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COMMISSION ON WATER RESOURCE MANAGEMENT

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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

ENGINEERING DIVISION
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HONOLULU, HAWAII 96809

JAN 28 2005

TO: Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control

FROM: Peter T. Young, Chairperson
Board of Land and Natural Resources

SUBJECT: **Final Environmental Assessment for the Proposed Lahaina Small Boat Harbor Comfort Station Improvements, Lahaina, Maui, TMK: (2) 4-6-001:001**

The Department of Land and Natural Resources has reviewed the Final EA prepared for the subject project and approves the Finding of No Significant Impact (FONSI). Please publish the notice of the FONSI for the Final Environmental Assessment in your next scheduled publication of the Environmental Notice.

We have enclosed a completed OEQC Bulletin Publication Form, four (4) copies of the final environmental assessment and the project summary. An electronic file of the project summary will be forwarded to your office by the project consultant, Munekiyo & Hiraga, Inc.

Should you have any questions, please contact Mr. Eric Hirano, Chief Engineer at (808) 587-0230.

Enclosures

c: M. Hirano, Munekiyo & Hiraga, Inc.

2005-02-08 FONSI
LAHAINA SMALL BOAT HARBOR COMFORT STATION IMPROVEMENTS

FEB - 8 2005

Final Environmental Assessment

PROPOSED LAHAINA SMALL BOAT HARBOR COMFORT STATION IMPROVEMENTS

Prepared for:

State of Hawaii, Department
of Land and Natural Resources

January 2005

MUNEKIYO & HIRAGA, INC.

Final

Environmental Assessment

PROPOSED LAHAINA SMALL BOAT HARBOR COMFORT STATION IMPROVEMENTS

Prepared for:

State of Hawaii, Department of Land and Natural Resources

January 2005

MUNEKIYO & HIRAGA, INC.

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Executive Summary

Project Name:	Lahaina Small Boat Harbor Comfort Station Improvements
Type of Document:	Final Environmental Assessment
Legal Authority:	Chapter 343, Hawaii Revised Statutes
Agency Determination:	FONSI
Applicable Environmental Assessment review "trigger":	Use of State Lands and Funds; Lahaina National Historic Landmark District
Location:	Maui Island Lahaina Town, Lahaina Judicial District TMK: (2) 4-6-01:01
Proposing Agency:	State of Hawaii Department of Land and Natural Resources 1151 Punchbowl Street, Room 221 Honolulu, Hawaii 96813 Contact: Eric Hirano
Determination Agency:	Same as above
Consultant:	Munekiyo & Hiraga, Inc. 305 High Street Wailuku, Hawaii 96793 Contact: Michael T. Munekiyo Phone: (808) 244-2015
Project Summary:	The State of Hawaii, Department of Land and Natural Resources, proposes the demolition and reconstruction of the existing comfort station, located in the vicinity of the Lahaina Small Boat Harbor. The existing facility is not ADA-compliant and is in disrepair. The existing facility is approximately 375 square feet (s.f.) and will be demolished. The new facility will be approximately 1,200 s.f. The total number of stalls will be increased from six (6) to

eighteen (18), including twelve (12) women's toilets, two (2) men's urinals and four (4) men's toilets. Related improvements include a janitor/storage closet and widening the adjacent street parking area to provide accessible parking.

Preface

The State of Hawaii, Department of Land and Natural Resources proposes to demolish and reconstruct the comfort station at the Lahaina Small Boat Harbor in Lahaina, Maui, Hawaii.

Since the project area is located within the Lahaina National Historic Landmark District, and involves the use of State funds as well as State lands, this Environmental Assessment (EA) has been prepared in accordance with the provisions of Chapter 343, Hawaii Revised Statutes and Chapter 200 of Title 11, Department of Health, Hawaii Administrative Rules, Environmental Impact Statement Rules.

Federal funds will also be used for the proposed comfort station improvements which trigger Federal EA requirements pursuant to the National Environmental Policy Act (NEPA) of 1969. Coordination with the Federal Transit Administration (FTA) indicates the proposed action may meet the FTA's criteria for a categorical exclusion. Coordination with FTA will be carried out to ensure that requirements of NEPA are fully addressed.

Chapter I

Project Overview

I. PROJECT OVERVIEW

A. PROJECT LOCATION, EXISTING USE AND LAND OWNERSHIP

The State of Hawaii, Department of Land and Natural Resources (DLNR) proposes comfort station improvements at the Lahaina Small Boat Harbor in Lahaina, Maui, Hawaii. See Figure 1 and Figure 2.

The new comfort station improvements are proposed on the site occupied by an existing restroom facility which is identified by TMK 4-6-01:01. The comfort station is adjacent to the Lahaina Small Boat Harbor. The Harbor is identified by TMK 4-6-01:02. Within the limits of the harbor are an existing pier and a berthing area for the Carthaginian II, a replica of a historic whaling ship. The existing pier provides a docking facility for the ferry service between Lahaina and the islands of Lanai and Molokai, as well as for tender boats servicing the cruise ships.

Land uses in the immediate vicinity of the existing comfort station include the existing harbor and historic sites like the Pioneer Inn, the Lahaina Courthouse and the Banyan Tree. The comfort station is located in the Lahaina National Historic Landmark District. Other uses in this district include King Kamehameha III Elementary School, the Lahaina Public Library, as well as other historic sites such as the Hauola Stone, and Brick Palace.

Access to the Lahaina Small Boat Harbor is provided via Hotel, Wharf, Canal, and Papalekane Streets. These one-way County roadways form a circuit with Front Street to provide ingress and egress to the harbor area.

The ownership of the existing comfort station site (Parcel 1) lies with the State of Hawaii. Executive Order No. 80 set aside the use of this land for

