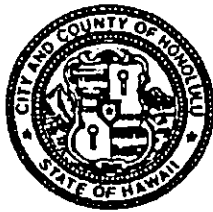


DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RECEIVED

'99 JAN 27 P4:13

RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

OFFICE OF ENVIRONMENTAL QUALITY CONTROL
January 27, 1999 QUALITY CONTROL

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

Dear Mr. Gill:

Subject: Finding of No Significant Impact (FONSI) for Ulehawa Beach Park
Tax Map Keys 8-7-05:01, 03, & 05; 8-7-06: 03; 8-7-07:01; and 8-7-08:26
Waianae District, Oahu, Hawaii

The City's Department of Design and Construction (DDC) has reviewed the comments received during the 30-day public comment period which began on December 8, 1998. The DDC has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the February 8, 1999 OEQC Environmental Notice.

Enclosed are a completed OEQC Publication Form and four copies of the final environmental assessment.

If there are any questions, please call Mr. Brian Suzuki of our Planning and Programming Division at 527-6316.

Sincerely,


RANDALL K. FUJIKI
Director

RKF:ei

Enclosures

5

FEB 8 1999

FILE COPY

1999-02-08-0A-FAA-

Aleehawa Beach Park*

Final Environmental Assessment

City and County of Honolulu
Department of Design and Construction

January 1999

Ulehawa Beach Park

Final Environmental Assessment

Prepared for:
City and County of Honolulu
Department of Design and Construction

Prepared by:
PBR HAWAII

January 1999

ULEHAWA BEACH PARK
Final Environmental Assessment

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1.0 Introduction

ULEHAWA BEACH PARK
Final Environmental Assessment

1.0 INTRODUCTION

Section 1 provides a project summary and background of the proposed park improvements, including location, land ownership, property description and land uses of the surrounding properties.

1.1 PROJECT SUMMARY

Project Name: Ulehawa Beach Park

Applicant: Department of Design and Construction
City and County of Honolulu

Land Area: TMK: 8-7-05: 01, 03 and 05
TMK: 8-7-06: 03
TMK: 8-7-07: 01
TMK: 8-7-08: 26
TOTAL: 57.65 acres

Existing Use: The majority of the subject property is used as a beach park along the Leeward Coast of O'ahu. Portions of the park are unimproved rock outcrops with scrub vegetation. Existing facilities include parking areas, comfort stations, picnic tables, and outdoor showers.

Proposed Use: The proposed use will be an improved beach park. Extensive landscape improvements with new parking areas, retaining walls, lawn areas, and picnic facilities are proposed.

State Land Use District: Urban District

**Wai'anae Development
Plan Land Use Map:** Park/Open Space

**Wai'anae DP
Public Facilities Map:** No Designations Identified

**City and County of
Honolulu Zoning:** P-2 General Preservation

Action Requested: Special Management Area Permit (City and County of Honolulu)

EA Approving Agency: Department of Design and Construction, City and County of Honolulu

Agencies Consulted: Various City/State agencies and various community groups

**ULEHAWA BEACH PARK
Final Environmental Assessment**

1.2 IDENTIFICATION OF APPLICANT

The land owner is the City and County of Honolulu. The agency preparing the master plan and acting as Applicant for the required entitlements is the Department of Design and Construction. The primary approvals will be the acceptance of the environmental disclosure document in accordance with Chapter 343, *Hawai'i Revised Statutes* ("HRS") and the processing of a Special Management Area Permit application.

To identify the appropriate uses and landscape elements for the subject property, the Department of Design and Construction (the lead agency for the project), has contracted with PBR HAWAII to prepare a Landscape Master Plan and applicable environmental documents in compliance with Chapter 343, HRS. Therefore, in accordance with Chapter 343, HRS, the Department of Design and Construction is the proposing agency for the project whose mailing address and primary contact person is listed below:

Mr. Randall Fujiki
Department of Design and Construction
City and County of Honolulu
650 South King Street, 9th Floor
Honolulu, Hawai'i 96813

1.3 IDENTIFICATION OF ACCEPTING AUTHORITY

In accordance with Subchapter 4, Section 11-200-4, Hawai'i Administrative Rules, "the mayor, or an authorized representative, of the respective county whenever an action proposes only the use of county lands or county funds" shall be the final authority to accept a statement. Consequently, the Mayor of the City and County of Honolulu has designated the City's Department of Design and Construction as the Accepting Authority for this project.

1.4 IDENTIFICATION OF AGENCIES CONSULTED

Consulted agencies or agencies which provided information in the preparation of this environmental assessment include the following:

City Agencies:

Board of Water Supply
Building Department
Department of Design and Construction
Department of Parks and Recreation
Department of Public Works
Department of Transportation Services
Department of Wastewater Management
Department of Planning and Permitting
Honolulu Police Department
Honolulu Police Department District 8
Honolulu Fire Department
Planning Department

**ULEHAWA BEACH PARK
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State Agencies:

Department of Defense
Department of Health
Department of Business, Economic Development and Tourism, State Office of Planning
Department of Land and Natural Resources
Department of Land and Natural Resources, Historic Preservation Division
Department of Transportation
Office of Environmental Quality Control
Office of Hawaiian Affairs
State Land Use Commission

Federal Agencies:

U.S. Department of Agriculture Resource Conservation and Development
U.S. Department of the Army - Engineer Division
U.S. Department of the Interior, Fish and Wildlife Service
U.S. National Marine Fisheries Service
Federal Emergency Management Agency

Community Organizations:

Ms. Paulette Didibar
Mr. Solomon Naone
Ms. Cynthia Rezendes
Wai'anae Neighborhood Board members
Wai'anae Visioning Committee
Wai'anae Visioning Subcommittee

2.0 Project Description

ULEHAWA BEACH PARK
Final Environmental Assessment

2.0 PROJECT DESCRIPTION

The proposed improvements to Ulehawa Beach Park, construction activities, and preliminary development timetable and approximate development costs are described in this section.

2.1 REGIONAL SETTING

The proposed project is located in the Wai'anae District, O'ahu, Hawai'i (Figure 1). The Wai'anae District consists of several communities: Nānākuli, Mā'ili, Lualualei, Wai'anae, Mākaha and Mākua. All of the Wai'anae communities are geographically located along the leeward coast or within broad arid valleys of the Wai'anae mountain range.

The Wai'anae Coast is a popular surfing area during the summer southerly swell period and Wai'anae Harbor (Pōka'i Bay) serves as a regional commercial and recreational fishing harbor. The three-mile Ulehawa Beach Park serves the recreational needs of these communities as a picnic, camping, fishing, and surfing beach park and as a scenic resource along Farrington Highway.

2.2 LOCATION AND BACKGROUND

Ulehawa Beach Park consists of approximately 57.6 acres of land which has historically been used for ocean-based recreation purposes. The study area is bounded on its mauka boundary by the OR&L Railway Right-of-Way and Farrington Highway. The entire length of the park's makai boundary is located along the State-owned sand beach. All of the project area (mauka of the certified shoreline) is located within the State Land Use Commission Urban District. The State-owned sand beach below the certified shoreline is within the State Conservation District.

The following description is found in *The Beaches of O'ahu* (Clark 1977):

"The beach park takes its name from Ulehawa Stream, which empties into the ocean after passing through a section of the park. The long park shoreline stretches from the makai boundary of the Nānākuli and Lualualei districts to the area around Maipalaoa Stream. Three separate little parks, Ulehawa, Pu'u o Hulu, and Maipalaoa, were combined to form Ulehawa Beach Park.

The original Ulehawa section is the most frequented area of the beach. It centers around the comfort station bearing the name Aupaka. A sandy pocket beach lies between the limestone point on the east and a reef shelf on the west. During the summer, this cove-like area is relatively calm and safe for swimming, with its wide sand beach. During the winter, however, much of the beach disappears. The winter surf creates some very powerful rip currents and a good bodysurfing break. A lifeguard tower, staffed during the summer months and on all weekends, overlooks the cove area. The rest of the original Ulehawa Beach Park is relatively undeveloped. The beach, for the most part, is steep and narrow, with exposed reef and rocks along most of the shoreline. The bottom drops off rather sharply into deeper waters. Swimming is poor and dangerous during the winter. At the mouth of Ulehawa Stream, however, the freshwater runoff has formed a relatively smooth shelf compared with the surface in the rest of the area. Children from Nānākuli play and surf there.

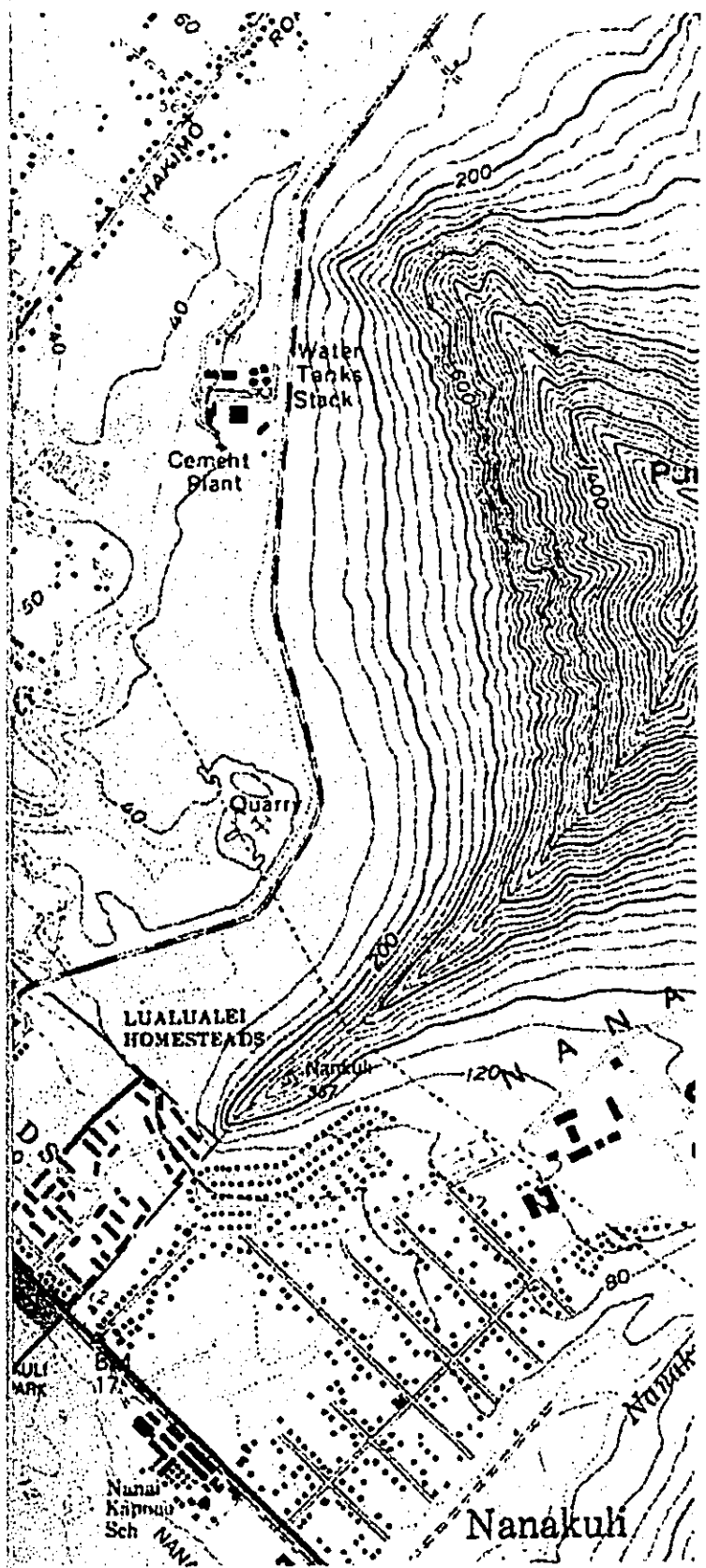
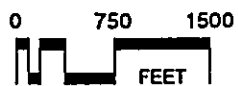
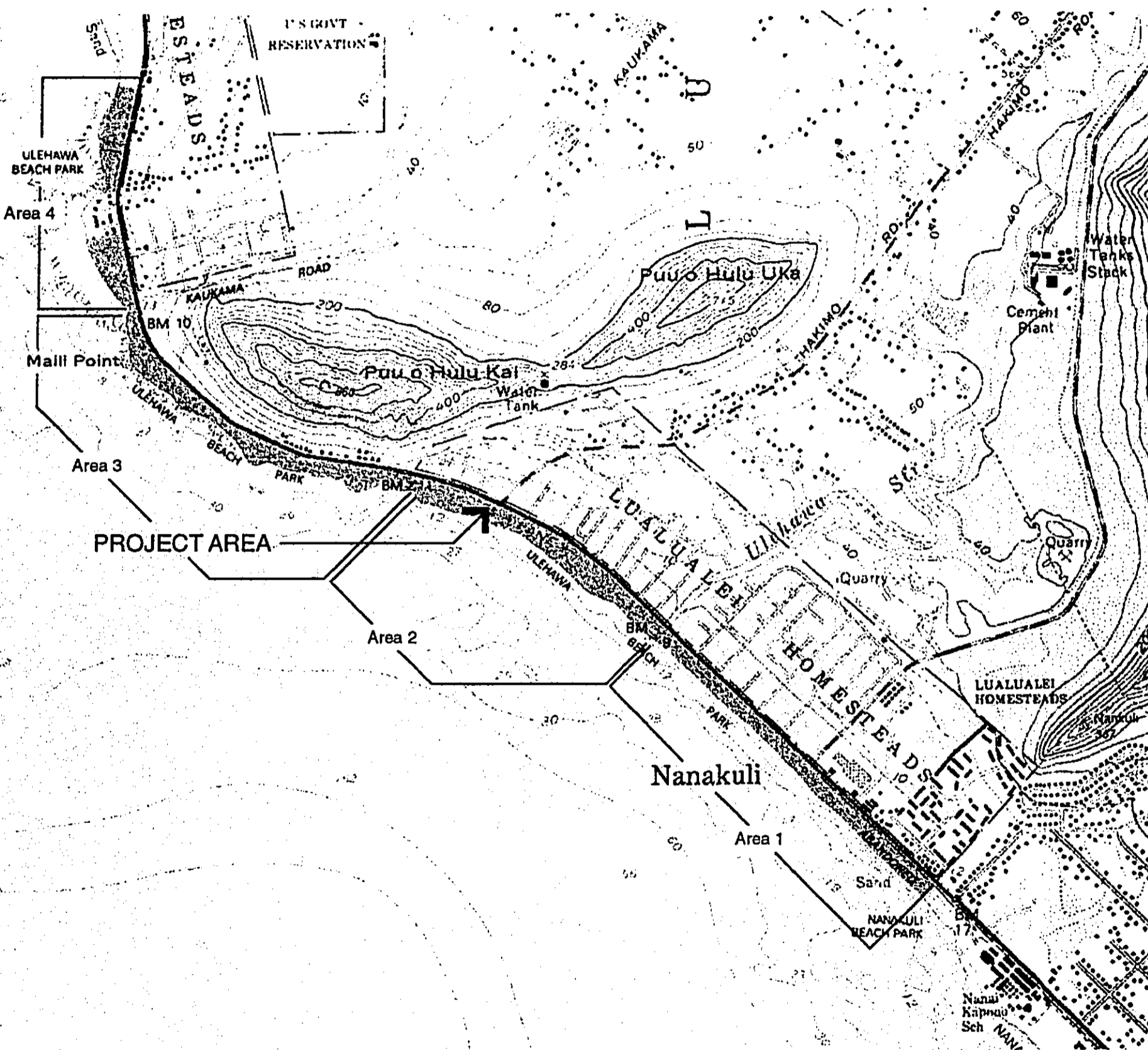


FIGURE I
LOCATION MAP

Uleehawa Beach Park



November 1988



ULEHAWA BEACH PARK
Final Environmental Assessment

The Pu'u o Hulu section of Ulehawa Beach Park lies around the large rocky point located at the base of the mountain Pu'u o Hulu Kai. No recreational swimming is possible in this area. The entire shoreline at the water's edge is a long low cliff composed of limestone and raised coral reef. This area of the park is not only undeveloped but also is covered with underbrush and kiawe trees. Surf pounds the cliffs almost continually, [and] especially during the winter months. The area is frequented primarily by pole fishermen. The lone concrete marker on the point warns fishermen about the dangerous water conditions. Such markers were set up in 1935 in many such hazardous spots by the Honolulu Japanese Casting Club. Originally the markers, with the word "danger" printed in Japanese on their sides, were placed above an actual spot where a fisherman had been washed away and lost. The Pu'u o Hulu point area was known to the Japanese fishermen as "obake", or "ghosts", from a feeling that the place was haunted.

The Maipalaoa section of Ulehawa Beach Park, stretching from Mā'ili Point to Maipalaoa Stream, also is undeveloped. The offshore reef in this area forms a shallow, enclosed lagoon which opens into deep water at the Mā'ili end, creating the safest section for swimming throughout the entire Ulehawa Beach Park. The lagoon is protected even when the surf is high. The shallow bottom is a mixture of sand pockets and patches of coral reef. The western end of the fringing reef provides a popular surfing break."

Much of the description by Clark in 1977 remains consistent today, more than 20 years later.

2.3 DESCRIPTION OF THE PROPERTY

The project area includes lands owned by the City and County of Honolulu. Two small portions of land along the beach area, containing radio towers are outside of the project area and are owned by the United States Government. The study area encompasses 57.6 acres of land and is comprised of several tax map parcels identified as Tax Map Key (TMK) 8-7-05:01, 03, and 05; 8-7-06: 03; 8-7-07:01; and 8-7-08: 26 (Figures 2A - 2D).

The existing conditions of Ulehawa Beach Park are shown in Figure 3. The three-mile shoreline property consists primarily of unimproved park areas except for two small portions which have been improved with park facilities.

- North of Mā'ili Stream is an improved beach park with a grassed lawn area, comfort station, parking, and a few shade trees.
- Near the Mā'ili end of the property, the topography is flat and sandy with little or no shade trees or vegetation. This area is a popular surfing area and surf meets are held during the winter high surf period. The area is also popular for throw netting and shoreline fishing.
- Makai of Pu'u o Hulu Kai and Farrington Highway is a rocky coastline with scrub vegetation and a coral road/path that provides access to good fishing spots off rocks and ledges. The area is used for tidal pool wading during zero to negative tide and also has good body surfing and surfing conditions outside the reef area.
- Unimproved park areas continue to follow the shoreline from Pu'u o Hulu Kai, eastward past the Ulehawa Drainage Channel and on to another unimproved park area just east of Navy Road. The adjoining adjacent improved park includes new tree plantings, a life guard stand, picnic tables and shelters, and a coral rock retaining wall.
- Current facilities include two comfort stations and 51 parking stalls with two handicap stalls.

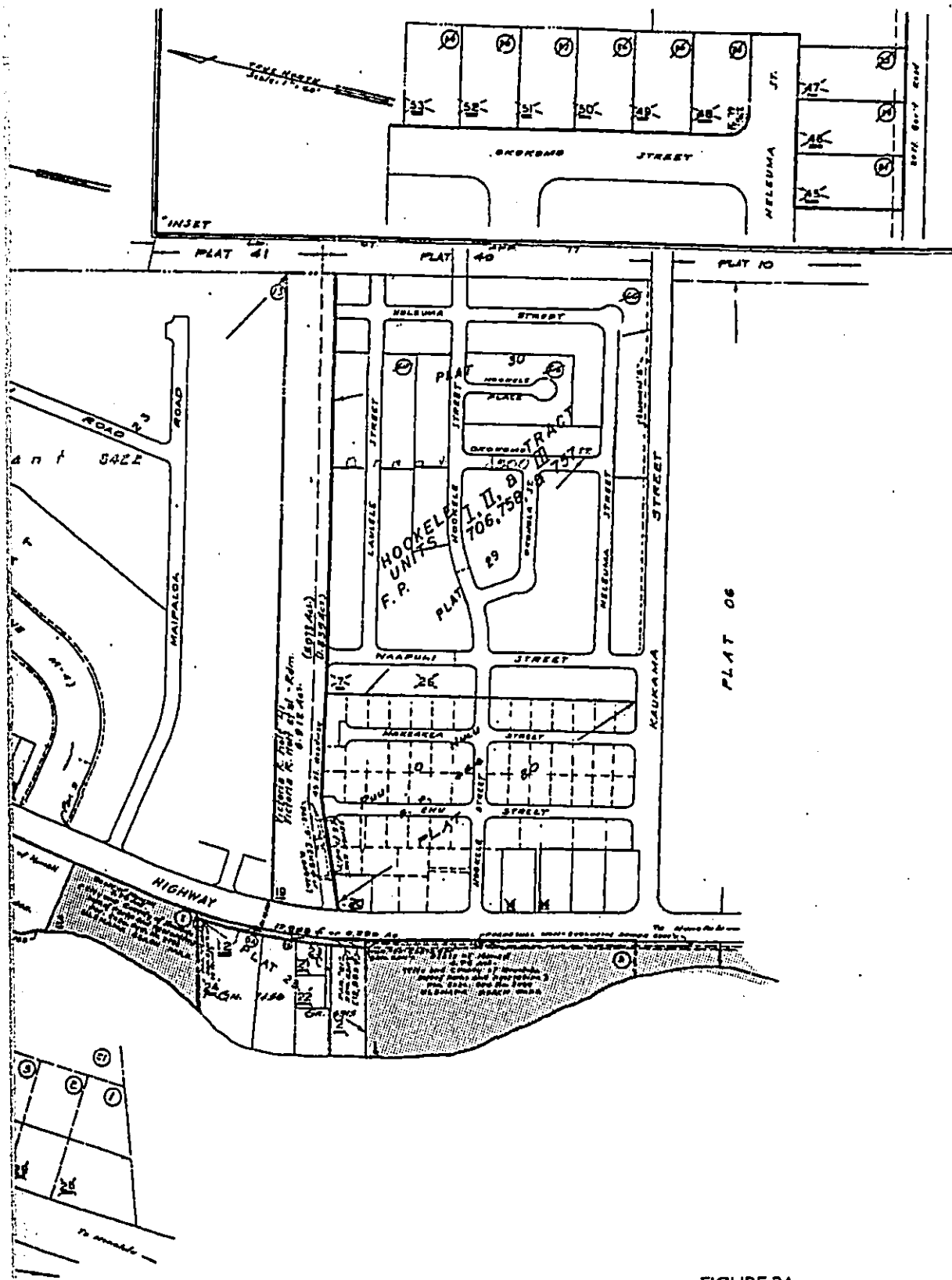
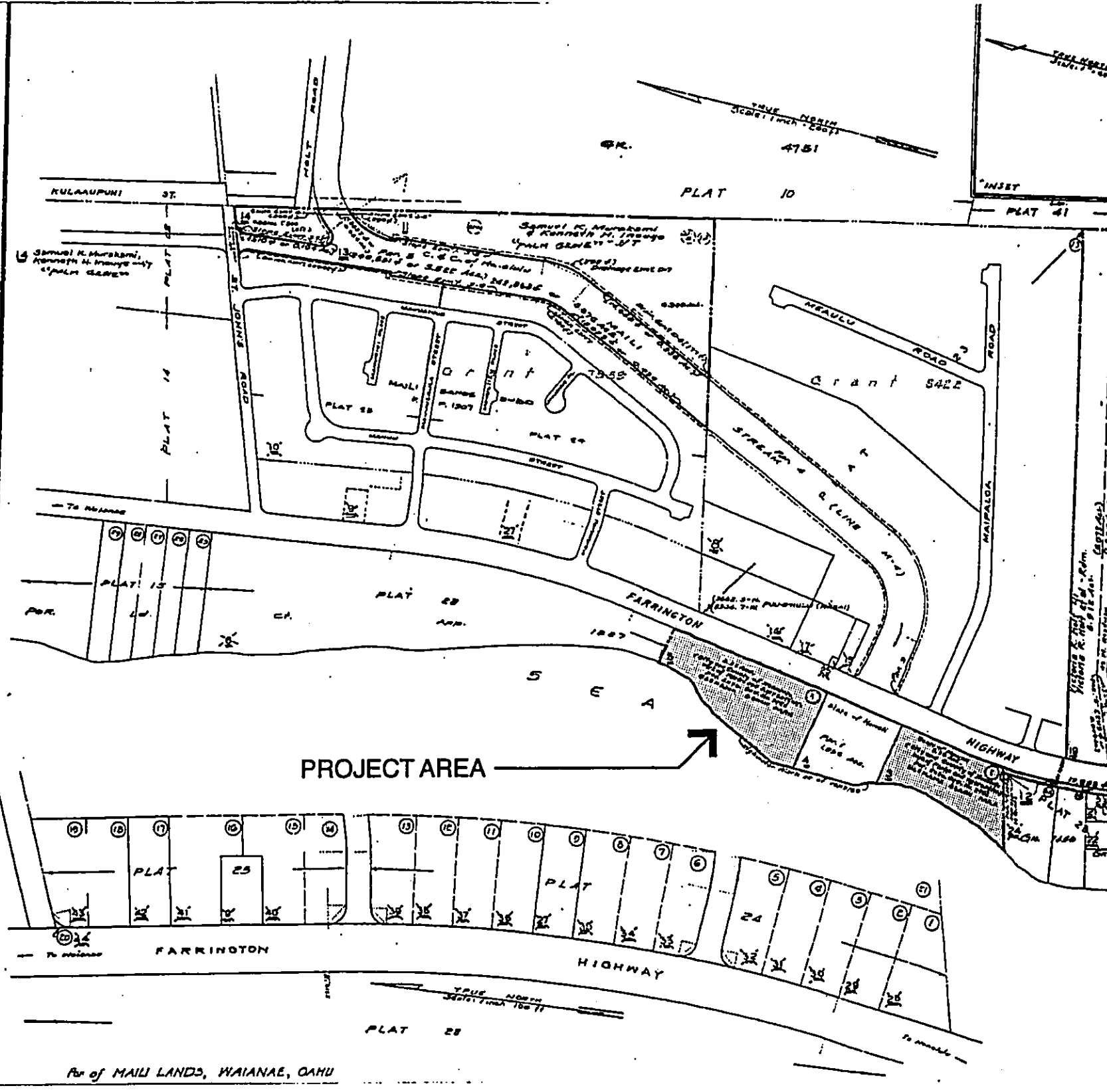


FIGURE 2A:
LAND OWNERSHIP MAP

Ulehawa Beach Park

OCT 26 1938
 NOV 13 1938
 JUN 1 1945
 NOV 23 1945
 JUN 1 1947
 SEP 25 1947
 OCT 10 1948
 OCT 25 1950
 NOV 2 1950
 OCT 23 1950
 OCT 26 1951
 OCT 4 1951
 OCT 10 1951
 OCT 17 1951
 OCT 24 1951
 OCT 31 1951
 NOV 7 1951
 NOV 14 1951
 NOV 21 1951
 NOV 28 1951
 DEC 5 1951
 DEC 12 1951
 DEC 19 1951
 DEC 26 1951
 JAN 2 1952
 JAN 9 1952
 JAN 16 1952
 JAN 23 1952
 JAN 30 1952
 FEB 6 1952
 FEB 13 1952
 FEB 20 1952
 FEB 27 1952
 MAR 6 1952
 MAR 13 1952
 MAR 20 1952
 MAR 27 1952
 APR 3 1952
 APR 10 1952
 APR 17 1952
 APR 24 1952
 MAY 1 1952
 MAY 8 1952
 MAY 15 1952
 MAY 22 1952
 MAY 29 1952
 JUN 5 1952
 JUN 12 1952
 JUN 19 1952
 JUN 26 1952
 JUL 3 1952
 JUL 10 1952
 JUL 17 1952
 JUL 24 1952

Dry No. 1822
 D.Y. N.A.
 Source: Top. Maps Bureau
 Revised to:



Part of MAUI LANDS, WAIANAE, OAHU

Parcel Dropped i.e. 2, 3, 4, 5
 10, 21 to 29 incl., 40 to 49 incl., 4

FIRST DISTRICT		
ZONE	SEC.	PLAT
8	7	05
CONTAINING PARCELS		
SCALE: 1 in. = 40 Feet		

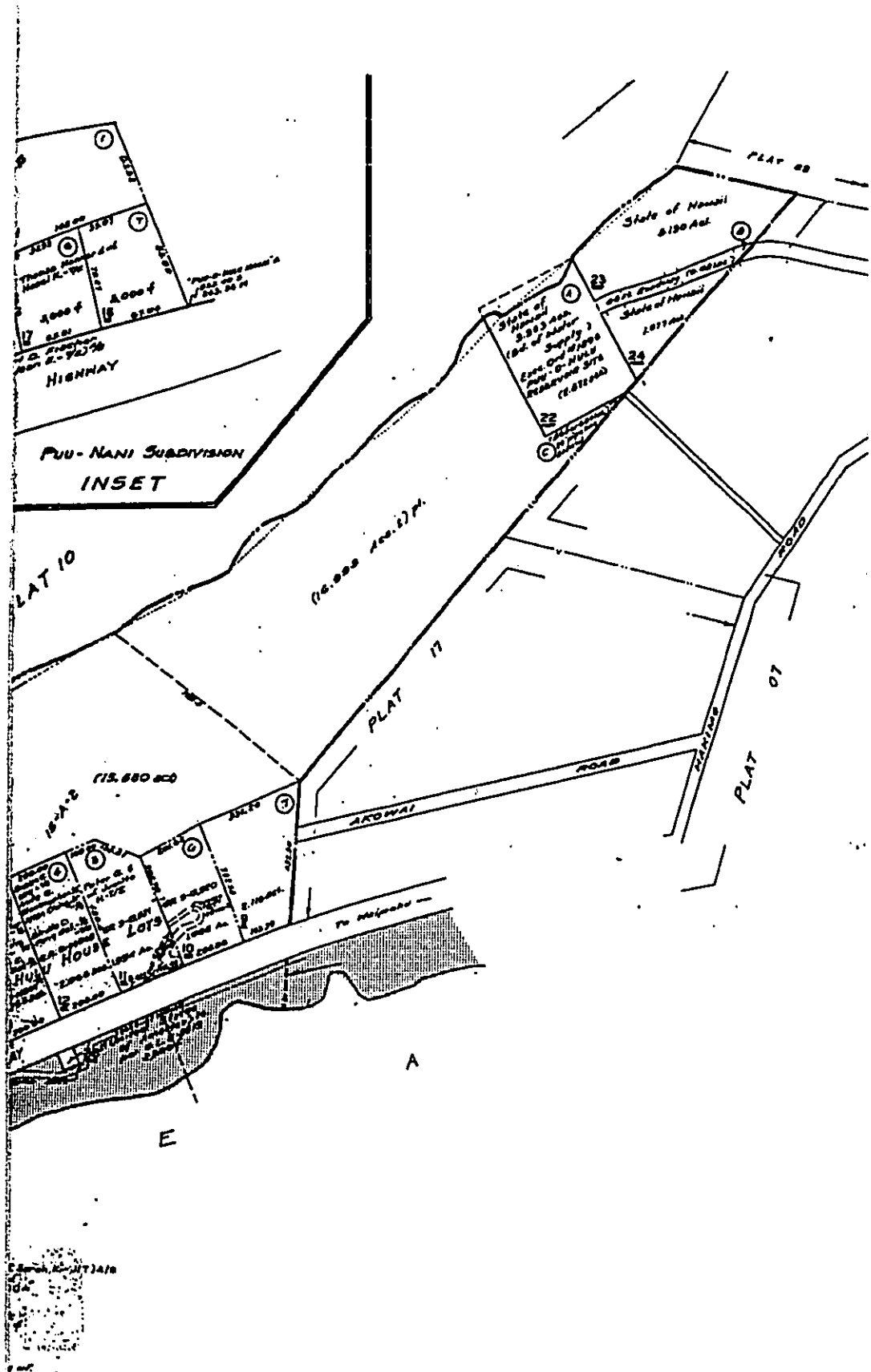


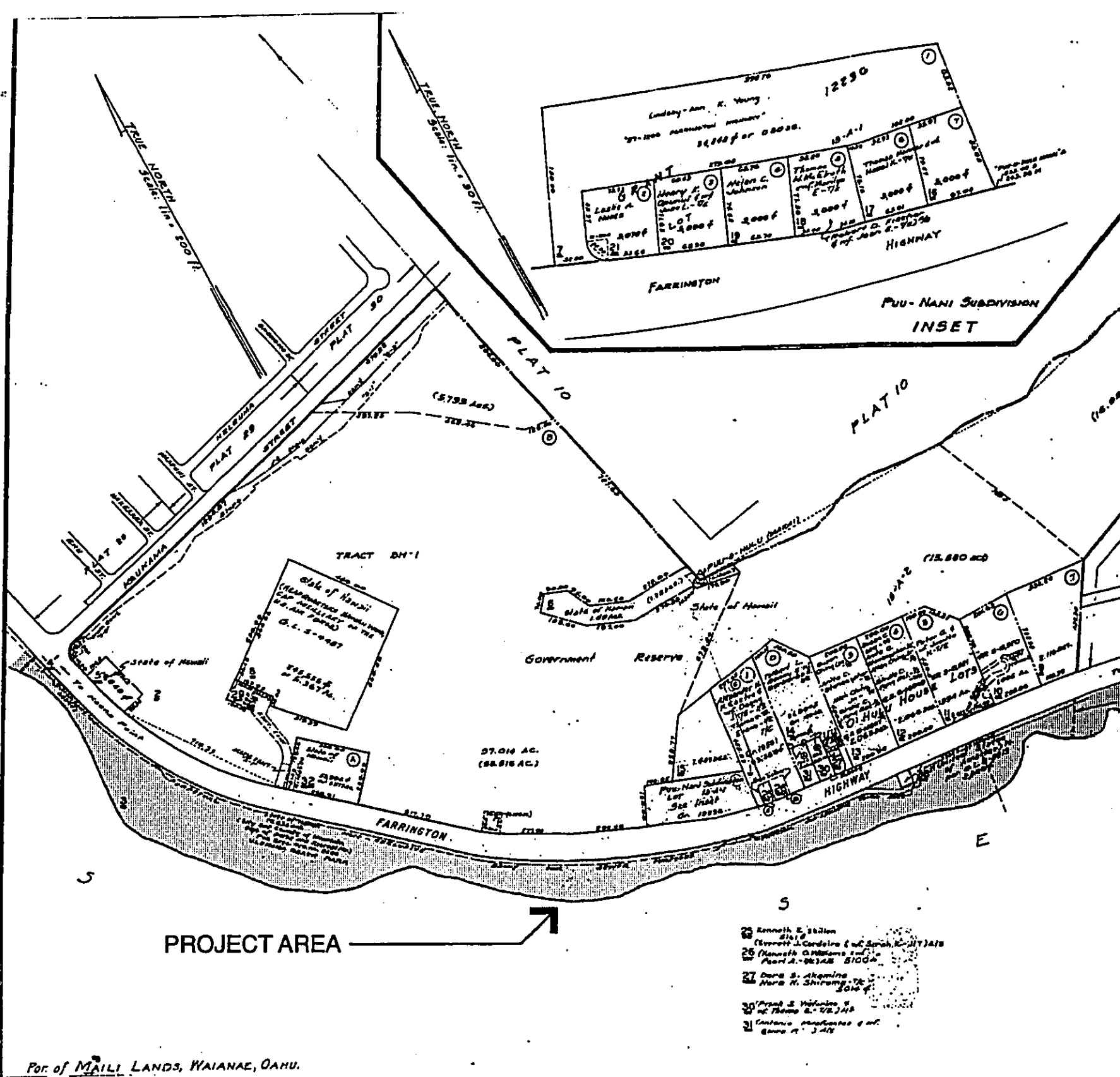
FIGURE 2B:
LAND OWNERSHIP MAP

Ulehawa Beach Park

November 1998



JUL 29 1915
 DIV. No: 1895 (Retraced)
 Source: Ter. Maps Bureau of Survey Office.
 By: I. K. H. - August 15, 1936.



Port of MAILI LANDS, WAIANAE, OAHU.

Note: All lots owned by the State of Hawaii unless otherwise noted.

Parcels Drapped: 4

FIRST ZONE	SEC.	DIVISION PLAT
8	7	06
CONTAINING PARCELS		
SCALE: 1 in. = 200 ft.		