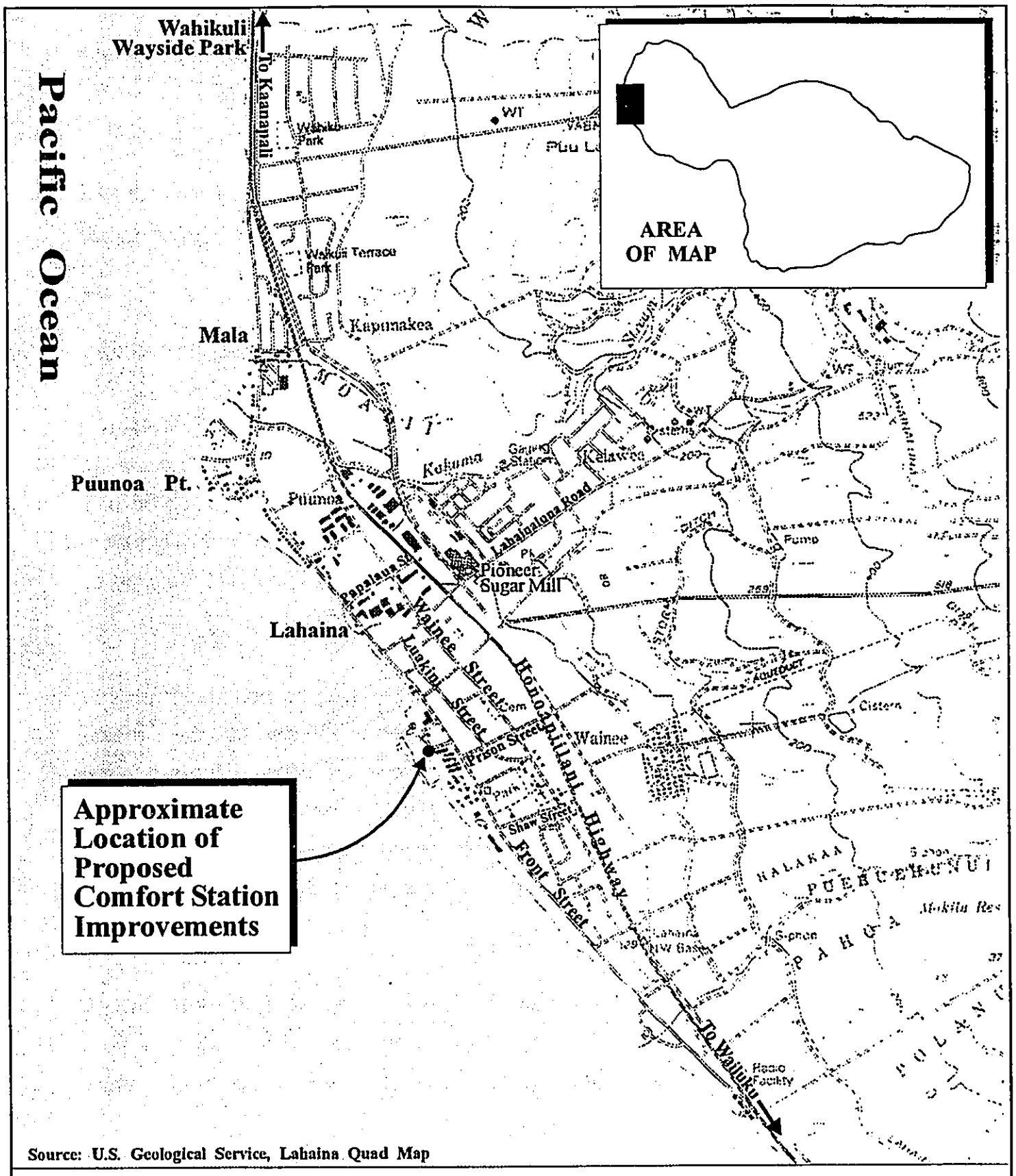

Figure 1 Proposed Lahaina Small Boat Harbor Comfort Station Improvements

Regional Location Map

Prepared for: State of Hawaii, Dept. Of Land and Natural Resources

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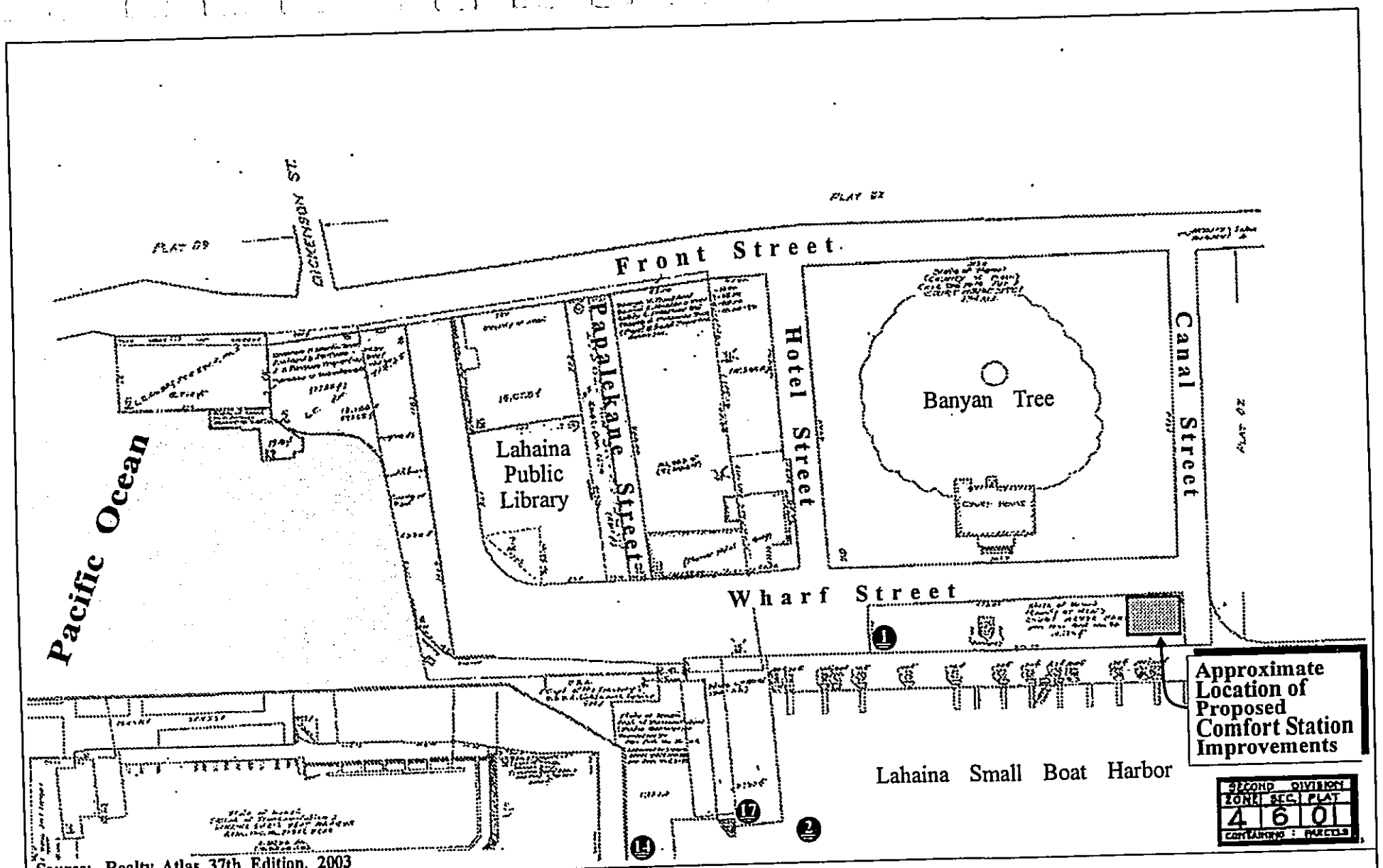

Source: Realty Atlas 37th Edition, 2003

Figure 2

Proposed Lahaina Small Boat Harbor Comfort Station Improvements

Parcel Location Map

NOT TO SCALE

Prepared for: State of Hawaii, Dept. Of Land and Natural Resources

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park purposes and vested control and management of the site with the County of Maui. The project area is located within the limits of the Special Management Area for the island of Maui and is also situated within the boundaries of Historic District No.1, one of two County historic districts in the town of Lahaina.

B. *PROJECT NEED*

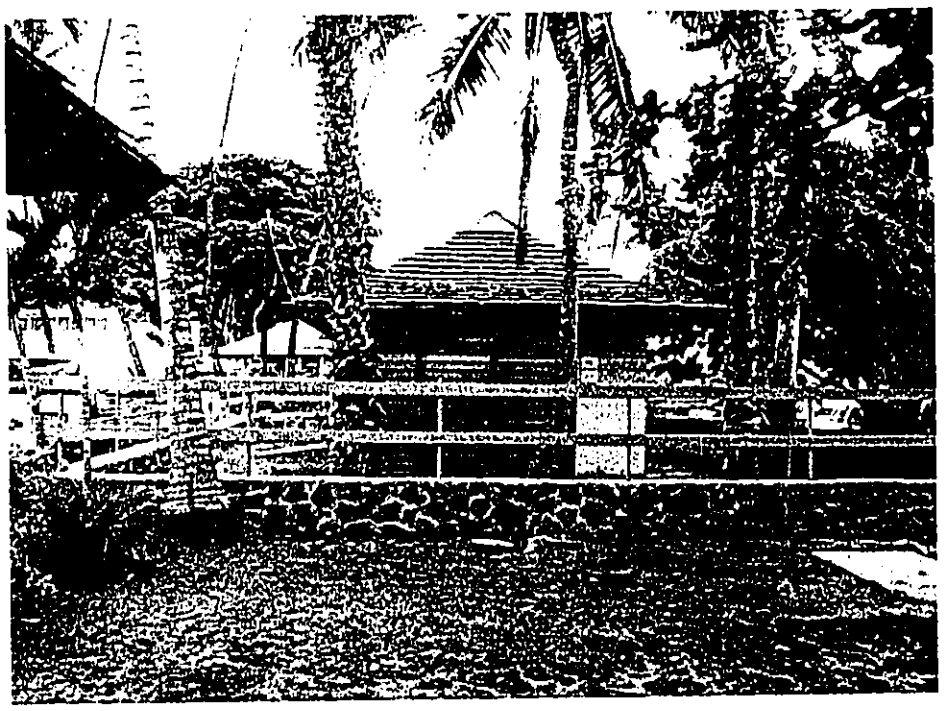
The comfort station services the Lahaina Small Boat Harbor and interisland ferry patrons and provides a public convenience facility serving the local community, the adjacent commercial land uses and visitors to nearby historic sites. The existing comfort station, now over 20 years old, is inadequate for the public demand and is in disrepair. See Figure 3. In addition, the comfort station does not meet the accessibility criteria of the guidelines for the Americans With Disabilities Act (ADA). The demolition of the existing comfort station and reconstruction of a new, larger comfort station will accommodate increased public demand and provide access for people with disabilities.