- 24 Kenneth E. Stilson
- 25 Everett A. Candiera & wife Sarah M. (Wife)
- 26 Kenneth O. Candiera & wife Pearl A. (Wife)
- 27 Dora S. Ahkinga
- 28 Mrs. H. Shirong
- 29 Frank S. Williams & wife
- 30 of Thomas E. Williams
- 31 Antonio M. M. M. & wife

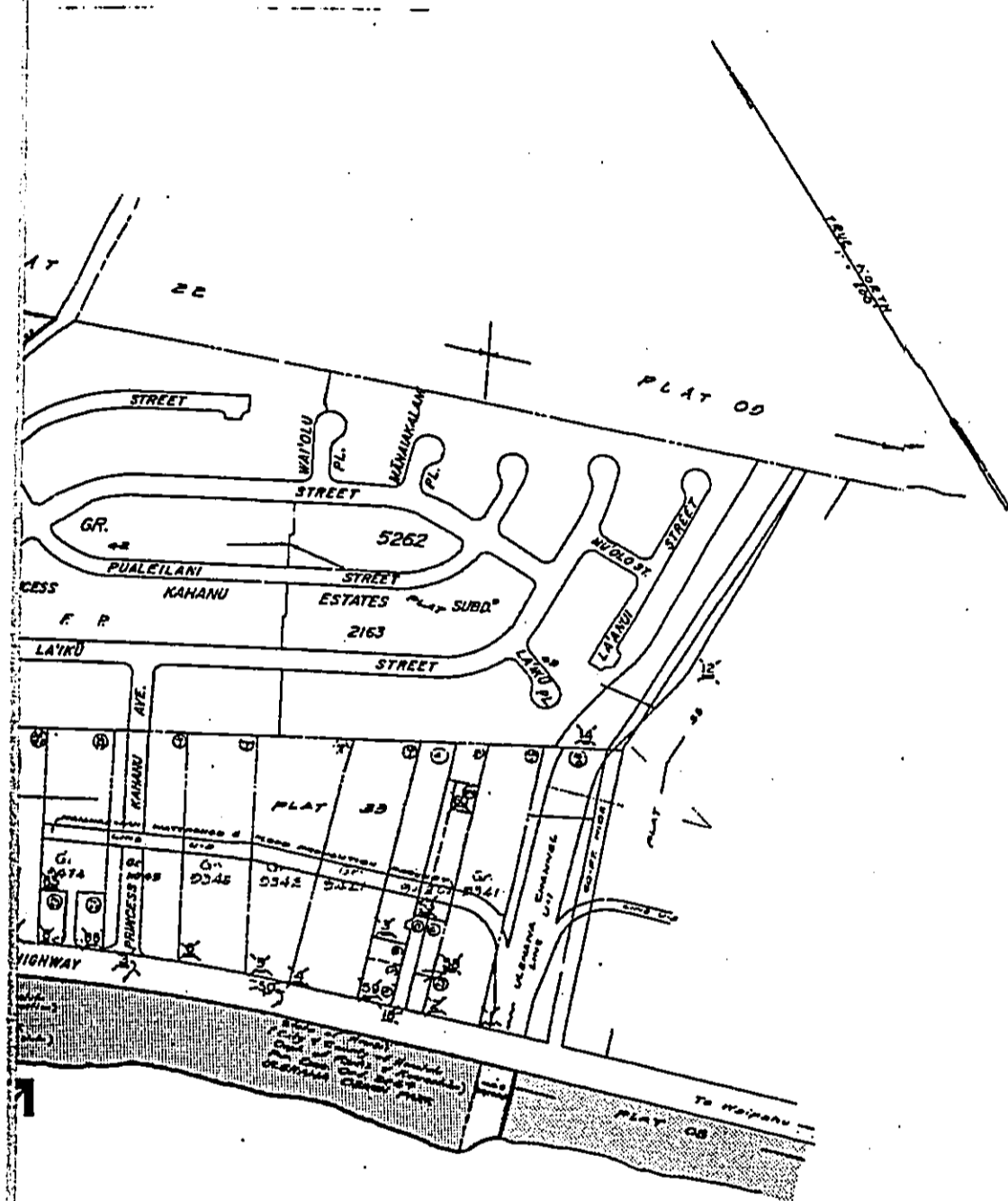
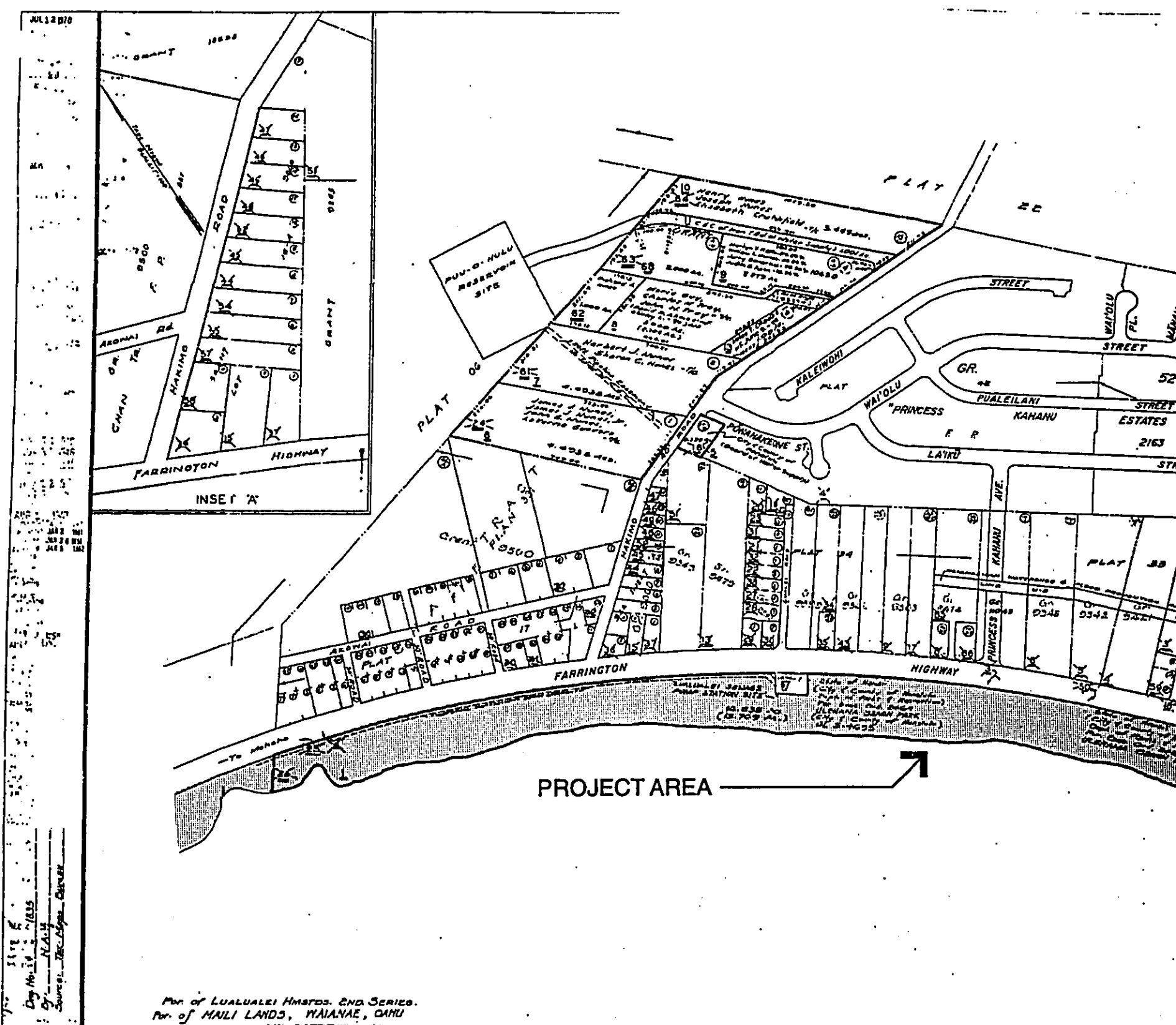


FIGURE 2C:
LAND OWNERSHIP MAP

Ulehawa Beach Park

November 1998





Part of LUALUALEI HEIGHTS, END SERIES.
Part of MAUI LANDS, WAIANAE, OAHU

DESIGNED PARCELS:
 23771, 23772, 23773, 23774, 23775, 23776, 23777, 23778, 23779, 23780, 23781, 23782, 23783, 23784, 23785, 23786, 23787, 23788, 23789, 23790, 23791, 23792, 23793, 23794, 23795, 23796, 23797, 23798, 23799, 23800, 23801, 23802, 23803, 23804, 23805, 23806, 23807, 23808, 23809, 23810, 23811, 23812, 23813, 23814, 23815, 23816, 23817, 23818, 23819, 23820, 23821, 23822, 23823, 23824, 23825, 23826, 23827, 23828, 23829, 23830, 23831, 23832, 23833, 23834, 23835, 23836, 23837, 23838, 23839, 23840, 23841, 23842, 23843, 23844, 23845, 23846, 23847, 23848, 23849, 23850, 23851, 23852, 23853, 23854, 23855, 23856, 23857, 23858, 23859, 23860, 23861, 23862, 23863, 23864, 23865, 23866, 23867, 23868, 23869, 23870, 23871, 23872, 23873, 23874, 23875, 23876, 23877, 23878, 23879, 23880, 23881, 23882, 23883, 23884, 23885, 23886, 23887, 23888, 23889, 23890, 23891, 23892, 23893, 23894, 23895, 23896, 23897, 23898, 23899, 23900, 23901, 23902, 23903, 23904, 23905, 23906, 23907, 23908, 23909, 23910, 23911, 23912, 23913, 23914, 23915, 23916, 23917, 23918, 23919, 23920, 23921, 23922, 23923, 23924, 23925, 23926, 23927, 23928, 23929, 23930, 23931, 23932, 23933, 23934, 23935, 23936, 23937, 23938, 23939, 23940, 23941, 23942, 23943, 23944, 23945, 23946, 23947, 23948, 23949, 23950, 23951, 23952, 23953, 23954, 23955, 23956, 23957, 23958, 23959, 23960, 23961, 23962, 23963, 23964, 23965, 23966, 23967, 23968, 23969, 23970, 23971, 23972, 23973, 23974, 23975, 23976, 23977, 23978, 23979, 23980, 23981, 23982, 23983, 23984, 23985, 23986, 23987, 23988, 23989, 23990, 23991, 23992, 23993, 23994, 23995, 23996, 23997, 23998, 23999, 24000.

FIRST DIVISION		
ZONE	SEC.	PLAT
8	7	07
CONTAINING PARCELS		
SCALE 1 in. = 200 ft.		

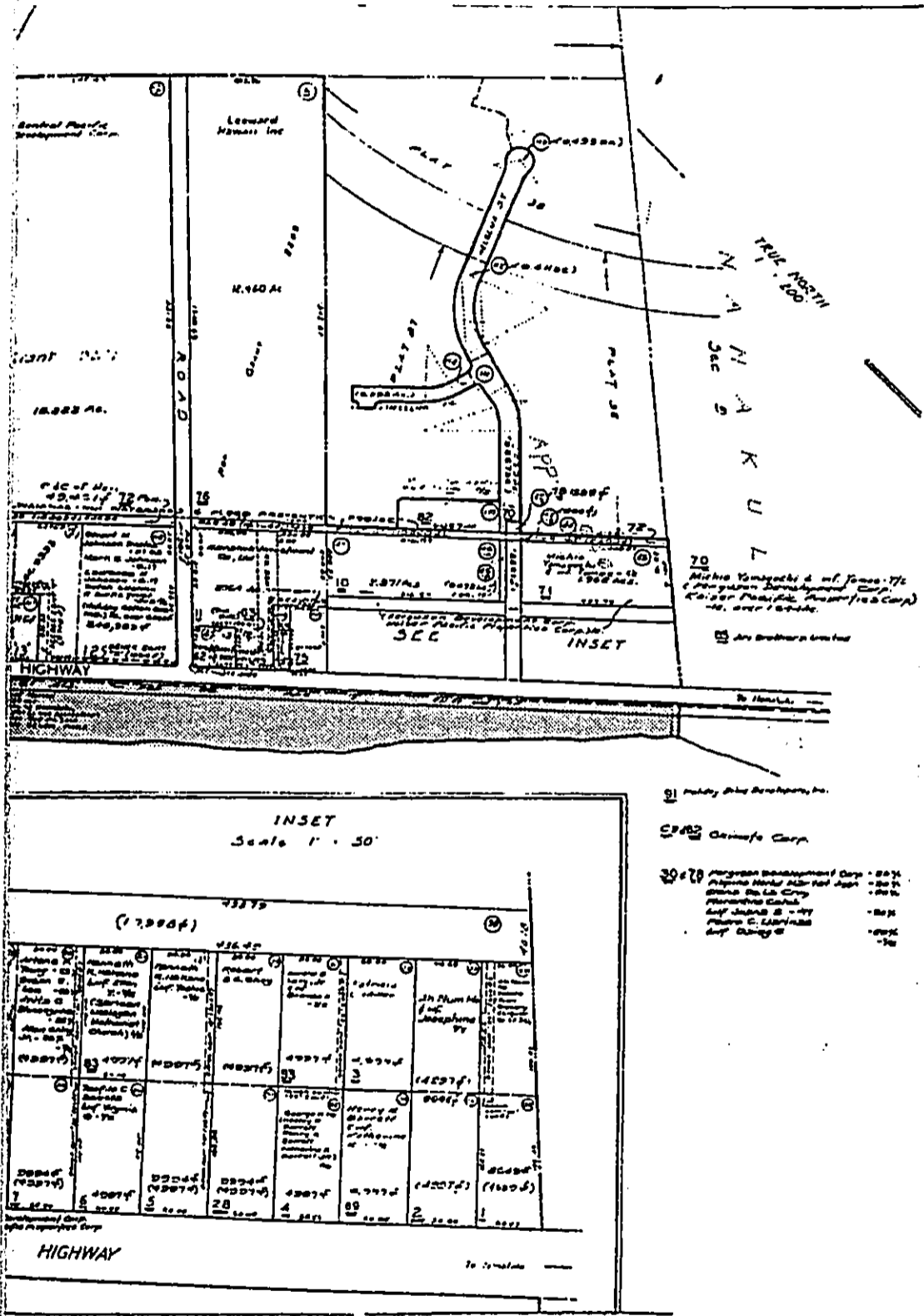


FIGURE 2D:
LAND OWNERSHIP MAP

Ulehawa Beach Park

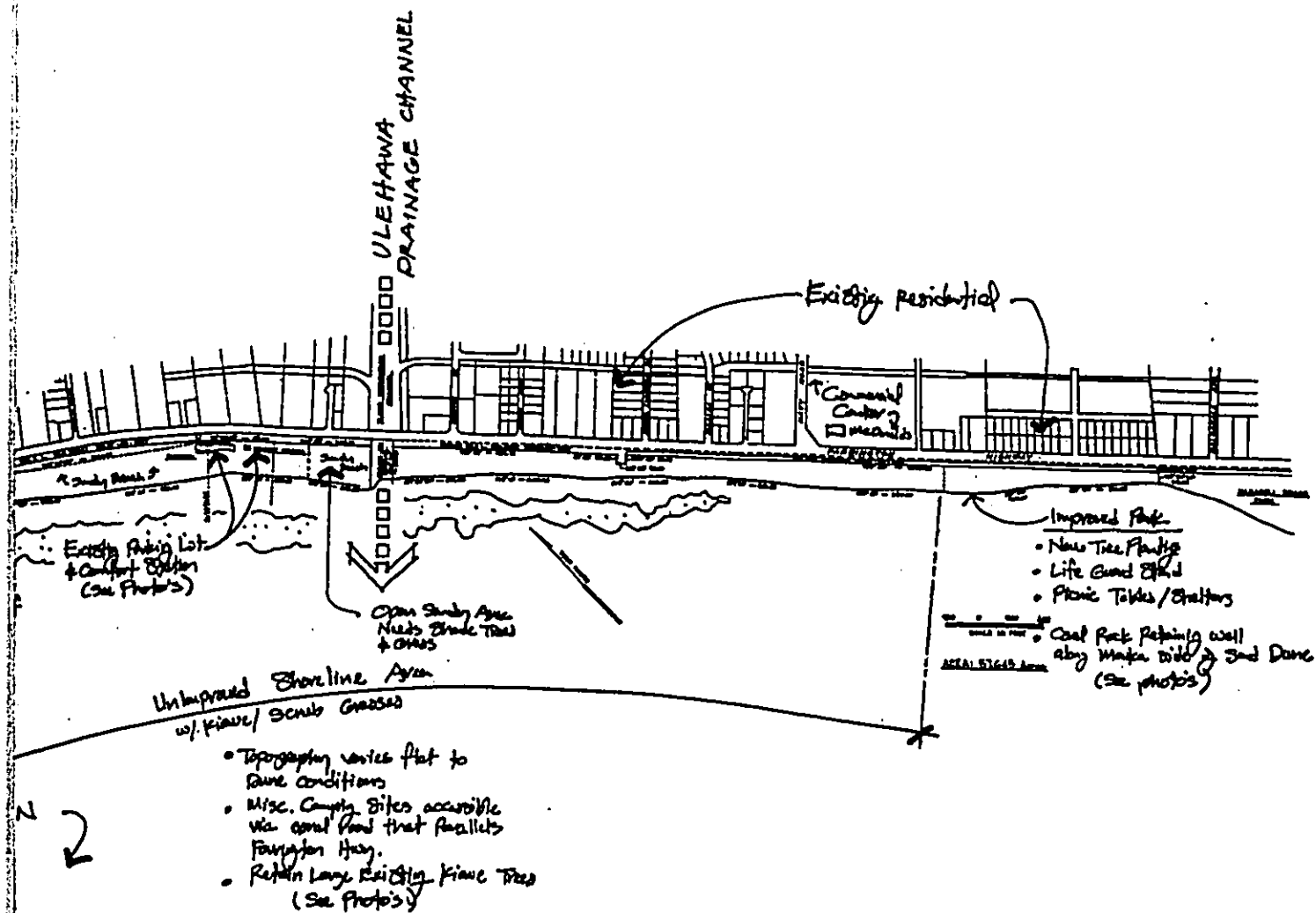


FIGURE 3:
EXISTING CONDITIONS MAP

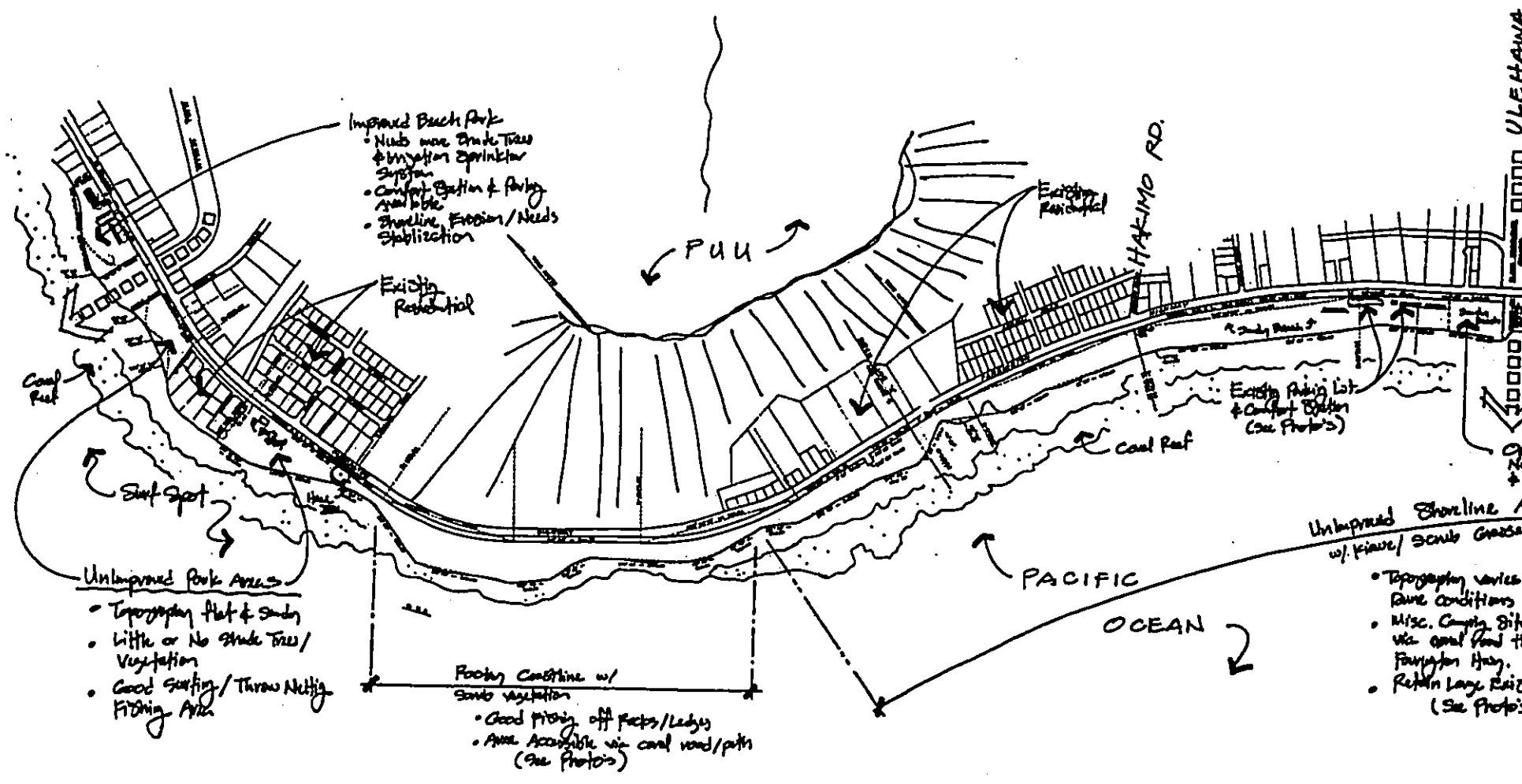
Ulehawa Beach Park



Not to Scale

November 1998





ULEHAWA BEACH PARK
Final Environmental Assessment

2.4 SURROUNDING LAND USES

The old O'ahu Railway and Land (OR&L) Railroad Right-of-Way, a registered National Historic Site, extends for approximately 2,200 feet along the southeastern boundary of the beach park and terminates near Lualualei Naval Road. This historic railroad corridor (within the State Highway right-of-way) which is sandwiched between Farrington Highway and the Ulehawa Beach Park boundary extends from 'Ewa to the Leeward Coast. The portion from 'Ewa to Kahe Point Beach Park has been restored by the Hawaiian Railway Society. Restoration of the portion from Kahe Point to Lualualei Naval Road is master planned but has not been funded or scheduled. No other remnants of infrastructure and facilities which supported the sugar industry are still present on the property today. Also planned within the Railroad Right-of-Way is a bikeway which will terminate at Lualualei Naval Road.

Mauka of Farrington Highway, existing land uses consist of residential single family homes, convenience commercial establishments, agricultural lots, and open space associated with the Conservation District lands of Pu'u o Hulu Kai and Pu'u o Hulu Uka. Vehicular access to the subject property is provided exclusively by Farrington Highway, although future access may also be provided by refurbishment of the OR&L Railroad. See Section 5.5, "Visual Resources" for an assessment of existing visual conditions. Lualualei Homestead and Mā'ili Lands occur across Farrington Highway, north of the project area.

Nānākuli and Wai'anae towns are located to the southeast and northwest respectively from the project site.

The southeastern entry to Ulehawa Beach Park is approximately 35 minutes driving time from downtown Honolulu. The neighboring 'Ewa District facilities such as the Ko Olina Resort, the City of Kapolei, Campbell Industrial Park and surrounding developments are within a short driving distance from the subject beach park.

2.5 PROJECT DEVELOPMENT GOALS AND OBJECTIVES

The proposed Ulehawa Beach Park improvements are located within the State Urban District (Figure 4) and is shown on the Wai'anae Development Plan as Park/Open Space (Figure 5). The City's goal is to improve the existing Ulehawa Beach Park to create an outstanding coastal beach park for the Leeward O'ahu community. The full length of the park is within the Special Management Area (Figure 5A).

The goal of the project is to create an integrated, more accessible, more usable, and more enjoyable beach park for the Wai'anae community through the following means:

- Develop beach park facilities (e.g. parking, picnic tables, landscaped shaded areas, comfort stations, etc.)
- Add aesthetic enhancements to existing areas
- Protect sand dunes and other natural/cultural resources
- Establish landscape elements to beautify and control shoreline erosion
- Utilize native plantings where appropriate

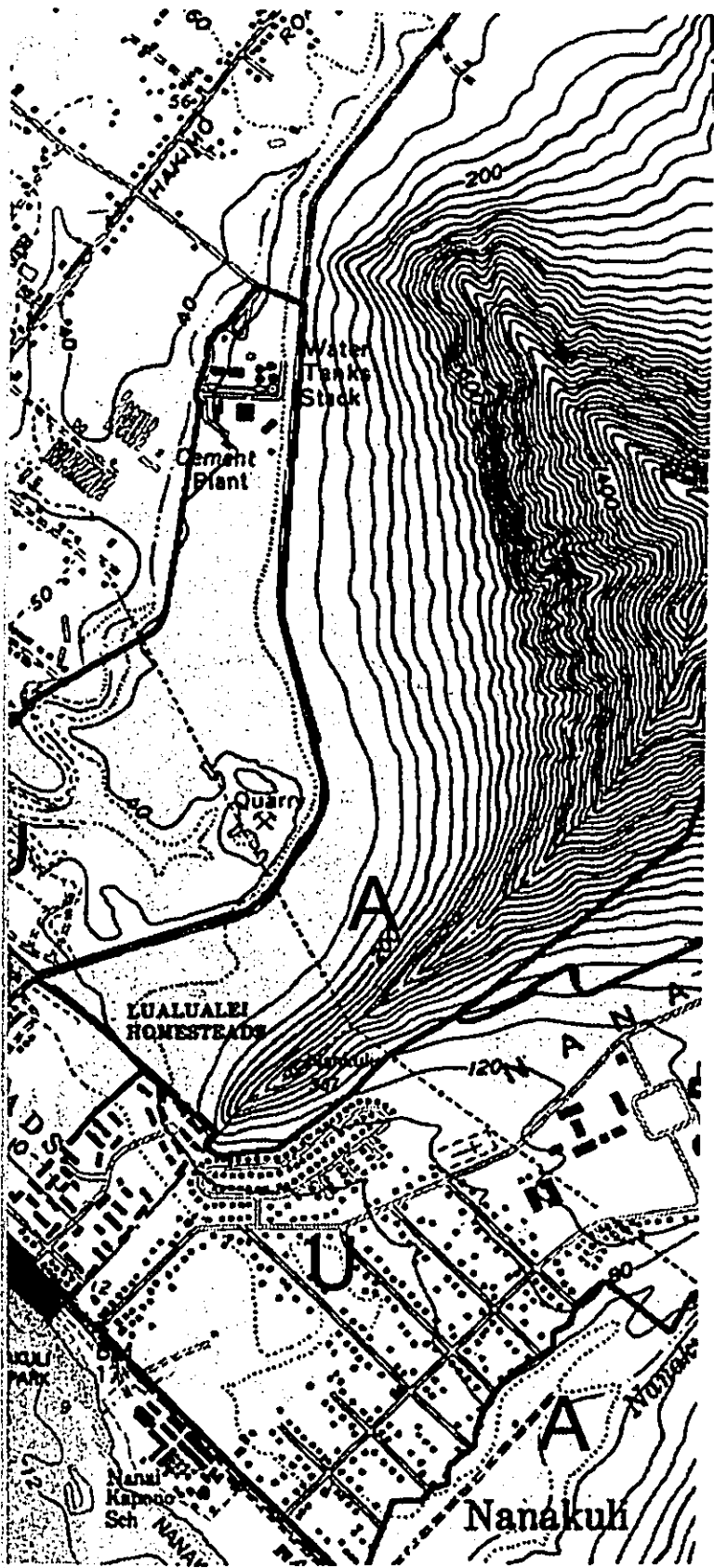


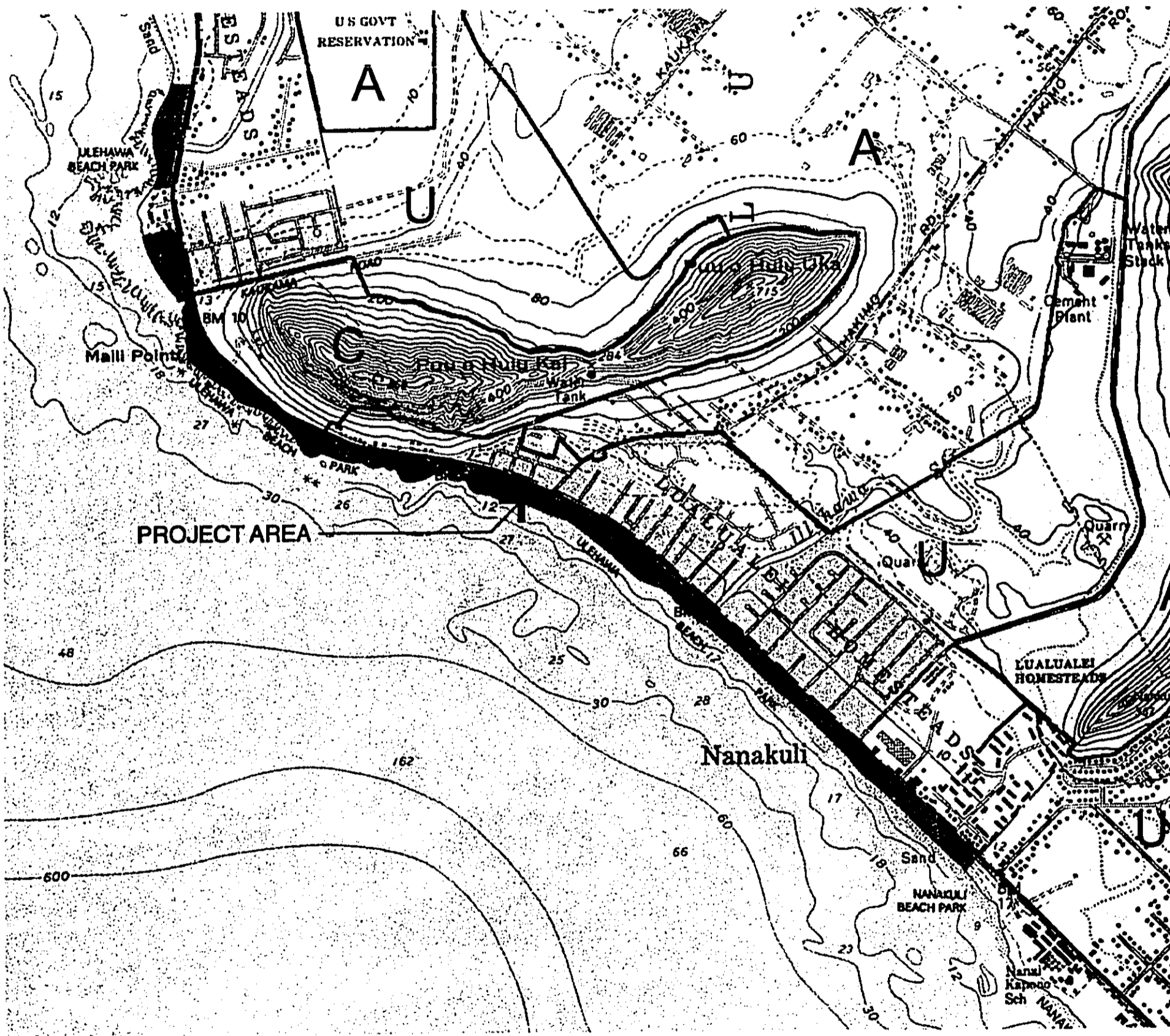
FIGURE 4
STATE LAND USE DISTRICT BOUNDARY MAP

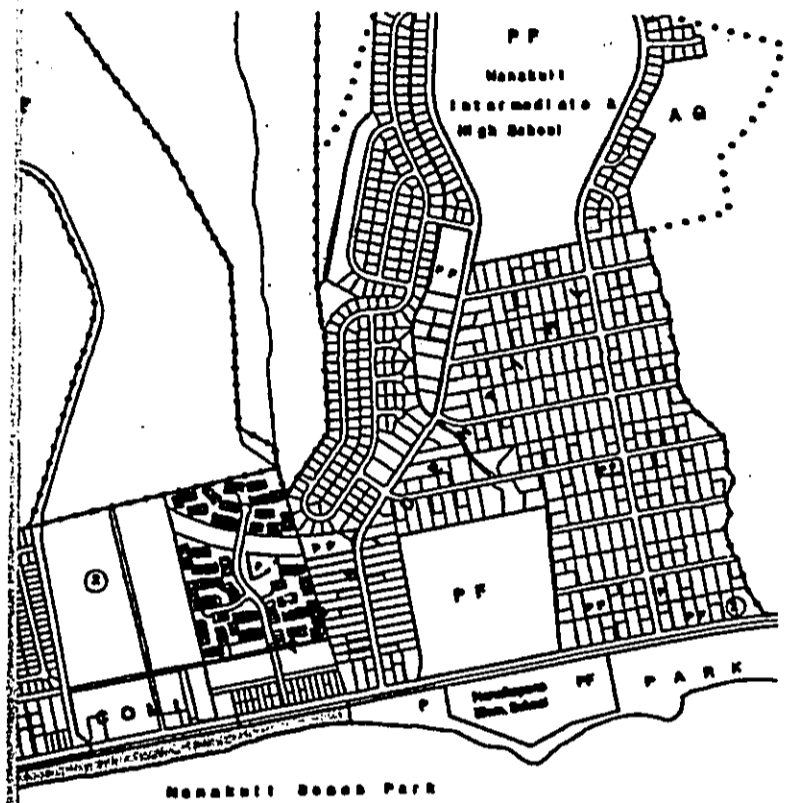
Ule'hewa Beach Park



November 1998







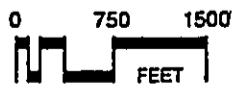
LEGEND

- P — Parks and Recreation
- PF — Public Facilities
- RES — Residential
- AG — Agricultural
- COML — Commercial

ULI

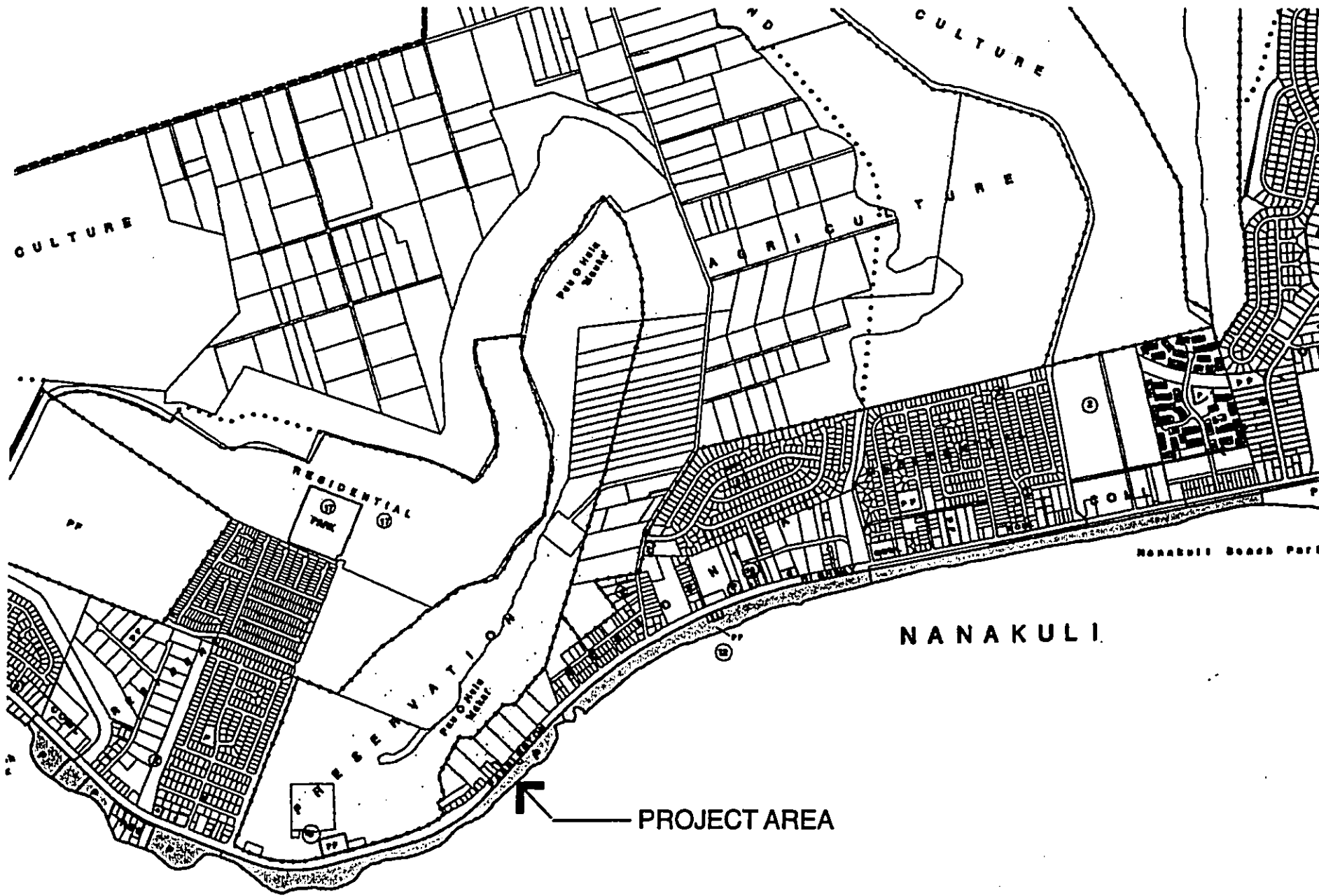
FIGURE 5:
WAIANAE DEVELOPMENT PLAN MAP

Ulehuwa Beach Park



November 1998





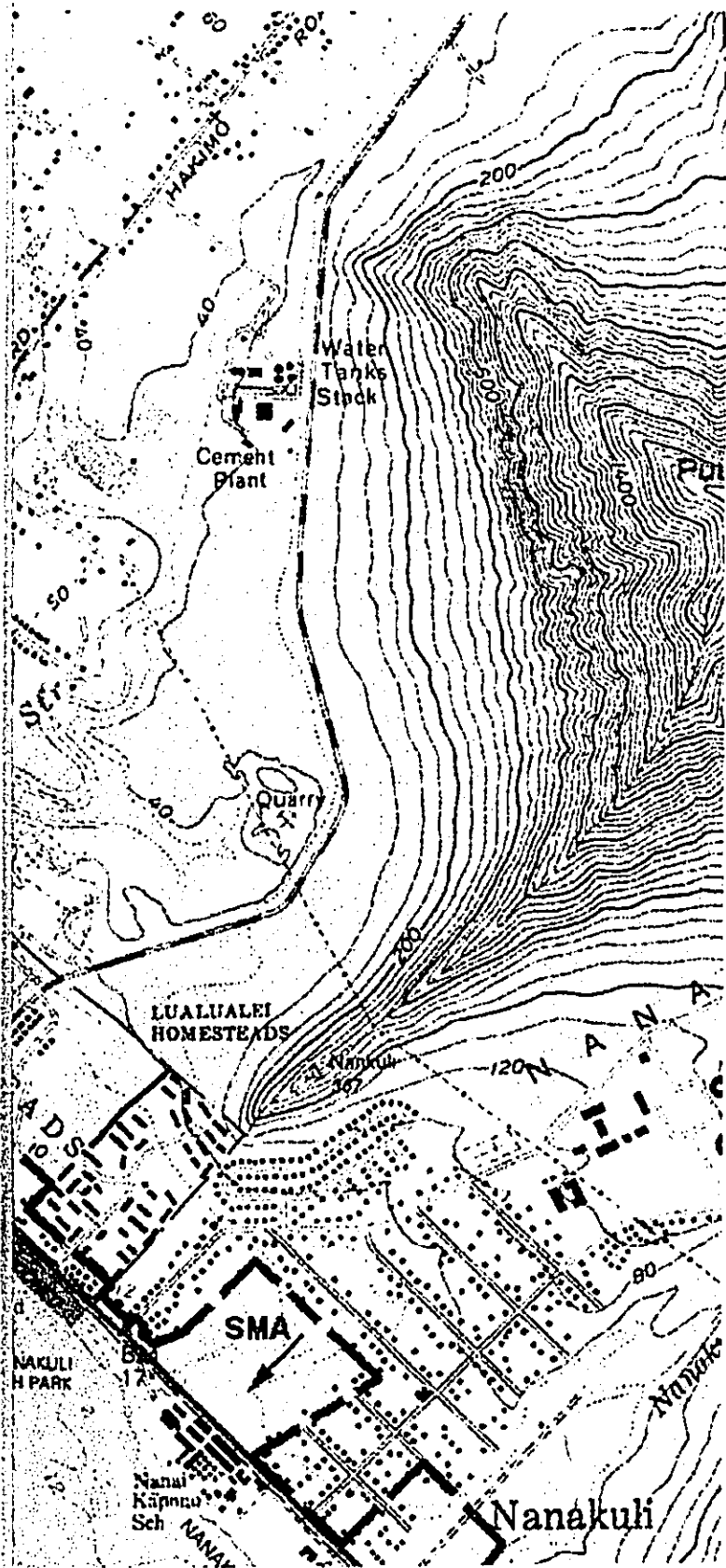
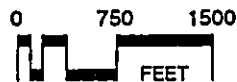


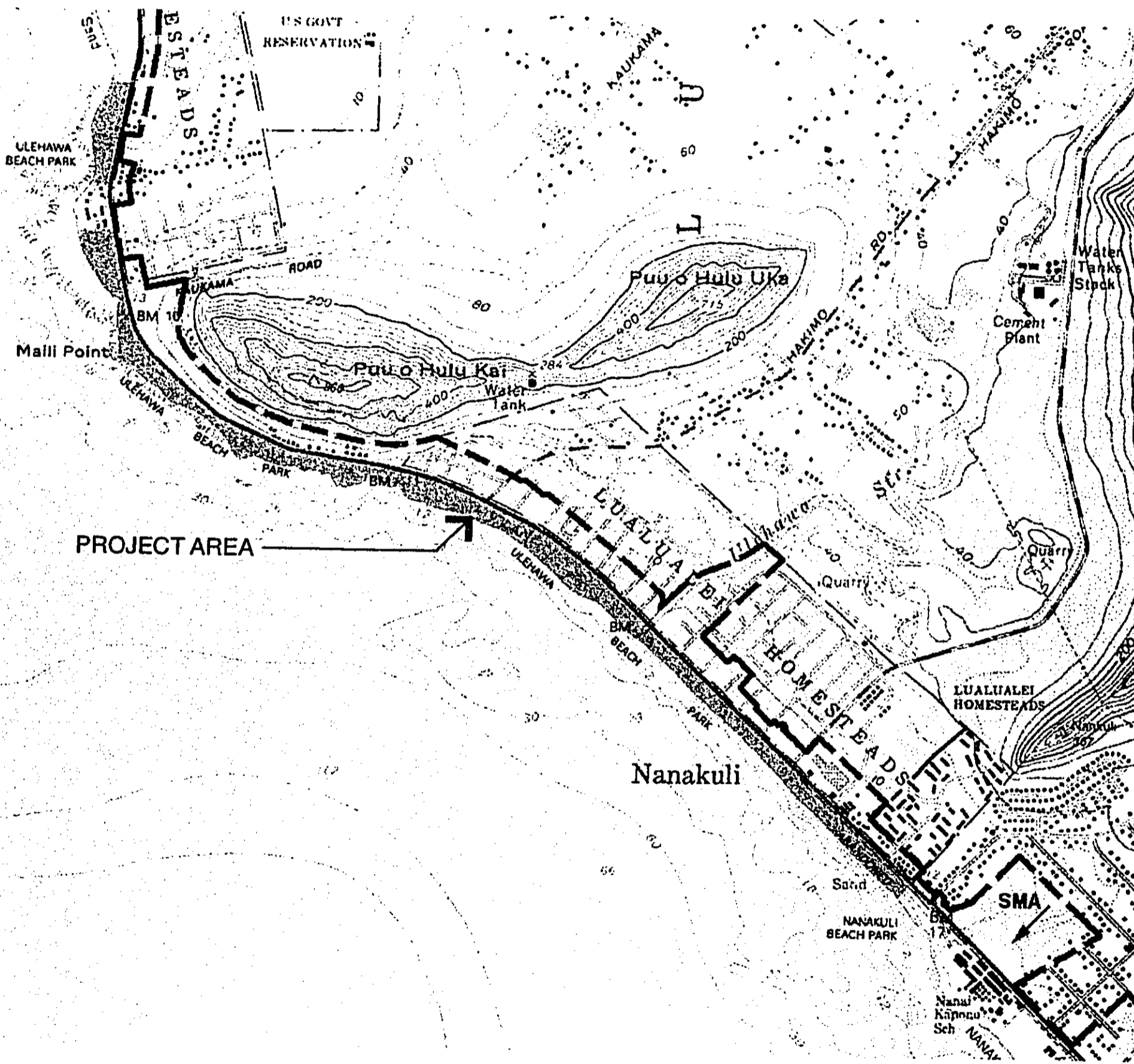
FIGURE 5A:
SPECIAL MANAGEMENT AREA

Ulehawa Beach Park



November 1998





ULEHAWA BEACH PARK
Final Environmental Assessment

2.6 DESCRIPTION OF THE PROJECT

2.6.1 Alternatives Considered

In compliance with the provisions of Title 11, Department of Health, Chapter 200, Environmental Impact Statement Rules, Section 11-200-10(6), the alternatives considered are limited to those that would allow the objectives of the project to be met, while minimizing potential adverse environmental impacts. The feasible alternatives must also realistically address the project's economic requirements while also responding to the surrounding land uses that will be impacted by the project. In conformance with applicable regulations, other possible alternatives have been investigated to identify alternative design elements, appropriate uses for the property (i.e. parking, picnic areas, etc.), and how the project goals and objectives can best be accomplished.

The alternatives considered for the park were all design related. As a community beach park, no other land uses were considered feasible during the community based planning process. As such, no alternative sites or land uses were determined to address the goals established by the City for the project. The "no-action" alternative would not be consistent with stated governmental policies of improving the park but would maintain the site in its current condition.

Based on the alternatives considered, the Preferred Landscape Master Plan (described below) was selected.

2.6.2 The Preferred Landscape Master Plan

Although the final layout and configuration of the proposed 57-acre Ulehawa Beach Park improvement project will be refined through further planning and detailed engineering design, its development will ensure that the long range use of the property will be consistent with surrounding land uses and provide the necessary recreational facilities desired by the community.

The Preferred Landscape Master Plan shown in Figures 6A - 6E includes a mix of improved and unimproved park space, new access points, parking areas, new and renovated comfort stations, open space lawn areas, landscaping, and vehicular access control measures. Improvements will include an informal linear grassed pedestrian pathway linking portions of improved park areas. In the future, the pathway may be further improved as a formal hard surfaced pedestrian path way system. The possible development in the future of a bike path to connect to the State Department of Transportation's planned bikeway along Farrington Highway and adjacent to the OR&L right-of-way will require further study.

In support of the development, infrastructure facilities to be expanded or improved may include access driveways, drainage improvements, extension of water and wastewater lines, and electrical and communication lines.

The three-mile long Ulehawa Beach Park Landscape Master Plan extends from the southeast at the adjacent Nānākuli Beach Park to the northwest end just beyond Mā'ili Stream. The plan is shown in four segments described as Areas 1, 2, 3, and 4 in Figures 6A - 6E. A brief description of the major land use elements of the Preferred Landscape Master Plan is presented below.

2.6.2.1 Nānākuli Beach Park Boundary to 'Aulani Place (Area 1)

Area 1 of the park extends from the adjacent Nānākuli Beach Park to 'Aulani Place (cross street mauka of Farrington Highway) (Figure 6A). Comprised of approximately 3.5 acres, resources in this area of the park include a beautiful white sand beach with good swimming conditions, sand dunes, and existing park facilities with grassed picnic areas.

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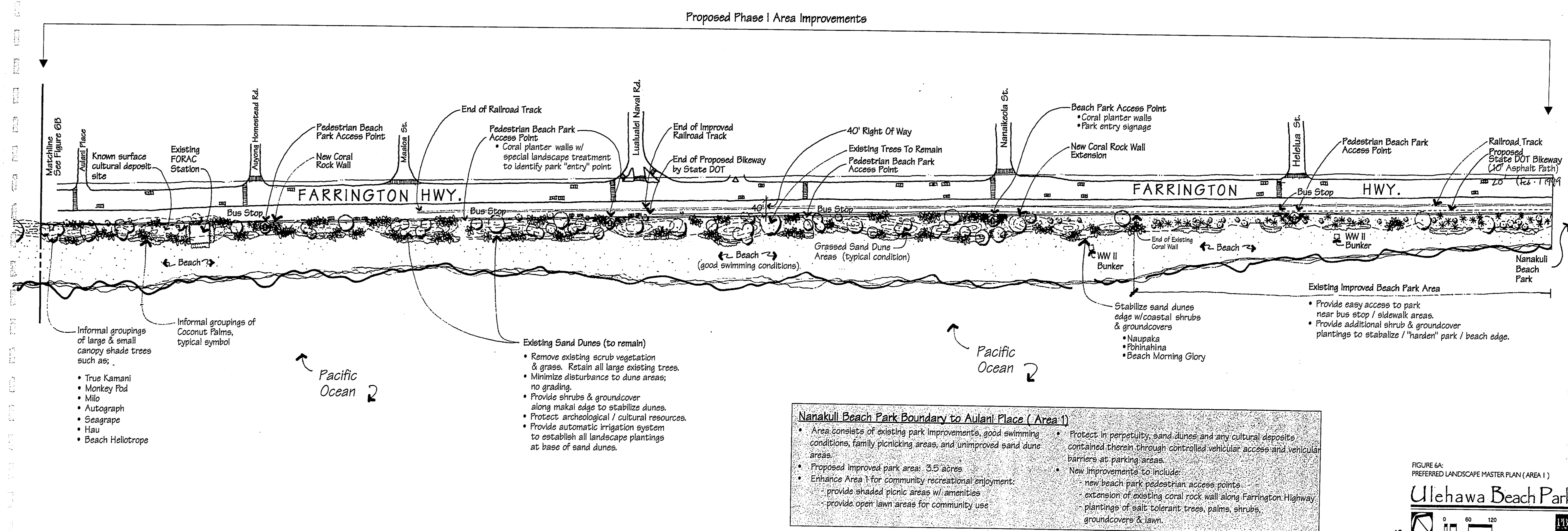


FIGURE 6A:
PREFERRED LANDSCAPE MASTER PLAN (AREA 1)
Ule'hewa Beach Park
17 0 60 120 FEET JANUARY 1999

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The Landscape Master Plan for Area 1 proposes general clean-up and removal of existing site debris and scrub vegetation, and the expansion of the existing improved park in the Wai'anae direction. Existing sand dune areas will be landscaped with native coastal plant materials to create shady picnic areas and open lawn areas for community enjoyment. However, since the sand dunes may contain archaeological resources that require protection, close coordination will be made with the State Historic Preservation Division (see Section 5.1 for further discussion).

Specific pedestrian entry points to the park are proposed near existing sidewalks and bus stops to allow improved park access. Physical barriers will also be established along Farrington Highway to prevent vehicular damage of sand dunes and new vegetation plantings.

The landscape design proposes to beautify the existing sand dunes with informal groupings of salt tolerant trees, coconut palms, and other plant materials suitable for the coastal environment. Opportunities for picnicking and camping will be established along various portions of the existing sand dunes. In addition, the seaward edges of the existing sand dunes will be planted with native coastal shrubs and groundcover to better control and to protect sand dunes from erosion.

Planned improvements may include the following and as shown on Figure 6A:

Hardscape Improvements

Civil Improvements

- Removal of existing site debris and scrub vegetation
- Minor site grading of park area
- Vehicular barriers to preserve/protect sand dunes

Landscape Improvements

Salt Tolerant Trees

- Retain all existing trees over 4" caliper
- Large canopy shade trees
- Medium canopy shade trees
- Coconut palms

Shrubs

- Native coastal shrubs (e.g. naupaka)
- Accent shrubs (e.g. 'ākia)

Ground Covers/Lawn

- Native ground covers (e.g. beach morning glory, pōhinahina)
- Common bermuda/lawn

Irrigation

- Automatic irrigation system

Miscellaneous Landscape Items

- Soil amendments
- Charcoal disposal units
- Concrete picnic tables and benches

Also presented on Area 1 (Figure 6A) are two off-site improvements proposed by others: 1) an improved OR&L Railroad Track terminating at Lualualei Naval Road by the Hawaiian Railway Society; and 2) a State DOT Bikeway within the OR&L Railroad Right-of-Way.

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2.6.2.2 'Aulani Place to Hakimo Road (Area 2)

Area 2 extends from 'Aulani Place (cross street mauka of Farrington Highway) to the southern base of Pu'u o Hulu Kai just beyond Hakimo Road (cross street mauka of Farrington Highway). Comprised of approximately 7.7 acres, the natural resources in this area of the park include the white sand beach, sand dunes, the rocky shoreline, and tidal pools. The existing park improvements are accessed from across Princess Kahanu Avenue. The improvements include a paved parking lot and comfort station.

Non-park uses at Area 2 include a City and County of Honolulu Sewer Pump Station which is located across from Lualei Street and the Ulehawa Drainage Channel which discharges at the shoreline. The concrete drain channel is periodically cleared of sand which is presently deposited on the adjacent areas or removed from the site. Community groups have expressed a desire to keep the sand onsite to replenish eroded areas of the beach.

Similar to Area 1, the proposed park improvements to Area 2 (Figure 6B) will establish picnic and camping areas on the mauka side of the sand dune areas. This would involve clean-up and removal of the existing debris on the site and new landscape plantings. A new vehicular access point across from Hakimo Road is planned with additional crushed coral parking lots bounded by perimeter barriers for sand dune and beach resource protection.

For erosion control and beautification purposes, landscaping with salt tolerant plantings will be established along the sand dune edge. Informal groupings of large and medium shade trees and clusters of coconut palms will provide protection from the sun while enhancing the natural aesthetic qualities of the park.

Planned improvements may include the following as shown on Figure 6B:

Hardscape Improvements

Civil Improvements

- Vehicular access from Farrington Highway
- Removal of existing site debris and scrub vegetation
- Minor site grading of park area
- Renovate existing park restroom building
- Fine grading of parking lot area only
- New compacted coral parking areas
- Vehicular barriers to preserve/protect sand dunes

Landscape Improvements

Salt Tolerant Trees

- Retain all existing trees over 4" caliper
- Large canopy shade trees
- Medium canopy shade trees
- Coconut palms

Shrubs

- Native coastal shrubs (e.g. naupaka)
- Accent shrubs (e.g. 'ākia)

CORRECTION

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

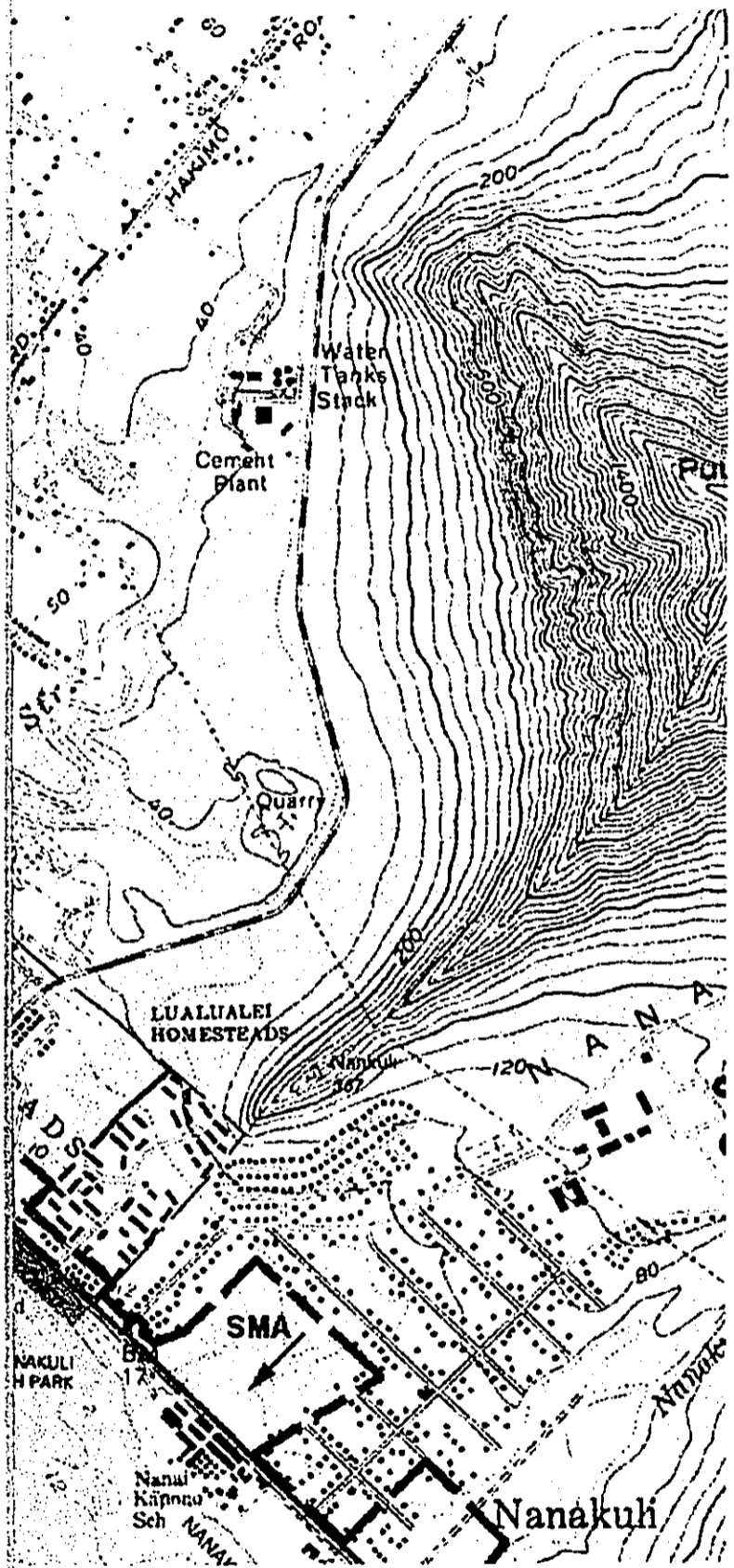
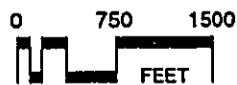


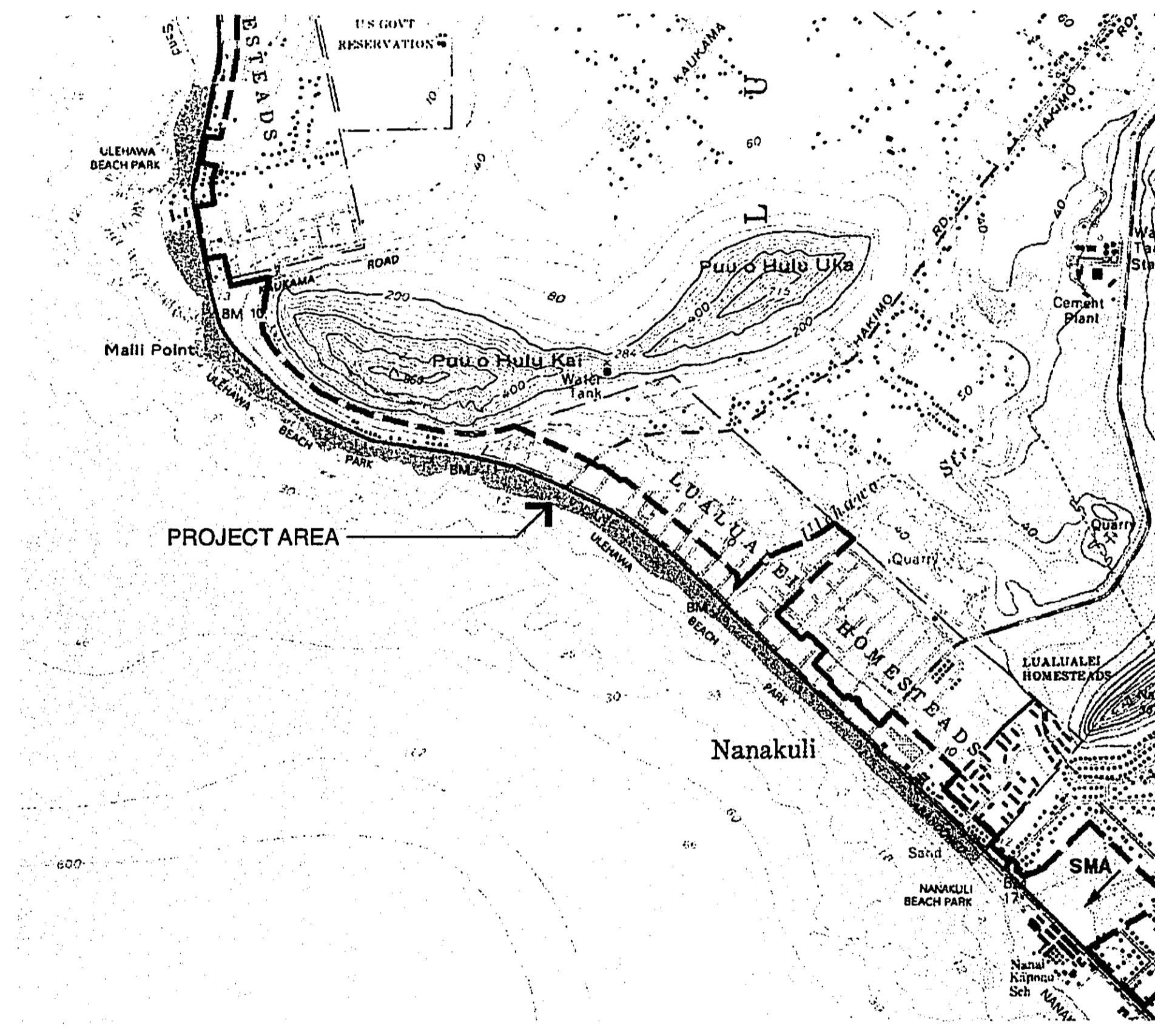
FIGURE 5A:
SPECIAL MANAGEMENT AREA

Ulehawa Beach Park



November 1998





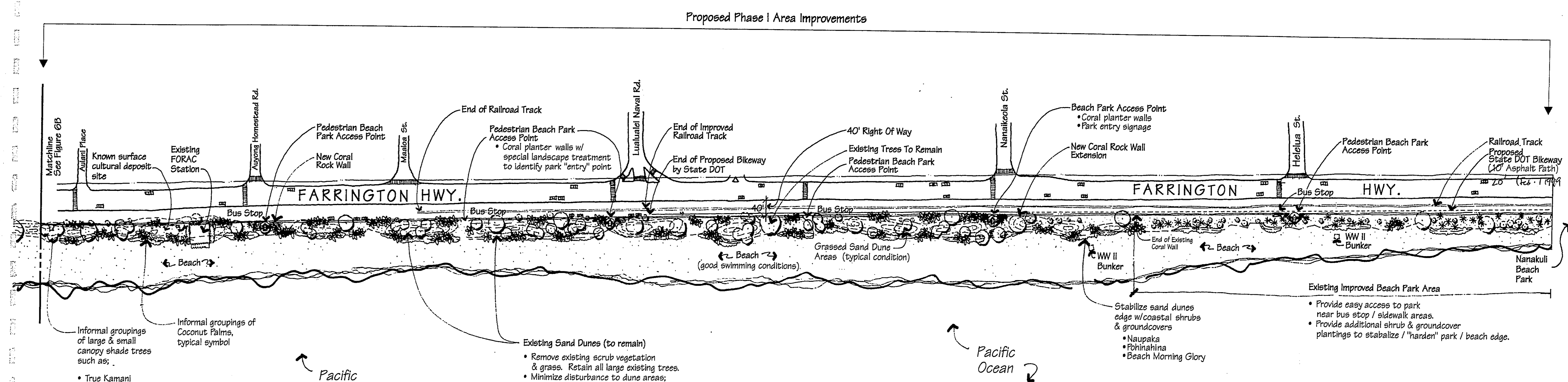
PROJECT AREA

Nanakuli

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- Informal groupings of large & small canopy shade trees such as:
- True Kamani
 - Monkey Pod
 - Milo
 - Autograph
 - Seagrape
 - Hau
 - Beach Heliotrope

Pacific Ocean ↙

- Existing Sand Dunes (to remain)**
- Remove existing scrub vegetation & grasses. Retain all large existing trees.
 - Minimize disturbance to dune areas; no grading.
 - Provide shrubs & groundcover along makai edge to stabilize dunes.
 - Protect archeological / cultural resources.
 - Provide automatic irrigation system to establish all landscape plantings at base of sand dunes.

Pacific Ocean ↘

Nanakuli Beach Park Boundary to Aulani Place (Area 1)

- Area consists of existing park improvements, good swimming conditions, family picnicking areas, and unimproved sand dune areas.
- Proposed improved park area: 3.5 acres
- Enhance Area 1 for community recreational enjoyment:
 - provide shaded picnic areas w/ amenities
 - provide open lawn areas for community use
- Protect in perpetuity sand dunes and any cultural deposits contained therein through controlled vehicular access and vehicular barriers at parking areas.
- New improvements to include:
 - new beach park pedestrian access points
 - extension of existing coral rock wall along Farrington Highway
 - plantings of salt-tolerant trees, palms, shrubs, groundcovers & lawn.

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2.6 DESCRIPTION OF THE PROJECT

2.6.1 Alternatives Considered

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Area 1 of the park extends from the adjacent Nānākuli Beach Park to 'Aulani Place (cross street mauka of Farrington Highway) (Figure 6A). Comprised of approximately 3.5 acres, resources in this area of the park include a beautiful white sand beach with good swimming conditions, sand dunes, and existing park facilities with grassed picnic areas.

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The Landscape Master Plan for Area 1 proposes general clean-up and removal of existing site debris and scrub vegetation, and the expansion of the existing improved park in the Wai'anae direction. Existing sand dune areas will be landscaped with native coastal plant materials to create shady picnic areas and open lawn areas for community enjoyment. However, since the sand dunes may contain archaeological resources that require protection, close coordination will be made with the State Historic Preservation Division (see Section 5.1 for further discussion).

Specific pedestrian entry points to the park are proposed near existing sidewalks and bus stops to allow improved park access. Physical barriers will also be established along Farrington Highway to prevent vehicular damage of sand dunes and new vegetation plantings.

The landscape design proposes to beautify the existing sand dunes with informal groupings of salt tolerant trees, coconut palms, and other plant materials suitable for the coastal environment. Opportunities for picnicking and camping will be established along various portions of the existing sand dunes. In addition, the seaward edges of the existing sand dunes will be planted with native coastal shrubs and groundcover to better control and to protect sand dunes from erosion.

Planned improvements may include the following and as shown on Figure 6A:

Hardscape Improvements

Civil Improvements

- Removal of existing site debris and scrub vegetation
- Minor site grading of park area
- Vehicular barriers to preserve/protect sand dunes

Landscape Improvements

Salt Tolerant Trees

- Retain all existing trees over 4" caliper
- Large canopy shade trees
- Medium canopy shade trees
- Coconut palms

Shrubs

- Native coastal shrubs (e.g. naupaka)
- Accent shrubs (e.g. 'ākia)

Ground Covers/Lawn

- Native ground covers (e.g. beach morning glory, pōhinahina)
- Common bermuda/lawn

Irrigation

- Automatic irrigation system

Miscellaneous Landscape Items

- Soil amendments
- Charcoal disposal units
- Concrete picnic tables and benches

Also presented on Area 1 (Figure 6A) are two off-site improvements proposed by others: 1) an improved OR&L Railroad Track terminating at Lualualei Naval Road by the Hawaiian Railway Society; and 2) a State DOT Bikeway within the OR&L Railroad Right-of-Way.

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2.6.2.2 'Aulani Place to Hakimo Road (Area 2)

Area 2 extends from 'Aulani Place (cross street mauka of Farrington Highway) to the southern base of Pu'u o Hulu Kai just beyond Hakimo Road (cross street mauka of Farrington Highway). Comprised of approximately 7.7 acres, the natural resources in this area of the park include the white sand beach, sand dunes, the rocky shoreline, and tidal pools. The existing park improvements are accessed from across Princess Kahanu Avenue. The improvements include a paved parking lot and comfort station.

Non-park uses at Area 2 include a City and County of Honolulu Sewer Pump Station which is located across from Lualei Street and the Ulehawa Drainage Channel which discharges at the shoreline. The concrete drain channel is periodically cleared of sand which is presently deposited on the adjacent areas or removed from the site. Community groups have expressed a desire to keep the sand onsite to replenish eroded areas of the beach.

Similar to Area 1, the proposed park improvements to Area 2 (Figure 6B) will establish picnic and camping areas on the mauka side of the sand dune areas. This would involve clean-up and removal of the existing debris on the site and new landscape plantings. A new vehicular access point across from Hakimo Road is planned with additional crushed coral parking lots bounded by perimeter barriers for sand dune and beach resource protection.

For erosion control and beautification purposes, landscaping with salt tolerant plantings will be established along the sand dune edge. Informal groupings of large and medium shade trees and clusters of coconut palms will provide protection from the sun while enhancing the natural aesthetic qualities of the park.

Planned improvements may include the following as shown on Figure 6B:

Hardscape Improvements

Civil Improvements

- Vehicular access from Farrington Highway
- Removal of existing site debris and scrub vegetation
- Minor site grading of park area
- Renovate existing park restroom building
- Fine grading of parking lot area only
- New compacted coral parking areas
- Vehicular barriers to preserve/protect sand dunes

Landscape Improvements

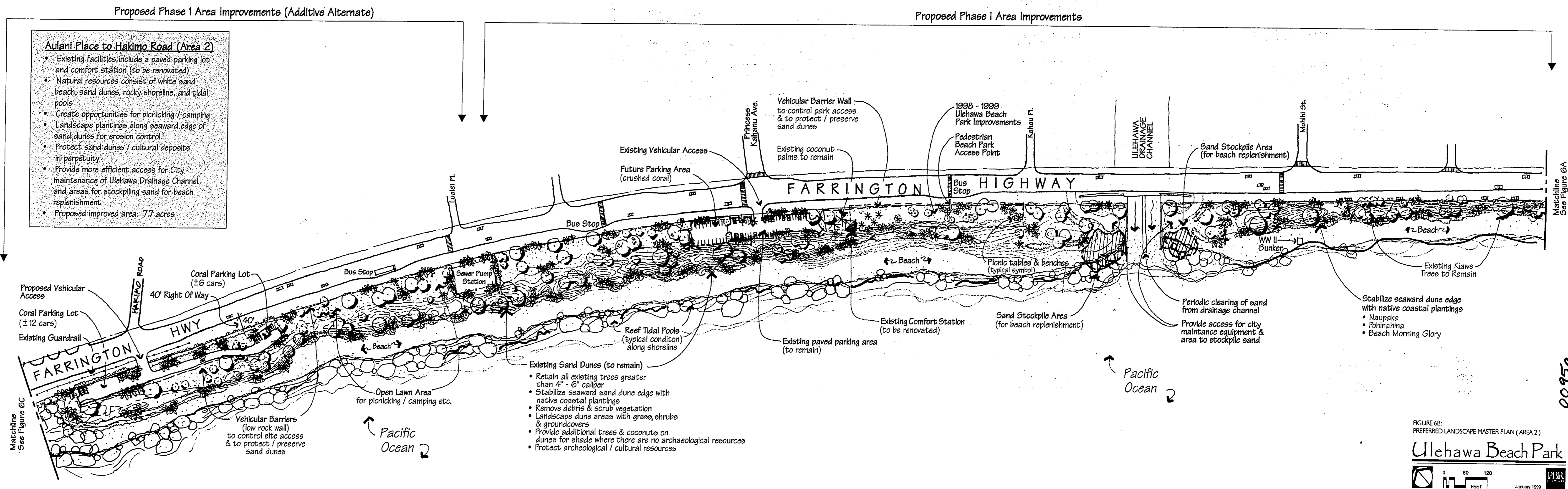
Salt Tolerant Trees

- Retain all existing trees over 4" caliper
- Large canopy shade trees
- Medium canopy shade trees
- Coconut palms

Shrubs

- Native coastal shrubs (e.g. naupaka)
- Accent shrubs (e.g. 'ākia)

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Aulani Place to Hakimo Road (Area 2)

- Existing facilities include a paved parking lot and comfort station (to be renovated)
- Natural resources consist of white sand beach, sand dunes, rocky shoreline, and tidal pools
- Create opportunities for picnicking / camping
- Landscape plantings along seaward edge of sand dunes for erosion control
- Protect sand dunes / cultural deposits in perpetuity
- Provide more efficient access for City maintenance of Ule'hewa Drainage Channel and areas for stockpiling sand for beach replenishment
- Proposed improved area: 7.7 acres

- Existing Sand Dunes (to remain)**
- Retain all existing trees greater than 4" - 6" caliper
 - Stabilize seaward sand dune edge with native coastal plantings
 - Remove debris & scrub vegetation
 - Landscape dune areas with grass, shrubs & groundcovers
 - Provide additional trees & coconuts on dunes for shade where there are no archaeological resources
 - Protect archaeological / cultural resources

FIGURE 68
PREFERRED LANDSCAPE MASTER PLAN (AREA 2)
Ule'hewa Beach Park
0 60 120
FEET
January 1999

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Ground Covers/Lawn

- Native ground covers (e.g. beach morning glory, pōhinahina)
- Common Bermuda lawn

Irrigation

- Automatic irrigation system

Miscellaneous Landscape Items

- Screened soil
- Soil amendments
- Charcoal disposal units
- Concrete picnic tables and benches

2.6.2.3 Rocky Coastline Area / Pu'u o Hulu Kai (Area 3)

Area 3 includes an 11.5-acre rocky shoreline which wraps around the western toe of the Pu'u o Hulu Kai slope. This rocky wave-swept coastline is known for its good fishing along the rocks and ledges and is utilized by Wai'anae coast fishermen. The planned improvements to this area are shown in Figures 6C and 6D. Since the area is susceptible to high wave action, the planned improvements will be along Farrington Highway and away from the water's edge.

To retain the "wild" open rocky coastline character of the area, the improvements proposed are not extensive and will consist of a new landscaping along Farrington Highway. The plantings will consist of informal groupings of coconut palms and shade trees with naupaka below.

Planned improvements may include the following as shown on Figures 6C and 6D:

Hardscape Improvements

Civil Improvements

- Removal of existing site debris

Landscape Improvements

Salt Tolerant Trees

- Retain all existing trees over 4" caliper
- Large and medium canopy shade trees
- Coconut palms

Shrubs

- Native coastal shrubs (e.g. naupaka)

Irrigation

- Automatic irrigation system

Miscellaneous Landscape Items

- Soil amendments

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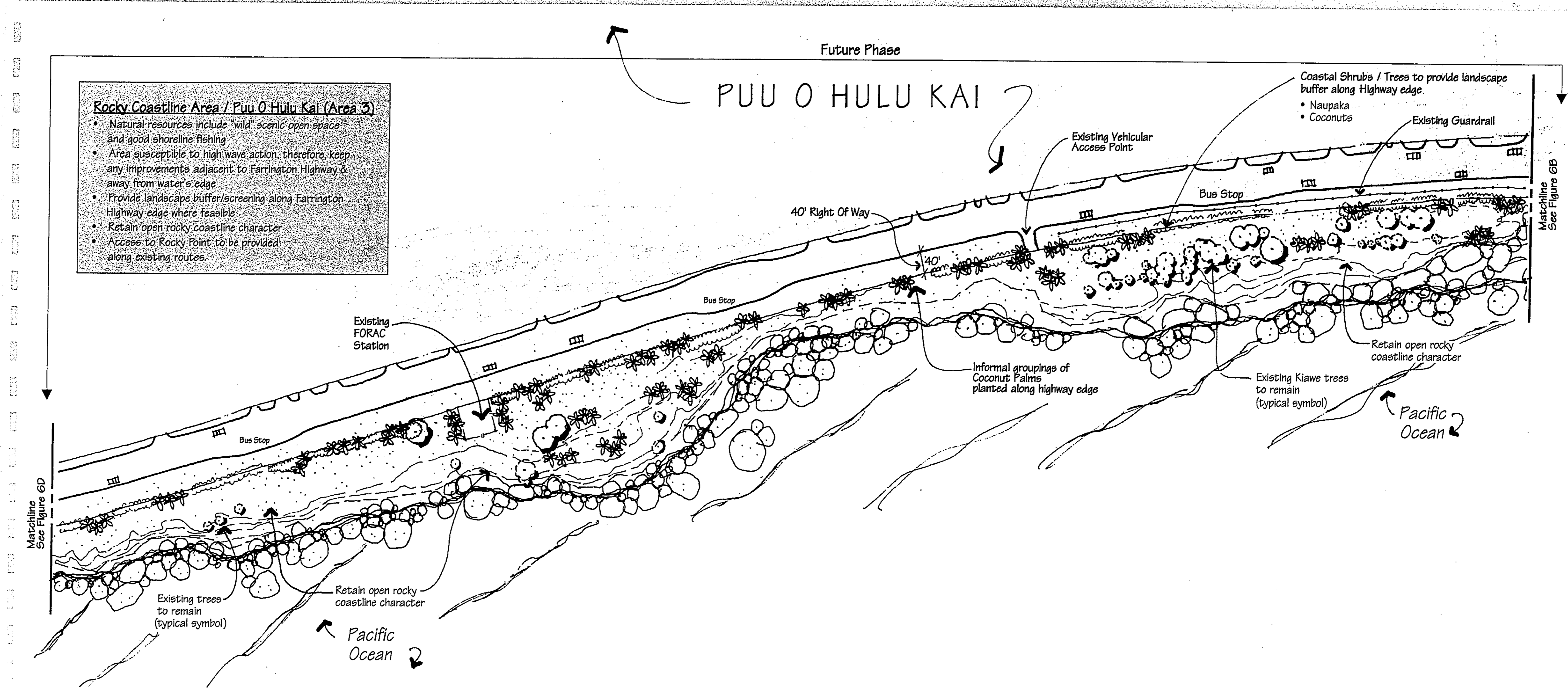
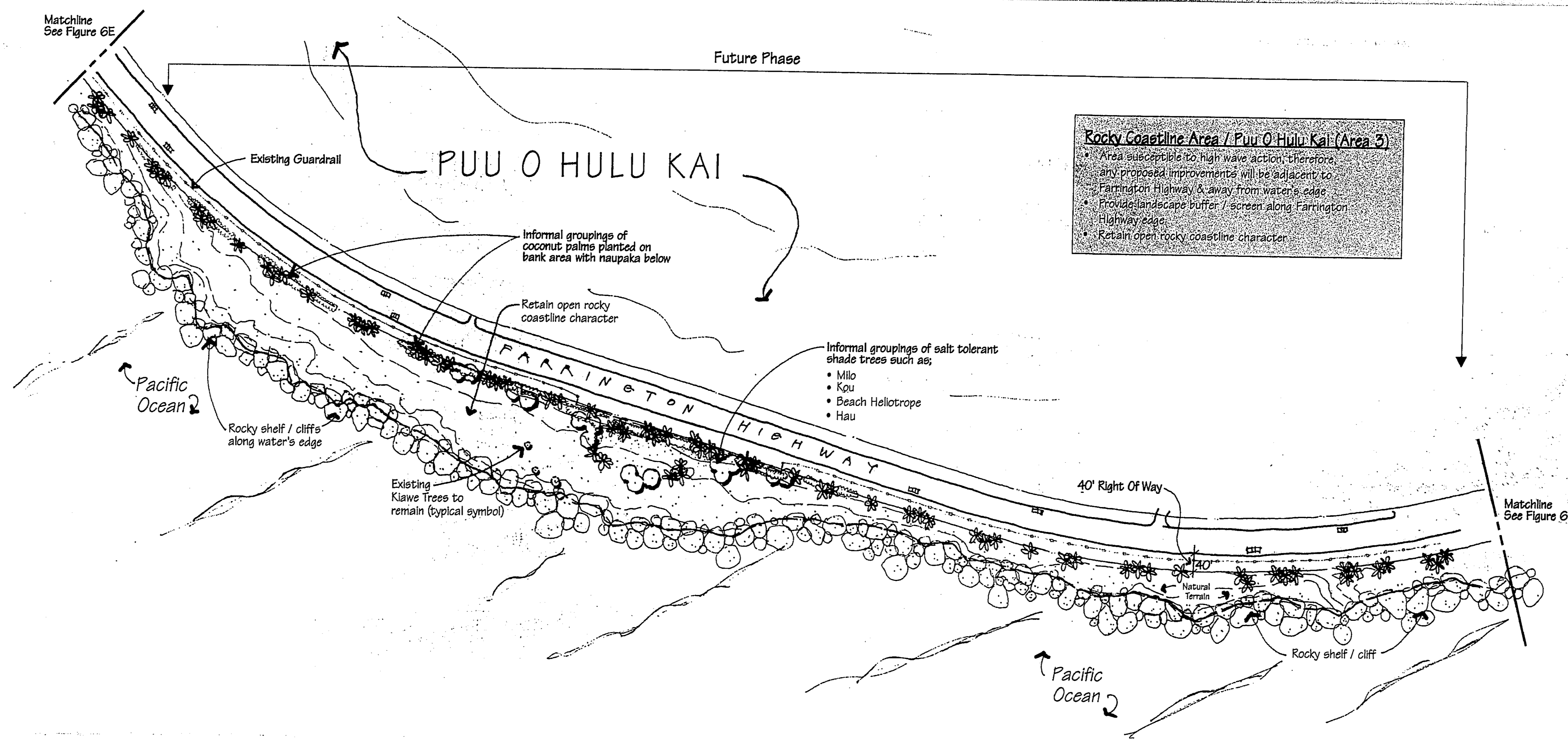


FIGURE 3C.
PREFERRED LANDSCAPE MASTER PLAN (AREA 3)
Ule'hewa Beach Park

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January 1999

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Rocky Coastline Area / Puu o Huhu Kai (Area 5)

- Area susceptible to high wave action, therefore any proposed improvements will be adjacent to Farrington Highway, & away from water's edge.
- Provide landscape buffer / screen along Farrington Highway Edge.
- Retain open rocky coastline character.

FIGURE 6D:
PREFERRED LANDSCAPE MASTER PLAN (AREA 3 Continued)
Ulehuwa Beach Park
January 1999

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2.6.2.4 Ulehawa Beach Park (Area 4)

The area referred to as Ulehawa Beach Park (Area 4) is comprised of three separate areas (Figure 6E): (1) Mā'ili Point Beach Park, (2) Surfer's Beach Park, and (3) Existing Ulehawa Beach Park (Mā'ili Section). The Mā'ili Point Beach Park and the Surfer's Beach Park are separated by an existing residential community.

The following describes the improvements for each of the designated areas:

Mā'ili Point Beach Park - Kaukama Road

The Mā'ili Point Beach Park (approximately 4 acres) is presently unimproved with a packed sand beach and scattered scrub vegetation. According to community input, this area is often used by the Leeward Coast schools to explore shoreline tidal pools and allow children to participate in beach activities. Therefore, community members desire a "conventional" beach park with generous open lawn areas with shade trees and coconut palms, and an area for school bus parking is highly desired.

A new vehicular access point across from Hookele Street is planned with a 40-stall crushed coral parking lot bounded by perimeter barriers for beach resource protection. Other proposed improvements include an outdoor shower and comfort station, volleyball court area, and picnic tables and benches.

This area of Ulehawa Beach Park is planned for the following improvements as shown on Figure 6E:

Hardscape Improvements

Civil Improvements

- Vehicular access from Farrington Highway
- Entry signage wall
- Demolition and removal of existing site debris
- Minor site grading of park area
- Sewer/Waterline hook-up to restroom and showers
- New restroom building
- New outdoor showers
- Fine grading of parking lot
- New compacted coral parking lot
- Vehicular barriers to protect/preserve park and beach

Landscape Improvements

Salt Tolerant Trees

- Retain all existing trees over 4" caliper
- Large/medium canopy shade trees
- Coconut palms

Shrubs

- Native coastal shrubs (e.g. naupaka, pōhinahina, beach morning glory)
- Accent shrubs (e.g. 'ākia)

Ground Covers/Lawn

- Native ground covers (e.g. beach morning glory, pōhinahina)
- Common Bermuda lawn

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Irrigation

- Automatic irrigation system

Miscellaneous Landscape Items

- Screened soil
- Soil amendments
- Charcoal disposal units
- Concrete picnic tables and benches

Surfer's Beach Park

Excellent surfing conditions offshore of Mā'ili Point attract surfers and body boarders from throughout the island to this 1.4-acre portion of the existing Ulehawa Beach Park which is located adjacent to Mā'ili Stream. Comments received from the community envisioned this park as a place dedicated primarily to surfing activities, with the park growing in popularity as a site for surf meets during the winter surf season.

Thus, the proposed plan accommodates a new vehicular access point across from Maipalaoa Road and a new crushed coral parking lot for 40-60 cars. The parking lot will be bounded by perimeter barriers for beach resource protection. Other proposed improvements include an open grassed lawn to erect temporary tents for surf meet set-up, outdoor shower facility, and coastal shrubs planted along shoreline edge to stabilize the beach sand.