C. *PROPOSED ACTION*

The proposed project will involve the demolition of the existing comfort station and construction of a new comfort station at the same location. The existing comfort station is located in the southern portion of a 0.28-acre parcel identified by TMK 4-6-01:01. Constructed in 1983, the existing comfort station (15-feet width x 25-feet length x 14-feet, 6-inches height) contains approximately 375 square feet of floor area. The existing facility contains two (2) sinks, two (2) urinals, and two (2) toilets on the men's side and two (2) sinks and two (2) toilets on the women's side. As the present facility is inadequate to service existing demand and is in disrepair, the existing comfort station will be demolished and replaced with

RECEIVED AS FOLLOWS

West View - Front Elevation



South View - Side Elevation

Figure 3 Proposed Lahaina Small Boat Harbor
Comfort Station Improvements
Photographs of Existing Comfort Station

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Land and Natural Resources

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a new ADA accessible facility which can accommodate additional usage. The new replacement comfort station (30-feet width x 40-feet length x 17-feet, 5-inches height) will contain approximately 1,200 square feet of floor area. See Figure 4. The replacement comfort station will contain four (4) sinks, two (2) urinals, and four (4) toilets on the men's side. On the women's side, the new facility will provide five (5) sinks and twelve (12) toilets. Two (2) of the women's stalls will be accessible, as will one (1) of the men's stalls. Reconfiguration of existing parking stalls next to the comfort station will also be undertaken to address accessibility requirements.

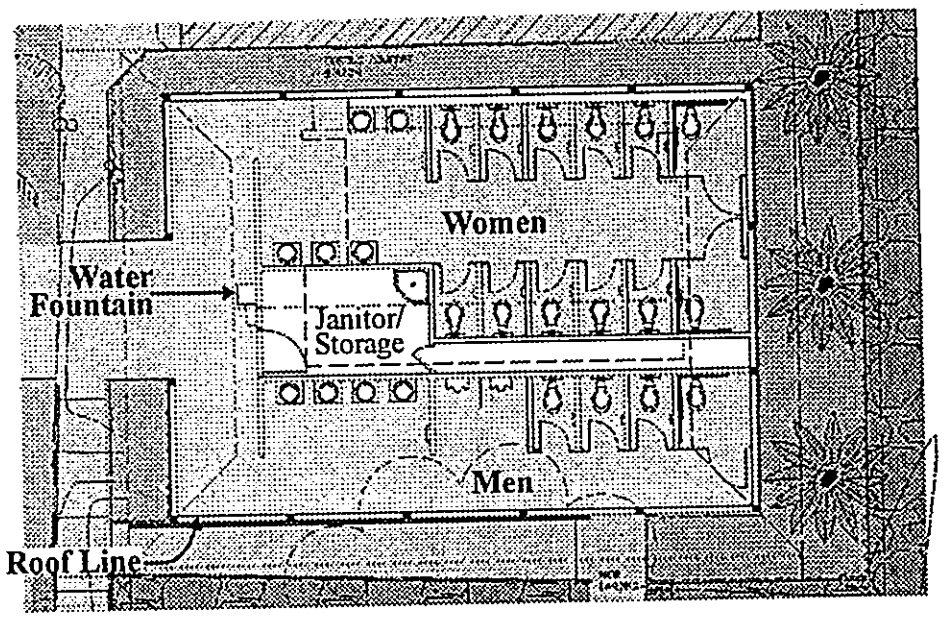
Ancillary improvements, including underground plumbing work at the site, as well as landscaping improvements of the immediate adjacent area will also be undertaken as part of the proposed action.

To preserve the historic architectural character and ambience of Lahaina, the architectural style and materials for the proposed replacement comfort station will be in accordance with the design standards established for the Lahaina Historic District, including The Architectural Style Book for Lahaina, which was adopted by the County of Maui in October 1969.

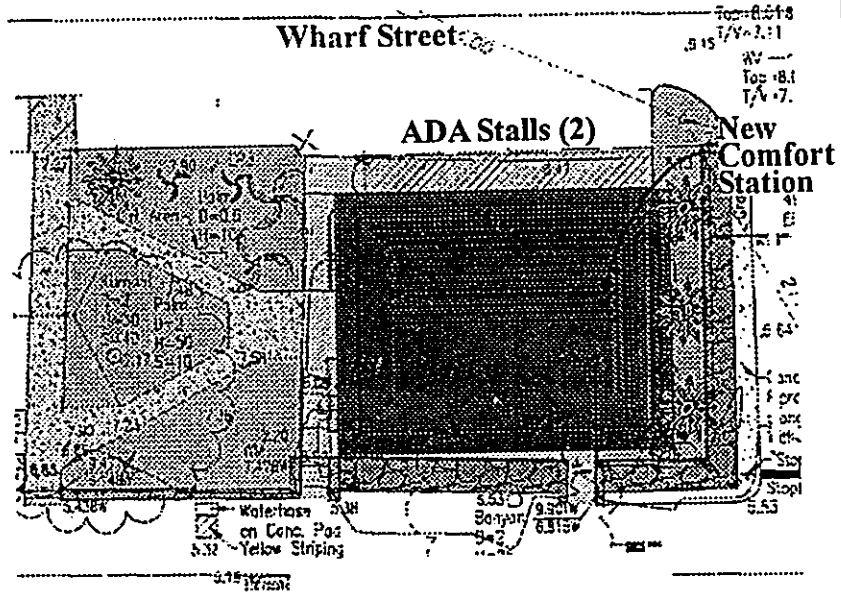
D. PROJECT FUNDING AND SCHEDULING

The Federal Transit Administration (FTA) has earmarked $25 million for the following fiscal years (FY) to support ferry operations in Hawaii: $5 million for FY 2003, $10 million for FY 2004, and $10 million for FY 2005.

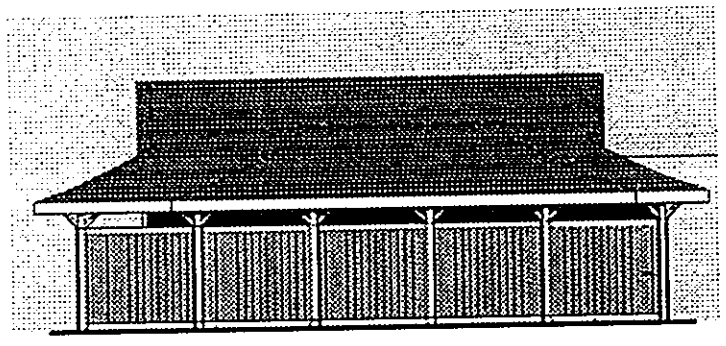
Funds from a FTA grant have been provided for the project's planning phase. Upon completion of this phase, the DLNR will be filing a grant application with the FTA to fund the design and construction of the proposed comfort station project. The Federal to State cost share ratio



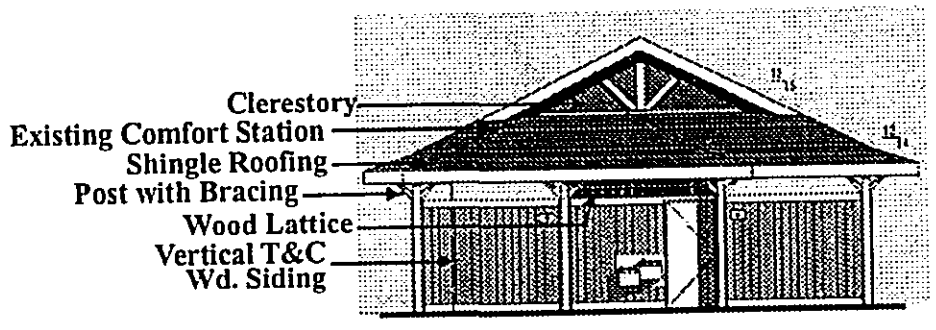
Comfort Station Floor Plan



Overall Site Plan



East and West Elevations



North Elevation

Source: Mitsunaga & Associates, Inc.

Figure 4

Proposed Lahaina Small Boat Harbor
Comfort Station Improvements
Conceptual Comfort Station Plan and Elevations

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Prepared for: State of Hawaii, Dept. Of Land and Natural Resources

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for both the planning and the design and construction phases is 4:1.

The estimated construction cost for the proposed project is approximately $660,000.00. Construction of the project is expected to commence upon the receipt of all permits and approvals. The project will be constructed in a single phase and is anticipated to be completed in approximately 8 months.