Based on the above, this area of Ulehawa Beach Park is planned for the following improvements as shown on Figure 6E:

Hardscape

Civil Improvements

- Vehicular access from Farrington Highway
- Entry signage wall
- Demolition and removal of existing site debris
- Minor site grading of park area
- New outdoor shower facility
- Fine grading of parking lot area
- New compacted coral parking area
- Vehicular barriers to protect/preserve shoreline

Landscaping

Salt Tolerant Trees

- Large canopy shade trees
- Medium canopy shade trees
- Coconut palms

Ground Covers/Lawn

- Native ground covers (e.g. beach morning glory, pōhinahina)
- Common Bermuda lawn

Ground Covers

- Native ground covers
- Seashore paspalum lawn

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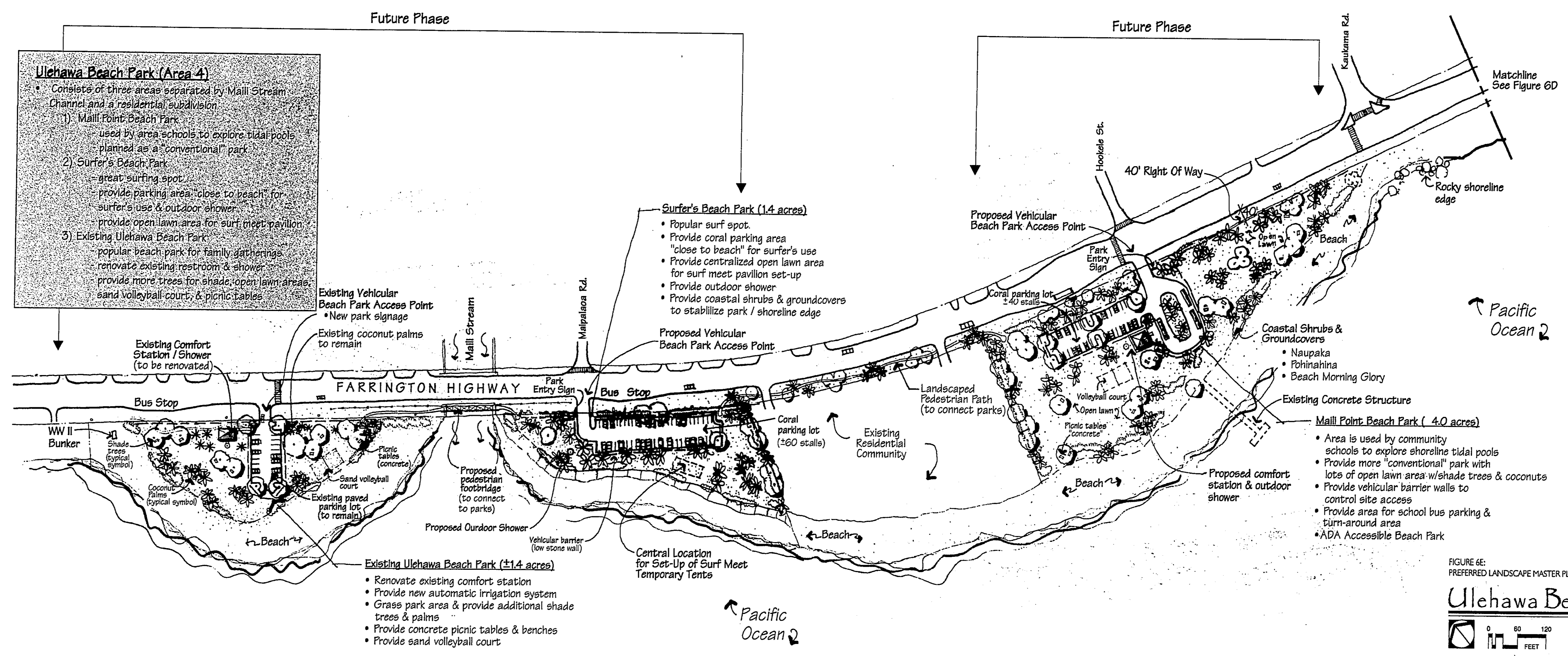


FIGURE 6E
 PREFERRED LANDSCAPE MASTER PLAN (AREA 4)
Ule'hewa Beach Park
 0 60 120
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 January 1999

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ULEHAWA BEACH PARK
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Irrigation

- Automatic irrigation system

Miscellaneous Landscape Items

- Screened soil
- Soil amendments
- Charcoal disposal unit
- Concrete picnic tables and benches

Existing Ulehawa Beach Park - Mā'ili Section

This portion of the existing Ulehawa Beach Park is envisioned as a family gathering area where families could picnic, play volleyball, and enjoy beach activities associated with the adjoining Surfers Beach. Portions of the park will be improved with additional shade trees and new lawn areas. Renovations to the existing comfort station and shower facility is also being considered.

This area of Ulehawa Beach Park is planned for the following improvements as shown on Figure 6E:

Civil Improvements

- Entry Signage Wall
- Demolition and removal of existing site debris
- Minor site grading of park area
- Vehicular barrier rock wall

Landscape Improvements

Salt Tolerant Trees

- Retain all existing trees and coconut palms
- Large canopy shade trees
- Medium canopy shade trees
- Coconut palms

Ground Covers/Lawn

- Native ground covers (e.g. beach morning glory, pōhinahina)
- Common bermuda lawn

Irrigation

- Automatic irrigation system

Miscellaneous Landscape Items

- Screened soil
- Soil amendments
- Charcoal disposal units
- Concrete picnic tables and benches

2.7 DEVELOPMENT TIMETABLE AND APPROXIMATE COSTS

Construction of the park improvements are scheduled in a phased process to commence in 1999. The estimated cost of implementing the planned improvements is \$ 1.2 million to \$3.3 million.

The proposed Phase 1 area improvements are shown on the Preferred Landscape Master Plan (Figures 6A - 6E) and include Areas 1 and 2 (from the edge of the southern existing Ulehawa Beach Park to the Sewer Pump Station), and a portion of Area 4 (Surfer's Beach Park and the northern

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existing improved Ulehawa Beach Park). All other improvements will be implemented in a Future Phase.

2.8 SUMMARY OF IMPACTS AND ALTERNATIVES CONSIDERED

2.8.1 Potential Environmental Impacts

Similar to any construction improvement project, potential environmental impacts may occur during and after project construction. A summary of these potential impacts are described in this section and further described in Sections 4 and 5.

Construction Period. The primary environmental impacts anticipated during project construction include noise, air, and water quality impacts and temporary visual impacts. Field surveys have been prepared to identify any potential resources that do exist. The archaeological survey findings have indicated a relatively high potential for cultural deposits within the sand dunes on the site. However, there are no known flora and fauna resources which are considered to be rare or endangered species.

Air quality may be impacted by potential fugitive dust emissions and vehicular emissions from construction equipment.

Drainage impacts could occur as grading progresses and crushed coral surfaces are established by new parking areas that could increase surface flows into the ocean during intense storms. On-site drainage improvements may be necessary to retain surface water on-site during construction. This will allow better control of drainage water. Mitigation measures to improve drainage will ensure that no runoff enters nearshore waters which is designated by the State as "pristine".

Existing noise from Farrington Highway is also a consideration, however, the project will not contribute to existing noise levels except during the construction period by the operation of construction vehicles, other equipment, and localized noise such as hammering, trucks backing up, etc. Construction activities will be limited to daylight hours between 8:00 a.m. and 5:00 p.m. After project construction is complete, noise impacts should be relatively unchanged from the current condition.

Long-Term Operational Period. After construction is completed, the primary air quality impact should be positive. During periods of seasonal high to higher surf, sand from low lying beach areas is transported onto Farrington Highway, thereby contributing to a potential safety hazard and reduced air quality. New landscaping and establishment of hard barrier surfaces adjacent to the highway right-of-way will aid in more effective control of fugitive dust and sand dune erosion than is presently available.

The Ulehawa Beach Park Master Plan identifies parking areas and establishes vehicular access barrier limits onto the sand beaches and sand dunes, thereby, protecting the cultural resources which are potentially located in the area.

Visual impacts will change from the randomly vegetated roadside views to the proposed beach park landscape which would be visible from the Farrington Highway corridor. Generally, views of the ocean are intermittent because of the roadway topography and the narrow sloping beaches. However, the project design ensures that existing significant coastal views will be maintained in accordance with the design guidelines set forth in the City's Coastal View Study.

Potential Social Impacts. The overall goal of the project, is to provide improved recreational opportunities for Hawai'i's residents. With the new housing and employment centers (private and

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public) planned for development in the 'Ewa and Wai'anae regions, quality of life will be enhanced with improved recreational facilities available to the existing and future population.

Social impacts will occur during the construction through direct and indirect employment opportunities. Additionally, the improvement of the existing coastal resource would improve the recreational opportunities for Leeward coast and O'ahu residents. Each of these impacts, however, would be positive and no mitigation measures will be necessary.

2.8.2 Proposed Mitigation Measures

Few potential adverse impacts are expected to result from implementation of the proposed project. Short-term impacts will result during the initial construction phase which will require on-site grading and movement of vehicles within the project site. These activities will generate localized noise and dust during construction periods.

Mitigation measures to minimize adverse air quality would include frequent watering of unpaved construction areas, dust screens, and mulching and planting of ground cover and other vegetation as soon as possible after construction. Construction activities would comply with all applicable regulations of the City and County of Honolulu and the State Department of Health (DOH).

Long-term impacts from the development are not expected to significantly affect adjoining property owners. However, some visual and drainage impacts may occur unless appropriate mitigation measures are employed. New infrastructure must also be developed to accommodate portions of the proposed project.

Recommended mitigation measures include the following:

Short term:

- Implementation of Best Management Practices (BMPs) for temporary erosion control during the construction period will be incorporated.
- Frequent watering during construction and demolition activities to maintain dust control.
- Initiate a construction phasing plan which considers wind patterns and residential land uses to minimize dust impacts downwind.
- Grassing of swales and sodding as soon as practicable once grading has been completed.
- Wind screening as appropriate to limit fugitive dust.
- Restrict use of construction equipment to daylight hours.
- Establish on-site drainage detention basins during construction to mitigate soil erosion and off-site runoff to ensure that no runoff or soils enter nearshore waters.
- Phase construction activities as appropriate to limit the amount of noise and dust associated with project construction.

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- Provide appropriate measures (i.e., on-site ponding basins, silt curtains) for mitigating storm runoff prior to discharge into the existing drainages and nearshore waters.

Long term:

- Establish landscaping to maintain long-term air quality and aesthetically integrate the Ulehawa Beach Park into the surrounding landscape and land forms.
- Where appropriate, create landscape buffers between areas of high and low intensity land uses to reduce noise and glare (i.e. parking areas).
- Use of appropriate engineering, design and construction measures to ensure adequate drainage and irrigation of the site.

3.0 Required Permits and Approvals

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3.0 REQUIRED PERMITS AND APPROVALS

Ulehawa Beach Park is designated as State Urban District lands by the Land Use Commission and is consistent with and supports the City and County General Plan, the Wai'anae Development Plan, and Land Use Ordinance. The lands are in the Special Management Area. The planning and development process within the Wai'anae Development Plan Area has been and continues to be a joint effort of the community, the State of Hawai'i, and the City & County of Honolulu. None of the proposed improvements are located within the adjacent State Conservation District or within the Shoreline Setback Area.

The following is an approximate list of approvals and permits required for the implementation of the proposed plan.

Permit or Approval	Authority
Environmental Assessment / FONSI	Chapter 343, HRS, Department of Planning and Permitting
Special Management Area (SMA) Permit	City Council
Building/Grading Permits	Department of Planning and Permitting
NPDES	Department of Health

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Summary Description of the Affected Environment

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4.0 SUMMARY DESCRIPTION OF THE AFFECTED ENVIRONMENT

A general description of the project's environmental, technical, and economic characteristics is presented in this section.

4.1 CLIMATE

Existing Conditions

The Wai'anae District is characterized as semiarid. The area has a mean annual rainfall of approximately 20 inches, which occurs primarily during the months of October through April. The mean annual temperature is 74° F, and daily temperatures approach the mid-60s during winter evenings and 90° F on hot sunny days during the dry months from May through September.

The prevailing trade winds are from the northeast; however, convection winds caused by the heated land mass and local topographic features result in considerable local variations in the prevailing wind patterns along the coast. Similarly, the area experiences midday sea breezes followed by offshore breezes during the evening. Southerly "kona" winds associated with southerly storms are most common during the late winter and early spring, but can occur at any time of the year. Northerly and northwesterly storms that commonly occur during the early and late winter also affect the coastline.

Potential Impacts and Mitigative Measures

The mild climate and moderate rainfall conditions provide an ideal environment for ocean recreation activities. Shade trees will be incorporated into project landscaping where none currently exists to provide an additional level of natural cooling and comfort.

4.2 GEOLOGY / TOPOGRAPHY

Existing Conditions

Generally, the Wai'anae District consists of a coastal plain and the Wai'anae mountain range with intruding valleys. Urban development has primarily occurred on the coastal plain, with agricultural activities extending into inland areas. Most of the land area is comprised of the Wai'anae mountain range, with its rugged topography of near-vertical cliffs and amphitheater-headed valleys. The three-mile long Ulehawa Beach Park site is bounded on the northeast by the Pu'u o Hulu Kai and Pu'u o Hulu Uka ridges which extend approximately one and one-half miles in an easterly direction.

The beach park site consists of approximately 57.6 acres of land located seaward of Farrington Highway, from about Nānākuli Beach Park northwestward to the beach park just after Mā'ili Stream. The improved park areas are located at both ends of the project site. The unimproved shoreline areas found between the two improved parks consist of sandy beaches and rocky coastline.

Geologically, the project site is underlain by consolidated calcareous marine deposits, chiefly emerged coral reef, and unconsolidated noncalcareous deposits that are primarily younger alluvium that has washed down from the inland Wai'anae mountains.

The dominant landform overlooking the project area at the northern end is Pu'u o Hulu Kai and Pu'u o Hulu Uka (elevation 860 feet msl), consisting of two small twin pu'u located just mauka of Farrington Highway. Two relatively large drainageways, Ulehawa Stream and Mā'ili Stream, flow through the park to discharge at the shoreline.

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Potential Impacts and Mitigation Measures

Impacts on the physiography and geology of the project site could be caused by alterations to accommodate the planned improvements. The planned alterations, however, are relatively insignificant compared to the overall physiographic and geologic character of the site and region. As such, significant impacts resulting from the proposed project are not expected.

Due to the expected lack of significant impacts on the physiography and geology of the project site or region, mitigation measures to minimize potential adverse impacts are not warranted. Appropriate engineering, design and construction measures would be taken to minimize potential erosion due to the minor grading of soils during construction.

4.3 HYDROLOGY AND DRAINAGE

Existing Conditions

The Wai'anae Coast is relatively dry, receiving approximately 20 inches of rainfall per year along the coastline and up to about 30 inches per year in the lower valleys. As such, there are no perennial streams in the coastal plain area of the district. Some streams, such as the Nānākuli, Lualualei, Wai'anae, Mākaha and Mākua, have small perennial flows only in the high elevations (greater than 600 feet MSL). All streams in the low-lying areas are intermittent, including Mā'ili and Ulehawa.

Rainfall at the higher elevations is predominantly orographic, which does not result in appreciable surface runoff because of its low intensity. Periods of heavy runoff are generally associated with frontal type (kona) storms.

Groundwater recharge from rainfall occurs primarily in the mountain area and is stored in the volcanic structure of the region. Excess overland runoff from the mountain region, except during the few heavy storms that the district experiences, eventually percolates into the coastal coralline rocks and becomes part of the groundwater resource. As such, Ulehawa Beach Park does not contribute to groundwater recharge.

The two natural drainage features found on the property have been altered to serve as improved drainage channels. All of the project site drains to the Mā'ili Stream Channel or the Ulehawa Stream Channel or the directly into the ocean. The Mā'ili Stream channel is an existing concrete rectangular channel that crosses Farrington Highway and discharges storm runoff through the park and into the ocean. The Ulehawa Stream channel is similarly improved for drainage purposes. The banks makai of Farrington Highway are lined with concrete.

The Federal Emergency Management Agency classifies flood hazard zones as part of the Flood Insurance Program for the City and County of Honolulu. The Ulehawa Beach Park shoreline and park area is designated on the Flood Insurance Rate Map ("FIRM") in two flood-hazard areas inundated by 100-year floods: Zone VE and Zone AE (Figure 7). Zone AE is an area located within the 100-year flood plain with base flood elevations determined. Zone VE is an area located within the 100-year flood plain where coastal flooding occurs with velocity hazard (wave action), and base flood elevations determined. The base flood elevation at the shoreline and beach area is 12 - 13 feet msl.

LEGEND

- Zone VE** — Coastal Flood with Velocity Hazard (wave action)
- Zone AE** — Base Flood Elevations Determined
- Zone D** — Areas in which Flood Hazards are Undetermined

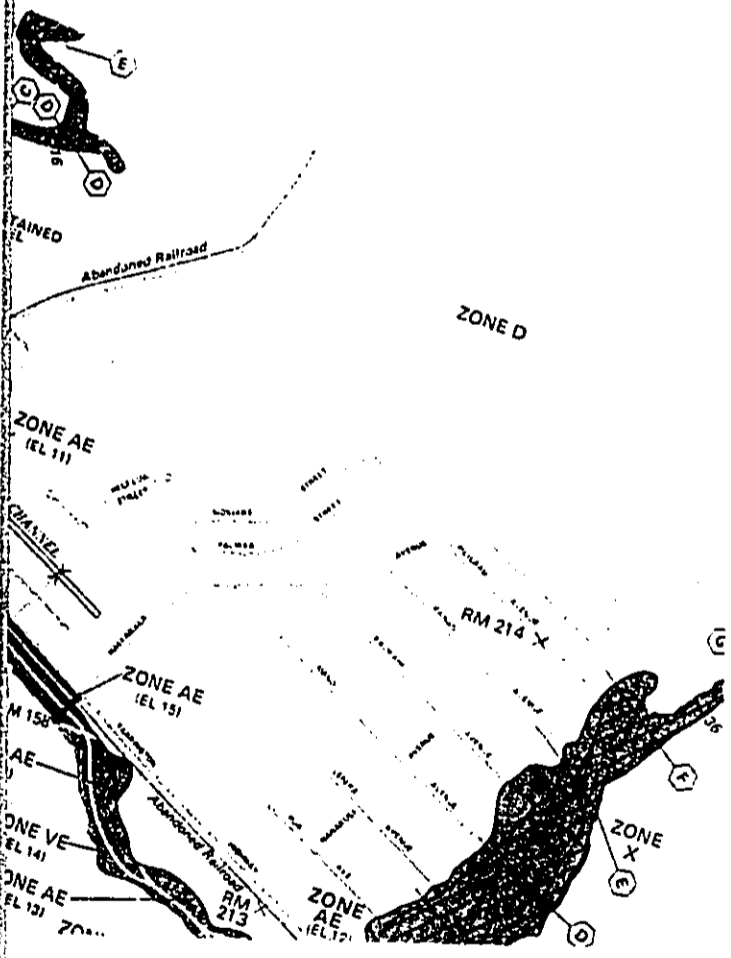


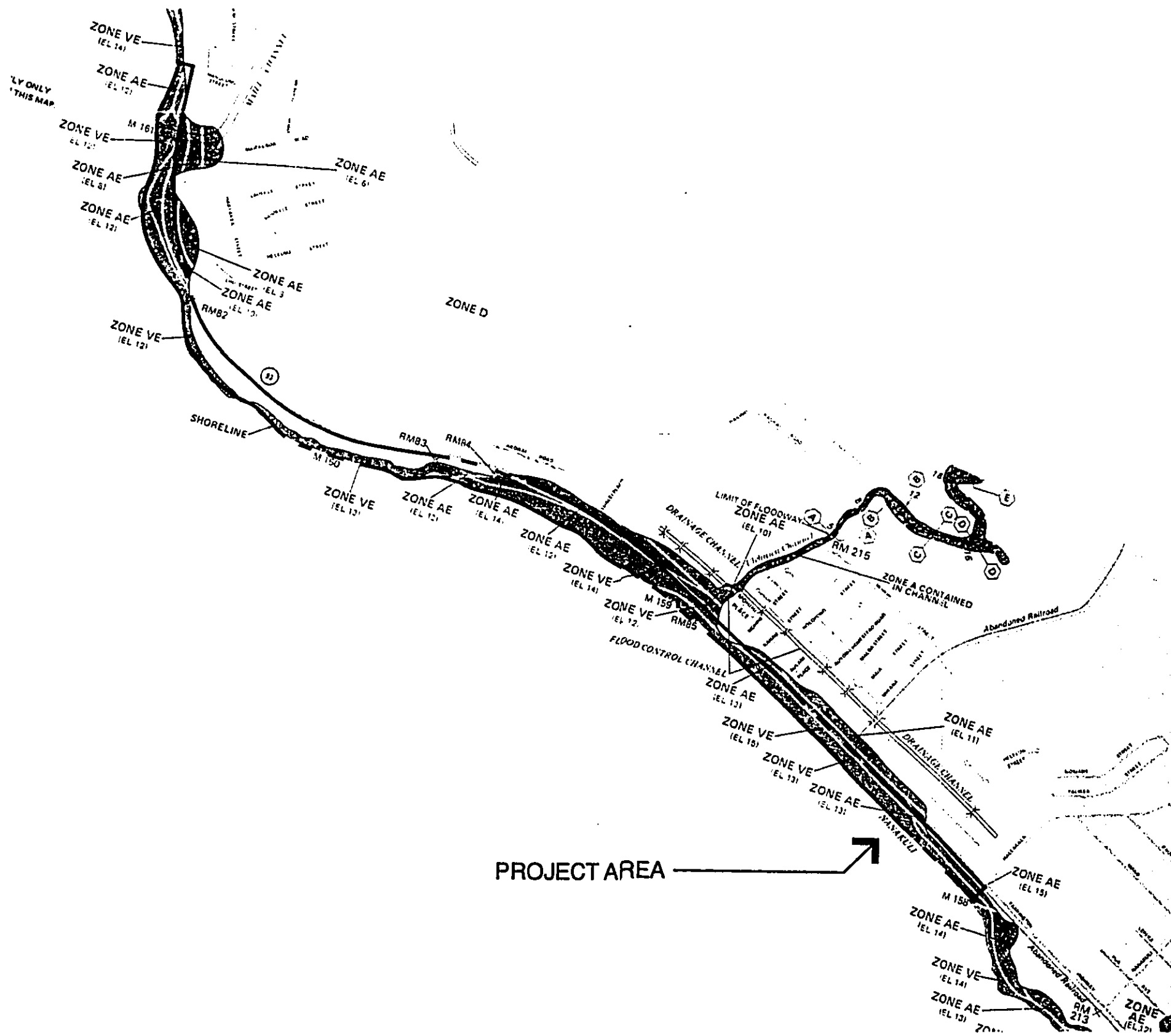
FIGURE 7:
FLOOD INSURANCE RATE MAP (FIRM)

Ulehawa Beach Park



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Source: Flood Insurance Rate Map, Community-Panel Number 150002 0135 C, March 4, 1987.

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Potential Impacts and Mitigative Measures

Significant adverse impacts to the hydrological and drainage characteristics of the project site are not expected to result from the proposed park improvements. Similarly, no major impacts to the surface drainage patterns are expected to occur. As such, mitigation measures to minimize potential adverse impacts do not appear warranted at this time.

Best management practices (BMPs) for temporary erosion control during the construction period will be incorporated which would include appropriate measures (i.e., on-site ponding basins, silt curtains) for mitigating storm runoff prior to discharge into the existing drainages and nearshore waters.

4.4 SOIL TYPES AND AGRICULTURAL CAPABILITY

4.4.1 Soil Conservation Service Soil Survey

The *Soil Survey of Islands of Kaua'i, O'ahu, Maui, Moloka'i and Lāna'i, State of Hawai'i* (1972) was prepared by the U.S. Department of Agriculture Soil Conservation Service (SCS) and the University of Hawai'i Agricultural Experiment Station. These reports are patterned after a soil classification procedure adapted for nationwide, uniform application. Soil types are ranked according to their suitability for most kinds of crops (ranging from Class I soils which have few limitations that restrict their use, to Class VIII soils which have limitations that preclude their use for commercial plant production and restrict their use to recreation, wildlife habitat, water supply or aesthetic purposes).

Soil types found on the park site are shown on Figure 8 and include Beaches, Māmala stony clay loam, and Lualualei extremely stony clay.

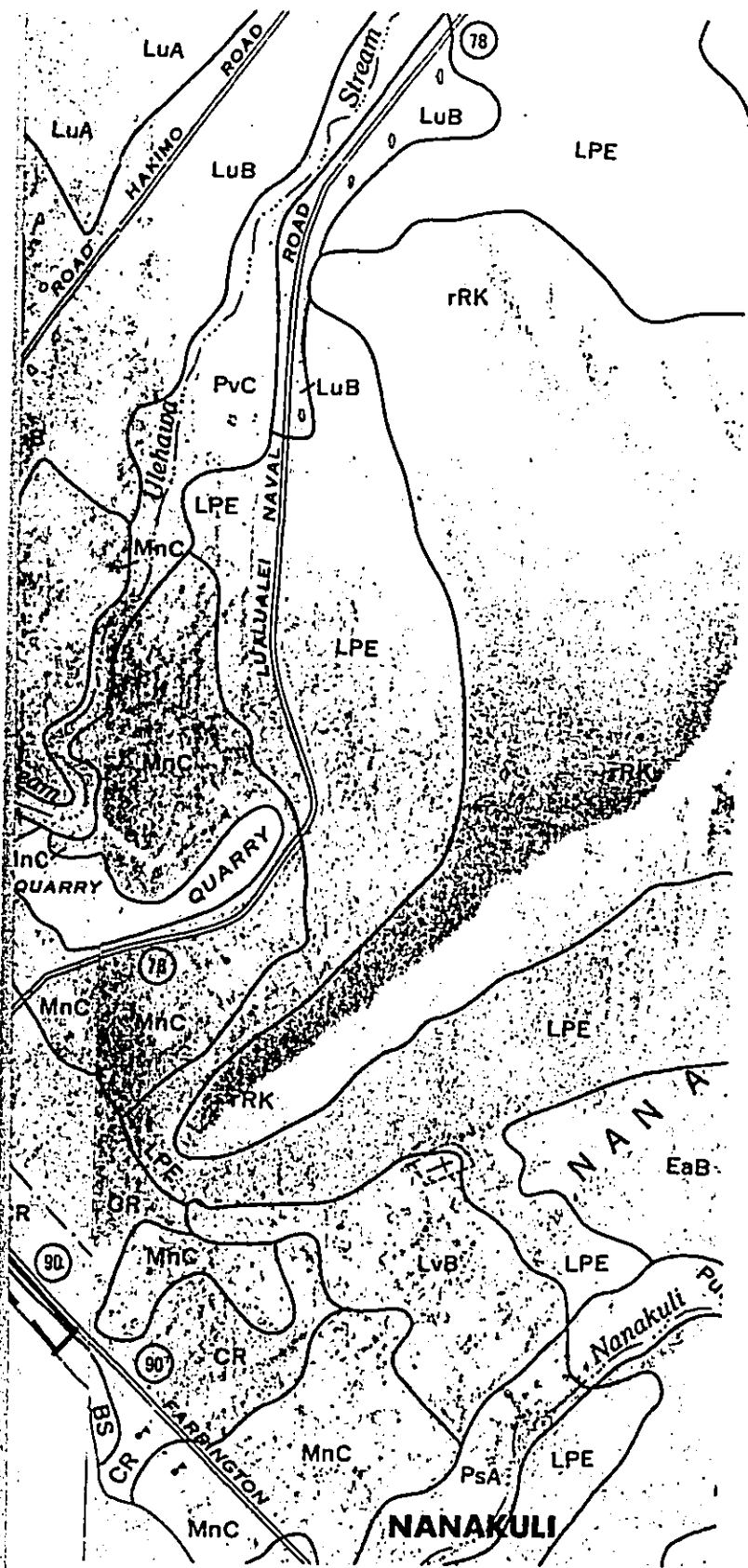
Beaches (BS). The pre-dominant soil type at the park site is classified as Beaches (BS). Beaches soil occur as sandy, gravelly, or cobbly areas on all the islands in the survey area. They are washed and reworked by ocean waves. The beaches consist mainly of light-colored sands derived from coral and seashells.

Beaches have no value to farming. Where accessible and free of cobblestones and stones, they are highly suitable for recreational uses and resort development (Capability classification VIIIw, nonirrigated)

Māmala stony silty clay loam (MnC), 0 to 12 percent slopes. This series consists of shallow, well-drained soils along the coastal plains on the island of O'ahu. These soils formed in alluvium deposited over coral limestone and consolidated calcareous sand. They are nearly level to moderately sloping. Elevations range from nearly sea level to 100 feet. The annual rainfall amounts to 18 to 25 inches, most of which occurs between November and April. The mean annual soil temperature is 74 degrees F. Māmala soils are geographically associated with 'Ewa, Honouliuli, and Lualualei soils.

These soils are used for sugarcane, truck crops, orchards, and pasture. The natural vegetation consists of kiawe, koa haole, bristly foxtail, and swollen fingergrass.

The slope range of this soil is 0 to 12 percent, but in most places the slope does not exceed 6 percent. Stones, mostly coral rock fragments, are common in the surface layer and in the profile. Permeability is moderate. Runoff is very slow to medium, and the erosion hazard is slight to moderate.

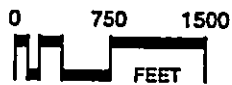


LEGEND

- BS — Beaches
- Mtb — Mokuleia Clay
- KmbA — Keaau clay
- LPE — Lualalei extremely stony clay
- MnC — Mamala stony silty clay loam
- CR — Coral outcrop

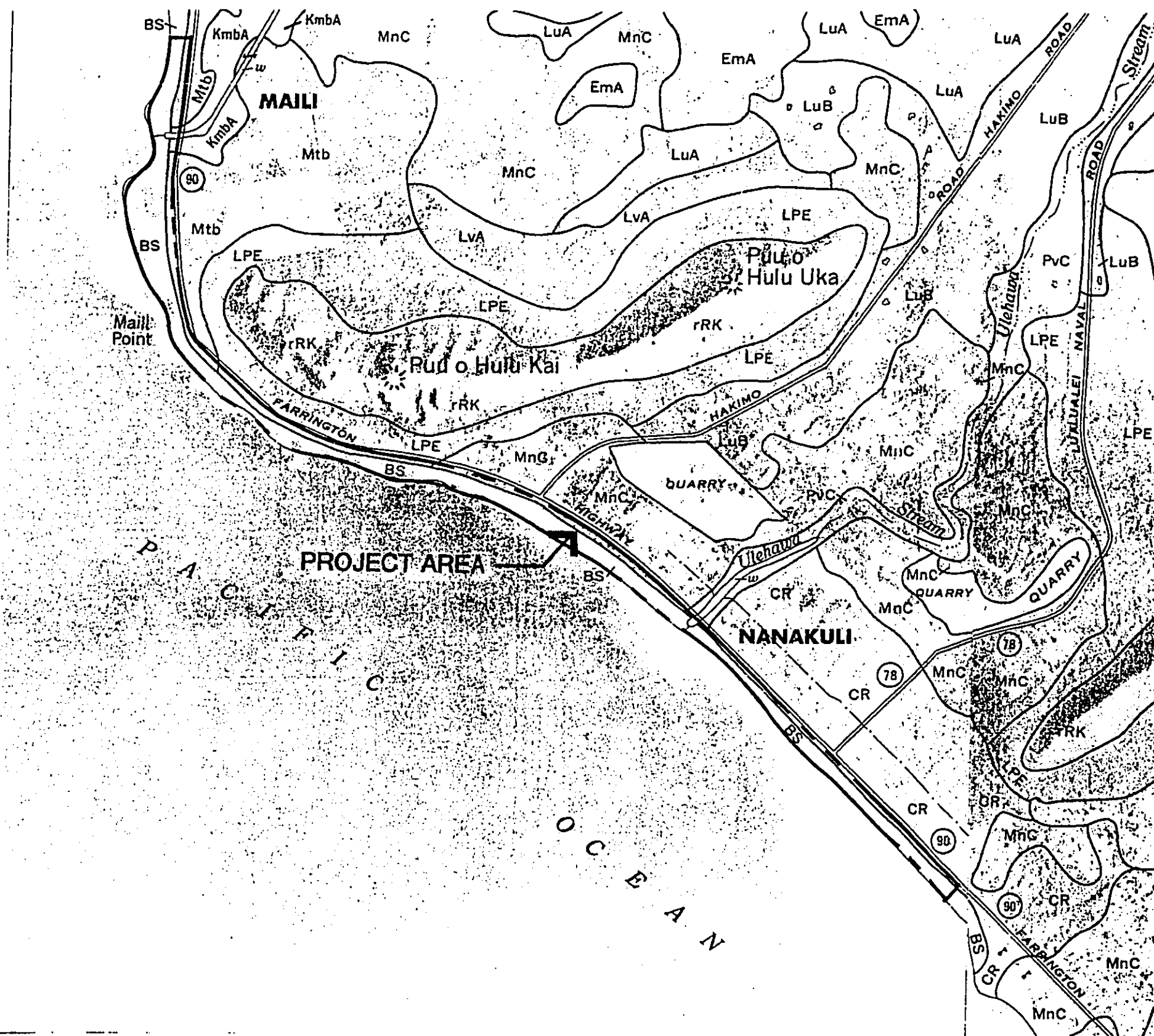
FIGURE 8:
SOIL CONSERVATION SERVICE SOIL SURVEY

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Lualualei extremely stony clay (LPE), 3 to 35 percent slopes. This soil occurs on talus slopes. The slope range is 3 to 35 percent, but in most places the soil is moderately sloping to steep. This soil is similar to Lualualei clay, 0 to 2 percent slopes, except that there are many stones on the surface and in the profile. It is impracticable to cultivate this soil unless the stones are removed. Runoff is medium to rapid, and the erosion hazard is moderate to severe.

The Lualualei soils on the property are at the base of Pu'u o Hulu Kai which forms a talus slope crossed by Farrington Highway as the park curves toward Mā'ili Point.

Potential Impacts and Mitigative Measures

The Ulehawa Beach Park lands have been dedicated to coastal recreational uses for decades and the planned improvements to the park will not affect agricultural production on O'ahu or the State of Hawai'i. Therefore, no mitigative measures are necessary.

4.4.2 Detailed Land Classification and Agricultural Lands of Importance to the State of Hawai'i

The *Detailed Land Classification* (1965 through 1972) series was produced by the Land Study Bureau (LSB) of the University of Hawai'i for each island to develop a land inventory and productivity evaluation based on statewide "standards" of crop yields and levels of management.

The *Agricultural Lands of Significant Importance to the State of Hawai'i* (ALISH) (1977) system consists of the mapped identification of three broad classes of agricultural land based, in part, on the criteria established by the Soil Conservation Service. "Prime Agricultural Land", "Unique Agricultural Land" and "Other Important Agricultural Land."

Potential Impacts and Mitigative Measures

Since the lands at Ulehawa Beach Park have been dedicated for park uses for many decades, and are, in fact, a narrow band bordered by Farrington Highway, any agricultural use of the land is not practical. Therefore, the existing beach park site is not suitable for agricultural uses and no impact to the inventory of agricultural land is anticipated by the proposed park improvements.

4.5 GROUNDWATER RESOURCES

Groundwater in the vicinity of the study area occurs in the Wai'anae volcanic aquifer and the Pearl Harbor groundwater aquifer.

Potential Impacts and Mitigative Measures

The planned improvements to Ulehawa Beach Park will not require the development of additional water supply wells, construction of storage and pumping facilities, and expansion of the potable distribution system. The park currently utilizes water from the Board of Water Supply system and anticipates that the additional water required for expanded irrigation and comfort station operation will continue to be provided by the City BWS system. Assuming that the irrigation demand for an improved landscaped land area of <25 acres with each acre requiring not more than 10,000 gallons per day, the estimated requirement will be limited to <250,000 gallons per day. Currently, there are no plans for a nonpotable irrigation system since nonpotable water is unavailable. However, should nonpotable water become available in the future, the feasibility of utilizing nonpotable water for irrigation purposes will be studied in conjunction with other projects in the area.

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4.6 NATURAL HAZARDS

Natural hazards are events such as tsunami, earthquakes, floods, hurricanes, soil slippage, and volcanic hazards. The subject project may be subject to hurricanes and minor earthquakes in the future; however, the site is not unique to these potential hazards. Earthquakes in the Hawaiian islands are associated with volcanic eruption or tectonic movement. Volcanic hazards in the area are considered minimal due to the extinct status of former volcanoes. Seismic hazards in the Waianae area are no greater than other locations on O'ahu and are accounted for in design standards and the building codes. The coastal site is prone to flood hazards associated with high waves and tsunami inundation as described previously.

Potential Impacts and Mitigation Measures

Due to the location of the site and underlying geologic structure, certain areas of the proposed project are subject to high wave and tsunami hazards.

The State Civil Defense office is located mauka of the highway and at the base of Pu'u o Hulu Kai. In addition, the park area is served by a siren warning device located along Farrington Highway.

Currently only one life guard station exists along the entire three-mile stretch of the Ulehawa shoreline. This station is located adjacent to Nānākuli Beach Park. More life guard stations are necessary and were specifically requested by the community during several informational meetings. Any new life guard stations will be located and operated in accordance with City standards and procedures, and as staffing permits.

Police and fire services are located within minutes from the park in Wai'anae and Nānākuli respectively.

Due to the lack of expected adverse impacts by seismic activity, mitigation measures, other than adherence to engineering design and building standards to minimize potential adverse impacts do not appear warranted.

4.7 VEGETATION

Field studies to assess the botanical resources found on the improved and unimproved park areas were conducted by Winona Char. The primary objectives of the field studies were to provide a general description of the vegetation found on the site and to search for threatened and endangered species as well as species of concern. The survey report is attached as Appendix A.

The project site consists of approximately 57.6 acres of land located seaward of Farrington Highway, from about Nānākuli Beach park westward to the beach park just after (west of) Mā'ili Stream. The improved park areas are located at both ends of the project site. The unimproved shoreline areas found between the two improved parks consist of sandy beaches and rocky coastline. Open, low, windswept scrub vegetation composed primarily of kiawe thickets and buffel grass is found on most of the unimproved areas.

Existing Conditions

Improved Park Areas. Improved park areas consist of large expanses of Bermuda grass or manienie (*Cynodon dactylon*) lawn and landscape plantings. On the Nānākuli side, the landscape plantings include coconut and Pritchardia palms; small to medium-sized trees of hau (*Hibiscus tiliaceus*), kou (*Cordia subcordata*), sea grape (*Coccoloba uvifera*), and kamani (*Calophyllum inophyllum*); and shrubs of beach naupaka or naupaka kahakai (*Scaevola sericea*) and *Hibiscus* cultivars. A few of

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the large, old kiawe trees (*Prosopis pallida*) from the original vegetation have been retained along the highway boundary.

On the Wai'anae side, the landscape plantings on the improved beach park are sparse. The plantings consist of a few coconut palms near the comfort station and parking lot, and one milo tree (*Thespesia populnea*) and a small clump of Madagascar olive trees (*Noronhia emarginata*) on the lawn area. The Bermuda grass lawn supports scattered clumps of weedy species such as creeping indigo (*Indigofera spicata*), buffel grass (*Cenchrus ciliaris*), hairy spurge (*Chamaesyce hirta*), *Boerhavia coccinia*, coatbuttons (*Tridax procumbens*), and cow pea (*Macroptilium lathyroides*). Small patches of the native beach morning glory or pōhuehue (*Ipomoea pes-caprae*) and 'aki'aki grass (*Sporobolus virginicus*) are found along the sandy beach front.

Unimproved Sandy Beaches. Sandy beaches are found on roughly three-quarters of the unimproved areas. The topography varies from flat to dune conditions. The vegetation consists primarily of kiawe thickets, 12 to 20 ft. tall. Scattered through the lower-statured kiawe thickets are taller, emergent, old kiawe trees, 40 to 50 ft. tall. Ground cover consists of buffel grass with smaller, scattered patches of Bermuda grass, swollen fingergrass (*Chloris barbata*), and Guinea grass (*Panicum maximum*).

On the seaward side of the kiawe thickets and grassy scrub areas, mats of pōhuehue and 'aki'aki are common. In a few places, the orange-stemmed kauna'oa vine (*Cuscuta sandwichiana*) can be found parasitizing the pōhuehue plants.

Two small sections of sandy beach are found on the Wai'anae side, one section east of Mā'ili Stream and the other by a bus stop across from Ho'okele Street. The topography is flat and sandy. These two sections are primarily barren sand with scattered patches of vegetation.

Unimproved Rocky Coastline. Rocky coastline is found on the western portion of the unimproved areas. The rocky shoreline consists of wave-swept coral benches. Behind the wave-swept benches or "splash zone," there is a pitted zone which consists of sharp-crested, deeply eroded, raised coralline reef material. In places, there are large, scattered, rounded basalt boulders. Inland of the pitted zone, closer to the highway, the substrate is shallow soil over rock outcroppings.