E. *CHAPTER 343, HAWAII REVISED STATUTES (HRS) REQUIREMENTS*

Since the proposed project is located within the Lahaina National Landmark Historic District, and involves the use of State funds, as well as of State lands, this Environmental Assessment (EA) has been prepared in accordance with the provisions of Chapter 343, Hawaii Revised Statutes and Chapter 200 of Title 11, Department of Health, Hawaii Administrative Rules, Environmental Impact Statement Rules.

F. *NATIONAL ENVIRONMENTAL POLICY ACT COORDINATION*

Since Federal funds will be used for the proposed comfort station improvements, Federal EA requirements pursuant to the National Environmental Policy Act (NEPA) of 1969 will be triggered. The State of Hawaii will be preparing environmental findings, details and justification for a categorical exclusion (CE) for a federal EA to the Federal Transit Administration (FTA) for review and approval. The CE action will be made to the Federal Transit Administration under 23 Code of Federal Regulations, Section 771.117 (c)(12) "Improvements to existing rest areas and truck weigh stations", and (c)(15) "Alterations to facilities or vehicles in order to make them accessible to elderly and handicapped persons". Coordination with FTA will be carried out to ensure that requirements of NEPA are fully addressed.

G. *OPERATIONAL RESPONSIBILITIES AND MAINTENANCE*

The Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DOBOR) has overall maintenance responsibility for the existing comfort station. Due to public demand generated by the activities of the small boat harbor and nearby attractions, the comfort station is open 24 hours a day, 7 days a week. DOBOR has a public bid contractor to carry out janitorial duties at the comfort station. The janitorial services are performed two times a day, one service at mid-day and one service in the evening.

In the future, DOBOR is seeking to partner with the County and/or the private sector to meet janitorial responsibilities. DOBOR, however, will retain responsibility for building repairs and maintenance. It is anticipated that the new comfort station will also be open 24 hours a day, 7 days a week. Crime preventative design considerations have been taken into account involving building visibility and exterior lighting in order to discourage unsanctioned and criminal activities.

Chapter II

Description of Existing Environment

II. DESCRIPTION OF EXISTING ENVIRONMENT

A. PHYSICAL ENVIRONMENT

1. Surrounding Land Use

The project area is situated along the western extent of Lahaina's business district. Numerous retail stores and services are located along Front Street, the major venue for commercial activity in Lahaina Town. To the south of the project area lies 505 Front Street, a two-story 75,000 square foot shopping center, while to the north lies a myriad of visitor-oriented shops and restaurants, as well as shopping facilities such as the Banyan Inn Market Place, The Wharf Cinema Center, Dickenson Square, Lahaina Market Place, Mariner's Alley, Lahaina Shopping Center, Lahaina Square, Anchor Square, Lahaina Center, and Lahaina Cannery Mall.

The proposed project is located in an area of existing park, business/commercial, and public/quasi-public land uses. The Lahaina Small Boat Harbor lies west of the proposed project, while the Lahaina Public Library and the Pioneer Inn are located to the north. Various retail shops lie along Pioneer Inn's frontage with Hotel, Wharf, and Front Streets. The Lahaina Courthouse lies along the east side of Wharf Street, while the King Kamehameha III Elementary School, which is south of and adjacent to Canal Street, lies across the street from the existing comfort station. A grassed, open space area on the west side of the Lahaina Public Library and the Courthouse Park, which encompasses the Banyan Tree and existing comfort station parcels, characterize park uses in the area. In addition to the Pioneer Inn and the Banyan Tree, historic sites such as the Hauola Stone and the Brick Palace occupy lands in the project area. East of Front Street, land uses in the project area include the Banyan Inn Market Place, The Wharf Cinema

Center and several retail stores, and beyond are single-family residences.

2. ***Climate***

Like most areas of Hawaii, Lahaina's climate is relatively uniform year-round. Lahaina's tropical latitude, its position relative to storm tracts and the Pacific anticyclone, and the surrounding ocean combine to produce this stable climate. Variations in climate among different regions, then, is largely left to local terrain.

In Lahaina, August is historically the warmest month with an average daily high temperature of approximately 88 degrees Fahrenheit and average daily low temperature of 70 degrees Fahrenheit. February is normally the coolest month of the year with an average daily high temperature of 81 degrees Fahrenheit and an average low temperature of approximately 63 degrees Fahrenheit.

Rainfall in West Maui is highly seasonal, with most precipitation occurring from December to May when winter storms hit the area. Precipitation data for 2002 shows that on average, October was the wettest month with 7.11 inches of rainfall, while June, August, September, and November were the driest with less than 0.8 inch of rainfall. Total precipitation for the year was 27.98 inches, and average monthly rainfall was 2.33 inches (Maui County Data Book, 2003).

The winds in the region are also seasonal. Northeasterly tradewinds occur 90 percent of the time during the summer, and just 50 percent of the time in the winter. Wind patterns also vary

on a daily basis, with tradewinds generally being stronger in the afternoon. During the day, winds blow onshore toward the warmer land mass. In the evening, the reverse occurs, as breezes blow toward the relatively warm ocean.

3. *Topography and Soils*

Soils in the project site area belong to the Pulehu-Ewa-Jaucas association. See Figure 5. Ewa silty clay loam (EaA) is the Ewa Series soil type specific to the site and immediate surrounding area. See Figure 6. Ewa silty clay loam is characterized by slopes of 0 to 3 percent, very slow runoff, moderate permeability, and no more than slight erosion hazard. Vegetation normally associated with this series include fingergrass, kiawe, koa haole, klu and uhaloa.

4. *Flood and Tsunami Hazards*

The Flood Insurance Rate Map for the Lahaina area indicates that the lands around the Lahaina Small Boat Harbor fall within Zone B, areas between the limits of 100- and 500-year flooding, and Zone V12, areas of 100-year coastal flooding with velocity (wave action). The base flood elevation in this area is 7 feet above mean sea level and lies within Zone V12. See Figure 7. Makai (shoreward) of the project area Zone V12 forms a narrow band along the shoreline, while Zone B encompasses an area that reaches from Zone V12 to Front Street. The proposed comfort station lies within the limits of Zone B.

5. *Flora and Fauna*

There are no rare, threatened or endangered species of plant life within the project area. The area around the existing comfort

LEGEND

① Pulehu-Ewa-Jaucas association

② Waiakoa-Keahua-Molokai association

③ Honolua-Olelo association

④ Rock land-Rough mountainous land association

⑤ Puu Pa-Kula-Pane association

⑥ Hydrandepts-Tropaquods association

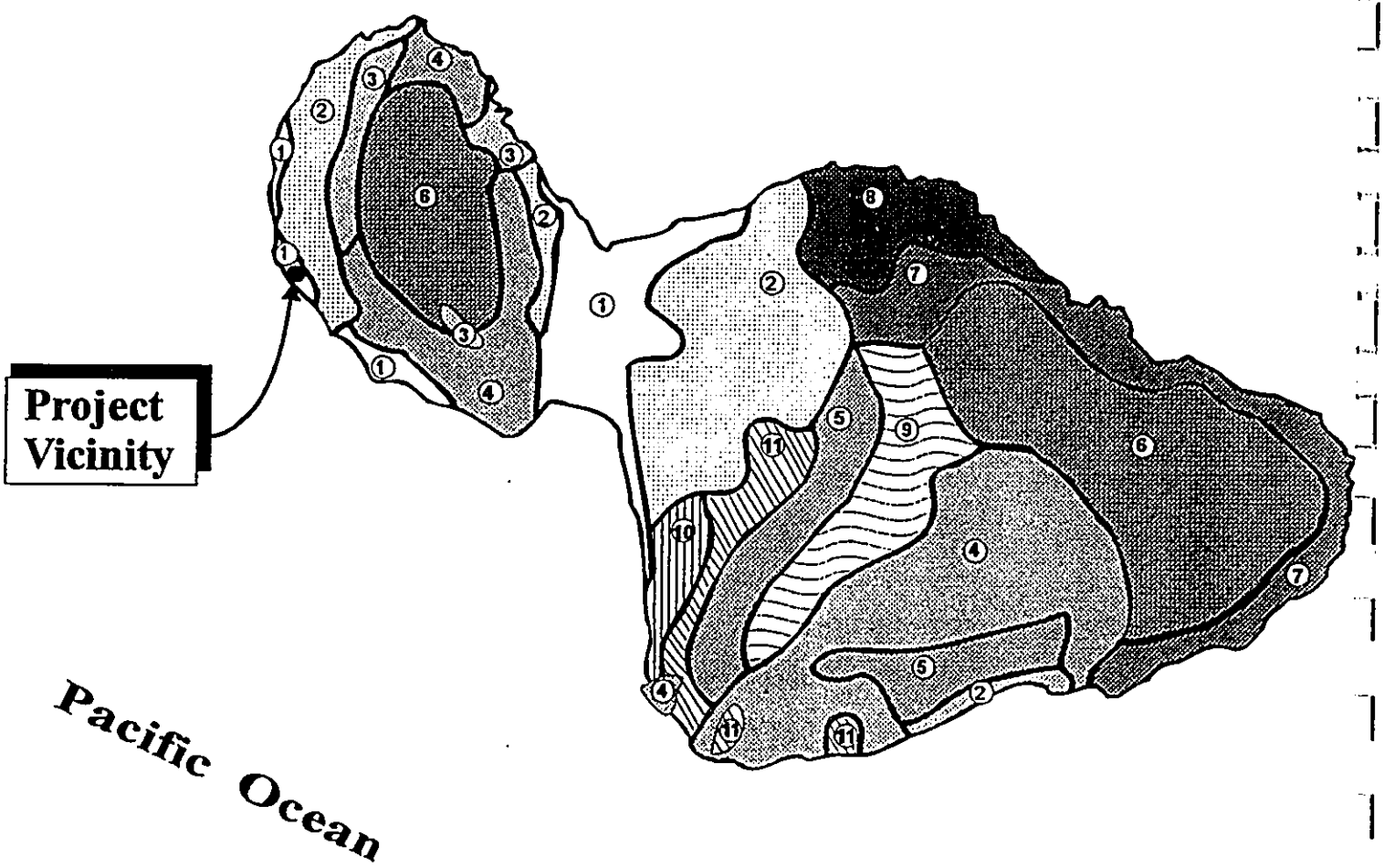
⑦ Hana-Makaalae-Kailua association

⑧ Pauwela-Haiku association

⑨ Laumaia-Kaipoipoi-Olinda association

⑩ Keawakapu-Makena association

⑪ Kamaole-Oanapuka association



Source: USDA Soil Conservation Service

Figure 5 Proposed Lahaina Small Boat Harbor Comfort Station Improvements
Soil Association Map

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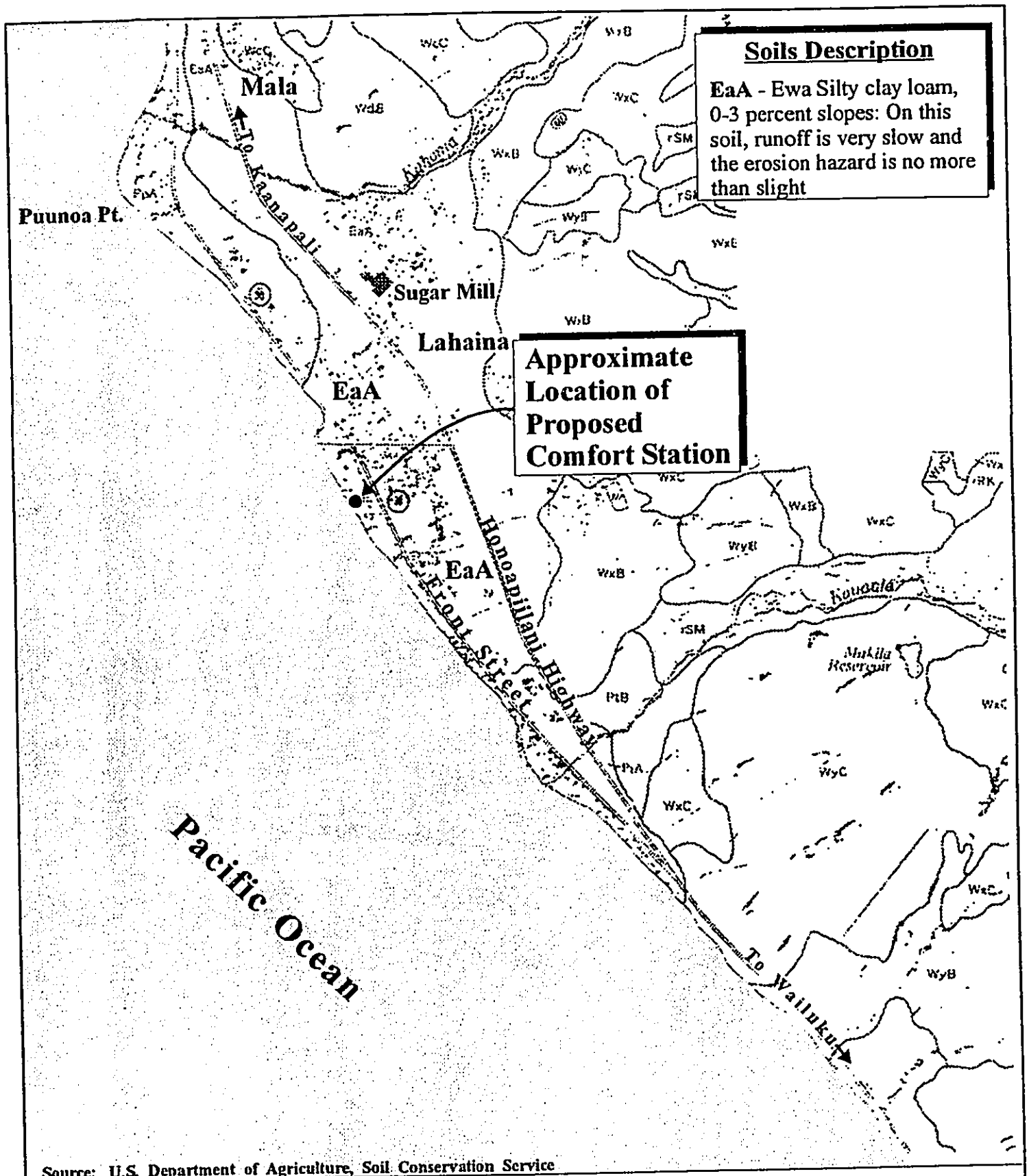

Source: U.S. Department of Agriculture, Soil Conservation Service

Figure 6 Proposed Lahaina Small Boat Harbor Comfort Station Improvements

Soil Classification Map

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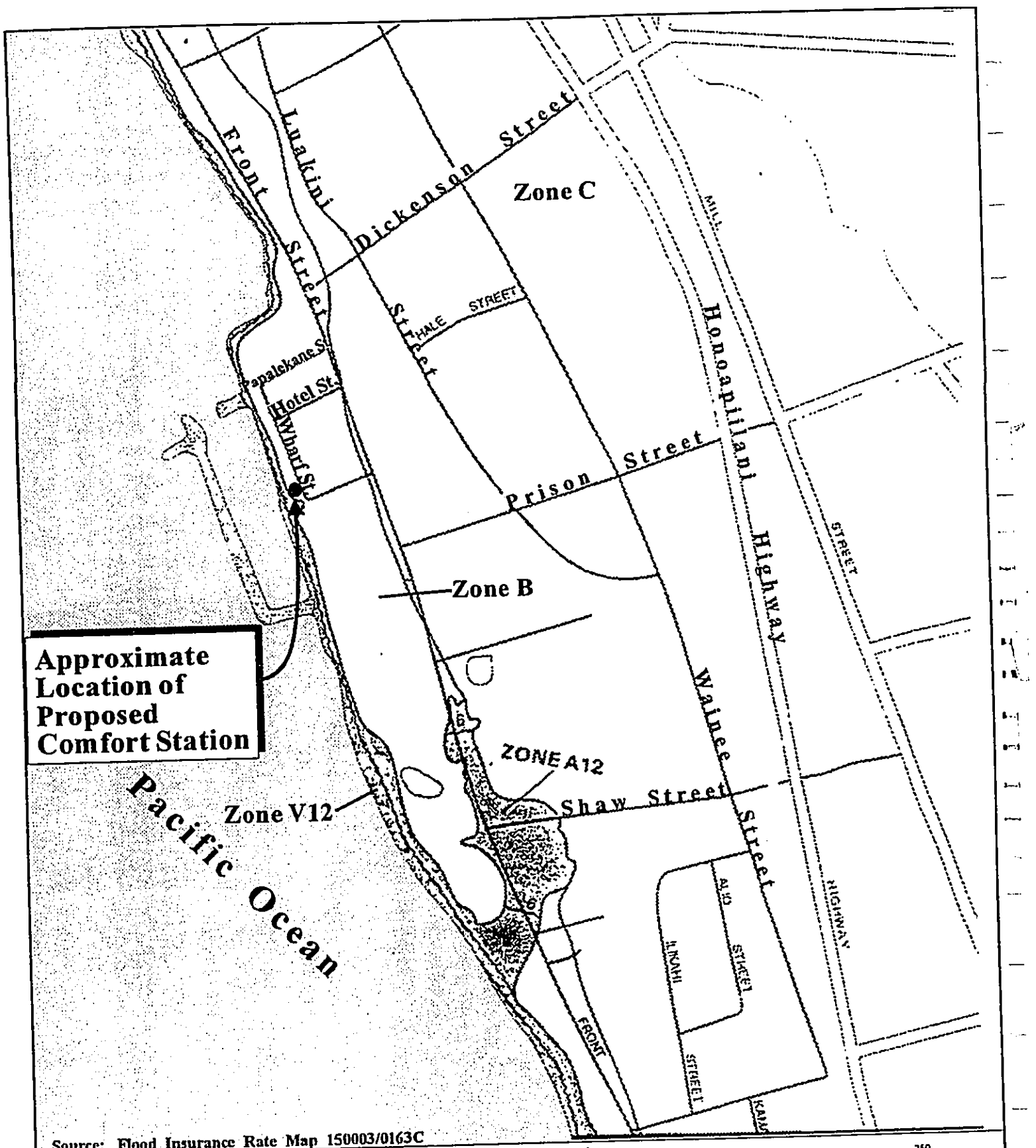