Open scrub vegetation is found on the areas with shallow soil and consists of scattered, small thickets of kiawe trees, 5 to 15 ft. tall. In some places, the kiawe has been cut back in the past, but has resprouted to form low, windswept, multi-branched plants. Clumps of buffel grass are abundant and form low, patchy mats between the kiawe trees. Other grasses which occur here in smaller numbers are Bermuda grass and Guinea grass. A few small shrubs of koa haole (*Leucaena leucocephala*) and sourbush (*Pluchea indica*), 1 to 3 ft. tall, are found scattered through the open scrub vegetation.

On the seaward facing side of the open scrub vegetation, a few native coastal species are found among the rocks or in small sandy pockets. These are the pale blue to white-flowered Pā'ū o Hi'iaka vine (*Jacquemontia ovalifolia* subspecies *sandwicensis*); the mat-forming 'aki'aki grass (*Sporobolus virginicus*); and 'ōhelo kai (*Lycium sandwicensis*), a low, spreading shrub with succulent leaves and red, succulent, globose berries.

The vegetation on the improved park areas is composed of large expanses of Bermuda grass and landscape plantings. Kiawe and buffel grass scrub covers most of the unimproved areas. The majority of the plants found on the site such as kiawe, buffel grass, koa haole, Guinea grass, etc., are introduced or alien species. Introduced species are all those plants which were brought to the Hawaiian Islands by humans, intentionally or accidentally, after Western contact, that is, Cook's discovery of the islands in 1778. The few native species tend to occur on the seaward facing side

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of the vegetation line. The following native species were found: pōhuehue (*Ipomoea pes-caprae*), 'aki'aki (*Sporobolus virginicus*), 'uhaloa (*Waltheria indica*), naupaka kahakai (*Scaevola sericea*), 'ōhelo kai (*Lycium sandwicense*), Pā'ū o Hi'iaka (*Jacquemontia ovalifolia* subspecies *sandwicensis*), and kauna'oa (*Cuscuta sandwichiana*). The Pā'ū o Hi'iaka and kauna'oa are endemic species, that is, they are native only to the Hawaiian Islands. All the others are indigenous, that is, they are native to the Hawaiian Islands and also elsewhere through the Pacific.

None of the plants observed on the site during the field studies is a threatened and endangered species; nor is any plant a species of concern (U.S. Fish and Wildlife Service 1997). There are no sensitive native plant-dominated communities on the project site.

Potential Impacts and Mitigative Measures

Based on the findings of the botanical survey, the proposed improvements to the Ulehawa Beach Park should not have a significant negative impact on the botanical resources and there are no botanical reasons to impose any restrictions, impediments, or conditions to the proposed use of the site.

Native and Polynesian introduced plants will be incorporated into the new landscape plantings. Polynesian introduced plants are all those species which were brought to islands prior to Western contact. Some of the plants already occur on the improved portions of the project site. The following Polynesian introduced plants are excellent shade trees for coastal areas exposed to salt spray: milo (*Thespesia populnea*), kou (*Cordia subcordata*), and kamani (*Calophyllum inophyllum*). Hau (*Hibiscus tiliaceus*), which is considered probably indigenous (Wagner *et al.* 1990), is a much-branched large shrub to small tree which can also be trained to grow over an arbor.

Salt-spray tolerant native shrubs and vines such as naupaka kahakai or beach naupaka and pōhuehue which already occur on the site should be propagated and used for landscaping, especially along the front of beaches where there is more exposure to the elements. Pōhinahina or kolokolo kahakai (*Vitex rotundifolia*), a sprawling shrub with lavender flowers, is a good cover along the dune front with shifting sands; it is considered an excellent sand binder. Other native ground cover species which could be used for sandy areas as well as areas with shallow, stony soils are: 'ākia (*Wikstroemia uva-ursi*), 'ilima papa (*Sida fallax*), and Pā'ū o Hi'iaka.

The ma'o or Hawaiian cotton (*Gossypium tomentosum*) and kulu'i (*Nototrichium sandwicense*) can be grown as a specimen shrub or hedge. Naio (*Myoporum sandwicense*), a large shrub with glossy leaves and white to pink flowers, is also attractive and hardy. Bornhorst (1996) provides a detailed discussion on propagation, maintenance, and landscape use of native plants.

4.8 WILDLIFE

A field survey was conducted on September 12, 1998 to assess the wildlife resources found along a segment of coastline planned for improvement as Ulehawa Beach Park by the City and County of Honolulu. The objective of the survey was to provide a record of wildlife for the area and to determine whether the planned improvements would be detrimental to native species. The study by Tim Ohashi is attached as Appendix B.

Existing Conditions

The habitat can be characterized as sandy and rocky shoreline with coral benches. Inland from the ocean to Farrington Highway is narrow, sparse, remnant beach strand community of beach naupaka, coconut and kiawe. Milo was also present in improved parks. Two major drainage channels occur within the site, Mā'ili Stream at the northwest end and Ulehawa Drainage Channel in the east. The

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area is heavily used by the public. People, pets, and heavy traffic are present in this urbanized strip of coastline.

Sanderlings were observed at two stations foraging on the beach at the waterline. Pacific Golden plovers were seen at two stations on the beach. No other native or migratory shorebird was observed during the assessment period. Other than the actual shoreline areas, the project site has no native wildlife value. Heavy human use, paucity of vegetation, and feral cats and dogs make conditions unfavorable to any native wildlife. No wildlife were observed in the drainage channel or in Mā'ili Stream.

The native bat (*Lasiurus cinerius semotus*) was not observed during the survey. The Ulehawa Beach coastline is not listed in the literature as having had any record of bats.

No green sea turtles or Hawaiian monk seals were encountered during the survey. Ulehawa Beach may have some of the right conditions, but it is not recognized as a sea turtle nesting area or a monk seal calving or resting area by the National Marine Fisheries Service.

The following birds were encountered during the survey: Zebra Dove (*Geopelia striata*), Spotted Dove (*Streptopelia chinensis*), English Sparrow (*Passer domesticus*), Common Myna (*Acridotheres tristis*), Red-vented Bulbul (*Pycnonotus cafer*), Pacific Golden Plover (*Pluvialis dominica*), and Sanderling (*Crocethia alba*). Zebra doves, English sparrows, and mynah birds were most common.

Potential Impacts and Mitigative Measures

The improvements proposed for Ulehawa Beach Park should not have a significant negative impact to migratory shorebirds or the introduced wildlife in the area. The introduced wildlife will most likely benefit from landscape improvements to the area. Since no proposed actions are planned in the marine environment there should be no significant negative impact to green sea turtles that may use the nearshore environment. Monk seals could appear along the coastline, and precautions should be taken to keep the public from disturbing the animal.

5 . 0

General Description, of the Actions Technical,
Economic, Social and Environmental Characteristics

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5.0 GENERAL DESCRIPTION OF THE ACTIONS TECHNICAL, ECONOMIC, SOCIAL AND ENVIRONMENTAL CHARACTERISTICS

5.1 ARCHAEOLOGICAL AND HISTORIC RESOURCES

An archaeological assessment which included archival research and a field reconnaissance was completed by Scientific Consultant Services, Inc. The full report is attached as Appendix C.

Existing Conditions

Previous archaeological and archival studies reveal that one historical site has been previously identified within the boundary of the project. The historical site was identified as containing the railroad tracks running parallel to Farrington Highway (*makai* side) and representing the former O.R. & L. Railroad line (Site 50-80-12-9714) by the State Historic Preservation Division and is listed on the National Register of Historic Places. The railroad tracks, although heavily covered by sand, are visible along the northern boundary of the project area, from the eastern project boundary to approximately Auyong Homestead Road. The O.R. & L. Railroad line's eastern-most terminus point is near Fort Weaver Road in Ewa, the westernmost terminus of the line being in Nānākuli, past Lualualei. While the western terminus of the railroad line occurs approximately 200 m within the project area's eastern flank, the state right-of-way and railroad berm continue through the northern flank of the project area past Pu'u o Hulu and the westernmost portion of the project area. The berm is suggested here to contain both cultural deposits and possibly, human remains, both representing traditional or pre-Contact times.

Pu'u o Hulu itself, the mountain situated to the north of the central and western portion of the project area, has also been evoked in legends. It was said that the mountain represents a chief who, at one time, was in love with one twin sister. The chief could never ascertain as to which was his beloved. A *mo'o* changed the chief and both twins into mountains and thus, the chief is still there watching and attempting to distinguish his loved one.

Two more specific archaeological features occurred within and near the current project area. First, a petroglyph rock was discovered within the beach park area, part of the current project's parcel. The sandstone rock, measuring some 2 feet by 2 feet, contained three figures on the rock face. This rock, as of 1954, was taken to the B.P. Bishop Museum for curation. Second, approximately 0.5 miles north of the project area (southern flank), 'Ilihune Heiau used to stand. This *heiau* has been destroyed but lends itself to the idea that this area was indeed important during traditional times.

While archaeological work revealing ubiquitous agricultural sites have been undertaken in the areas mauka of the highway, shoreline archaeological sites and features are yet to be identified in this locale.

Site Description. Briefly, the project area has been substantially altered by modern construction activities occurring adjacent to Farrington Highway. In addition, the western portion of the subject property, from approximately the waste water pumping station near Hakimo Road to the westernmost flank of the project area south of Pu'u o Hulu, is characterized by raised coral benches and basaltic flows. The soil matrices within this portion of the project area are virtually non-existent and the sand dunes are only minimal and mobile. Thus, the area east of the waste water pumping station to the end of the project area was of more concern. This eastern portion contained a long, partially segmented but stable sand dune area horizontally reaching some 10 m and extending up to 4 m above the Farrington Highway road surface to the north. The dunes are the most critical area within the project parcel for the presence of archaeological resources. Topographically, the parcel

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is typified as containing a basically flat to a moderate grade with topographical changes occurring in the western portion of the project area and along the long, somewhat disarticulated, sand dune sequence. Vegetation in the project area is composed of *kiawe*, some grasses, and secondary growth brush. Modern debris is littered throughout the area.

One significant archaeological find was noted during the reconnaissance survey (location is shown on Figure 6A). An extensive cultural horizon some 8-10 centimeters thick and composed of extensive charcoal flecking was observed. Several fragments of medium-sized bird and fish bone also occurred within the profile. This cultural horizon, presumed to represent traditional occupation of the area, horizontally extended approximately 10 m, this being the observable segment in the stratigraphic profile. It is expected that this cultural horizon extends further both horizontally and vertically within this particular loci and that other similar deposits occur within the sand dunes. This area is particularly well-suited for testing as the cultural deposits appear to have some time depth and, perhaps more significant, the sand dunes appear to have stabilized some time ago.

Structures noted along the beach parcel were historic in nature. These structures included concrete bunkers constructed during the World War II era and now lie abandoned in the beach sand near the coastline. Three bunkers were noted within the project area, two of the structures almost completely having been absorbed by the beach sand. No other significant cultural resources were noted during survey reconnaissance.

Potential Impacts and Mitigation Measures

The Landscape Master Plan is designed to protect the culturally sensitive sand dunes by planning parking areas to restrict vehicles through vehicular barriers from further disturbing the natural and cultural resources of the park. The sand dunes within Areas 1 and 2 of the park have been identified as "areas of high sensitivity" by the archaeologist for their potential to yield cultural deposits and burials. All cultural deposits and/or burials will remain in-situ in perpetuity and will not be disturbed by the proposed park improvements.

The Landscape Master Plan avoids all areas within the potential areas of sensitivity and limits any improvements to low impact landscape plantings such as coastal naupaka and pōhuehue or beach morning glory. In addition, an inventory survey of the sand dunes is planned during the design stage of the project to ascertain the presence or absence of cultural resources or pre-human contact burials. Design and construction plans will be revised to avoid impact to any sensitive resources within the sand dunes.

During the construction period, work in the area will immediately be stopped in the event that any remaining cultural deposits or burials are uncovered and the plans will be revised to shift any plantings into areas which do not contain cultural deposits and/or burials.

In addition, the identified historic structures (World War II bunkers) would be more thoroughly mapped and recorded. These historic structures will be included as "sites" within the final draft report as they are greater than 50 years of age and thus, historic properties. The SHPD office is in accordance with the upcoming Inventory Survey and historic structure treatment recommendations.

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5.2 ROADWAYS AND TRAFFIC

Existing Conditions

A brief analysis of the existing and proposed access points to the park from Farrington Highway along the three-mile Ulehawa Beach Park boundary was made by Parsons Brinckerhoff. The letter report is attached to the Applicant's response to the State Department of Transportation comments on the Draft EA (see Section 7).

Farrington Highway borders the three mile Ulehawa Beach Park with two defined vehicular access locations only into the existing improved parking areas. However, there are also numerous points where there are no hard barriers or curbs to restrict vehicles from driving onto the beach directly from Farrington Highway. Therefore, vehicular access from Farrington Highway occurs at the existing parking areas and the other areas where there are no existing physical barriers. The Landscape Master Plan depicts the locations of pedestrian crosswalks and bus stops.

The two existing improved vehicular access points which lead to paved parking lots along the three-mile length of Ulehawa Park are established at the following locations: 1) the existing improved Ulehawa Beach Park at the Mā'ili end (shown on Area 4 of the Preferred Landscape Master Plan /Figure 6E), and 2) across from Princess Kahanu Avenue in Nānākuli (shown on Area 2 / Figure 6B). A third unimproved existing access point is at the rocky coastline area below Pu'u o Hulu Kai (shown on Area 3 / Figure 6C) which splits to the north and south to allow fishermen access to fishing spots along this stretch of the shoreline.

Sections of Farrington Highway where the elevation is relatively low are subject to high wave run-up during intense winter storms. Consequently, sand transport occurs periodically and is washed up onto the highway in these sections.

Potential Impacts and Mitigative Measures

Because it is anticipated that the proposed park improvements will attract a higher number of users, the number of vehicles entering and exiting the park will likely increase. While increased enjoyment of the park is one of the primary objectives of the project, uncontrolled access poses a serious safety concern and potentially harms the sand dune and beach environment. Therefore, the Landscape Master Plan seeks to prevent vehicular access onto the sand dunes and beaches by designating parking areas and access points along Farrington Highway.

To accomplish this, new informal parking areas are planned. Informal parking within the park will still occur along the edge of the OR&L Right-of-Way, but access into the park and sand dune areas will be physically restricted by walls, barriers, natural topography, and plant materials. Parking lots will be for beach users only and may be secured (e.g. chained, etc.) at night to prevent undesired gatherings, vandalism, etc.

Three new vehicular access points from Farrington Highway (into new coral parking lots) are planned as part of the Ulehawa Beach Park improvements. These will be established at the following locations: 1) Across Hakimo Road north of the Sewer Pump Station (shown on Area 2/ Figure 6B); 2) at Mā'ili Point Beach Park across from Ho'okele Street (shown on Area 4 / Figure 6E); and 3) at Surfers Beach Park across from Maipalaoa Road (shown on Area 4 / Figure 6E). Any roadway improvements (e.g. providing left turn lanes) and traffic signal modifications that may be required would be implemented through coordination with the State Department of Transportation.

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5.3 NOISE

Existing Conditions

Traffic on Farrington Highway is the dominant noise source from mauka locations within the park. Nearer the shoreline, the natural sound of waves and people at play are the dominant sounds. Occasional noise from aircraft may occur, but is not considered significant.

Potential Impacts and Mitigative Measures

Short-term noise impacts will be generated during construction. However, because there are no noise sensitive land uses bordering the study area, no significant off-site noise impacts are expected to result from project development. The ultimate land uses planned for the study area will also generate some degree of noise, but nothing greater than noise levels generally associated with park uses. New and existing park landscaping will help to buffer the traffic noise generated by the highway.

5.4 AIR QUALITY

Existing Conditions

Present air quality at the park is excellent due to the trade winds from the ocean. Close to and along the highway, the study area is mostly affected by air pollutants from vehicular, industrial, natural, and/or agricultural sources. Emissions from motor vehicles on Farrington Highway, primarily nitrogen oxides and carbon monoxide, will tend to be carried over portions of the beach park during kona winds.

The DOH monitors air quality at various locations on O'ahu. Typically, however, each station does not monitor the full complement of air quality parameters. The annual air quality measurements that were made nearest to the study area for each of the regulated air pollutants generally indicate that Ambient Air Quality Standards (AAQS), as defined by the DOH and Federal Environmental Protection Agency, have not been exceeded. It appears likely that the State AAQS for sulfur dioxide, nitrogen dioxide, and lead at the study area have not been exceeded. The ozone AAQS has not been exceeded during the past four years at the Sand Island monitoring station. Carbon monoxide readings from urban Honolulu, at the DOH Building station, indicate the State AAQS may be exceeded at a rate of one to three times per year, but only in traffic-congested areas. As such, the AAQS for carbon monoxide at the study area has probably not been exceeded.

Potential Impacts and Mitigative Measures

Future construction within the study area may produce short- and long-term air quality impacts.

Short-term impacts will include fugitive dust and exhaust emissions produced by construction equipment and vehicles. All construction activity on the project site will maintain strict compliance with State of Hawai'i Air Pollution Control regulations. A combination of measures such as watering exposed soils, minimizing the amount of disturbed area, and installation of dust screens would be implemented as appropriate. Impacts from exhaust emissions of construction vehicles will usually be mitigated by the effect of the winds, especially as most construction will not occur proximate to existing residential areas or other sensitive land uses.

Long-term impacts would result from additional usage of the park (increased bar-be-que usage, etc.). These impacts include increased vehicular exhaust, as well as indirect sources such as increased electrical power uses. To minimize dust from crushed coral parking lots, polymers or other dust

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control agents will be considered as a coating on the surface areas. However, because of the prevailing trade winds, these impacts are not expected to be significant.

5.5 VISUAL RESOURCES

Existing Conditions

According to the City's *Coastal View Study* (1987), the Nānākuli Viewshed encompasses the three-mile Ulehawa Beach Park, and stretches from Kahe Point and Mā'ili Point. As one of three major viewsheds within the Wai'anae area, the entire makai side of Farrington Highway within the project boundary area is designated Park, except for the adjacent Nānāikapono Elementary School and one tract of residential lots which divides the northwestern portion of the park. Site photographs are shown in Figures 9A to 9D.

Views of the site from Farrington Highway. According to the *Coastal View Study*, this stretch of Farrington Highway provides significant mauka and makai views as well as significant lateral views sitting down the highway and focusing on the land forms at either end of the viewshed. Makai views along some portions of the highway are blocked by sand dunes. The three-mile length of Ulehawa Beach Park is visible along the Farrington Highway corridor. However, views of the shoreline from the highway are intermittent in nature due to the sand dunes and an embankment along the roadway.

Views from within the site. Extraordinary coastline views can be experienced from within the beach park. Lateral views are available from all points along the shoreline, and are most significant in the Ka'ena direction due to the descending ridges which can be seen in the distance. Views of the coastline and the open ocean provides serene relief from the otherwise urbanized leeward coast. Towards the mountain, the summit of Pu'u o Hulu Kai and the Wai'anae Mountain Range are seen in the distance.

Potential Impacts and Mitigative Measures

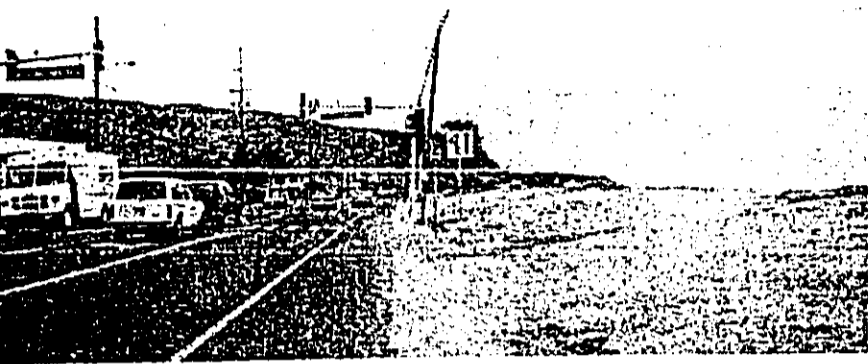
The visual appearance of Ulehawa Beach Park will positively change from the existing sparsely vegetated setting to a planned landscaped park with appropriate canopy trees and shrubs. The park plan designates activity nodes which would limit the access points onto the beach, thereby protecting the sand dunes from further deterioration. The use of landscaping and open space will also add to the visual character of this prominent leeward coastline. The new improvements can be controlled by design review that will occur during the community review process and Special Management Area review.

5.6 SOCIAL CHARACTERISTICS

5.6.1 Population

Existing Conditions

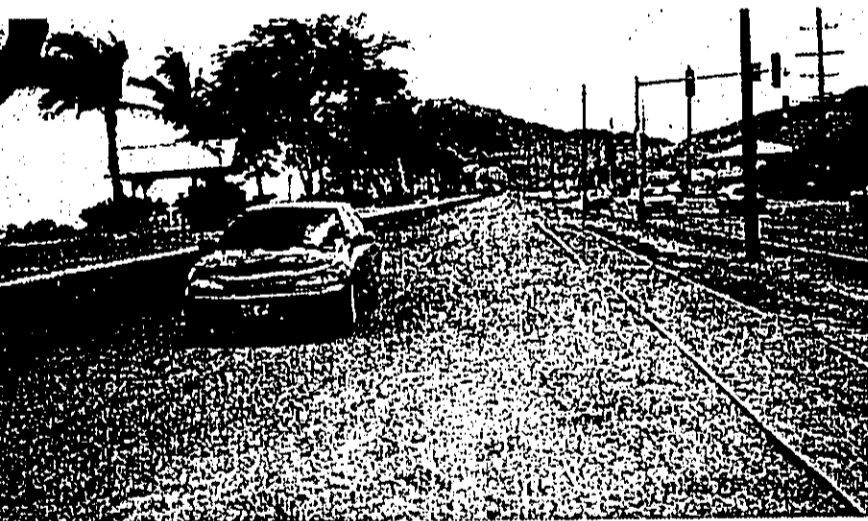
According to the 1990 Census, the population of the Wai'anae District was 37,411, an 18.8 percent increase over the population in 1980. The estimated population in 1995 was 37,966, a 1.5 percent increase over the 1990 population. In comparison, the County as a whole experienced a population growth of 9.7 percent between 1980 and 1990 and 4.1 percent from 1990 to 1995. Although recent growth in the Wai'anae area has been slow when compared to the overall growth on O'ahu the recreational infrastructure has remained unchanged.



1. Farrington Highway near its intersection with Auyong Homestead Road. Note that the highway pavement has utilized portions of the OR&L Right-of-Way. Vehicles also have direct access onto the beach near major intersections.



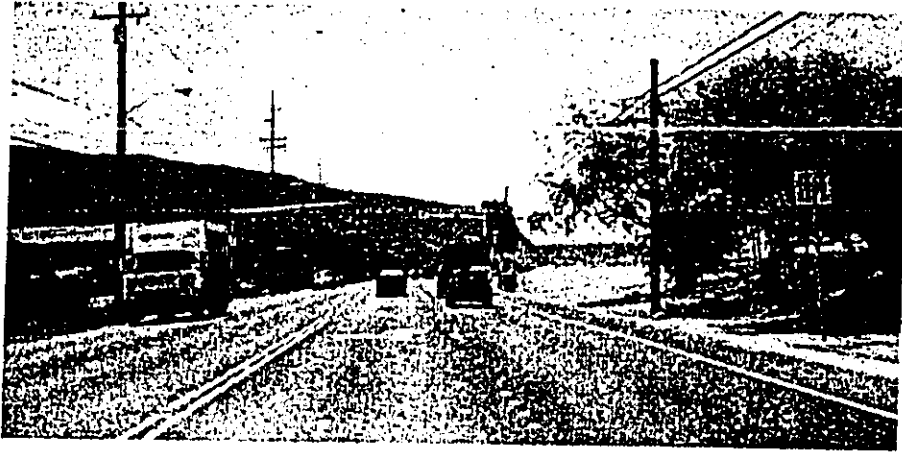
2. Edge of the improved park near the Nanakuli end of Ulehawa Beach Park. Existing sand dunes provide natural barriers to high wave action, but are only sparsely vegetated.



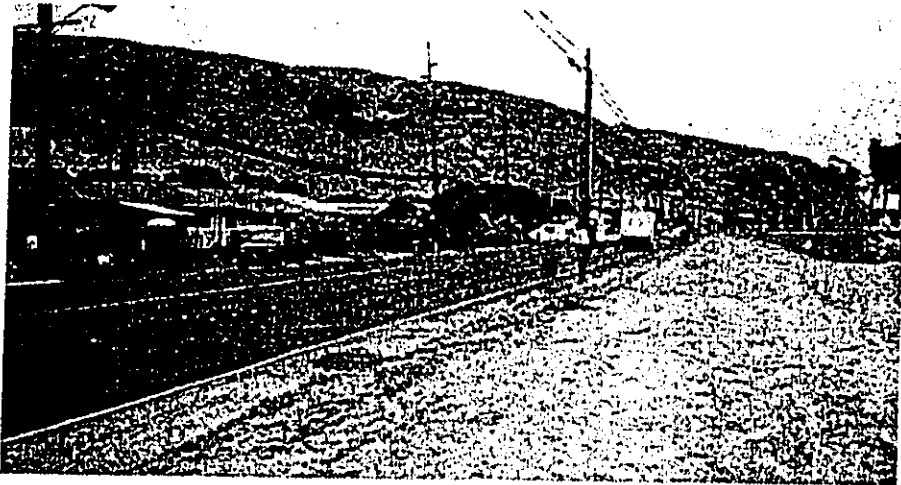
3. The OR&L Right-of-Way is clearly visible near the improved Nanakuli portion of the Park. Note that the rock wall restricts access onto the beach, yet allows for parking proximate to beach and recreational facilities.

FIGURE 9A:
SITE PHOTOGRAPHS

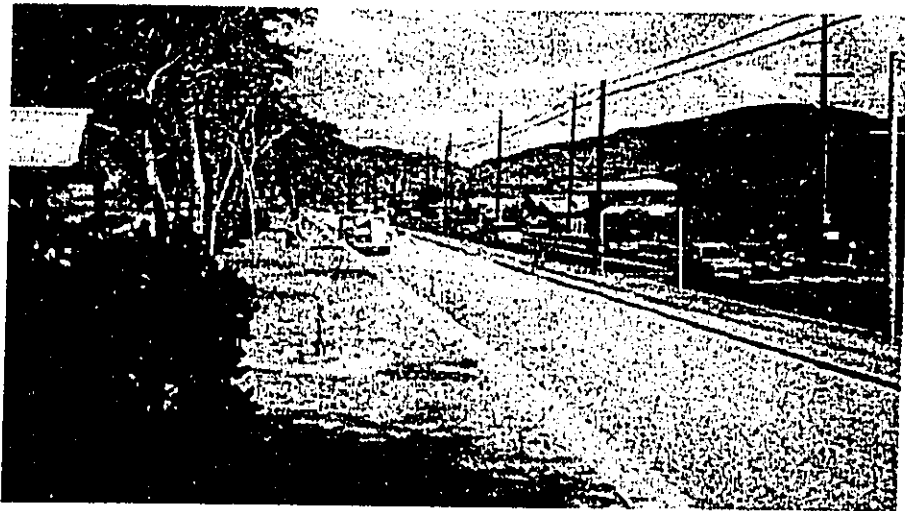
Ulehawa Beach Park



- 4. Existing overhead power lines and clusters of vegetation restrict and negatively impact some views. Note that the highway clearly has a lower elevation than adjoining beach areas.



- 5. In approximately 80 to 90 percent of the OR&L Right-of-Way, ample land area remains for future restoration of the rail line and potential bike paths.



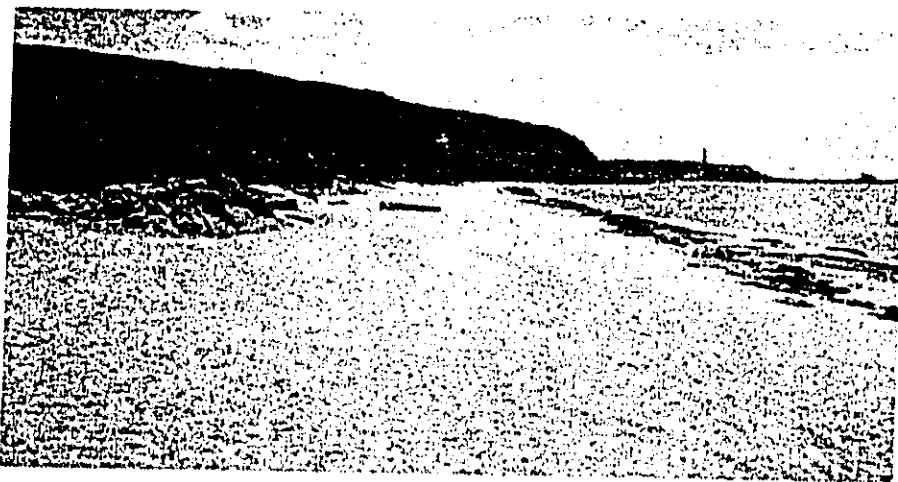
- 6. Pedestrian crossings from residential areas are available, however, they seldom connect to interior walking paths, parking areas, or other Park facilities.

FIGURE 9B:
SITE PHOTOGRAPHS

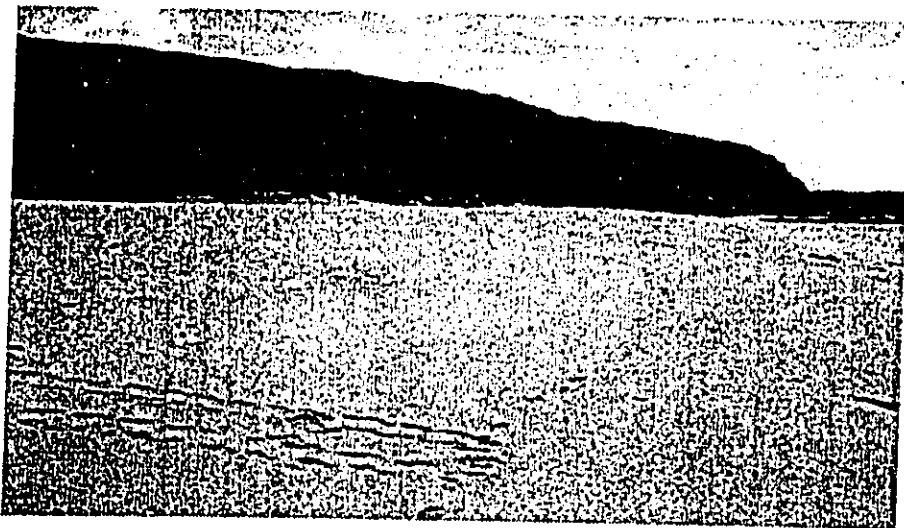
Ulehawa Beach Park



7. Portions of the shoreline are very rocky with little sand. Relocation of sand from Ulehawa Stream may provide potential source of new beach sand for these areas. Also note Puu' o Uka in the background which is a significant visual resource.



8. View of Ulehawa Beach looking toward Nanakuli. Note boulders and vegetation on sand dunes to the left of photo.



9. Large sandy beach area and old World War II bunker visible in the distance adjacent to sand dune.

FIGURE 9C:
SITE PHOTOGRAPHS

Ulehawa Beach Park



10. View of existing parking lot and access road onto Farrington Highway. OR&L tracks are partially visible along this portion of Ulehawa Park along the Nanakuli side of the improved park area.



11. Existing Kiawe protects dunes from erosion, but also limit views in some areas.



12. Mauka view of Puu' o Hulu Kai from beach area. Note visual impact of overhead power lines, vegetation, and existing buildings.

FIGURE 9D:
SITE PHOTOGRAPHS

Ulehawa Beach Park

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Potential Impacts and Mitigative Measures

The development of an improved park in the Wai'anae District will respond to the ocean based recreational needs of the present and future population.

5.7 ECONOMIC CHARACTERISTICS

Existing Conditions, Potential Impacts and Mitigative Measures

Employment, Personal Income and Expenditures. Presently, there are few Park Department administrative and maintenance jobs generated from the property. With the development of the proposed project, increased short-term direct and indirect employment during construction will be generated. After construction, no additional new employment positions would be required that can not be maintained by the department's existing staff. The improvements have been designed for minimal maintenance.

Economic Factors/Government Revenues. Direct income of construction workers is expected to be significant during the construction period and will stabilize after construction. Presently, no significant revenues to the City or State are generated from the study area, although the scenic and recreational resources of the park indirectly benefits tourism.

The development of the park improvements would not likely increase assessed land valuations in the region above those currently collected by the City.

5.8 INFRASTRUCTURE IMPROVEMENTS

Presently, the park is served by municipal infrastructure services including water, wastewater transmission and overhead utilities (electricity/communications). All system connections are from Farrington Highway. Water transmission lines, sewer lines, and overhead electrical transmission lines are the only major infrastructure improvements associated with the property. No new on-site infrastructure will be required except for extensions for water transmission and distribution, wastewater collection, drainage, and electrical/communication systems associated with one new comfort station and additional parking areas. No off-site infrastructure improvements are required for the park improvements, although left turn lanes into new park driveways may be required as warranted in the future.

5.8.1 Water Supply Facilities

Existing Conditions

Ulehawa Beach Park is currently serviced by the Board of Water Supply (BWS) and no additional improvements are anticipated. A 12-inch water line located on the mauka side of Farrington Highway would provide adequate service to the new comfort station and showers as called for in the Landscape Master Plan.

Potential Impacts and Mitigative Measures

The water system for the improved Ulehawa Beach Park will connect to the existing BWS system. The landscape area will be limited to no more than 25 acres and each acre would require 10,000 gallons per day for irrigation. Therefore, the estimated requirement is limited to <0.25 million gallons per day (MGD). According to the project engineer, the existing water line has the required capacity to accommodate construction of the new comfort station.

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5.8.2 Wastewater Facilities

Existing Conditions

An existing wastewater pump station currently exists on site and a 24-inch wastewater collection line is located on the makai side of Farrington Highway.

The Wai'anae area and Ulehawa Beach Park is sewered by the City and County of Honolulu's Honouliuli Wastewater Treatment Plant (WWTP), which lies to the southeast and adjacent to Barbers Point Naval Air Station (NASBP). The treated wastewater is presently disposed via the Barbers Point Ocean Outfall from Honouliuli. In addition, utilization of treated wastewater effluent as non-potable irrigation water for various projects in the vicinity of the WWTP are reflected by both City and State policies.

Based on the existing and planned capacity of the Honouliuli WWTP and the size of the existing wastewater collection line, there is sufficient capacity at the plant to accommodate the proposed development.

5.8.3 Solid Waste Disposal Facilities

Existing Conditions

On O'ahu, residential and commercial wastes are hauled to landfills, the incinerator, or transfer stations. A waste-to-energy combuster, H-POWER (Honolulu Program of Waste Energy Recovery) located at the Campbell Industrial Park, began full commercial operation May 21, 1990. The facility is designed to process about 2,000 tons per day, and its gross generating capacity is 57 megawatts of electricity. About 1,800 tons per day are incinerated, producing between 100 and 400 tons of ash and non-processibles that are transported to Waimānalo Gulch Landfill and buried. The electricity generated is bought under a purchase power agreement with Hawaiian Electric Company. Currently, the H-POWER facility receives all the residential and commercial packer truck wastes on the island.

Waimānalo Gulch Landfill, which opened in 1989, is the City's primary solid waste disposal facility and is located mauka of Farrington Highway near Kahe Point. The site accepts residential, commercial, and nonhazardous industrial solid wastes, demolition debris, and ash and residue from the H-POWER waste-to-energy facility. Wastewater treatment sludges, septic tank wastes, and cesspool pumpings are accepted, provided such disposal is in accordance with the landfill's operating guidelines. The site handles special wastes such as spent lime, contaminated foods, and asbestos, all of which require special handling.

Potential Impacts and Mitigative Measures

The quantity of solid waste generated after project development should not be significantly increased. The improvements are targeted primarily toward current park uses which are residents of the Waianae coast. Consequently, the number of park users and solid waste generated should not significantly increase. On an island-wide basis, the park improvements will not increase visitor levels or stimulate population growth that would stimulate an increase in solid waste generation.

The planned improvements to the park will comply with State Department of Health and the City and County of Honolulu Department of Public Works requirements to ensure that all aspects of the project conform to the program goals and objectives of the Integrated Solid Waste Management Act, Chapter 342G, Hawai'i Revised Statutes, and the County's approved integrated solid waste

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management plans in accordance with a schedule and time frame satisfactory to the Department of Health.

5.8.4 Drainage Facilities

Two streams flow through the park and into the ocean and affect the drainage characteristics. Although these streams are considered to be intermittent in their lower reaches, they have been altered for storm water flood control purposes.

Potential Impacts and Mitigative Measures

No additional drainage improvements will be required to control surface flows due to the park improvements. However, the plans for the proposed park improvements will incorporate grading design to direct surface flows from small storms to drain to grassed, landscaped and sand areas.

All pathways and parking areas will be established with crushed coral surfaces to permit infiltration into the underlying sandy soils. Consequently, no significant increase in surface runoff will result from project development. Existing drainage patterns, volume of runoff, and constituents of storm water runoff will remain essentially unchanged from the current condition. Similarly, ocean water quality, streams, and drainage channels will not receive additional storm water runoff.

5.8.5 Electrical/Communications

Electricity for the surrounding areas is currently being provided by Hawaiian Electric Company (HECO). HECO owns and maintains a pole line along Farrington Highway.

No expansion of the existing services is required for the planned park improvements. Based on availability of present service capabilities and planned improvements in the electrical facilities, significant impacts are not expected to result from the proposed action. Likewise the proposed action should produce no significant impacts to telephone service.

5.9 PUBLIC SERVICES

5.9.1 Public Schools

Existing Conditions

At present, several public schools service the Wai'anae District: Mā'ili Elementary School and Playground, Nānāikapono Elementary, Nānākuli Elementary, and Wai'anae Intermediate and High Schools.

Potential Impacts and Mitigative Measures

The planned park improvements will not affect school enrollment in the Wai'anae area and therefore no mitigative measures are necessary.

5.9.2 Health Care Facilities

Existing Facilities

Public health care in the Wai'anae District is provided by the Wai'anae Coast Comprehensive Health Care Center, located several miles north of the project site. Additionally, ambulance service is

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available from the Wai'anae Fire Station, approximately 3.5 miles northwest from the center of the three-mile park site.

St. Francis Medical Center-West is the nearest hospital facility to the study area. Ambulance service is coordinated with the City and County and the hospital has a helipad. The medical center offers general hospital services including emergency care, outpatient care, lab and imaging services, and medical offices.

Additional, nearby emergency medical and surgical services can also be provided by Pali Momi Medical Center in Aiea. Non-emergency medical services are offered at Kaiser Permanente's Pūnāwai Clinic in Waipahu. In addition, medical services can be obtained at major hospital facilities in urban Honolulu, a 40-minute drive from the study area.

Potential Impacts and Mitigative Measures

The improvements to Ulehawa Beach Park may increase number of park users and therefore cause an increase in emergency care needs (i.e., rescues, ambulance, helicopter, hospital care) and may slightly impact the levels of service provided by either the Wai'anae Coast Comprehensive Health Care Center or fire department ambulance service. It appears that both services are adequately staffed to handle any increased emergency needs.

5.10 POLICE AND FIRE PROTECTION

Existing Conditions

Police Protection. Police protection services are located in Wai'anae town, approximately three miles northwest of Ulehawa Beach Park.

The study area falls within the Police Department's District 8, which encompasses approximately 128 square miles from Ka'ena Point to Kunia Road. There are about 120 field officers assigned to the district. Response time for the entire district is between five to seven minutes. The services include a police substation. Existing and planned police services and facilities are considered adequate for the present and planned condition of Ulehawa Beach Park.

Fire Protection. Fire protection services are located in Wai'anae town, approximately three miles northwest of Ulehawa Beach Park. The services include a fire station with one fire truck and one tanker truck. Another fire station, with the same capabilities as the Wai'anae Station, is located in Nānākuli, about a quarter mile southeast of the project site. In addition, the Campbell Industrial Park Fire Station would provide back up. This station will provide an additional engine and ladder company with 13 on-duty personnel.

Existing fire protection services and facilities are considered adequate for the present and planned condition of Ulehawa Beach Park.

Other fire protection facilities include fire stations in 'Ewa and Kapolei.

Probable Impacts and Mitigative Measures

The planned improvements and general population growth are expected to contribute to increased park usage and therefore will require increased water safety personnel. Although the proposed park improvements may increase park usage and the need for additional police and fire protection services, the expected impact to either department is not anticipated to be significant. The improved

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Ulehawa Beach Park may in the future be an appropriate location for centralizing water safety coordination for the Waianae coast.