Figure 7 Proposed Lahaina Small Boat Harbor Comfort Station Improvements

Flood Zone Designations

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station is graded and grassed, with four (4) large, fan palm and one (1) coconut palm on the northern end of the comfort station area. One (1) crownflower tree sits at the southern end and one (1) banyan tree at the west end.

Animal life which may be found in this area is typical of the urbanized regions of West Maui. Domestic mammals found in the area include dogs and cats. Avifauna commonly found in this area include the common mynah, Japanese white-eye, spotted dove, barred dove and house finch. There are no known rare, threatened or endangered species found in the vicinity of the project area. In addition, there are no streams or wetlands located within or in close proximity to the project area.

6. ***Air Quality***

The Lahaina region in general does not experience adverse air quality conditions. There are no point sources of airborne emissions in the immediate vicinity and the air quality at the subject property is considered good. Airborne pollutants that do exist can largely be attributed to ship exhaust from harbor traffic and to vehicle exhaust from surrounding roadways. These sources are intermittent, however, and the prevailing tradewinds soon disperse particulates generated by these temporary sources.

7. ***Noise***

Existing background noise in the project area is principally attributed to ship traffic in the Lahaina Small Boat Harbor and vehicle traffic on surrounding roadways. In addition, the flight paths of arriving and departing aircraft at the Kapalua West Maui Airport, located about 6.0 miles to the north of the project area, place the

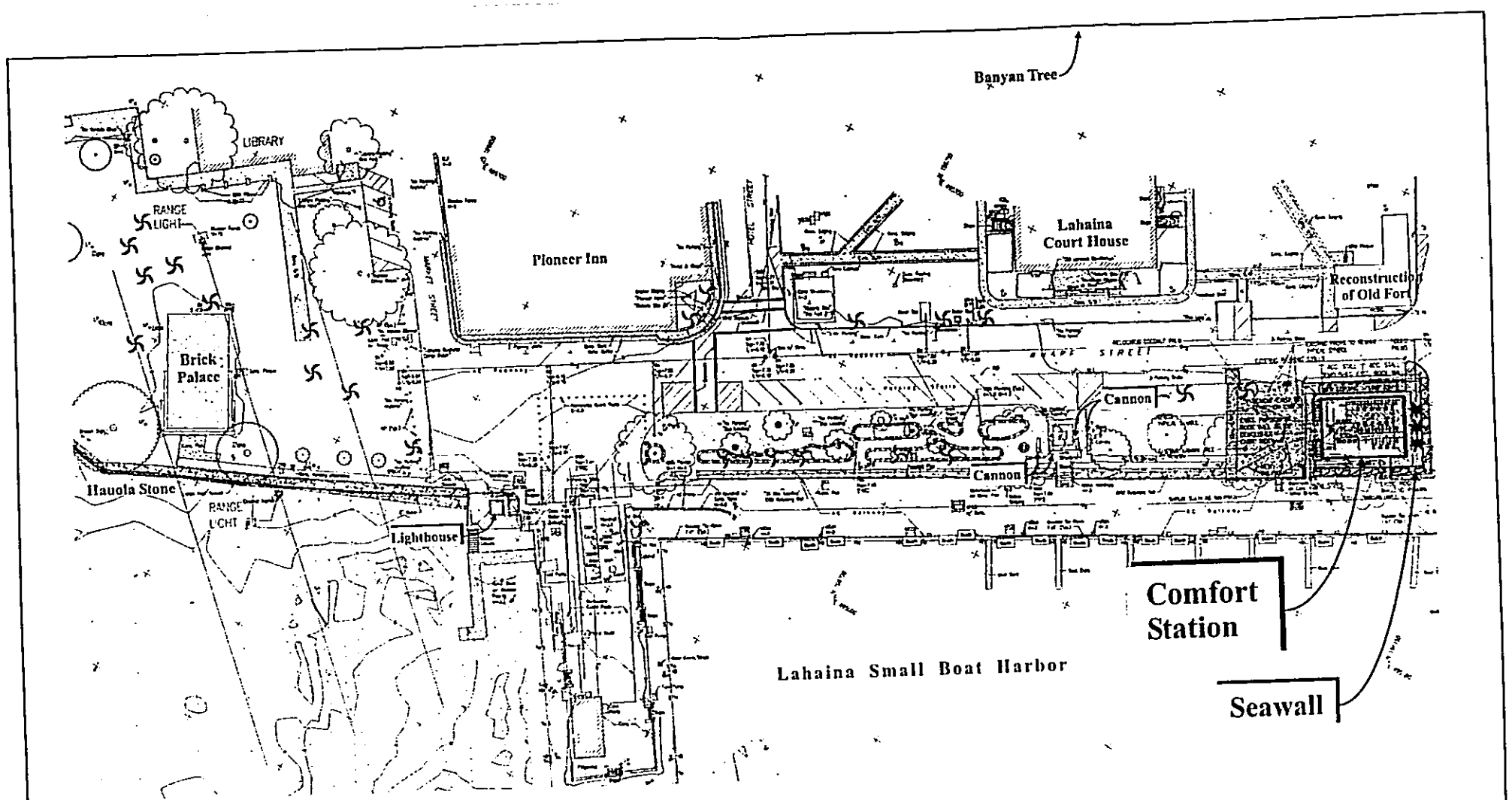
site beyond the limits of aircraft noise exposure.

8. ***Historical/Cultural Resources***

The ancient Hawaiian name for Lahaina was *Lele*, which means "to leap" or "to disembark" as from a canoe. In pre-contact times, Lahaina's harbor was referred to as *Keawaiki* (the small harbor). Along with Maui, the islands of Lana'i and Moloka'i encircle the 'Au'au Channel providing relatively calm and safe waters for anchorage. After the death of Kamehameha I in 1819, Lahaina began to receive frequent visits from explorer ships and soon saw the arrival of the first Christian missionaries. From the 1820s to about 1860, Lahaina accommodated whaling ships and served as a focal point for trading. While in port, visiting ships would stock up on fresh water and food supplies, while their crews would go ashore for rest and relaxation. The 1890s saw the advent of commercial shipping in Lahaina as West Maui was a good source of sandalwood. The sandalwood trade established ties with nations such as Russia and China. The port town also served as a recruiting ground for Hawaiian seamen, many of whom signed on as whalers.

In 1962, Lahaina was designated a registered National Historic Landmark under the provisions of the Historic Sites Act of August 21, 1935. In 1966, Lahaina was listed in the National Register of Historic Places. The project area is located within the limits of the Lahaina National Landmark District.

There are a number of historic sites within proximity of the project area. See Figure 8. Sites include the following.



Source: Mitsunaga & Associates, Inc.

Figure 8

Proposed Lahaina Small Boat Harbor Comfort Station Improvements
Cultural Resources Map

Prepared for: State of Hawaii, Department of Land and Natural Resources

MUNEKIYO & HIRAGA, INC.