5.11 RECREATIONAL FACILITIES

Existing Conditions

In addition to the subject Ulehawa Beach Park, existing public recreational facilities in the Wai'anae District include Mā'ili Beach Park, Mā'ili Playground and Nānāikapono Playground, Mākaha Beach Park, Wai'anae Regional Park and Wai'anae Boat Harbor (Pōka'i Bay). In addition, there are several privately owned recreational facilities, a majority of which are open to the general public (e.g. Mākaha Valley Country Club golf courses).

Recreational facilities in the Wai'anae area are designated as regional parks, community parks, neighborhood parks, and beach/shoreline parks. Regional parks are large recreational complexes. Community parks serve an approximate population of 10,000 people and normally include playfields, courts, and a recreation building. Neighborhood parks serve an approximate population of 5,000 people and normally include playfields, courts, and a comfort station. Beach/shoreline parks are day use parks primarily for swimming, sunbathing, and picnicking.

The existing parks in the Wai'anae area are shown in the following table:

Existing Parks in the Wai'anae Area

<u>Name</u>	<u>Type</u>	<u>Size (acres)</u>
Kahe Point Beach Park	beach	4.470
Kea'au Beach Park	beach	38.047
Lualualei Beach Park	beach	17.750
Mā'ili Beach Park	beach	39.563
Mākaha Beach Park	beach	20.620
Nānākuli Beach Park	beach	39.626
Pōka'i Bay Beach Park	beach	15.487
Tracks Beach Park	beach	14.297
Ulehawa Beach Park	beach	57.645
Wai'anae District Park	district	22.920
Wai'anae Regional Park	regional	19.500
Mā'ili Community Park	community	3.683
Mākaha Community Park	community	4.319
Pililā'au Community Park	community	10.437
Kaupuni Neighborhood Park	neighborhood	7.505

The proposed Ulehawa Beach Park improvements will address a portion of the demand for ocean based recreational facilities. Although the park land area is not being expanded, the facility improvements will increase the capacity of the park making it available to more users.

Potential Impacts and Mitigative Measures

The proposed project is expected to enhance the overall opportunity for recreational facilities in the Wai'anae District and achieve the stated goals for the project.

6 . 0 Determination, Findings and
Reasons for Supporting Determination

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**6.0 DETERMINATION, FINDINGS AND REASONS FOR
SUPPORTING DETERMINATION**

To determine whether the proposed action may have a significant impact on the environment, the project and its expected consequences, both primary and secondary, and the cumulative as well as short- and long-term effects have been evaluated. Based on the studies performed and research evaluated, a finding of no significant impact is anticipated and is summarized below.

6.1 SIGNIFICANCE CRITERIA

According to the Department of Health Rules (11-200-12), an applicant or agency must determine whether an action may have a significant impact on the environment, including all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short- and long-term effects. In making the determination, the Rules establish "Significance Criteria" to be used as a basis for identifying significant environmental impacts. According to the Rules, an action shall be determined to have significant impacts on the environment if it meets any one of the following criteria:

- (1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;**

An archaeological assessment and field reconnaissance study for the project has determined that cultural deposits and possibly historic burials may exist in the sand dunes adjacent to Farrington Highway. The Landscape Master Plan has therefore been designed to protect the cultural resources and stop the current practice of allowing unrestricted vehicular access onto these areas by limiting parking to designated areas. Planned treatments for the dune areas will include landscape plantings of low shrubs and vines consisting of coastal native species. In the event that any cultural deposits or human burials are uncovered, all work will immediately be halted and planting would shift to an area free of any cultural resources.

The proposed project will not impact scenic views of the ocean or any ridgelines from Farrington Highway or other heavily traveled roadways in the area. The visual character of the area will be enhanced by the additional landscaping with heritage trees and other coastal native plantings. The landscape plantings will also mitigate existing soil erosion. The existing three-mile park is designated as State Urban lands dedicated for Park purposes, an important natural and cultural resource. Presently, the study area is only minimally landscaped and not improved for aesthetic purposes.

- (2) Curtails the range of beneficial uses of the environment;**

The existing Ulehawa Beach Park has been dedicated for shoreline recreational uses for many decades. Its improvement as described by the Landscape Master Plan will enhance the range of beneficial uses of the environment.

Controlled access onto the property will directly enhance access to the shoreline while simultaneously protect the cultural and natural resources by restricting vehicular access onto the sand dunes and beach. This shoreline has historically been used for food gathering and recreational purposes. The planned park improvements will enhance those functions.

ULEHAWA BEACH PARK
Final Environmental Assessment

- (3) **Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS; and any revisions thereof and amendments thereto, court decisions, or executive orders;**

The proposed development is consistent with the Environmental Policies established in Chapter 344, HRS.

- (4) **Substantially affects the economic or social welfare of the community or state;**

The proposed project will provide a significant contribution to the Wai'anae District population by establishing an improved recreational resource. The proposed improvements are also consistent with the City's Development Plan for the area. Surrounding land use patterns will not be negatively or significantly altered, nor will unplanned population growth or its distribution be stimulated.

Consequently, development of the park improvements will provide Wai'anae coast residents with a quality recreational facility. This harmonious relationship between park and the existing community will significantly improve the quality of life for many residents.

- (5) **Substantially affects public health;**

Although the public health may be affected by the short-term construction impacts which may affect air, noise, traffic and water quality, these should be insignificant especially when weighed against the positive economic, social, and quality of life implications associated with the project. Mitigation measures will be used to address impacts that could potentially affect public health.

- (6) **Involves substantial secondary impacts, such as population changes or effects on public facilities;**

The improvement of this existing beach park will not have any secondary impact associated with population growth of the need for public facilities.

- (7) **Involves a substantial degradation of environmental quality;**

The renovation of the exiting regional beach park will improve a much used natural resource. The proposed project may improve erosion control, reduce runoff into nearshore waters, and control access. There are no anticipated impacts that would degrade environmental quality. The addition of new landscaping with Hawaiian heritage plants will enhance the park environment by providing new natural materials and shade. The coastal visual resource from Farrington Highway will also be improved.

- (8) **Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for larger actions;**

The planned improvements to an existing park is consistent with the existing and planned urban character expressed in the Wai'anae Development Plan and is not anticipated to have a considerable effect on the environment. The commitment of fiscal resources to construct the improvements will foreclose other uses of those resources.

- (9) **Substantially affects a rare, threatened or endangered species or its habitat;**

Field wildlife and botanical studies indicate that there are no endangered plant or animal species located at this highly utilized beach park. The federal and state natural resource agencies have not

ULEHAWA BEACH PARK
Final Environmental Assessment

identified Ulehawa Beach Park as a site for monk seals or turtle nesting, however, it is possible that seals may beach there from time to time.

(10) Detrimentially affects air or water quality or ambient noise levels;

Any possible impact to near-shore ecosystems resulting from surface runoff will be mitigated by the establishment of on-site detention basins during the construction phases of development. Fugitive dust during construction will be mitigated by watering of exposed soils, minimizing the amount of open graded areas, and installation of dust screens. Construction activities will be during daylight hours and will be in compliance with State Department of Health standards.

(11) Affects or is likely to suffer damage by being located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters;

Ulehawa Beach Park, like all other coastal parks in the State is susceptible to high wave and tsunami inundation. The planned improvements which consist of new coral parking lots and landscaping are not expected to suffer substantial damage under normal to higher wave inundation.

(12) Substantially affects scenic vistas and view planes identified in county or state plans or studies;

The City and County of Honolulu's *Coastal View Study* identifies the Nānākuli Viewshed as a major viewshed within the Wai'anae area. Lateral coastal views which are available from all points along the shoreline are significant, especially in the Ka'ena direction due to the descending ridges which can be seen in the distance. The Pu'u o Hulu Kai / Pu'u o Hulu Uka landmark is designated as an important coastal land form. Although new landscape plantings will impact views, the overall visual resource will be enhanced.

(13) Requires substantial energy consumption;

The location of the beach park is proximate to Wai'anae area communities and are all within short driving distances from the property, thereby reducing travel times and energy consumption. Construction and operation of the proposed project will not require substantial energy consumption.

6.2 DETERMINATION

On the basis of the above criteria, and the discussion of impacts and mitigative measures contained in this document, it is anticipated that the proposed project will not have a significant negative effect on the environment and will conversely, result in positive effects to the natural, cultural, and social environments.

7.0 Comments and Responses

ULEHAWA BEACH PARK
Final Environmental Assessment

7.0 COMMENTS AND RESPONSES

The public comment period as required by Chapter 343, *Hawai'i Revised Statutes*, for the Draft EA resulted in the following response letters from governmental agencies, community organizations and individuals. The comment letters and the applicant's responses are included in this section.

7.1 COMMENTS RECEIVED ON THE DRAFT EA

City and County of Honolulu

Board of Water Supply
Department of Environmental Services
Department of Planning and Permitting
Fire Department
Police Department

State of Hawai'i

Department of Defense
Department of Health
Department of Land and Natural Resources
Department of Transportation
Office of Environmental Quality Control
Office of Hawaiian Affairs

Federal Government

US Department of the Army

Community

Wai'anae Coast Neighborhood Board No. 24
Paulette Didibar
Cynthia K.L. Rezentes
Sierra Club

7.2 DRAFT EA COMMENT LETTERS AND THE APPLICANT'S RESPONSES

The following section includes the letters received which respond to the Draft EA and the Applicant's responses.

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96843
PHONE (808) 527-6180
FAX (808) 533-2714



January 6, 1999

COPY

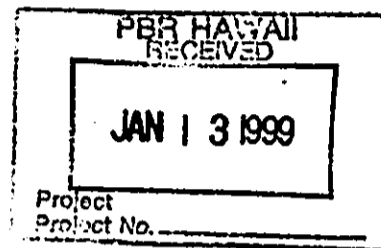
JEREMY HARRIS, Mayor
EDDIE FLORES, JR., Chairman
FORREST C. MURPHY, Vice Chairman
KAZU HAYASHIDA
JAN M.L.Y. AMII
JONATHAN K. SHIMADA, PhD
BARBARA KIM STANTON
CHARLES A. STED

CLIFFORD S. JAMILE
Manager and Chief Engineer

TO: MR. RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

FROM: *Clifford S. Jamile*
CLIFFORD S. JAMILE

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED
ULEHAWA BEACH PARK, WALANAE, OAHU, TMK: 8-7-05: 01, 03,
AND 05; 8-7-06: 03; 8-7-7: 01 AND 8-7-8: 26



Thank you for the opportunity to review and comment on the environmental assessment for the proposed Ulehawa Beach Park.

We have the following comments:

1. The existing water system is presently adequate to accommodate the proposed beach park.
2. There are two existing 2-inch water meters serving TMK: 8-7-6: 3; and 8-7-8: 26. There are no existing water services to TMK: 8-7-5: 1, 3; 8-7-6: 3; and 8-7-8: 26.
3. We understand that the irrigation demand for the improved landscape land area is approximately 10,000 gallons per day for 25 acres. Based on the water requirement estimate of 0.25 to 0.5 million gallons per day, the applicant will be required to install a source to accommodate the proposed development. If this is not feasible, the applicant must pay a regional source charge which is presently \$5.75 per gallon. This will be assessed when the building permit application is submitted.
4. The availability of water will be confirmed when the building permit application is submitted for our review and approval. When water is made available, the applicant will also be required to pay our Water System Facilities Charges for transmission and daily storage.



Mr. Randall K. Fujiki
January 6, 1999
Page 2

5. Section 4.5 states that there are currently no plans for a nonpotable irrigation system for the beach park. However, if a nonpotable system becomes available in the future, the park will be required to use nonpotable water.
6. The proposed project is subject to Board of Water Supply cross-connection control requirements prior to the issuance of the building permit application.

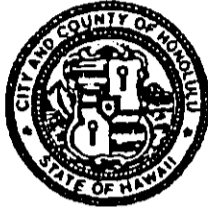
If you have any questions, please contact Barry Usagawa at 527-5235.

cc: Office of Environmental Quality Control
Art Challacombe, Department of Planning and Permitting
Yukie Ohashi, PBR Hawaii

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

TO: CLIFFORD S. JAMILLE, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

FROM: *Randall K. Fujiki*
RANDALL K. FUJIKI, DIRECTOR

SUBJECT: RESPONSE TO COMMENTS ON THE ULEHAWA BEACH PARK DRAFT
ENVIRONMENTAL ASSESSMENT (EA)
TAX MAP KEYS 8-7-05:01, 03, & 05; 8-7-06:03; 8-7-07:01;
AND 8-7-08: 26, HONOLULU, OAHU, HAWAII

We have reviewed your comments of January 6, 1999 regarding the draft EA for the Ulehawa Beach Park project and offer the following response.

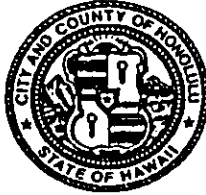
1. We note your comment that the existing water system is presently adequate to accommodate the proposed beach park.
2. We will coordinate the water meter and water service requirements for the proposed improvements with your staff in the upcoming design phase.
3. Based on our planning consultant's (PBR Hawaii) discussions with your staff, we have determined that the landscape area will be limited to 25 acres, and each acre would require 10,000 gallons per day for irrigation. Therefore, the estimated requirement is limited to no more than 0.25 million gallons per day. It is our understanding that when limited to <0.25 mgd, source development will not be a requirement of this project. We will continue to clarify this issue with your staff in the design phase of this project.
4. The Water System Facilities Charge for transmission and daily storage will be factored into the costs of developing the proposed landscape improvements to Ulehawa Beach Park. We will provide our Building Permit application for your review.

Clifford S. Jamille
Page 2
January 26, 1999

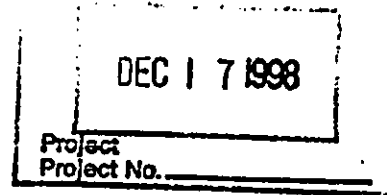
5. Should a nonpotable water system become available in the future, we will coordinate with the BWS for conversion to the nonpotable system.
6. We will coordinate and consult with the BWS on the project's cross-connection requirements in the building permit review process.

Thank you for participating in the environmental review process.

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU HI 96813



JEREMY HARRIS
Mayor



KENNETH E. SPRAGUE
Director

CHERYL K. OKUMA-SEPE, ESQ.
Deputy Director
ENV 98-211

December 15, 1998

MEMORANDUM

TO: MR. RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

FROM: KENNETH E. SPRAGUE, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES

CHERYL K. OKUMA-SEPE

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
ULEHAWA BEACH PARK
TMK: VARIOUS

We have reviewed the subject DEA and have the following comments:

1. **2.8.2 Proposed Mitigation Measures:**
 - a. The DEA should discuss improvements for the existing 51 parking stalls to mitigate discharge of pollutants off of the paved area..
 - b. If possible, direct runoff from nuisance flow and smaller storm events to grassed or sand contained areas.
2. **5.82 Wastewater Facilities:** Is additional area provided for future expansion of the wastewater pump station?
3. The DEA should provide measures to mitigate fugitive dust from coral parking lots such as polymers or other dust control agents.
4. Are there outdoor showers? If so, how is the runoff from the outdoor showers handled?
5. At the Ulehawa Stream outlet, periodic clearing and stockpiling of sand is required. Accordingly, adequate area for sand stockpiling should be provided.

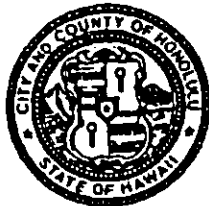
Should you have any questions, please contact Alex Ho, Division of Environmental Quality at extension 4150.

cc: OEQC
DPP (Art Challacombe)
PBR Hawaii (Yukie Ohashi) ✓

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

TO: KENNETH E. SPRAGUE, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES

FROM:  RANDALL K. FUJIKI, DIRECTOR

SUBJECT: RESPONSE TO COMMENTS ON THE ULEHAWA BEACH PARK
DRAFT ENVIRONMENTAL ASSESSMENT (EA)
TAX MAP KEYS 8-7-05:01, 03, & 05; 8-7-06:03; 8-7-07:01;
AND 8-7-08:26, HONOLULU, OAHU, HAWAII

We have reviewed your comments of December 15, 1998 regarding the draft (EA) for the Ulehawa Beach Park project and offer the following response to your comments.

1. **2.8.2 Proposed Mitigation Measures.** The existing 51 parking stalls are planned to remain in the present condition. The grading plan will be designed to direct nuisance flow and smaller storm events to grassed or sand-contained areas.
2. **5.8.2 Wastewater Facilities.** The master plan is designed with sufficient open space adjacent to the sewer pump station to accommodate any future expansion of the wastewater facilities.
3. **Mitigation of Fugitive Dust.** As part of the design phase of this project, we will look into polymers and other dust control agents to mitigate fugitive dust from coral parking lots.
4. **Outdoor showers.** Outdoor showers will be provided in several areas of the improved park. Runoff will drain to the storm drainage system, a drainage well, or percolate into the ground.

Kenneth E. Sprague
Page 2
January 26, 1999

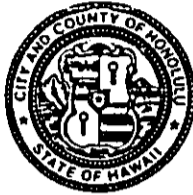
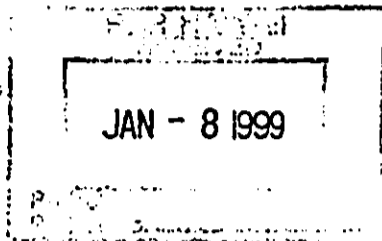
5. **Ulehawa Stream Drainage Stockpile Area.** The master plan provides new, improved access to facilitate the periodic clearing of the Ulehawa drainage channel and ample open space on the adjacent sides of the channel for stockpiling of sand. The design documents will specify the areas and will be routed to you for your review.

Thank you for participating in the environmental review process.

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET • HONOLULU, HAWAII 96813
PHONE: (808) 523-4414 • FAX: (808) 527-6743

JEREMY HARRIS
MAYOR



JAN NAOE SULLIVAN
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

1998/CLOG-776 (ASK)
1999/SMA-3

January 7, 1999

MEMORANDUM

TO: RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

FROM: JAN NAOE SULLIVAN, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR ULEHAWA BEACH PARK

We have reviewed the above-referenced Draft EA and offer the following comments:

Special Management Area and Shoreline Setback

The Draft EA correctly notes that the project is within the Special Management Area and is subject to a Special Management Area Use Permit (SMP). A current certified shoreline survey must accompany the SMP application. This requirement can be waived where construction activities and structures, as defined in Section 23-1.3, ROH (attached), are located 55 feet or more from the shoreline.

As the property is located on the shoreline, it is subject to the requirements of Chapter 23, ROH, related to shoreline setbacks. This law prohibits structures within 40 feet of the shoreline. The final EA should indicate if any activities or structures are proposed within this area. If so, a Minor Shoreline Structure Approval or Shoreline Setback Variance will be required.

The SMP application should include plans, including elevations, for proposed structures. All proposed improvements (including paths and bridges) should be clearly listed and described in the text of the SMP application.

RANDALL K. FUJIKI, DIRECTOR
Page 2
January 7, 1999

Land Use Ordinance (LUO)

Proposed parking areas are subject to Section 3.80 of the LUO related to landscaping. The final EA should indicate how these requirements will be met.

Site Design

It is not clear if the surf meet pavilion is included as part of the project. It appears on Figure 6E but is not identified in text (page 24) as a proposed improvement. This should be clarified. The surf meet pavilion appears to be within the 40-foot shoreline setback area. If this is the case then the pavilion would be subject to shoreline setback requirements as noted above.

Visual Impacts

The final EA should explain what is meant by a "design review that will occur during the community review process and Special Management Area review." Although we evaluate developments for compliance with shoreline objectives, we do not generally conduct architectural design review per se, as part of the processing of the SMP. The final EA should include a visual analysis showing what the proposed structures will look like from the highway. Please indicate how the design and location of proposed structures, including vehicular barriers and landscaping, will mitigate visual impacts or enhance viewing opportunities.

Coastal Erosion

The final EA should describe coastal erosion trends along the beach park and describe how proposed facilities and landscaping are planned to accommodate identified trends. Facilities and landscaping, including fill, should be sited so that they are not threatened in the future with loss due to erosion.

Solid Waste

How much additional solid waste is estimated to be generated as a result of the project? How will this material be disposed?

Drainage

The final EA should describe how proposed improvements will alter existing patterns, volumes or constituents of storm water runoff. Will increases in impervious surfaces increase surface runoff? Will there be additional discharges of storm water into the ocean, streams, drainage channels or wetlands?

RANDALL K. FUJIKI, DIRECTOR
Page 3
January 7, 1999

The final EA should discuss the water quality of the ocean and any streams on or near the property and how the project could affect water quality in these water bodies.

Ecosystems

The final EA should describe coastal and marine resources found on the property.

The final EA should indicate if there are any wetlands on or near the property.

Is the anticipated increase in park capacity and use expected to impact coastal or marine resources?

The Wildlife Survey consists of a one day visit with three-minute stops at nine stations along the project site. We are concerned that survey may not be sufficient to fully identify the wildlife resources on or near the property as animals are mobile and sometimes seasonal. The final EA should either justify the limited survey or include a more comprehensive one.

Archaeology

The last paragraph on page 42 of the Draft EA states that "the project area has been substantially altered by modern construction activities occurring adjacent to Farrington Highway." We suspect that it may be only a portion, rather than the entire project area, which has been altered by construction activities along Farrington Highway. If so, this should be clarified in the final EA.

According to the Draft EA, an archival research for parcels identified by Tax Map Keys 8-7-6 and 8-7-7 was conducted. The final EA should either explain why this research excluded the remaining project area, identified by Tax Map Keys 8-7-5 and 8-7-8, or include an archival research for those properties.

Although the letter describing the archaeological reconnaissance survey seems to indicate that the entire 57-acre site was included in the survey, the referenced "Figure 1" shows only a portion of the existing beach park. Please clarify the land area that was included in the archaeological reconnaissance.

We recommend that you consult with the State Historic Preservation Division regarding the types of study measures that would be needed to identify and protect cultural resources.

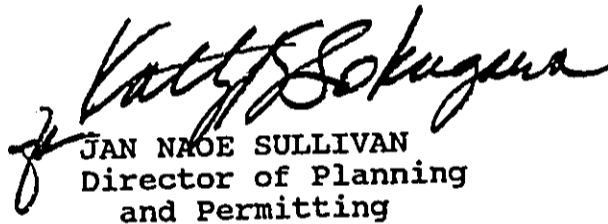
RANDALL K. FUJIKI, DIRECTOR
Page 4
January 7, 1999

We are concerned that the proposed installation of coconut trees on existing dunes as shown in Figure 6-B could impact cultural resources. Moreover, landscape improvements, including vehicular barrier walls, new parking areas, insulation of irrigation and other underground utilities, will require disturbing subsurface material and possibly cultural resources. Therefore, the final EA should clearly identify existing resources, potential impacts and mitigation measures.

Flood Hazards

The final EA should describe existing flood hazards and how flood hazard requirements, contained in Section 7.10 of the LUO, will be met.

Should you have any questions regarding the above, please contact Ardis Shaw-Kim of our staff at 527-5349.


JAN NAOE SULLIVAN
Director of Planning
and Permitting

JNS:am
attach.

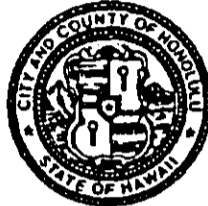
cc: Office of Environmental Quality Control
/Yukie Ohashi, PBR Hawaii

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DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

TO: JAN NAOE SULLIVAN, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: *Randall K. Fujiki*
RANDALL K. FUJIKI, DIRECTOR

SUBJECT: RESPONSE TO COMMENTS ON THE ULEHAWA BEACH PARK
DRAFT ENVIRONMENTAL ASSESSMENT (EA)
TAX MAP KEYS 8-7-05:01, 03, & 05; 8-7-06:03; 8-7-07:01;
AND 8-7-08:26, HONOLULU, OAHU, HAWAII

We have reviewed your comments of January 7, 1999 regarding the draft EA for Ulehawa Beach Park and offer the following response.

1. Special Management Area and Shoreline Setback

In accordance with the Special Management Area (SMA) requirements, a Certified Shoreline has been prepared to accompany the SMA application. The proposed improvements that are proposed by the plan will be clearly listed and described in the text of the SMA application.

In addition, no construction of new structures is planned for the area located within the 40-foot shoreline setback; only landscaping is proposed. Therefore, it is our interpretation of the regulations that neither a Minor Shoreline Structure Approval or Shoreline Setback Variance will be required.

2. Land Use Ordinance (LUO)

The proposed parking areas will all be crushed coral as a temporary surface. At the appropriate time in the development process when permanent parking is constructed, all applicable provisions of the LUO which are related to landscaping of parking lots will be followed.

3. Site Design

The surf meet pavilion described in the draft EA is a "use area" only and no structures are planned. Portable tents will be erected for surf meets. Therefore, it is our understanding that a Shoreline Setback Variance will not be required. However, we concur that the final EA should be revised to clarify this as a proposed improvement.

4. Visual Impacts

The statement that design review will occur during the community review process and SMA review are correct. The community will have several opportunities to provide input into how the Ulehawa Beach Park improvements are designed. Architectural design review of proposed structures is not applicable since no new structures are proposed except for a future comfort station that has not been designed. We assume that a condition to the SMA approval will require the Director of the Department of Planning and Permitting's review and approval of the future comfort station at the appropriate time in the development process. At this time a visual analysis will be provided to identify visual impacts of the structure from the highway. The discussion in the final EA will also be expanded to describe how the proposed vehicular barriers and landscaping will mitigate visual impacts or enhance viewing opportunities.

5. Coastal Erosion

None of the proposed landscape improvements are intended to modify existing coastal erosion patterns. Rather, the establishment of the new landscaping and vehicular barriers will help to retain windblown beach sand on site. Presently, the lack of barriers along Farrington Highway permits wind to blow sand across the highway causing both safety hazards and drainage problems. As the proposed improvements are primarily for landscaping only, it is beyond the scope of this project to propose measures to control or modify beach erosion along the coastline.

6. Solid Waste

The quantity of solid waste generated after project development should not be significantly increased. The improvements are targeted primarily toward current park users who are residents of the Waianae coast. Consequently, the number of park users and solid waste generated should not significantly increase. On an island-wide basis, the park improvements will not increase visitor levels or stimulate population growth that would stimulate an increase in solid waste generation.

7. Drainage

All pathways and parking areas will be established with crushed coral surfaces to permit infiltration into the underlying sandy soils. Consequently, no significant increase in surface runoff will result from the project's development. Existing drainage patterns, volume of runoff, and constituents of storm water runoff will remain essentially unchanged from the current condition. Similarly, ocean water quality, streams, drainage channels, and wetlands will not receive additional storm water runoff.

Jan Naoe Sullivan
Page 3
January 26, 1999

8. Ecosystems

Please see the attached comments from Mr. Tim Ohashi regarding your concern that the scope of the wildlife survey was not sufficiently comprehensive. Based on Mr. Ohashi's research, knowledge of the region, and interviews with the National Marine Fisheries Service, we hope that this additional information regarding the procedures used for the wildlife assessment will adequately address your concerns. We also wish to emphasize Mr. Ohashi's conclusion that "the plan to concentrate public parking to certain designated sites will go a long way to minimize disturbance to the occasional seal that may haul out on Ulehawa's beaches and benches. The improvement in landscaping will enhance the introduced bird populations."

9. Archaeology

The final EA will be revised to clearly indicate that the entire 57-acre site is included in the archaeological survey. Figure 1, referenced in your comments, should depict only those areas that may contain underground archaeological and cultural deposits. The survey work was closely coordinated with the State Historic Preservation Division. To ensure that no underground archaeological resources are impacted by the project, a reconnaissance survey, which will involve subsurface testing, will be completed before construction.

10. Flood Hazards

As previously described, the proposed project will not alter existing drainage conditions or locate new structures within the flood hazard zone. Similarly, the existing flood hazard zones will not be affected by the proposed project.

Thank you for participating in the environmental review process.

Attachment

333 AOLOA STREET, UNIT 329
KAILUA, HAWAII 96734
808 383 2421

January 11, 1999

Mr. David Hulse
PBR Hawaii
Pacific Tower, Suite 650
Honolulu, HI 96813

Ms. Hulse:

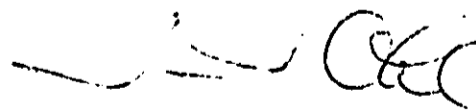
Thank you for the opportunity to respond to the comments provided by Ms. Jan Sullivan, Director of Planning and Permitting regarding my wildlife assessment for Ulchawa Beach Park project.

The counts made at the nine stations during the survey were to assess the bird population only. The methodology was based on apriori knowledge of the project site. Wildlife is a function of habitat and the project site, above the shoreline, did not have suitable habitat or conditions for native or sensitive bird species. The site is heavily used by people and impacted by cats and dogs. Only cursory observations were necessary to document the more common introduced bird species in the area. The three minute counts were more than adequate to assess the bird population. To document shorebird presence, the season of the survey was the right season for migratory species that winter in Hawaii as is evident by the survey record of Pacific golden plovers and sanderlings. Bats are not common to Oahu and I consulted the best source available, Kepler and Scott (1990) which can be further verified by Tomich's Mammals in Hawaii (1986).

I made cursory observations of the shoreline and nearshore environment to document the presence of shorebirds, sea turtles and monk seals. More importantly, I consulted with Mr. Eugene Nitta of the National Marine Fisheries Service on September 14, 1998 to acquire records of monk seals and green sea turtles within the site. Mr. Nitta could not produce any specific records, but he conveyed to me what I included in my report which states that "Ulchawa Beach may have some of the right conditions [for seals and turtles] but is not recognized [by NMFS] as a sea turtle nesting area or monk seal calving or resting area." He further indicated, and I mentioned this in my report that, "monk seals could appear along the coastline, and precautions should be taken to keep the public from disturbing the animal." I believe that the plan to concentrate vehicle access to designated parking areas will go a long way to minimize disturbance to the occasional seal that may haul out on Ulchawa's beaches and benches. The improvements in landscaping will enhance the introduced bird populations.

In you have any further questions please call me.

Sincerely yours,



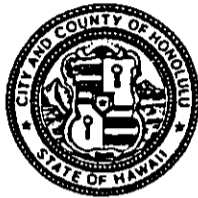
Tim J. Ohashi

Certified Wildlife Biologist

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU

3375 KOAPAKA STREET, SUITE H425
HONOLULU, HAWAII 96819-1869

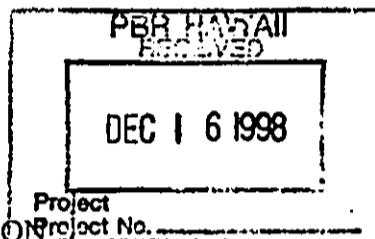
JEREMY HARRIS
MAYOR



ATTILIO K. LEONARDI
FIRE CHIEF

JOHN CLARK
DEPUTY FIRE CHIEF

December 9, 1998



TO: RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

FROM: ATTILIO K. LEONARDI, FIRE CHIEF

SUBJECT: ULEHAWA BEACH PARK
HFD INTERNAL NO. OL 98-386

We received the Draft Environmental Assessment (EA) for the subject project on December 3, 1998.

We have no objections regarding the project, but will require that construction plans be routed to our Plans Review Section for fire code review and approval prior to any construction.

Should you have any questions, please call Battalion Chief Charles Wassman of our Fire Prevention Bureau at 831-7778.

A handwritten signature in cursive script that reads "Attilio K. Leonardi".

ATTILIO K. LEONARDI
Fire Chief

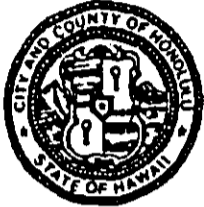
AKL/CW:bh

cc: Art Challacombe, Department of Planning and Permitting
Yukie Ohashi, PBR Hawaii
Office of Environmental Quality Control

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

TO: ATILIO K. LEONARDI, CHIEF
HONOLULU FIRE DEPARTMENT

FROM: *Randall K. Fujiki*
RANDALL K. FUJIKI, DIRECTOR

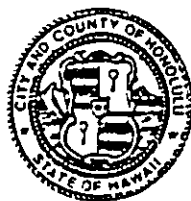
SUBJECT: RESPONSE TO COMMENTS ON THE DRAFT ENVIRONMENTAL
ASSESSMENT (EA) FOR ULEHAWA BEACH PARK
TAX MAP KEYS 8-7-05:01, 03, & 05; 8-7-06:03; 8-7-07:01;
AND 8-7-08: 26, HONOLULU, OAHU, HAWAII

We have reviewed your comments dated December 9, 1998 regarding the draft EA for the Ulehawa Beach Park project.

We acknowledge that the Fire Department has no objections regarding the project. Construction plans will be routed to your Plans Review Section for fire code review and approval prior to any construction.

Thank you for participating in the environmental review process.

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111



JEREMY HARRIS
MAYOR

LEE D. DONOHUE
CHIEF
WILLIAM B. CLARK
MICHAEL CARVALHO
DEPUTY CHIEFS

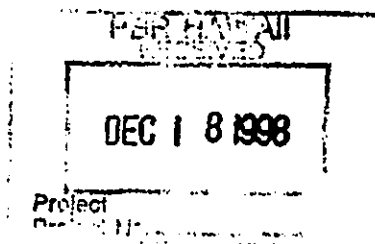
OUR REFERENCE CS-DL

December 16, 1998

TO: RANDALL K. FUJIKI, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

FROM: LEE D. DONOHUE, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
ULEHAWA BEACH PARK, WAIANAE, OAHU



We have reviewed the Draft Environmental Assessment for the subject project and have the following comments.

The construction phase for the proposed improvements is likely to have an effect on the services provided by this department with an increased number of calls for service to the area. After its completion, we believe that the level of service needed will increase because more people will be using the area.

As a means of discouraging potential criminal activity and enhancing the safety of the users of the beach park, we would like to recommend that the principles of Crime Prevention through Environmental Design (CPTED) be applied. We would also encourage you to contact District 8 during the planning phase for input relative to the CPTED process.

On page 53, section 5.10, entitled Police and Fire Protection, please note that this area now falls within the police department's District 8, which encompasses approximately 128 square miles from Ka'ena Point to Kunia Road. There are about 120 field officers assigned to the district.

Thank you for the opportunity to comment. If there are any questions, please call me at 529-3175 or Captain George Yamamoto of District 8 at 674-8802.

LEE D. DONOHUE
Chief of Police

By

James Femia
JAMES FEMIA
Assistant Chief of Police
Administrative Bureau

cc: Office of Environmental Quality Control
Mr. Art Challacombe, Dept. of Plng. & Permitting
Ms. Yukie Ohashi, PBR Hawaii
District 8

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

TO: LEE D. DONOHUE, CHIEF
HONOLULU POLICE DEPARTMENT

FROM:  RANDALL K. FUJIKI, DIRECTOR

SUBJECT: RESPONSE TO COMMENTS ON THE ULEHAWA BEACH PARK
DRAFT ENVIRONMENTAL ASSESSMENT (EA)
TAX MAP KEYS 8-7-05:01, 03, & 05; 8-7-06:03; 8-7-07:01;
AND 8-7-08:26, HONOLULU, OAHU, HAWAII

We have reviewed your comments dated December 16, 1998 regarding the draft EA for the Ulehawa Beach Park project and offer the following response.

Demand for police services. During the construction phase of the project, police services will be contracted, as necessary, to direct traffic. Over the long term, we acknowledge that the demand for police services may increase as Ulehawa Beach Park is used more because of the improvements and also through general population increase in the area.

Crime Prevention Through Environmental Design. Measures to discourage potential criminal activity and enhancing the safety of users at the beach park will be implemented. Such measures would include lighting of dark areas, strategically locating bathrooms, and designing proper access points to the park.

Changes to section 5.10. Changes have been made to Section 5.10 (page 53) with the current information pertaining to District 8.

We thank you for participating in the environmental review process.

BENJAMIN J. CAYETANO
GOVERNOR

MAJOR GENERAL EDWARD V. RICHARDSON
DIRECTOR OF CIVIL DEFENSE

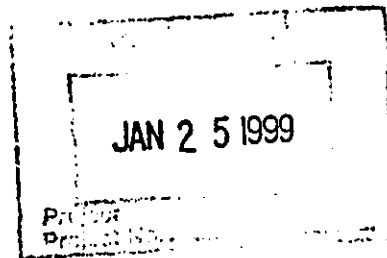
ROY C. PRICE, SR.
VICE DIRECTOR OF CIVIL DEFENSE



PHONE (808) 733-4300
FAX (808) 733-4297

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

January 22, 1999



TO: Mr. Randall K. Fujiki
Department of Design and Construction
City and County of Honolulu
650 South King Street, 10th Floor
Honolulu, Hawaii 96813

FROM: Roy C. Price, Sr. 
Vice Director of Civil Defense

SUBJECT: ULEHAWA BEACH PARK, DRAFT ENVIRONMENTAL IMPACT
STATEMENT

State Civil Defense (SCD) appreciates this opportunity to comment on the Draft Environmental Impact Statement for the Ulehawa Beach Park, Waianae, Oahu, Hawaii, TMK 8-7-05: 01, 03, & 05; 8-7-06: 03; 8-7-07: 01; and 8-7-08: 26.

SCD and the Oahu Civil Defense Agency warning system engineers have analyzed the area covered by the proposed improvements and have found that two sirens previously installed by SCD projects provide partial coverage of the park area. SCD requests that an additional siren be installed to improve warning coverage in the area of the park. SCD also recommends that the new siren include directional speaker arrays with solar power and be "Voice Capable."

If permanent structures will be constructed in the proposed project site, which is located within the 100-year floodplain, appropriate floodproofing measures must be implemented. Please consult with your floodplain manager.

Mr. Randall K. Fujiki
January 22, 1999
Page 2

Our SCD technicians and planners are available to assist and answer any questions you may have. If there are any further questions, please have your staff call Mr. Norman Ogasawara of my staff at 733-4300.

c: Ms. Yuki Ohashi
PBR Hawaii
Pacific Tower, Suite 650
1001 Bishop Street
Honolulu, HI 96813

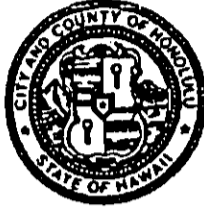
Office of Environmental
Quality Control
235 S. Beretania Street, Suite 702
Honolulu, HI 96813

Department of Planning and Permitting
Coastal Lands Branch
City and County of Honolulu
650 S. King Street, 7th Floor
Honolulu, HI 96813

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

Mr. Roy C. Price, Sr., Vice Director
Office of the Director of Civil Defense
Department of Defense
State of Hawaii
3949 Diamond Head Road
Honolulu, Hawaii 96816-4495

Dear Mr. Price:

Subject: Response to Comments on the Draft Environmental Assessment (EA) for
Ulehawa Beach Park, Tax Map Keys 8-7-05:01, 03, & 05; 8-7-06:03; 8-7-07:01;
and 8-7-08:26, Honolulu, Oahu, Hawaii

We have reviewed your comments of January 22, 1999 regarding the draft EA for the Ulehawa Beach Park project.

We will coordinate with the State Civil Defense office and the Oahu Civil Defense Agency regarding the requirements for the siren warning system. As described on the Ulehawa Beach Park Master Plan, the improvements will occur in at least two phases (Phase 1 and Future Phase). The extent of Phase 1 will be defined by the available budget for the improvements which is approximately \$1.2 million. The construction plans for each phase will be reviewed with your staff to determine the present coverage of the existing sirens and to ascertain the timing of any improvements to the siren system along the three-mile Ulehawa Beach Park length.

Any new structures (e.g., comfort stations) will be designed in accordance with the City's requirements for flood proofing and will be reviewed with the Department of Planning and Permitting, Building Division.

Mr. Roy C. Price, Sr.
Page 2
January 26, 1999

Thank you for participating in the environmental review process.

Sincerely,

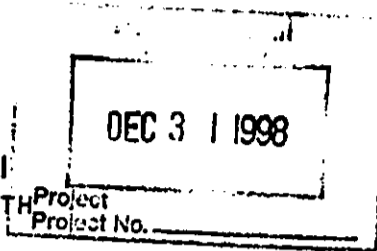

RANDALL K. FUJIKI
Director

RKF:ei

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801



LAWRENCE MIKE
DIRECTOR OF HEALTH

In reply, please refer to:

December 29, 1998

98-257/epo

Mr. Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 9th Floor
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

Subject: Draft Environmental Assessment
Ulehawa Beach Park
Maili, Oahu
TMK: 8-7-5: 1, 3, 5

Thank you for allowing us to review and comment on the subject project. We do not have any comments to offer at this time.

Sincerely,

A handwritten signature in cursive script, appearing to read "Bruce S. Anderson".