Hauola Stone (Pohaku O Hauola): As far back as the 14th and 15th centuries, the ancient Hawaiians made use of this special stone, which loosely translated means, "extending life and health". In those times it was used as a birthing stone for royalty. When a chiefess was ready to give birth, attendants would help her into the stone chair, assist in delivering the child, and witness the birth. In more recent times, it was believed that this stone was useful for healing purposes since it is located in an area where both fresh and salt water mix, such waters being known for healing powers. Ailing persons would sit in the seat, with the waves washing over them, while offering ceremonial prayers to regain health.

The Brick Palace: This building, which was the first western style structure in the islands, was built in 1798 by ex-convicts from the British penal colony at Botany Bay, Australia. Constructed of locally manufactured brick, the two-story building (20 ft. x 40 ft.) contained four (4) rooms with wooden walls and glazed windows. The building was constructed at the command of Kamehameha I for his favorite wife, Queen Ka'ahumanu, who ironically preferred to live in a more airy grass house built nearby. The building was used intermittently as a storehouse and residence until the 1850s. Today, only the foundation of the building remains.

Pioneer Inn: This building dates back to 1901. Extensions and renovations have retained the style of the original hotel. As a point of interest, the old turn-of-the century rules for guests are still posted in each room.

Banyan Tree: This tree was planted in April 1873 to mark the 50th anniversary of the beginning of Protestant missionary work in Lahaina. The tree is more than 60 feet in height and casts a shade which covers two-thirds of an acre.

Lahaina Courthouse: Stones from the demolished Hale Piula (iron-roof house), a palace which was built for Kamehameha III but never completed, were used to construct this building. The courthouse also served as a custom house and the center for anti-smuggling activity during the whaling era. It was at the courthouse where the formal annexation of the islands by the United States was marked in August 1898 by the lowering of the Hawaiian flag and the raising of the American flag.

9. *Scenic and Open Space Resources*

The project area is located along the shoreline and is situated in an

area which provides scenic views. Scenic resources in the vicinity include the West Maui Mountains, which are to the east of the project area, as well as the Pacific Ocean and the offshore island of Lanai, which are to the west. Open space resources in the region are characterized by the West Maui Mountains, as well as the vast expanse of present and former agricultural lands that lie between the mountains and existing urbanized areas near the coastline.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Regional Setting

The majority of lands in West Maui are either State designated "Conservation" or "Agricultural". Generally, "Conservation" lands occupy the higher elevations, while the "Agricultural" district spans the foothills of the West Maui Mountains.

"Urban" designated lands occupy the lower elevations along the coast and include the communities of Kahana-Napili-Kapalua and Kaanapali. These resort communities include several hotels and visitor-oriented condominiums. Lahaina, meanwhile, is more typical of a residential community. Single-family, business, light industrial, and agricultural zones prevail in this part of West Maui.

The town of Lahaina is the commercial center for West Maui. The town contains a number of shopping centers and retail business areas, and serves as a core for the region's residential housing.

Part of West Maui's attraction can be attributed to its year-round dry and warm climate, complemented by many white-sand beaches and scenic landscape. Most of the visitor accommodations are

located in Lahaina and the resort communities of Kaanapali, Honokowai, Kahana, Napili and Kapalua.

The Kapalua-West Maui Airport at Mahinahina conveniently links West Maui to Oahu and other neighbor islands.

Diversified agriculture and pineapple fields occupy much of the land in the area. Agricultural lands in the Kaanapali area are planted with coffee and seed corn. Maui Land & Pineapple Company's fields cover the lower slopes of the West Maui Mountains north of Kaanapali.

2. ***Population***

The resident population of the West Maui Community Plan region has demonstrated a substantial increase over the last three (3) decades. In 2000, the population of the island of Maui was 117,644, with 17,967 persons (15 percent) of the island's population residing in West Maui (SMS, June 2002). Since 1970, West Maui has seen a growth in population, with the population increasing from about 5,500 persons in 1970, to approximately 10,300 persons in 1980, and to about 14,600 persons in 1990. These increases represent an 87 percent gain from 1970 to 1980, a 42 percent increase from 1980 to 1990, and a 22 percent gain from 1990 to 2000. The resident population of the West Maui region is projected to increase to 21,663 in the year 2010 (SMS, June 2002).

West Maui's annual average population growth over the last three (3) decades has kept pace with that of Maui County. Between 1970 and 1980, Maui County grew at an average rate of 4.4

percent a year, while from 1980 to 1990, and from 1990 to 2000 it grew at an average rate of 3.5 percent and 2.8 percent a year, respectively. Compared to Maui County, West Maui had a higher average annual growth rate of 6.4 percent during the 1970's, but shared a 3.5 percent average growth rate between 1980 and 1990, and a slightly lower growth rate of 2.3 percent in the 1990's. The resident population of Maui County is projected to increase to 138,665 in the year 2010 (SMS, June 2002).

3. ***Economy***

The economy of Maui is heavily dependent upon the visitor industry. The dependency on the visitor industry is especially evident in West Maui, which is one of the State's major resort destination areas. Major hotels in this region include the Hyatt Regency Maui (806 rooms), the Westin Maui (759 rooms), the Royal Lahaina Resort (592 rooms), the Ritz-Carlton Kapalua (548 rooms), the Sheraton Maui Resort (510 rooms), the Kaanapali Beach Hotel (430 rooms) and the Kapalua Bay Hotel (196 rooms).

West Maui's visitor orientation is reflected in the character of Lahaina Town, which serves as a center for visitor-related retail outlets and activities.

Pineapple cultivation, another vital component of the West Maui economy, is handled by Maui Land & Pineapple Company, Inc. Since the termination of sugar cane cultivation in 1999, small-scale coffee and seed corn operations have supplanted sugar cane on a portion of the lands formerly cultivated by Pioneer Mill Company, Ltd.

As of September 2004, the unemployment rates for Maui County and the island of Maui were 3.1 percent and 2.6 percent, respectively (State of Hawaii, Department of Labor and Industrial Relations).

C. ***PUBLIC SERVICES***

1. ***Solid Waste Disposal***

Single-family residential solid waste collection service is provided by the County of Maui on a once-a-week basis. Residential solid waste collected by County crews is disposed at the County's 55-acre Central Maui Landfill, located 4.0 miles southeast of the Kahului Airport. In addition to County-collected refuse, the Central Maui Landfill accepts commercial waste from private collection companies.

A refuse transfer station located about 6.0 miles south of the project area at Olowalu serves West Maui residents and accommodates household refuse and green waste, as well as used oil; no commercial waste is accepted at this facility. A private waste disposal service has been contracted by the County to transport waste from this facility to the Central Maui Landfill.

2. ***Medical Facilities***

The only major medical facility on the island is Maui Memorial Medical Center, located approximately 20.0 miles from Lahaina, midway between Wailuku and Kahului. The 196-bed facility provides general, acute, and emergency care services.

Medical service in the West Maui region is offered by clinics and offices such as the Maui Medical Group, Lahaina Physicians, West

Maui Healthcare Center, and Kaiser Permanente's Lahaina Clinic.

3. ***Police and Fire Protection***

The project area is within the Maui Police Department's service area, which services all of the Lahaina district. The Department's Lahaina Station is located in the Lahaina Civic Center complex at Wahikuli, approximately 1.0 mile east of the project area. The Lahaina Patrol includes 54 full-time personnel, including one (1) captain, one (1) lieutenant, seven (7) sergeants, and 39 police officers. The remaining six (6) personnel consist of public safety aides and administrative support staff.

Fire prevention, suppression and protection services for the Lahaina District are provided by the Maui Fire Department's Lahaina Fire Station, also located in the Lahaina Civic Center and the Napili Fire Station, located in Napili. The Lahaina Fire Station includes an engine and a ladder company, and is staffed by 30 full-time personnel. The Napili Fire Station consists of an engine company including 15 full-time firefighting personnel.

4. ***Educational Facilities***

The West Maui area is served by four (4) public schools operated by the State Department of Education: Lahainaluna High School, Lahaina Intermediate School, King Kamehameha III Elementary School, and Princess Nahienaena Elementary School. The region is also served by privately operated pre-elementary and elementary schools.

5. ***Recreational Facilities***

West Maui is served by numerous recreational facilities offering

diverse opportunities for the region's residents. There are nearly 20 County parks in West Maui. Approximately one-third of the County parks are situated along the shoreline and provide for excellent swimming, diving, and snorkeling, as well as fishing, surfing, picnicking, sun bathing, and other shoreline-related activities.