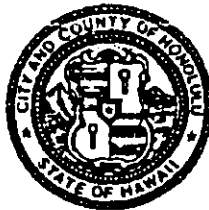
BRUCE S. ANDERSON, Ph.D.
Deputy Director for
Environmental Health

c: OEQC
C&C, Dept. of Planning
& Permitting
PBR

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

Mr. Bruce S. Anderson, Ph.D.
Director
Department of Health
State of Hawaii
Post Office Box 3378
Honolulu, Hawaii 96801

Dear Dr. Anderson:

Subject: Response to Comments on the Draft Environmental Assessment (EA) for
Ulehawa Beach Park, Tax Map Keys 8-7-05:01, 03, & 05; 8-7-06:03;
8-7-07:01; and 8-7-08:26, Honolulu, Oahu, Hawaii

We have reviewed your letter of December 29, 1998 regarding the draft EA for
the Ulehawa Beach Park project.

We acknowledge that your agency has no comments to offer at this time.

Thank you for participating in the environmental review process.

Sincerely,


RANDALL K. FUJIKI
Director

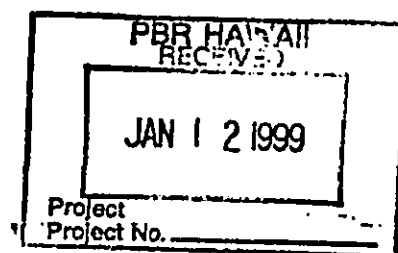
RKF:ei



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

JAN - 8 1999

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT



Ref: PS:EH

Mr. Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Fujiki:
Subject: Draft Environmental Assessment (DEA) for
Ulehawa Beach Park

We have reviewed the subject DEA and offer the following comments
for your consideration.

The Engineering Branch suggest that the proposed park
improvements follow Section 7.10.4 Development Standards and
Section 7.10.7 Coastal High Hazard District, of Article 7,
Special District Regulations of the City and County of Honolulu
Land Use Ordinance.

Additionally, the FIRM Community-Panel Number referenced in
Figure 7 on page 34, of the DEA should be 150002 0100 C instead
of 150002 0135 C. We confirm that the proposed project site is
designated on the Flood Insurance Rate Map within Zones AE and
VE. Zone AE is an area located within the 100-year flood plain
with base flood elevations determined. Zone VE is an area located
within the 100-year flood plain where coastal flooding occurs
with velocity hazard (wave action), and base flood elevations
determined.

The Planning Section observes that a major feature of the Waianae
Coast that differentiates it from other coastal areas on Oahu are
the existing dunes that were not flattened and developed after
the demise of the OR&L Railway. This natural/cultural feature
should be preserved and enhanced. The Parks Department might even
consider installing wooden beach walks parallel and perpendicular
to the sea as a demonstration project to reduce pedestrian
traffic and further preserve the dune system. In addition, where
dune erosion has become a problem because of wind, sand fencing

can be used as a means to enhance dune development. The County of Maui has been using dune fencing very successfully. We would like to work closely with the Parks Department on the development of more detailed plans in the future since the DLNR is currently developing policies regarding shoreline management and beach protection.

With respect to proposed beach park facilities, we would discourage the construction of any hard surface features such as parking lots, pathways, bathrooms, etc. within shoreline segments that may be susceptible to erosion and retreat. Parking areas and pathways built with crushed coral are acceptable as long as these features do not displace existing dunes and important coastal vegetation and are sited as far as possible from the sea. We also discourage the establishment of lawn areas if they will displace dunes and native vegetation. Moreover, the placement of soil/fill in shoreline areas is considered an unwise practice as this may lead to sedimentation of ocean waters.

We would be interested in meeting with staff from your Department to discuss the plan in more detail. Please contact Sam Lemmo at 587-0381 should you have any questions regarding this matter.

Thank you for the opportunity to comment on the subject project.

Very truly yours,


Dean Uchida,
Administrator

c.c. OEQC
 Dept. of Planning and Permitting,
 City and County of Honolulu
 PBR Hawaii
 Engineering Branch
 Planning Section

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

Mr. Dean Uchida, Administrator
Land Division
Department of Land and Natural Resources
State of Hawaii
Post Office Box 621
Honolulu, Hawaii 96809

Dear Mr. Uchida:

Subject: Response to Comments on the Ulehawa Beach Park Draft Environmental Assessment (EA), Tax Map Keys 8-7-05:01, 03, & 05; 8-7-06:03; 8-7-07:01; and 8-7-08:26, Honolulu, Oahu, Hawaii

We have reviewed your comments of January 8, 1999 regarding the draft EA for the Ulehawa Beach Park project and offer the following response.

Land Use Ordinance Consistency. The proposed park improvements, which consist primarily of landscape improvements, will comply with the applicable requirements of Section 7.10.4 and Section 7.10.7. The landscape master plan does not propose any fill or structures in the designated flood zones on the project site.

FIRM. We have corrected the FIRM panel number on Figure 7.

Sand Dunes. The master plan for Ulehawa Beach Park prioritizes the preservation of the sand dunes and other coastal natural resources which are presently unprotected from unrestricted vehicular access. Further archaeological study of the dunes in the design phase will indicate the level of protection required by the Historic Preservation Division.

None of the proposed landscape improvements are intended to modify existing coastal erosion patterns. Rather, the establishment of new landscaping and vehicular barriers will help to retain windblown beach sand on site. Presently, the lack of barriers along Farrington Highway permits wind to blow sand across the highway causing both safety hazards and

Mr. Dean Uchida
Page 2
January 26, 1999

drainage problems. As the proposed improvements are primarily for landscaping only, it is beyond the scope of this project to propose measures to control or modify beach erosion along the coastline.

Beach Park Facilities. The landscape master plan does not propose the construction of structures or hard surfaces on the sand dunes or within the shoreline segments of Ulehawa Beach Park.

Establishment of Grassed Lawns and Shade Trees. Soil amendments consisting of organic compost will be mixed with a thin layer (4 inches) of the sandy soils which occur at the beach park. The soil amendment will allow water to be retained for healthy root development and to bind with the soil, thereby, minimizing erosion and sedimentation of the marine waters.

We are available to discuss our plans with you as the details are specified. Thank you for participating in the environmental review process.

Sincerely,


RANDALL K. FUJIKI
Director

RKF:ei

BENJAMIN J. CAYETANO
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

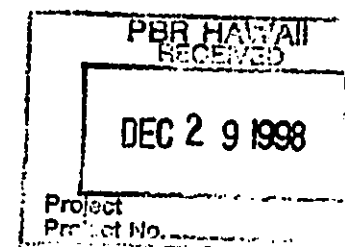
KAZU HAYASHIDA
DIRECTOR
DEPUTY DIRECTORS
BRIAN K. MINAJI
GLENN M. OKIMOTO

IN REPLY REFER TO:

STP 8.8942

December 22, 1998

Mr. Randall K. Fujiki
Department of Design and Construction
City and County of Honolulu
650 South King Street, 9th Floor
Honolulu, Hawaii 96813



Dear Mr. Fujiki:

Subject: Draft Environmental Assessment for the
Ulehawa Beach Park Project
TMK: 8-7-05: 01, 03, & 05; 8-7-06: 03; 8-7-07: 01; and 8-7-08: 26

In response to the transmittal from PBR Hawaii requesting our comments on the subject draft EA, the following comments are provided:

1. A traffic assessment will be needed to address the requirements necessitated by the proposed improvements. We are concerned that the addition of many additional parking area accesses, while assisting the park goers and safeguarding the integrity of the park, will exacerbate traffic problems on Farrington Highway. We are especially concerned about the left turns into and out of the new and existing parking areas. The proposed improvements' effect on traffic flow and traffic safety on Farrington Highway will have to be addressed.
2. The plans for the park improvements should include a pedestrian and bicycle path through the park which will benefit the general public, enhance ADA compliance, and can be integrated with our operational and safety improvement project for Farrington Highway (Henry Kennedy at 692-7550 is the project manager) and the Leeward Bikeway, Phase II (Ken Tatsuguchi, at 692-7578 is the project manager).
3. Where pedestrian structures (e.g. paths and bridges) are being provided or upgraded, we request that consideration be given to making the new structures wide enough to accommodate bicyclists.

Mr. Randall K. Fujiki
Page 2
December 22, 1998

STP 8.8942

4. Plans for construction work within the Highways right-of-way must be submitted for our review and approval. Highways design standards for sight distance and turning radii must be adhered to.

We appreciate the opportunity to provide comments.

Very truly yours,



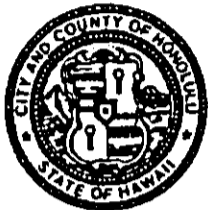
KAZU HAYASHIDA
Director of Transportation

- c: Office of Environmental Quality Control
Mr. Art Challacombe, Department of Planning and Permitting
~~Ms. Yukie Ohashi, PBR Hawaii~~

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

Mr. Kazu Hayashida, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Hayashida:

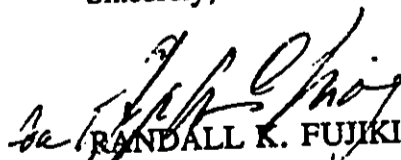
Subject: Response to Comments on the Draft Environmental Assessment (EA) for
Ulehawa Beach Park, Tax Map Keys 8-7-05:01, 03, & 05; 8-7-06:03;
8-7-07:01; and 8-7-08:26, Honolulu, Oahu, Hawaii

We have reviewed your comments of December 22, 1998 regarding the draft EA for
the Ulehawa Beach Park project.

To respond to your comments, we have engaged the engineering firm of Parsons
Brinckerhoff to assess the impact of the proposed Ulehawa Beach Park Landscape Master
Plan on the existing conditions. We are modifying the Landscape Master Plan for the final
EA as recommended by Parsons Brinckerhoff's traffic consultant in their letter report, which
is attached as part of our response to your comments.

Thank you for participating in the environmental review process.

Sincerely,


RANDALL K. FUJIKI
Director

RKF:ei

Attachment

**Parsons
Brinckerhoff**

Pacific Tower, Suite 3000
1001 Bishop Street
Honolulu, HI 96813
808-531-7094
Fax: 808-528-2368

January 14, 1999

Mr. David Hulse
PBR/Hawaii
Pacific Tower, Suite 650
1001 Bishop Street
Honolulu, Hawaii 96813

RE: Ulehawa Beach Park
PBQD Reference: 16292A

Dear Mr. Hulse:

We have reviewed the Ulehawa Beach Park Draft Environmental Assessment (DEA), dated November 1998 and a letter from the State of Hawaii Department of Transportation (SDOT), dated December 22, 1998 that commented on the DEA.

The purpose of this letter is to address the four comments from SDOT included in their letter of December 22, 1998.

Comment 1 - Traffic assessment needed to address the requirements necessitated by the proposed improvements.

The key concern cited by SDOT pertained to left turns into and out of the existing and proposed beach parking areas and their effect on traffic flow and traffic safety of Farrington Highway.

We have field checked the proposed driveway locations identified in the Ulehawa Beach Park Draft Environmental Assessment. The project is divided into four areas, and our evaluation is organized by the same four areas.

Area 1 - Nanakuli Beach Park to Aulani Place

There are no beach park driveways proposed in this area. Most of the proposed modifications involve landscape improvements and an extension of the existing rock wall that runs parallel to Farrington Highway that currently ends between Helelua Street and Nanaikeola Street. The rock wall will be extended north to the vicinity of Aulani Place. Beach access points, which are breaks in the wall, are proposed to be established at intervals coinciding with pedestrians crossings of Farrington Highway and would receive special landscape treatment to identify them as pedestrian entrances into the park areas.

Area 2 - Aulani Place to Hakimo Road

Three vehicular park entrances are identified for this area: Princess Kahanu Avenue, a driveway just south of Lualei Place (adjacent to the sewer pump station), and a driveway just south of Hakimo Road.

Princess Kahanu Avenue

There is an existing park driveway directly opposite Princess Kahanu Avenue. This driveway leads to an existing, paved parking lot and an existing comfort station. The intersection of Farrington Highway and Princess Kahanu Avenue is signalized and exclusive left-turn lanes are provided on Farrington Highway. Protected left-turn signal phasing is provided for traffic turning into both Princess Kahanu Avenue and the park driveway. Since no traffic-related changes are proposed here, no improvements are recommended.

Proposed Park Driveway just south of Lualei Place (adjacent to the sewer pump station)

This driveway is proposed to be located between two unsignalized intersections: Lualei Place and an unnamed road located south of it. At this point, Farrington Highway is a 4-lane, undivided highway with no median turn lanes. It is recommended to eliminate this driveway from the proposed park plan. The relatively close spacing between this proposed driveway and the two unsignalized intersections at Lualei Place and the unnamed road is not desirable given that alternative access to this beach park area could be provided by a northward extension of the parking lot accessed at the Princess Kahanu Avenue intersection.

Proposed Park Driveway just south of Hakimo Road

This driveway is proposed to be located just south of the Hakimo Road intersection. The Hakimo Road intersection is currently signalized, although no left-turn lane is provided from traffic turning from southbound Farrington Highway to Hakimo Road. Rather than create a new unsignalized intersection at the proposed park driveway, it is recommended to locate the proposed park driveway at the Hakimo Road intersection, converting it from a "T"-intersection to a 4-legged intersection. As part of the intersection modification, it would be desirable to incorporate left-turn storage lanes within Farrington Highway and provide protected left-turn movement into Hakimo Road and the proposed park driveway. This recommendation depends on the ability to widen Farrington Highway at this location. If widening is difficult, it may be necessary to implement the proposed driveway without the left-turn lane within Farrington Highway.

Area 3 - Rocky Coastline Area/Puu O Hulu Kai

Three park driveways are proposed along this segment of Farrington Highway. The primary reason for creating more formalized parking areas within the shoreline parks is to restrict vehicular access to defined areas and to focus access at specific entry points. Due to a combination of existing guard rail and topography, access to shoreline parks within this area is possible only at selected locations, providing de facto management of access along Farrington Highway. The need for focusing access at specific entry points is not necessary, and it is, therefore, recommended to leave access to these existing shoreline areas in their existing natural state.

Area 4 - Ulehawa Beach Park

This area involves three activity areas: existing Ulehawa Beach Park No. 2, Surfer's Beach Park, and Maili Point Beach Park.

Ulehawa Beach Park No. 2

There is an existing park driveway for this park. It is unsignalized and located directly across of a Texaco Gas Station. No traffic-related improvements are proposed at this park and, therefore, no changes are recommended.

Surfer's Beach Park

This area is currently open for access along its entire Farrington Highway frontage, and vehicles park anywhere within the park area. To focus access and to organize parking, a park driveway and attached parking lot is proposed to be located directly opposite Maipalaoa Road. This intersection is currently signalized and has a left-turn storage lane for vehicles turning from Farrington Highway into Maipalaoa Road. It is recommended to modify this intersection to add a northbound left-turn lane for vehicles that will turn from Farrington Highway into the proposed park driveway. The traffic signals would also need to be modified to accommodate an additional intersection leg.

Maili Point Beach Park

This area is also open for access along its entire Farrington Highway frontage, and vehicles park anywhere within the park area. To focus access and to organize parking, a park driveway and attached parking lot is proposed to be located directly opposite Hookele Street. This intersection is currently signalized and has a left-turn storage lane for vehicles turning from Farrington Highway into Hookele Street. It is recommended to modify this intersection to add a northbound left-turn lane for vehicles that will turn from Farrington Highway into the proposed park driveway. The traffic signals would also need to be modified to accommodate an additional intersection leg. To manage the number of access driveways along Farrington Highway, it is recommended to use only one driveway for the Maili Point Beach Park and focus access at the Hookele Street intersection.

Cost Implications of Intersection Improvements

The intersection and traffic signal improvements at Hakimo Road, Maipalaoa Road, and Hookele Street will require minor widening of Farrington Highway to accommodate northbound left-turn lanes and reconfiguration of the existing traffic signals to accommodate changes from a "T"-intersections to a 4-legged intersections. Conceptual planning level cost for the roadway widenings and traffic signal modifications is estimated at approximately \$200,000 per intersection for design and construction.

Mr. David Hulse
PBR/Hawaii
January 14, 1999
Page 4

Comment 2 - Include pedestrian and bicycle path through park to benefit public, enhance ADA compliance.

Based on conversations with SDOT staff, a multi-purpose path is being planned to be located within the historic OR&L right-of-way. The proposed park improvements will be designed so as not to interfere with this path. Most of the proposed park improvements should actually increase the safety of the proposed path since it will provide greater management of access and, therefore, fewer points for vehicular crossings of the multi-purpose path.

Comment 3 - Consider making pedestrian structures (e.g. paths and bridges) wide enough to accommodate bicyclists.

Consideration will be given to making bridges wide enough to accommodate bicyclists as well as pedestrians. In designing such bridges, protection of the pedestrians from bicyclists need to be considered. It may be more desirable to focus bicycles along the multi-purpose path currently under design by SDOT as part of the Leeward Bikeway - Phase II Project. The Ulehawa Beach Park project will coordinate closely with the SDOT efforts on the Leeward Bikeway - Phase II Project and the Operational and Safety Improvement Project along the Farrington Highway corridor to achieve consistency between the plans.

Comment 4 - Construction plans must be submitted to SDOT for review and approval. Highway design standards for sight distance and turning radii must be adhered to.

Subject to approval of the DEA, all construction plans related to work within SDOT right-of-way will be submitted to SDOT for review and approval. State of Hawaii highway design standards for sight distance and turning radii will be adhered to.

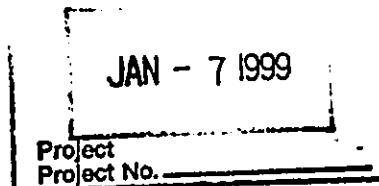
If you or the State of Hawaii Department of Transportation (SDOT) have any questions or comments regarding our review of the Ulehawa Beach Park Draft Environmental Assessment (DEA) and the letter from SDOT, dated December 22, 1998, please call.

Very truly yours,
PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.



Wayne Y. Yoshioka
Senior Supervising Transportation Engineer

BENJAMIN J. CAYETANO
GOVERNOR



GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

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

January 6, 1999

Mr. Dan Takamatsu
Department of Design and Construction
City and County of Honolulu
650 South King Street, 9th Floor
Honolulu, Hawai'i 96813

Dear Mr. Takamatsu:

Having reviewed the November 1998, draft environmental assessment (DEA) for Ulehawa Beach Park prepared by PBR Hawai'i, we submit the following comment for your response.

1. **SOIL SCREENING/AMENDMENTS** (on pages 18, 20, 23, 26, 27, 28 of the DEA): Please clarify the terms "soil screening" and "soil amendments." Please consult with the Office of Hazard Evaluation and Emergency Response of the State Department of Health (telephone 586-4249, contact Ms. Elizabeth Galvez); they have a guidance document entitled "*Technical Guidance Manual for the Implementation of the Hawai'i State Contingency Plan, 1996*" available for your agency's review. Please also consult with the Office of Solid Waste Management (telephone 586-4226, contact Mr. John Harder) with respect to placement of former petroleum contaminated soils from other locations.

In the final environmental assessment (FEA), please describe the origin and nature of such imported soil (e.g., from a petroleum contaminated remediation site, etc.), the direct, indirect and cumulative impacts of using such soil and what mitigation measures will be taken to ensure that the soil is suitable for placement (i.e., not contaminated with hazardous constituents) at the project site.

If you have any questions, please call me at 586-4185. Thank you for the opportunity to comment.

Sincerely

A handwritten signature in cursive script, appearing to read "Leslie Segundo".

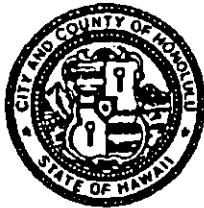
Leslie Segundo
Environmental Health Specialist

c: Mr. Art Challacombe, Department of Planning and Permitting
Ms. Yukie Ohashi, PBR Hawaii

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

Mr. Leslie Segundo
Environmental Health Specialist
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Mr. Segundo:

Subject: Response to Comments on the Draft Environmental Assessment (EA) for
Ulehawa Beach Park, Tax Map Keys 8-7-05:01, 03, & 05; 8-7-06:03;
8-7-07:01; and 8-7-08:26, Honolulu, Oahu, Hawaii

We have reviewed your comments of January 6, 1999 regarding the draft EA for the Ulehawa Beach Park project and offer the following response.

Soil Screening/Soil Amendments to Establish Grassed Lawns and Shade Trees.
The soil screening and amendments both relate to horticultural purposes. Soil amendments consisting of organic compost will be mixed with a thin layer (4 inches) of the sandy soils which occur at the beach park. The soil amendment will allow aeration and water to be retained for healthy root development and to bind with the soil and will, thereby, minimize erosion and sedimentation of the marine waters. The existing sandy soil would be screened (to remove rocks and other larger materials) to create an even and consistent planting medium.

Soil amendments will be specified in the landscape construction plans for the contractor from acceptable suppliers who provide such materials. Therefore, no hazardous and/or contaminated soils will be imported as part of this project.

Thank you for participating in the environmental review process.

Sincerely,


RANDALL K. FUJIKI
Director

RKF:ei

PHONE (808) 594-1888

RECEIVED

'99 JAN -6 P3:20

DESIGN & CONSTRUCTION
DIVISION OF
LAND AND NATURAL RESOURCES



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

DC 99-19
DEPT OF LAND AND NATURAL RESOURCES
FAX (808) 594-1865
JAL
98 DEC 35 AM 8:37

December 28, 1998

Mr. Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
Honolulu, Hawaii 96813

EIS No. 258

Re: Ulehawa Beach Park, Draft Environmental Assessment, O'ahu, Hawaii
TMK: 8-7-05: 01,03, & 05; 8-7-06: 01 and 8-7-08: 26.

Dear Mr. Fujiki:

Thank you for the opportunity to review the Ulehawa Beach Park, Draft Environmental Assessment (DEA). Ulehawa Beach Park consists of approximately 57 acres of land in the Wai'anae District which has been historically used for ocean recreation.

The City and County of Honolulu intends to improve the three mile shoreline park through added parking facilities, comfort stations and picnic areas. In addition to providing better beach facilities the project improvements will protect the sensitive dune areas with new landscaping and protection from vehicle damage.

The Office of Hawaiian Affairs has no concerns with the project concept. However, we have some suggestions for improving the DEA. First, at page 15, section 2.6.1 states that "Based on the alternatives considered, the Preferred Landscape Master Plan described below was selected." No information or description of the alternative is provided in the DEA. In order to reasonably review the proposed project, the Preferred Master Plan must be evaluated against the alternatives which were considered. Therefore, the alternatives and the logic behind their rejection should be included in the final EA.


The information on archaeological resources is minimal. The archaeological assessment appended to the DEA consisted only of a review of archival research and limited field

Mr. Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
December 28, 1998
Page two

reconnaissance. Nonetheless, the assessment indicated that there are sensitive areas within the project perimeters. The DEA is unclear as to whether additional archeological studies are anticipated for the project. We strongly urge the City and County to do a complete study of the project area before beginning construction of any improvements. However, if additional archaeological studies are not expected to be completed, then at a minimum the EA should include clear and precise statements on the methods which will be used to avoid damage to the known sensitive areas.

If you have any questions concerning our comments please Lynn Lee EIS Planner at 594-1936.

Sincerely


Colin Kippen
Deputy Administrator


C. Sebastian Aloit
Land and Natural Resources Division

cc: Board of Trustees

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

Mr. Colin Kippen
Mr. C. Sebastian Aloit
Office of Hawaiian Affairs
State of Hawaii
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Dear Messrs. Kippen and Aloit:

Subject: Response to Comments on the Ulehawa Beach Park Draft Environmental Assessment (EA), Tax Map Keys 8-7-05:01, 03, & 05; 8-7-06:03; 8-7-07:01; 8-7-08:26, Honolulu, Oahu, Hawaii

Thank you for your comments of December 28, 1998 regarding the draft EA for the Ulehawa Beach Park project.

The alternatives considered for the park were all design related. As a community beach park, no other land uses were considered feasible during the community based planning process. As such, no alternative sites or land uses were determined to address the goals established by the City for the project.

The archaeological reconnaissance survey by SCS Archaeology indicated a high potential for cultural deposits and possibly for human burials in the sand dunes. Therefore, we will schedule an inventory survey prior to the development of the detailed construction plans. Moreover, the landscape master plan has been designed to protect the sand dunes and other coastal resources from further damage by restricting vehicular access within the park area, except at designated areas for parking.

Mr. Colin Kippen
Mr. C. Sebastian Aloit
Page 2
January 26, 1999

Thank you for participating in the environmental review process.

Sincerely,


RANDALL K. FUJIKI
Director

RKF:ei



DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
RECEIVED
HAWAII 96858-5440

DC 99-44

REPLY TO
ATTENTION OF

January 6, 1999
'99 JAN 11 P3:41

RECEIVED

Civil Works Branch

DESIGN & CONSTRUCTION
DIVISION OF
PLANNING & PROGRAMS

'99 JAN 11 09:57

Mr. Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 9th Floor
Honolulu, Hawaii 96813

RECEIVED
OFFICE OF THE DISTRICT ENGINEER
HONOLULU

Dear Mr. Fujiki:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (DEA) for the Ulehawa Beach Park Project, Oahu (TMKs 8-7-5: 01, 03, 05; 8-7-6: 03; 8-7-7: 01; and, 8-7-8: 26). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. It appears that no work will be done below the higher high tide line; therefore, a DA permit will not be required. Should the plans change and work below this area is planned, a DA permit may be required. For further information, please contact Mr. William Lennan of our Regulatory Section at 438-9258 and refer to file number 990000075.

b. The flood hazard information provided on page 38 of the DEA is correct.

Sincerely,

Paul Mizue, P.E.
Chief, Civil Works Branch

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

Mr. Paul Mizue, P.E.
Chief, Civil Works Branch
U.S. Army Engineer District, Honolulu
Department of the Army
Fort Shafter, Hawaii 96858-5440

Dear Mr. Mizue:

Subject: Response to Comments on the Draft Environmental Assessment (EA) for
Ulehawa Beach Park, Tax Map Keys 8-7-05:01, 03, & 05; 8-7-06:03;
8-7-07:01; and 8-7-08:26, Honolulu, Oahu, Hawaii

We have reviewed your letter of January 6, 1999 regarding the draft EA for the
Ulehawa Beach Park project.

Thank you for participating in the environmental review process.

Sincerely,


RANDALL K. FUJIKI
Director

RKF:ei

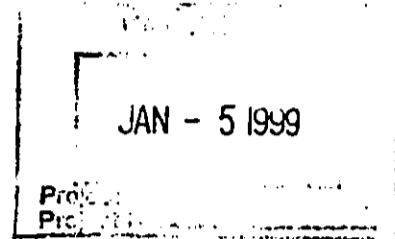


WAIANAЕ COAST NEIGHBORHOOD BOARD NO. 24

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

January 3, 1999

Mr. Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 9th Floor
Honolulu, HI 96813



Dear Mr. Fujiki:

Re: Ulehawa Beach Park Draft Environmental Assessment

I would like to make a correction to Introduction of the referenced document. There exists a statement that the Wai`anae Coast Neighborhood Board No. 24 was consulted or provided information in the preparation of the Draft Environmental Assessment prepared for review. This is not totally accurate.

The Wai`anae Coast Neighborhood Board No. 24 heard a brief overview of the intent to put plans together regarding the improvements proposed to Ulehawa Beach Park at its' October 6th meeting. At this same meeting, Mr. Brian Suzuki of the Department of Design and Construction announced that a community meeting was scheduled for October 14th at the Wai`anae District Park. He was requested to work with Mrs. Sunday Paris, who is the Board's representative to work on any plans regarding beach beautification from Nanakuli through Ma`ili. Subsequent to this information presentation to the board, Mr. Suzuki and PBR Hawaii, via the Mayor's Visioning Team, held a meeting on October 21st at Princess Kahanu Estates.

The Visioning meeting at Princess Kahanu Estates was held with a number of Wai`anae Coast Neighborhood Board No. 24 members in attendance BUT these members were representing themselves at this Visioning meeting, they were not representing the Board. At this meeting, Mr. Suzuki and PBR Hawaii gathered significant amounts of information regarding the present use of various areas of this Beach Park and what the community would like to see placed within the plan. At this meeting, Mr. Suzuki and PBR Hawaii agreed that they would come back to the community prior to any actions being taken regarding the input from the community. This commitment was ignored.

No further community meeting was held prior to the release of the Draft Environmental Assessment and no further interaction with the WCNB#24 was held. Also, since the Wai`anae Coast Neighborhood Board No. 24 is in recess in January, 1999, there is no opportunity, prior to the comment deadline for the Board to act on this Draft Environmental Assessment.

Therefore, at this time, the Wai`anae Coast Neighborhood Board No. 24 cannot be considered to have fully participated in this planning cycle, Draft Environmental Assessment or the public comment period and therefore, cannot be considered to have given its support to this project.

We hope that your department will determine that it is the right of the community to determine how

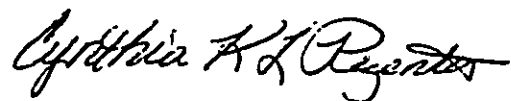


Oahu's Neighborhood Board System-Established 1973

their recreation areas will be improved, protected and developed for the betterment of the community by fulfilling your department's commitment to conduct another community meeting to review the plans for Ulehawa Beach Park before any attempt to 'finalize' the plans for this area.

If you have any questions, please don't hesitate to call me at 696-0131.

Sincerely,



Cynthia K.L. Rezentes, Chair
Wai'anae Coast Neighborhood Board No. 24

cc: Neighborhood Commission
Council Chair John DeSoto
Senator Colleen Hanabusa
Representative Michael P. Kahikina
Representative-elect Emily Auwae
Office of Environmental Quality Control
Department of Planning and Permitting, Coastal Lands Branch
PBR Hawaii

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

660 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 12, 1999

Ms. Cynthia K.L. Rezendes, Chair
Waianae Neighborhood Board No. 24
87-149 Maipela Street
Waianae, Hawaii 96792

Dear Ms. Rezendes:

Subject: Leeward Coast - Ulehawa Beach Park Master Plan

Thank you for your letter of January 4, 1999 expressing concern about Waianae Neighborhood Board's participation in the planning process for the subject project.

It is my understanding that at the last Vision Team meeting, extensive input on the proposed master plan was made by community residents, neighborhood board members, and other team members. Based on the input, the consultant, PBR Hawaii, has incorporated many of your comments and input into a prefinal version of the master plan that was reflected in the recently-published draft environmental assessment (DEA).

While the deadline for comments on the DEA was January 7, 1999, the DEA relates only to potential environmental impacts. The DEA process does not preclude further community input into the final version of the master plan. Unfortunately, there have been some unanticipated delays in the planning process. In order to meet permitting deadlines to call for construction bids in a timely manner, we had to proceed without being able to get back to the Board in December.

The consultant and my staff are planning to meet with the Vision Team at its next meeting on January 20, 1999 to present the plan. Please be assured that Board will have an opportunity to provide input and be involved before the master plan is finalized. Please contact us at your earliest convenience to schedule a meeting with the Board.

Ms. Cynthia K.L. Rezendes
Page 2
January 12, 1999

If there are any questions, please call Mr. Daniel Takamatsu, Chief of our
Facilities Design and Engineering Division, at 527-6301.

Sincerely,

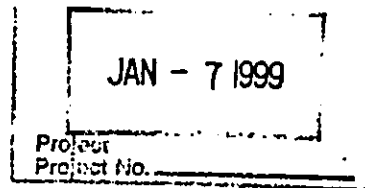

RANDALL FUJIKI
Director

RKF:ei

c: William D. Balfour, Jr., Department of Parks and Recreation

January 05, 1999

Paulette Dibibar
87-828 Helekula Way
Waianae, HI 96792



Dept. of Design & Construction
City & County of Honolulu
650 S. King St., 9th Floor
Honolulu, HI 96813

Attn: Mr. Randall K. Fujiki, Director
Re: Ulehawa Beach Park
Draft Environmental Assessment

Dear Mr. Fujiki,

In reading and going thru the Draft Environmental Assessment Book, I have come across some things that are disturbing, such as: (1) The deadline for comments, which is January 7, 1999.

(2) The city planning department promised the community that they will do a follow-up before anything is done, but it appears that your minds have already made a decision in how to build and or fix up the Waianae Coast Ulehawa Beach Fronts. (a) The community has asked to have a comfort station built at Ma'ili Point with out-door showers. (b) You could plant a few shade trees near the embankment close to the sand and seashore. (c) Parking needs to be near to the ocean area as possible. (d) The bus ingress and egress is too far away from the tide pooling area. (e) At the sight called Surfers Beach, there should be ample parking for at least 50 or more cars and a small shower station.

What upsets me a great deal, is that you folks came to the community for our ideas, the community gave their input and now you folks go ahead and put your own ideas onto the paper work and it's not what the community has inputted. Its the way you folks have lied to the community by not having a follow-up meeting with us, before the January 7th deadline that's appalling.

The paper work and all the leagality part has been put together very nicely, and I commend you folks for it, but please, please, listen to the people. We live here and you don't. Engineers may be smart, but they are not residents here and they sure don't have the smarts of how our community should look like. We the people have some ideas of how we would want our community to look like and that it would be a community that we are proud of.

In closing, a copy of this letter will be sent to all the other agencies and I do hope to get a prompt response. Thank you for your time in looking into this matter. I would also like to wish you and your staff a Very "HAPPY NEW YEAR"!

Sincerely,

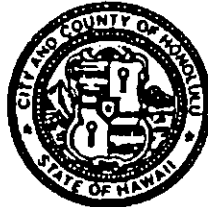
Paulette Dibibar
Waianae Neighborhood Board Member

cc

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

Ms. Paulette Dibibar
87-828 Helekula Way
Waianae, Hawaii 96792

Dear Ms. Dibibar:

Subject: Response to Comments on the Ulehawa Beach Park Draft Environmental Assessment (EA), Tax Map Keys 8-7-05:01, 03, & 05; 8-7-06:03; 8-7-07:01; and 8-7-08:26, Honolulu, Oahu, Hawaii

Thank you for your comments of January 5, 1999 regarding the draft EA for the Ulehawa Beach Park project. We offer the following response.

1. The January 7, 1999 deadline for comments refers to the EA only. Comments regarding the landscape design are welcomed during both the master planning process and the City Council review for the Special Management Area (SMA) Permit.
2. To ensure that public review comments are addressed in the final EA, your written comments and verbal comments will be incorporated into the final landscape design and EA, as applicable. Further public comment will be available during the SMA review period.
 - a. A future comfort station will be shown on the conceptual landscape master plan. This facility will only be constructed at a later date as funds become available.
 - b. The location of shade trees must respect the existing sand dune areas, slopes, and soil types. As such, locating trees near the embankment close to the sand and seashore does not have the appropriate site conditions necessary for large shade trees to do well.

Ms. Paulette Dibibar
Page 2
January 26, 1999

- c. In general, the parking areas shown have been located as close to the ocean as possible. The underlying rocky shoreline and the 40-foot shoreline setback limit the feasibility of parking lot construction within this area.
- d. Many traffic- and safety-related factors go into selecting appropriate locations for buses to ingress and egress. Based on your and other comments on the draft EA, we have modified the vehicular access and bus parking area at Maili Point Beach Park. The proposed parking lot at this location is set closer to the highway to provide a grassed, open space area with shade trees for picnicking and an area for volleyball adjacent to the shoreline. The view of the parking lot is accessible from this open space area.
- e. The final configuration and size of the coral parking lot at Surfer's Beach will be made larger to accommodate 40-60 cars. An outdoor shower is shown on the plan.

We wish to reiterate that the review of the draft EA and the conceptual landscape master plan represent only the first step in a lengthy review process. In addition, a second community meeting will be scheduled to receive additional input from the community before the landscape plan is finalized. We apologize for any misunderstanding regarding the review and approval process of the EA.

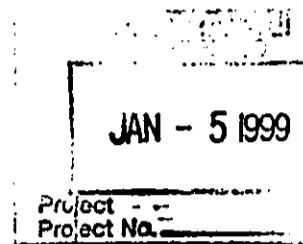
Thank you for participating in the environmental review process.

Sincerely,


RANDALL K. FUJIKI
Director

RKF:ei

Cynthia K.L. Rezentes
87-149 Maipela Street
Wai'anae, HI 96792
(808) 696-0131
January 4, 1999



Mr. Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 9th Floor
Honolulu, HI 96813

RE: ULEHAWA BEACH PARK DRAFT ENVIRONMENTAL ASSESSMENT

Dear Mr. Fujiki:

Prior to submitting my comments regarding this Draft Environmental Assessment, I wish to voice my disappointment with the Department of Design and Construction and PBR Hawaii. At a meeting held on October 21st at the Princess Kahanu Estates Meeting Room - the public was led to believe, prior to any plan being reviewed for implementation against an available budget of approximately \$1.2M, the plan (with estimated budgets for various phases) would be brought back to the community for prioritization and also to determine if what the Department and PBR heard from the community was being planned as the community wished the improvements to be made. This follow-up meeting has not been scheduled but the community is being asked to review this Draft EA.

If the Department of Design and Construction truly wishes community input and participation - I would encourage you to delay the review deadline of this Draft EA, have at least one more community meeting, and update and revise your Draft EA to more closely align with the community wishes.

Comments RE: Ulehawa Beach Park Draft EA

pg 6. Bullet 3:

The area referenced should also state that it is used for tidal pool wading during zero to negative tide and also has good body surfing and surfing outside of the reef area.

Figure 6A

1. Need more pedestrian access - 3 is not enough...
2. How will the fishermen access parking between the OR&L line and coral wall?
Will they just drive over the OR&L
3. Need to specifically list the groundcovers and shrubs being proposed.
4. There should not be any work done to disturb the existing sand dunes and their

structure (no digging!).

Figure 6B

1. Instead of stockpiling sand from the dredging to keep Ulehawa Canal clear, there should be a study done regarding the movement of sand along the coast and determine the best locale at which to re-enter the sand into the system. Stockpiling of the sand may cause a further depletion of the sand along this section of coastline.
2. There are several stretches along this section of park that are subject to high tide/surf action washing water and sand onto Farrington Highway. Requests for actions to help mitigate these situations is not addressed in this figure or supporting written documentation.

Figures 6C and 6D

1. Written documentation relates to the area being used by school children. These tidal areas are located near Ma`ili Point Beach Park, not generally along this identified stretch.
2. The identified crushed coral parking lot shown in figure 6D should be reconsidered. That section of beach is used extensively (and almost exclusively) by fishermen and current existing 'roads' and 'parking areas' should be left intact.

Figure 6E

1. As mentioned above, Ma`ili Point Beach Park is the area where school children are taken for field trips to tidal pools.
2. Accommodations for 3-4 schools buses at one time need to be factored into the design at Ma`ili Point Beach Park.
3. The community had requested that the parking area (at Ma`ili Point Beach Park) be kept as close to the edge of the hard-pack sand surface nearest to the ocean as reasonably possible. The users of the park would like to be able to keep an eye on their vehicles and the slope of the beach drop-off does not allow this if the parking lot is next to Farrington Highway.
4. At Surfer's Beach Park, the location of the surf meet pavilion should be discussed with surf associations who hold meets at Ma`ili Point. The current location shown on the figure is not where the facilities have been set up for past meets. The facilities have typically been located somewhere within the middle of the current proposed parking lot.
5. Parking at Surfer's Beach Park needs to be flexible. During most of the year, you will find the occasional surfer(s), fishermen, families enjoying the stream mouth, etc. During the high surf winter season, it is not un-reasonable to see 40-60 vehicles attempting to park within the area and along the road. This should be taken into consideration in the design.
6. The surface at Surfer's Beach Park needs to be reviewed. Over the last 4-6 years, the City and County of Honolulu, during dredging of the Ma`ili Stream Canal, dumped many tons of sand onto the original hard-pack sand surface, raising the level of the surface of the area from the residential property walls to the surface

facing the ocean. Some areas appear to have been increased anywhere from 2-4 or more feet. Also, sand had been deposited on the mouth sides of the canal and resultant ocean action has actually increased the width of the mouth of the stream. Consideration should be given to restoring the area to it's present height level and then preparing a planned park on top of that.

pg 41 section 4.8

The coastline may not be recovered as a sea turtle nesting area or a monk seal calving or resting are by the National Marine Fisheries Service BUT there have been documented cases of monk seals resting on the sandy beach at Ma`ili Point Beach Park. (Stories have been done in The Advertiser.)

pgs 42-43 section 5.1

Although no reference has been made to burial sites along the proposed project area, it should be noted that much of the coastline from Ko Olina to Ka`ena Point had significant sand dunes and many of them have been found to contain pre-contact burials. There is nothing to indicate that the sand dunes within the project area would be any different from those which used to exist further north at Ma`ili Beach Park (bones used to be washed out of the dunes during very high winter surf in the '50's and '60's) or at Ko Olina (burials found and documented in 1994-95).

pg. 44 section 5.2

It should be noted that there are sections of the park, which during very high surf and tides, washes over the park and onto Farrington Highway. Measures should be identified and taken to minimize these conditions due to the danger to motorists of water and sand on the roadway.

pg. 53 section 5.9.2

The Wai`anae community has been requesting a second ambulance along the coast for many years. With the potential increase in the use of the proposed park improvements, consideration should be given to the addition of another ambulance to handle any proposed increase in incidents.

pg. 53 section 5.9.3

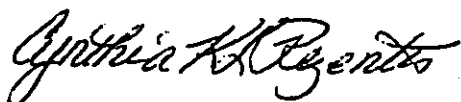
The Wai`anae Police protection area is District 8, from Kapolei to Ka`ena Point. This change was made over a year ago.

Additionally, there should be some consideration given to the increase in lifeguard towers and increase in use of the area leading to the requirement to increase the number of lifeguards along the coast and specifically for this park. Currently, very limited sections of the park have lifeguards on weekends only or during the summer only.

Summarizing, there are many questions and concerns still not addressed with this Draft Environmental Assessment. The questions/concerns that I have listed are only from my limited perspective on viewing the use of the area and may not necessarily reflect what others in the community would see given the project proposal. I would, again, encourage your department to delay the final support of this proposal until the community is canvassed again for their opinion of the project, as was committed to during the October 21st meeting held by your team (via the Mayor's Visioning Team support efforts).

I would be happy to discuss any and all questions/concerns that I have listed in this document. You can reach me at 696-0131.

Sincerely,



Cynthia K.L. Rezendes
Wai'anae Community Resident

cc: Office of Environmental Quality Control
Department of Planning and Permitting, Coastal Lands Branch
PBR Hawaii

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

850 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

Ms. Cynthia K.L. Rezentes
87-149 Maipela Street
Waianae, Hawaii 96792

Dear Ms. Rezentes:

Subject: Response to Comments on the Ulehawa Beach Park Draft Environmental Assessment (EA), Tax Map Keys 8-7-05:01, 03, & 05; 8-7-06:03; 8-7-07:01; and 8-7-08:26, Honolulu, Oahu, Hawaii

Thank you for your letter dated January 4, 1999 regarding the draft EA for the Ulehawa Beach Park project.

It is my understanding that extensive input on the proposed master plan was made by community residents, neighborhood board members, and other team members. Based on the input, PBR Hawaii has incorporated many of your comments and input into a prefinal version of the landscape master plan that was reflected in the recently-published draft EA.

While the deadline for comments on the draft EA was January 7, 1999 the draft EA does not preclude further community input into the final version of the master plan. Unfortunately, there have been some unanticipated delays in the planning process. In order to meet permitting deadlines to call for construction bids in a timely manner, we have to proceed without being able to get back to the Board in December. Whereas, we had hoped to meet with the Visioning Committee at its January 20, 1999 meeting, we were unable to get on the agenda. At this time we are waiting to be scheduled on the Waianae Coast Neighborhood Board's next available meeting. At that time and during the Special Management Area review period, we welcome your further participation in the finalization of the master plan.

Comments Regarding Ulehawa Beach Park Draft EA:

Pg. 6 Bullet 3: The statement "The area is used for tidal pool wading during zero to negative tide and also has good body surfing and surfing conditions outside the reef area" has been added to Bullet Item 3 in the final EA.

Ms. Cynthia K.L. Rezentes
Page 2
January 26, 1999

Figure 6A:

1. Pedestrian Access. In the detailed design phase, which is scheduled as the next phase of the project, we will accommodate pedestrian access at each crosswalk and bus stop. The planned vehicular barriers along the highway right-of-way will have 4-foot openings to allow easy pedestrian access to the park. Therefore, there will be numerous points of access along the three-mile stretch of the park.
2. Fishermen Access to Parking Between the OR&L Line and Coral Wall. This area is not within the City's subject project boundaries and to our knowledge, will remain unchanged. Parking is expected to continue to occur between the OR&L line and the coral wall, and access to this area will not be changed as a result of the improvements to Ulehawa Beach Park.
3. Proposed Ground Covers and Shrubs. As shown on Figure 6B, the proposed ground cover plantings include naupaka, pohinahina, and beach morning glory.
4. Protection of Sand Dunes. An inventory survey of the sand dunes, as recommended by the project archaeologist and the State Historic Preservation Division, will be completed during the design phase. A primary objective of this the Ulehawa Beach Park Master Plan is to protect the sand dunes and other natural and cultural resources. Appropriate vegetation will be planted only where the sand dunes are known to be free of any cultural and/or human remains. These plantings will minimize further erosion of the dunes.

Figure 6B:

1. We concur that a beach erosion study would be beneficial in determining how beach sand from Ulehawa Stream could be used to replenish beach sand and control erosion. However, a beach erosion study of this magnitude is not within the scope of the Ulehawa Beach Park landscape improvements; therefore, funding is unavailable at this time. The final EA will be revised to clearly indicate that the community desires that the sand removed from Ulehawa Stream be used to replenish beach sand and should not be simply stockpiled near the mouth of the stream.
2. The final EA will be revised to clearly indicate that the proposed landscaping improvements and barrier walls will help mitigate beach erosion and its impact on Farrington Highway.

Ms. Cynthia K.L. Rezentes
Page 3
January 26, 1999

Figures 6C and 6D:

1. The text in the final EA describing this area has been corrected and no longer refers to this location of the park as used by school children.
2. We have reevaluated the improvements, which were shown in the draft EA, and agree that the Rocky Point area should be maintained in the existing condition with minimal landscape improvements. The plans have been revised in the final EA.

Figure 6E:

1. As noted above, the text has been corrected in the final EA regarding usage of this area.
2. Bus Parking at Maili Point Beach Park. During the design phase, we will be refining the parking requirement details and will size the parking area to accommodate three school buses at this location.
3. Parking Areas at Maili Point. The proposed parking lot at Surfer's Beach Park is set as close to the shoreline and still complies with the regulation (40-foot setback) to allow surfers' surveillance of their vehicles from the ocean.

Since the Maili Point Beach Park is utilized by school children and families, the proposed parking lot is set back closer to the highway to allow a grassed, open space area with shade trees for picnicking and an area for volleyball adjacent to the shoreline. The view of the parking lot is possible from this open space area.
4. Surf Meet Pavilion. The area to erect a portable tent to serve as the surf meet pavilion for competitions has been relocated to a more central location at Surfer's Beach Park. Final placement in the design phase will be through discussions with surf associations and City lifeguards.
5. Parking at Surfer's Beach Park. The final configuration and size of the coral parking lot will be made larger to accommodate 40-60 cars.
6. Surface Soil Conditions at Surfers Beach Park. During the engineering design phase, the soils, including the placed fill material, will be evaluated for suitability of the proposed improvements and appropriate actions will be taken.

Ms. Cynthia K.L. Rezentes
Page 4
January 26, 1999

Pg. 41, Section 4.8: The survey by the wildlife biological consultant, concludes that "monk seals could appear along the coastline, and precautions should be taken to keep the public from disturbing the animal." Further, in a follow-up letter responding to comments from the City Department of Planning and Permitting, Mr. Ohashi states that "the plan to concentrate public parking to certain designated sites will go a long way to minimize disturbance to the occasional seal that may haul out on Ulehawa'a beaches and benches."

Pp. 42-43, Section 5.1: The draft EA describes the potential for human burials in the sand dunes in several places in the report:

Page 42. Existing Conditions, paragraph 1, last sentence:

"The berm is suggested here to contain both cultural deposits and possibly, human remains, both representing traditional or pre-Contact times."

Page 43. Potential Impacts and Mitigation Measures, paragraph 1:

"The sand dunes within Areas 1 and 2 of the park have been identified as "areas of high sensitivity" by the archaeologist for their potential to yield cultural deposits and burials. All cultural deposits and/or burials will remain in-situ in perpetuity and will not be disturbed by the proposed park improvements."

Page 43. Potential Impacts and Mitigation Measures, paragraph 2:

"The Landscape Master Plan avoids all areas within the potential areas of sensitivity and limits any improvements to low-impact landscape plantings such as coastal naupaka and pohuehue or beach morning glory. In addition, an inventory survey of the sand dunes is planned during the design stage of the project to ascertain the presence or absence of cultural resources or pre-human contact burials. Design and construction plans will be revised to avoid any sensitive resources within the sand dunes."

Appendix C. Letter Report Regarding an Archival and Field Reconnaissance of Ulehawa Beach Park Project by Scientific Consultant Services, Inc.

We also refer you to the archaeology report (on which the above text is based) which describes the potential for burials in the sand dunes.

Ms. Cynthia K.L. Rezendes
Page 5
January 26, 1999

Page 44, Section 5.2:

We have noted in the final EA that "there are sections along Ulehawa Park that are prone to high wave run up over Farrington Highway during very high surf and tides."

Page 53, Section 5.9.2:

We acknowledge the community's concern for increased ambulance coverage, however, that function is beyond the scope of this project. Your comment will be referred to the appropriate agency.

Page 53, Section 5.10:

Honolulu Police Department - District 8. Changes to the text have been made identifying the Waianae Police protection area as District 8.

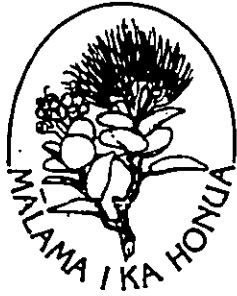
Lifeguard Towers. The Department of Emergency Services is evaluating the need for additional lifeguard services at each of the areas along Ulehawa Beach Park.

Thank you for participating in the environmental review process.

Sincerely,


RANDALL K. FUJIKI
Director

RKF:ei



SIERRA CLUB, HAWAII CHAPTER

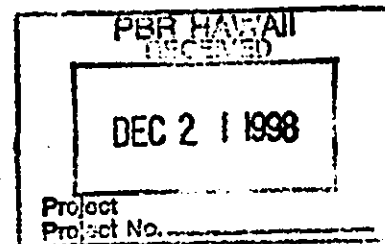
P.O. Box 2577,
Honolulu, Hawai'i 96803
(808) 538-6616

December 18, 1998

Dan Takamatsu
Department of Design and Construction
650 S. King 9th Floor
Honolulu, HI 96813

Art Challacombe
Coastal Lands
Department of Land Utilization
650 S. King St. 7th Floor
Honolulu, HI 96813


Yukie Ohashi
PBR Hawaii
1001 Bishop St. Pacific Tower 650
Honolulu, HI 96813



RE: ULEHAWA BEACH PARK

The Sierra Club urges you to design the Ulehawa Beach Park with nature in mind. In the past, shoreline parks have been poorly designed. Planners destroyed the sand dunes at Kualoa, for example, and imported soil to create level grassy fields. When the shoreline retreated, the soil muddied the waters. It is encouraging to see that the city plans to protect the sand dunes at Ulehawa. We encourage you not to bring any soil in for the project. As the coastline retreats, this soil will cloud the waters and damage coral reefs.

Sincerely,


David Kimo Frankel
Director



DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

January 26, 1999

Mr. David Kimo Frankel
Director
Sierra Club, Hawaii Chapter
Post Office Box 2577
Honolulu, Hawaii 96803

Dear Mr. Frankel:

Subject: Response to Comments on the Draft Environmental Assessment (EA) for
Ulehawa Beach Park, Tax Map Keys 8-7-05:01, 03, & 05; 8-7-06:03;
8-7-07:01; and 8-7-08:26, Honolulu, Oahu, Hawaii

Thank you for your letter of December 18, 1998 regarding the draft EA for the
Ulehawa Beach Park project.

The master plan for the project is designed to protect and preserve the natural and
cultural resources that exist on the property which include the coastal sand dunes. Grading
will be minimal and will utilize small amounts of soil for a planting medium for lawns which
are planned to enhance the park. Once the grass is established, erosion will be minimal.

Thank you for participating in the environmental review process.

Sincerely,


RANDALL K. FUJIKI
Director

RKF:ei

8.0 References

ULEHAWA BEACH PARK
Final Environmental Assessment

8.0 REFERENCES

- Armstrong, R. W. ed (1983). *Atlas of Hawai'i*. 2nd edition. Honolulu: University of Hawai'i Press.
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- Char, W. P. (1998) *Botanical Resources Assessment Ulehawa Beach Park Wai'anae District, O'ahu*. Honolulu, Hawai'i.
- Chu, M. and R. B. Jones. (1987). *Coastal View Study*. Prepared for the City and County of Honolulu. Honolulu, Hawai'i.
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A Botanical Survey

BOTANICAL RESOURCES ASSESSMENT
ULEHAWA BEACH PARK
WAI'ANAE DISTRICT, O'AHU

by

Winona P. Char
CHAR & ASSOCIATES
Botanical Consultants
Honolulu, Hawai'i

Prepared for: PBR HAWAII

September 1998

BOTANICAL RESOURCES ASSESSMENT
ULEHAWA BEACH PARK
WAI'ANAE DISTRICT, O'AHU

INTRODUCTION

The project site consists of approximately 57.6 acres of land located seaward of Farrington Highway, from about Nanakuli Beach park westward to the beach park just after (west of) Ma'ili Stream. The improved park areas are located at both ends of the project site. The unimproved shoreline areas found between the two improved parks consist of sandy beaches and rocky coastline. Open, low, windswept scrub vegetation composed primarily of kiawe thickets and buffel grass is found on most of the unimproved areas.

Field studies to assess the botanical resources found on the improved and unimproved park areas were conducted on 16 September 1998. The primary objectives of the field studies were to provide a general description of the vegetation found on the site and to search for threatened and endangered species as well as species of concern.

DESCRIPTION OF THE VEGETATION

The plant names used follow Wagner et al. (1990) and Evenhuis and Miller (1995-1998) for the native and naturalized plants. The names of landscape material follow St. John (1973).

Improved Park Areas

The improved park areas consist of large expanses of Bermuda grass or manienie (Cynodon dactylon) lawn and landscape plantings. On the Nanakuli side, the landscape plantings include coconut and Pritchardia palms; small to medium-sized trees of hau (Hibiscus tiliaceus), kou (Cordia subcordata), sea grape (Coccoloba uvifera), and kamani (Calophyllum inophyllum); and shrubs of beach naupaka or naupaka kahakai (Scaevola sericea) and Hibiscus cultivars. A few of the large, old kiawe trees (Prosopis pallida) from the original vegetation have been retained along the highway boundary.

On the Wai'anae side, the landscape plantings on the improved beach park are sparse. The plantings consist of a few coconut palms near the comfort station and parking lot, and one milo tree (Thespesia populnea) and a small clump of Madagascar olive trees (Noronhia emarginata) on the lawn area. The Bermuda grass lawn supports scattered clumps of weedy species such as creeping indigo (Indigofera spicata), buffel grass (Cenchrus ciliaris), hairy spurge (Chamaesyce hirta), Boerhavia coccinia, coatbuttons (Tridax procumbens), and cow pea (Macroptilium lathyroides). Small patches of the native beach morning glory or pohuehue (Ipomoea pes-caprae) and 'aki'aki grass (Sporobolus virginicus) are found along the sandy beach front.

Unimproved Areas

Sandy beaches: Sandy beaches are found on roughly three-quarters of the unimproved areas. The topography varies from flat to dune conditions. The vegetation consists primarily of kiawe thickets, 12 to 20 ft. tall. Scattered through the lower-statured kiawe thickets are taller, emergent, old kiawe trees, 40 to 50 ft. tall. Ground cover consists of buffel grass with smaller, scattered

patches of Bermuda grass, swollen fingergrass (Chloris barbata), and Guinea grass (Panicum maximum).

On the seaward side of the kiawe thickets and grassy scrub areas, mats of pohuehue and 'aki'aki are common. In a few places, the orange-stemmed kauna'oa vine (Cuscuta sandwichiana) can be found parasitizing the pohuehue plants.

Two small sections of sandy beach are found on the Wai'anae side, one section east of Ma'ili Stream and the other by a bus stop across from Ho'okele Street. The topography is flat and sandy. These two sections are primarily barren sand with scattered patches of vegetation.

Rocky coastline: Rocky coastline is found on the western portion of the unimproved areas. The rocky shoreline consists of wave-swept coral benches. Behind the wave-swept benches or "splash zone", there is a pitted zone which consists of sharp-crested, deeply eroded, raised coralline reef material. In places, there are large, scattered, rounded basalt boulders. Inland of the pitted zone, closer to the highway, the substrate is shallow soil over rock outcroppings.

Open scrub vegetation is found on the areas with shallow soil and consists of scattered, small thickets of kiawe trees, 5 to 15 ft. tall. In some places, the kiawe has been cut back in the past, but has resprouted to form low, windswept, multi-branched plants. Clumps of buffel grass are abundant and form low, patchy mats between the kiawe trees. Other grasses which occur here in smaller numbers are Bermuda grass and Guinea grass. A few small shrubs of koa haole (Leucaena leucocephala) and sourbush (Pluchea indica), 1 to 3 ft. tall, are found scattered through the open scrub vegetation.

On the seaward facing side of the open scrub vegetation, a few native coastal species are found among the rocks or in small sandy pockets. These are the pale blue to white-flowered pa'u-o-Hi'iaka vine (Jacquemontia ovalifolia subspecies sandwicensis); the mat-forming 'aki'aki grass (Sporobolus virginicus); and 'ohelo kai (Lycium sandwicensis), a low, spreading shrub with succulent leaves and red, succulent, globose berries.

DISCUSSION AND RECOMMENDATIONS

The vegetation on the improved park areas is composed of large expanses of Bermuda grass and landscape plantings. Kiawe and buffel grass scrub covers most of the unimproved areas. The majority of the plants found on the site such as kiawe, buffel grass, koa haole, Guinea grass, etc., are introduced or alien species. Introduced species are all those plants which were brought to the Hawaiian Islands by humans, intentionally or accidentally, after Western contact, that is, Cook's discovery of the islands in 1778. The few native species tend to occur on the seaward facing side of the vegetation line. The following native species were found: pohuehue (Ipomoea pes-caprae), 'aki'aki (Sporobolus virginicus), 'uhaloa (Waltheria indica), naupaka kahakai (Scaevola sericea), 'ohelo kai (Lycium sandwicense), pa'u-o-Hi'iaka (Jacquemontia ovalifolia subspecies sandwicensis), and kauna'oa (Cuscuta sandwichiana). The pa'u-o-Hi'iaka and kauna'oa are endemic species, that is, they are native only to the Hawaiian Islands. All the others are indigenous, that is, they are native to the Hawaiian Islands and also elsewhere through the Pacific.

None of the plants observed on the site during the field studies is a threatened and endangered species; nor is any plant a species

of concern (U.S. Fish and Wildlife Service 1997). There are no sensitive native plant-dominated communities on the project site.

Given the findings above, the proposed improvements to the Ule-hawa Beach Park should not have a significant negative impact on the botanical resources. There are no botanical reasons to impose any restrictions, impediments, or conditions to the proposed use of the site.

It is recommended, however, that native and Polynesian introduced plants be given greater consideration for landscape plantings. Polynesian introduced plants are all those species which were brought to islands prior to Western contact. Some of the plants already occur on the improved portions of the project site. The following Polynesian introduced plants are excellent shade trees for coastal areas exposed to salt spray: milo (Thespesia populnea), kou (Cordia subcordata), and kamani (Calophyllum inophyllum). Hau (Hibiscus tiliaceus), which is considered probably indigenous (Wagner et al. 1990), is a much-branched large shrub to small tree which can also be trained to grow over an arbor.

Salt-spray tolerant native shrubs and vines such as naupaka kahakai or beach naupaka and pohuehue which already occur on the site should be propagated and used for landscaping, especially along the front of beaches where there is more exposure to the elements. Pohinahina or kolokolo kahakai (Vitex rotundifolia), a sprawling shrub with lavender flowers, is a good cover along the dune front with shifting sands; it is considered an excellent sand binder. Other native ground cover species which could be used for sandy areas as well as areas with shallow, stony soils are: 'akia (Wikstroemia uva-ursi), 'ilima papa (Sida fallax), and pa'u-o-Hi'iaka.

The ma'o or Hawaiian cotton (Gossypium tomentosum) and kului

(Nototrichium sandwicense) can be grown as a specimen shrub or hedge. Naio (Myoporum sandwicense), a large shrub with glossy leaves and white to pink flowers, is also attractive and hardy. Bornhorst (1996) provides a detailed discussion on propagation, maintenance, and landscape use of native plants.

LITERATURE CITED

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B Wildlife Survey

**Wildlife Survey
Ulehawa Beach Park
Waianae, Island of Oahu**

Prepared for:
PBR Hawaii
Pacific Tower, Suite 650
1100 Bishop Street
Honolulu, Hawaii 96813

Prepared by:
Tim J. Ohashi
Wildlife Consultant
333 Aoloa Street, Unit 329
Kailua, Hawaii 96734

September 14, 1998

1.0 Introduction

A field survey was conducted on September 12, 1998 to assess the wildlife resources found along a segment of coastline planned for improvement as Ulehawa Beach Park by the City and County of Honolulu. The objective of the survey was to provide a record of wildlife for the area and to determine whether the planned improvements would be detrimental to native species.

2.0 Site and Habitat Description

The project site was a three mile stretch of coastline of parks, residences, beaches and rocky ledges along the Waianae coast beginning at the western end of the improved Nonequal Beach Park to an unimproved park just northwest of Maile Stream. The area surveyed was 57.645 acres and was makai of Farrington Highway. The distance between the ocean and Farrington Highway along this stretch of coastline was between 0 to about 150 feet. Residential and commercial properties occurred across Farrington Highway as well as in blocks along the coastal project site.

The habitat can be characterized as sandy and rocky shoreline with coral benches. Inland from the ocean to Farrington Highway is a narrow, sparse, remnant beach strand community of beach naupaka (*Scaevola sericea*), coconut (*Cocos nucifera*) and kiawe (*Prosopis pallida*). Milo (*Thespesia populnea*) was also present in improved parks. Two major drainage channels occur within the site, Maile Stream at the northwest end and Ulehawa Drainage Channel in the east. The area is heavily used by the public. People, pets, and heavy traffic are present in this urbanized strip of coastline.

3.0 Method

A wildlife assessment was made on September 12, 1998 to assess birds and other wildlife along the proposed site. cursory observations were made for other wildlife between stations. Nine stations along the project site were assessed. Stations were located beginning at the parking lot of the unimproved beach park on the northwest end of the project site and approximately every 0.3 miles, measured by automobile (Figure 1). Three minutes were spent at each station, recording all birds seen and heard, and noting conditions.

The National Marine Fisheries Service was asked to identify important federally listed threatened green sea turtle (*Chelonia mydas*) or endangered Hawaiian monk seal (*Monachus schauinslandi*) resources along the Ulehawa Beach coastline (Nitta, pers. comm.).

4.0 Results and Discussion

Sanderlings were observed at two stations foraging on the beach at waterline. Pacific Golden plovers were seen at two stations on the beach. No other native or migratory shorebird was observed during the assessment period. Other than the actual shoreline areas, the project site has

Ulehawa Beach Park Wildlife Survey

no native wildlife value. Heavy human use, paucity of vegetation, and feral cats and dogs make conditions unfavorable to any native wildlife. No wildlife were observed in the drainage channel or in Maile Stream.

The native bat (*Lasiurus cinerius semotus*) was not observed during the survey. Kepler and Scott (1990) do not list Ulehawa Beach coastline as having had any record of bats.

No green sea turtles or Hawaiian monk seals were encountered during the survey. Ulehawa Beach may have some of the right conditions, but it is not recognized as a sea turtle nesting area or a monk seal calving or resting area (Nitta, pers. comm.).

The following birds were encountered during the survey:

Count Station: Species	1	2	3	4	5	6	7	8	9	Total
Zebra Dove (<i>Geopelia striata</i>)	3	3		2	4	1	2	2	1	19
Spotted Dove (<i>Streptopelia chinensis</i>)				2		2		1		5
English Sparrow (<i>Passer domesticus</i>)	10	2			3	1			1	17
Common Myna (<i>Acridotheres tristis</i>)	5	3	1	1	4	1				15
Red-vented Bulbul (<i>Pycnonotus cafer</i>)					5				2	7
Pacific Golden Plover (<i>Pluvialis dominica</i>)		1				1		1		3
Sanderling (<i>Crocethia alba</i>)							1		1	2

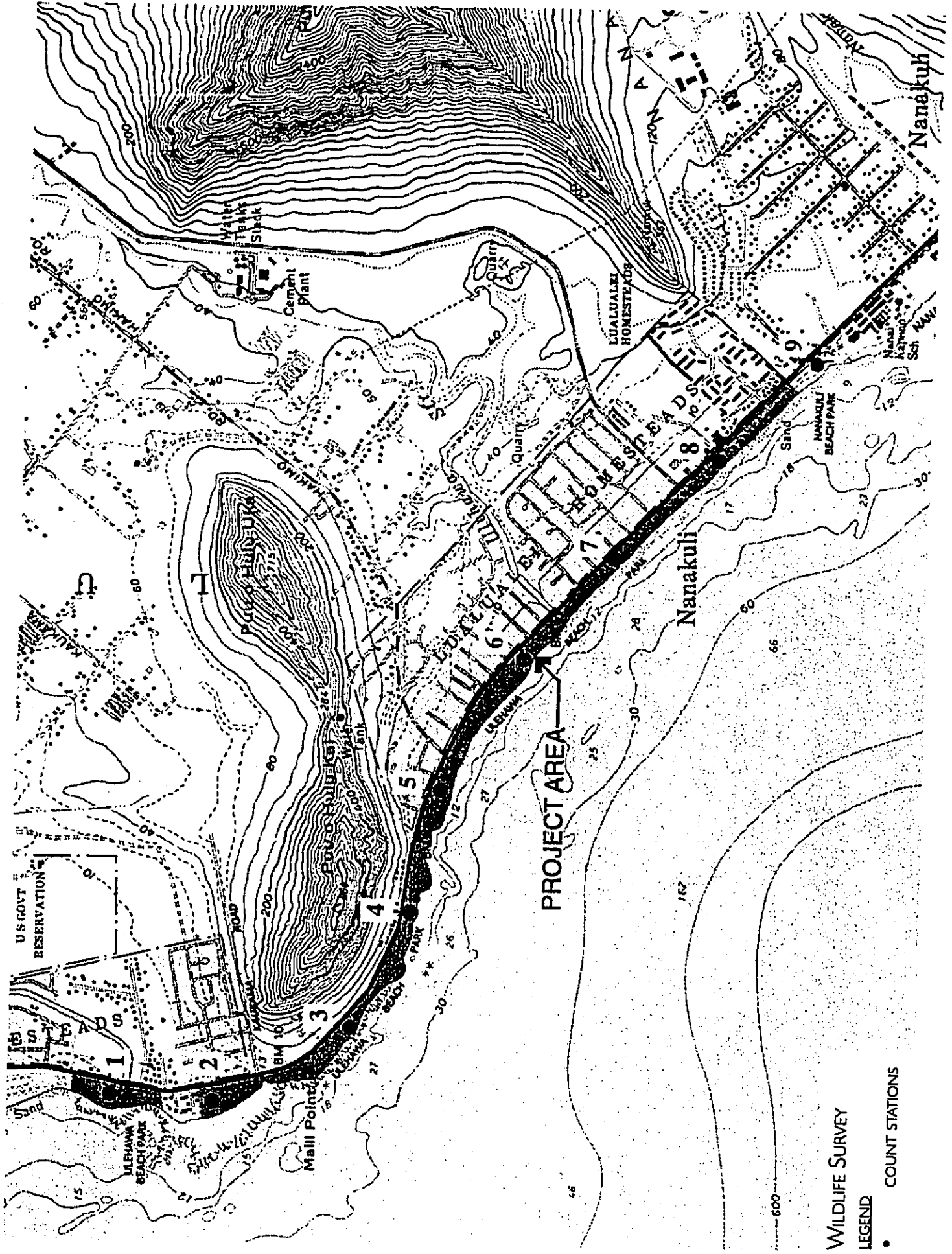
5.0 Conclusion

The improvements proposed for Ulehawa Beach Park should not have a significant negative impact to migratory shorebirds or the introduced wildlife in the area. The introduced wildlife will most likely benefit from landscape improvements to the area. Since no proposed actions are planned in the marine environment there should be no significant negative impact to green sea turtles that may use the nearshore environment. Monk seals could appear along the coastline, and precautions should be taken to keep the public from disturbing the animal.

Kepler, C.B. and J.M. Scott. 1990. Notes on distribution and behavior of the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), 1964-1983.

Nitta, G. 1998. Telephone conversation September 14, 1998.

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



WILDLIFE SURVEY
LEGEND
• COUNT STATIONS

C. Archaeological Survey

SCS Project 147-1

**LETTER REPORT REGARDING
AN ARCHIVAL AND FIELD RECONNAISSANCE OF
ULEHAWA BEACH PARK PROJECT,
NANAKULI, HAWAII**

By
Michael F. Dega, M.A.
September 1998

Prepared for:
PBR Hawaii
1001 Bishop Street, Suite 650
Honolulu, HI 96813

SCIENTIFIC CONSULTANT SERVICES Inc.



711 Kapiolani Blvd. Suite 777 Honolulu, Hawai'i 96813

Dave Hulse
PBR Hawaii
1001 Bishop Street, Suite 650
Honolulu, HI 96813

9/15/98

Dear Dave:

Thank you again for contacting SCS, Inc. concerning your archaeological needs in relation to the Ulehawa Beach Park Project. As per the agreed proposal, archival research pertaining to the project area has been conducted and archaeological field reconnaissance has also been concluded. Field reconnaissance was conducted on Thursday, September 10, 1998 by SCS, Inc. employees Michael Dega and Randy Ogg. This letter briefly outlines results of archival research pertaining to the project area, findings during the reconnaissance survey, and offers recommendations for future archaeological work in the area.

ARCHIVAL RESEARCH

Archival research has shown that the project area, encompassed within TMK 8-7-06 and 8-7-07, contains no Land Commission Awards (LCAs), and that a majority of the land is owned by the State of Hawai'i and the City and County of Honolulu. Two small portions of land along the beach area, containing radio towers, are owned by the United States Government. Lualualei Homestead and Maili Lands occur across Farrington Highway, north of the project area.

A search of previous archaeological and archival studies pertaining to the subject parcel reveal that one historical site has been previously identified within the boundary of the project. The historical site was identified as containing the railroad tracks running parallel to Farrington Highway (*makai* side) and representing the former O.R. & L. Railroad line (Figure 1). This site has been deemed Site 50-80-12-9714 by the State Historic Preservation Division and is listed on the National Register of Historic Places. The railroad tracks, although heavily covered by sand, are visible along the northern boundary of the project area, from the eastern project boundary to approximately Auyong Homestead Road (see Figure 1). The O.R. & L. Railroad line's easternmost terminus point is near Fort Weaver Road in Ewa, the westernmost terminus of the line

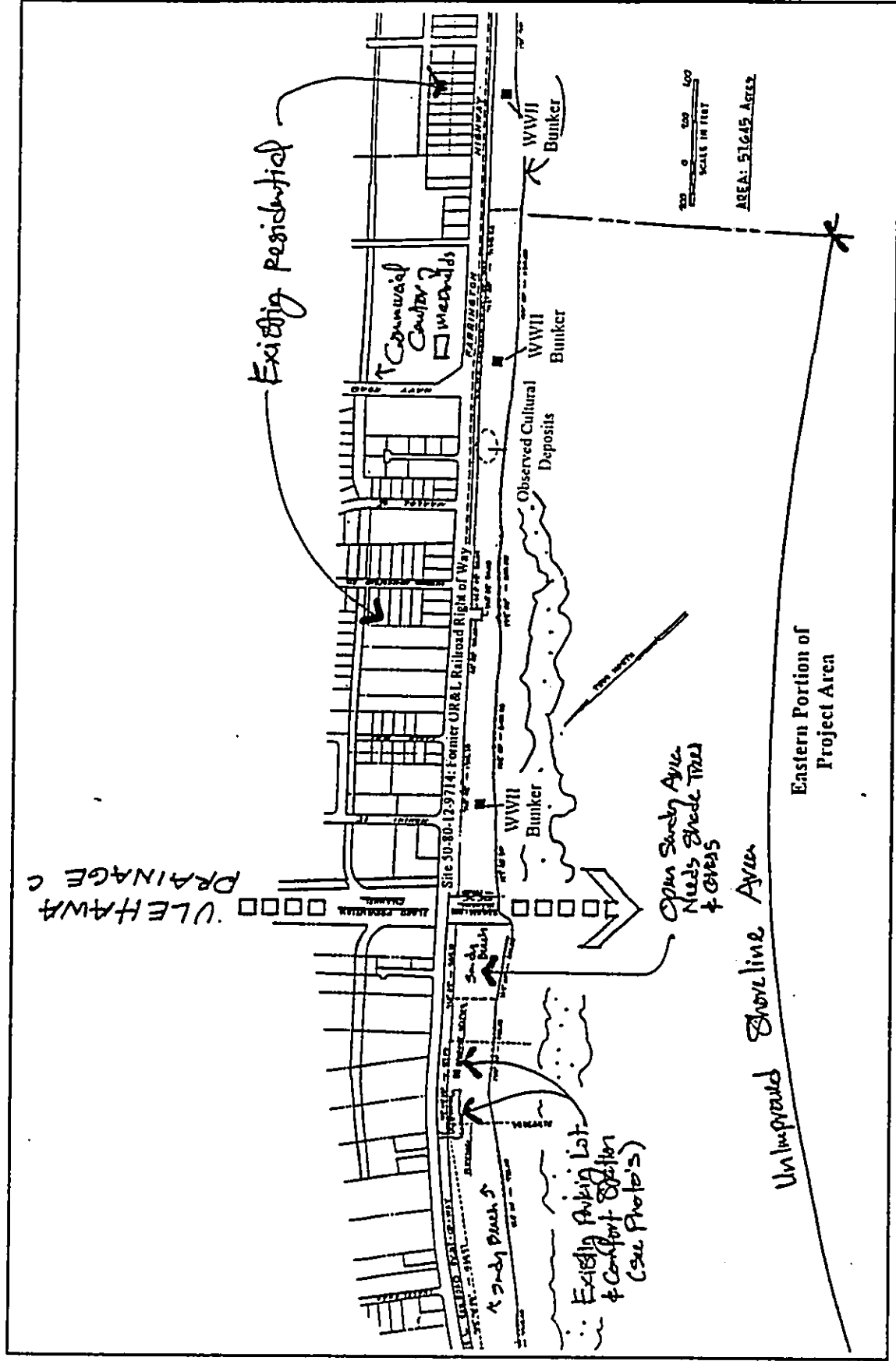


Figure 1: Planview Map of the Eastern Portion of the Project Area at Uleehawa Beach Park Showing Entire Dune Area and Observed Cultural Layer Location Exposed in the Dune.

being in Nanakuli, past Lualualei. While the western terminus of the railroad line occurs approximately 200 m within the project area's eastern flank, the state right-of-way and railroad berm continue through the northern flank of the project area past Pu`u O Hulu and the westernmost portion of the project area. The berm is suggested here to contain both cultural deposits and possibly, human remains, both representing traditional or pre-Contact times.

Additional archival research revealed several other archaeological sites in the general vicinity of the project area. McAllister's (1933) Site 148, situated outside the present project area but "near the beach", consists of a large rock said to be named "Maui". The rock supposedly rests some 1.1 miles from Nanakuli Station toward Pu`u O Hulu and represents the location where the god Maui is said to have landed when he first arrived in the Hawaiian Islands from the south (Sterling and Summers 1978:64). Pu`u O Hulu itself, the mountain situated to the north of the central and western portion of the project area, has also been evoked in legends. It was said that the mountain represents a chief who, at one time, was in love with one twin sister. The chief could never ascertain as to which was his beloved. A *mo`o* changed the chief and both twins into mountains and thus, the chief is still there watching and attempting to distinguish his loved one (see Sterling and Summers 1978:67).

Two more specific archaeological features occurred within and near the current project area. First, a petroglyph rock was discovered within the beach park area, part of the current project's parcel. The sandstone rock, measuring some 2 feet by 2 feet, contained three figures on the rock face. This rock, as of 1954, was taken to the B.P. Bishop Museum for curation. Second, approximately 0.5 miles north of the project area (southern flank), Ilihune Heiau used to stand. This *heiau* has been destroyed but lends itself to the idea that this area was indeed important during traditional times.

Archival research has further revealed that no archaeological projects have occurred within the present project area. A majority of recent archaeological work has taken place *mauka* and to the east and west of the Ulehawa Beach Park area. Archaeological features identified in the former areas includes evidence for ubiquitous dryland agriculture and evidence for temporary habitation, house sites, shrines, and burials. While the upper valley locations contain a majority of sites, it is recognized that the upper areas were settled c. A.D. 1290-1500, coastal land use more than likely preceding this temporal frame. Shoreline archaeological sites and features, yet to be identified in this locale, may include burials and buried cultural deposits.

ARCHAEOLOGICAL RECONNAISSANCE SURVEY

On September 10, 1998, Michael Dega and Randy Ogg, both employees of SCS, Inc. performed reconnaissance survey of the 57 acre parcel within the Ulehawa Beach Park project area (see Figure 1). The pedestrian survey was performed by the two-person fieldcrew through 100% of the project area. During the informal survey, presumed traditional cultural layers exposed in a sand dune cut and historic-period structures were both noted. In addition, project area topography, soil regimes, vegetative conditions, and disturbances within the area were also noted.

Briefly, the project area has been substantially altered by modern construction activities occurring adjacent to Farrington Highway. In addition, the western portion of the subject property, from approximately the waste water pumping station near Hakimo Road to the westernmost flank of the project area south of Pu'u O Hulu, is characterized by raised coral benches and basaltic flows. The soil matrices within this portion of the project area are virtually non-existent and the sand dunes are only minimal and mobile. Thus, the area east of the waste water pumping station to the end of the project area was of more concern. This eastern portion contained a long, partially segmented but stable sand dune area horizontally reaching some 10 m and extending up to 4 m above the Farrington Highway road surface to the north (see Figure 1). The dunes are the most critical area within the project parcel for the presence of archaeological resources. Topographically, the parcel is typified as containing a basically flat to a moderate grade with topographical changes occurring in the western portion of the project area and along the long, somewhat disarticulated, sand dune sequence. Vegetation in the project area is composed of *kiawe*, some grasses, and secondary growth brush. Modern debris is littered throughout the area.

Pertinent to this report, one significant archaeological find was noted during reconnaissance survey. As previously mentioned, along the eastern portion of the project area, within a sand dune cut, we observed an extensive cultural horizon some 8-10 centimeters thick and composed of extensive charcoal flecking (see Figure 1). Several fragments of medium-sized bird and fish bone also occurred within the profile. This cultural horizon, presumed to represent traditional occupation of the area, horizontally extended approximately 10 m, this being the observable segment in the stratigraphic profile. It is expected that this cultural horizon extends further both horizontally and vertically within this particular loci and that other similar deposits occur within the sand dunes. This area is particularly well-suited for testing as the cultural deposits appear to have some time depth and, perhaps more significant, the sand dunes appear to have stabilized some time ago.

Structures noted along the beach parcel were historic in nature. These structures included concrete bunkers constructed during the World War II era and now lie abandoned in the beach sand near the coastline (see Figure 1). Three such bunkers were noted within the project area, two of the structures almost completely having been absorbed by the beach sand. No other significant cultural resources were noted during survey reconnaissance.

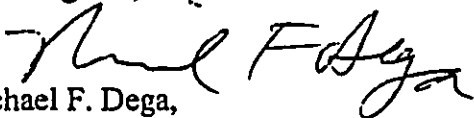
RECOMMENDATIONS

Upon completion of the reconnaissance survey, and through discussions of the archaeological potential of the project area with the staff of the State Historic Preservation Division (SHPD), it is recommended that an Archaeological Inventory Survey be conducted in select locations of the project area, particularly within the extensive sand dunes along the project's central and eastern sections. This phase of research would focus on subsurface testing to determine the age and extent of the known cultural deposit identified in the eastern portion of the project area. In addition, limited testing would also determine the presence or absence of other cultural deposits and/or burials within the sand dunes near the coastline. This recommendation for further research is also based on the fact that little is known archaeologically about the project area and second, the fact that a significant number of burials have previously been identified on the *mauka* side of Farrington Highway near the current project area.

In addition, the identified historic structures (World War II bunkers) should be more thoroughly mapped and recorded. These historic structures will be included as "sites" within the final draft report as they are greater than 50 years of age and thus, historic properties. The SHPD office is in accordance with the Inventory Survey and historic structure treatment recommendations.

Thank you again for the opportunity to provide archaeological services during the Ulehawa Beach Park Project. Please contact us if any questions or concerns arise concerning the archaeological nature of this project. We look forward to talking with you soon.

With Regards,


Michael F. Dega,
Senior Archaeologist
Scientific Consultant Services, Inc.