In addition, the Kaanapali and Kapalua Resorts operate world-class golf courses which are available for public use.

In addition to recreational boating facilities at the Lahaina Small Boat Harbor and surf spots such the "Harbor" and "Breakwall", passive recreational areas in the vicinity of the project include the grassed, open space area around the Brick Palace and the grassed, courtyard area surrounding the Banyan Tree. Recreational facilities in outlying areas include Puamana Park, the Lahaina Aquatic Center, the Lahaina Recreation Center, Malu'uluolele Park, and Kamehameha Iki (Armory) Park.

D. INFRASTRUCTURE

1. Roadway System

Honoapiilani Highway (State Highway 30) is the main roadway serving the West Maui region. This highway is the only link between West Maui and the rest of the island (although an unimproved segment of highway extends around the north coast of the island to Waihee, providing limited access). The highway has a typical two-lane configuration except for a segment from Lahaina to Honokowai where four (4) travel lanes are provided.

Hotel, Wharf, Canal, and Papalekane Streets are one-way County

roadways which provide access to the project area from Front Street, a two-lane County roadway aligned along a north-south axis. In the vicinity of the project area, Front Street has a posted speed limit of 20 miles per hour (mph). In 1997, the County completed improvements to Front Street (between Baker to Shaw Streets) to facilitate traffic and pedestrian movement within this corridor, as well as to upgrade and relocate (as necessary) the water, sewer, drainage, and utilities infrastructure within this segment.

Vehicle movement in the area around the Lahaina Small Boat Harbor is characterized by one-way traffic flow. From Front Street, traffic proceeds west along Hotel Street to its intersection with Wharf Street. From this point, vehicles proceed either north along Wharf Street to return to Front Street via Papalekane Street, or head south and return to Front Street via Canal Street. At the west end of Canal Street, a paved, one-lane service road parallels the harbor front to provide access to berthing areas.

Time-restricted, public parking stalls are provided along Hotel, Wharf, Canal, and Papalekane Streets. Parking for tour buses is provided along a designated section of Wharf Street.

2. ***Water System***

The West Maui region is served by the domestic water system operated by the County's Department of Water Supply. The County water system services the coastal areas from Launiupoko to Kaanapali and from Honokowai to Napili. Three (3) surface sources and eight (8) wells are used to supply the County domestic system. In addition to the County system, the West Maui region is

served by private water systems which services the Kaanapali and Kapalua Resorts.

The project site is serviced by a 1 1/2-inch water meter and a fire hydrant situated within 250 feet of the existing comfort station.

3. ***Wastewater System***

The County's wastewater collection and transmission system and the Lahaina Wastewater Reclamation Facility (LWRF) accommodate the region's wastewater needs. The LWRF, located along Honoapiilani Highway just north of the Kaanapali Resort, has been upgraded and expanded to a design capacity of 9.0 million gallons per day (MGD). The cumulative wastewater flow currently allocated to the facility is approximately 6.138 MGD. A series of force mains and gravity lines convey wastewater from Lahaina Town to the LWRF.

4. ***Drainage***

The drainage infrastructure in Lahaina Town consists of short, small capacity culverts with grated inlets along roadways which outlet to the ocean.

5. ***Electrical and Telephone Systems***

Electrical and telephone service to the West Maui region is provided by Maui Electric Company and Verizon Hawaii, respectively. In the vicinity of the project area, existing overhead powerlines and utility poles are located along the side of Front Street.

Chapter III

Potential Impacts and Mitigation Measures

III. POTENTIAL IMPACTS AND MITIGATION MEASURES

A. PHYSICAL ENVIRONMENT

1. Surrounding Land Use

The proposed project is located in an area of existing park, business/commercial, and public/quasi-public land uses. In addition to the Lahaina Small Boat Harbor, land uses in the area include the Pioneer Inn, the Lahaina Public Library, King Kamehameha III Elementary School, Courthouse Park and the grassed, open space area makai of the library. Historic sites such as the Hauola Stone, Brick Palace, Pioneer Inn, Lahaina Courthouse and Banyan Tree also occupy lands in the vicinity of the project.

The proposed replacement comfort station will complement existing, established uses at the Lahaina Small Boat Harbor. From a land use perspective, the proposed project is compatible with existing and surrounding land uses in the area.

2. Topography and Landform

The proposed project is not expected to have an adverse effect upon existing terrestrial conditions. The new comfort station will be constructed on the same site as the existing comfort station. As the existing comfort station parcel and surrounding area have been graded as a result of previous construction activities, site work for the new comfort station is expected to be minimal and limited to the demolition of the existing facility, excavation for the new comfort station's footings, foundation, sewer and waterlines, parking area adjustments to accommodate ADA compliance requirements and landscaping. Finish floor elevations will closely approximate existing contours to minimize site work costs and maintain the existing drainage pattern.

3. ***Flood and Tsunami Hazards***

The new comfort station is proposed within Zone B, an area between the limits of 100- and 500-year flooding. As such, the proposed project will be constructed in accordance with the provisions of Chapter 19.62 of the Maui County Code pertaining to Flood Hazard Areas.

4. ***Flora and Fauna***

There are no known rare, threatened or endangered species of flora, fauna or important wildlife habitats within the limits of the project area. As such, the proposed project is not expected to have an adverse effect on flora, fauna and critical habitats in the vicinity.

5. ***Air Quality***

Air quality impacts attributable to land-based construction activities include dust generated by short-term, construction-related activities. Site work involving demolition and excavation activities will generate airborne particulates. Dust control measures, such as regular watering and sprinkling, will be implemented to minimize nuisance impacts to adjacent areas.

6. ***Noise***

As with air quality, ambient noise conditions will be temporarily impacted by construction activities. Construction tools, equipment, and machinery would be the dominant source of noise during the site construction period. Proper equipment and maintenance are anticipated to minimize noise levels. In addition, equipment mufflers or other sound attenuating devices may be utilized as required. All construction activities will be limited to normal,

daylight working hours.

From a long-term perspective, the proposed project is not anticipated to generate adverse noise impacts.

7. ***Archaeological and Historic Resources***

The project area is located within the Lahaina National Historic Landmark District. Historic sites in the project area include the Hauola Stone, the Brick Palace, and the Pioneer Inn, as well as the Lahaina Courthouse and the Banyan Tree. As the proposed project will involve the use of Federal Transit Administration funds, the proposed action is subject to the Section 106 review process. Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effect of their undertakings on historic properties.

The site of the existing comfort station was previously disturbed during the construction of the facility in 1983. Lands around the existing restroom facility were also disturbed in connection with the development of the surrounding area. An archaeological inventory survey and cultural impact assessment was carried out by Pacific Legacy, Inc. in November 2004. See Appendix "A". This inventory survey identified two (2) historic sites within the proposed Area of Potential Effect (APE) of the comfort station improvements. One site includes a possibly intact layer dating from the 19th century may lie in the northern project area and the other site is a seawall built in around the 1920's. A request has been made for State site numbers from SHPD for these features. Otherwise, the site is composed largely of fill resulting from the initial construction in 1983. Accordingly, no adverse impacts to historic sites in the

vicinity of the comfort station are anticipated. Archaeological monitoring is recommended for the northern end of the project site and will be conducted during all ground-altering construction activities for the new comfort station as required by the State Historic Preservation Division (SHPD). Should any archaeological features, cultural remains or human burials be uncovered during ground-altering construction activities, work will immediately cease in the vicinity of the find and the find shall be protected from further damage. The SHPD will be promptly notified and appropriate mitigative measures will be formulated, if necessary.

8. ***Cultural Impact Assessment***

a. ***Historic Overview***

The Lahaina District is described as a rich agricultural oasis watered from nearby valleys (Handy and Handy, 1972). This oasis "extended about three leagues in length (about nine miles along the coast) and one (three miles) in breadth. Beyond this, all is dry and barren." The name Lahaina ("cruel sun") likely refers to the droughts that affected the surrounding area from time to time (Pukui 1974). In pre-contact times, Lahaina itself was apparently a garden-like area with taro lo'i, ditches ('auwai) and separating embankments creating a verdant landscape. Brackish water and fresh water ponds (loko) were also present. At lower elevations, dry land cultivation took place in areas around alluvial fans, while at higher elevations lo'i and 'auwai systems were constructed within valleys for taro production. In coastal settlement areas, marine resources were utilized for subsistence. In Lahaina, several fishponds existed, of which two were most prominent, Loko o Mokuhinia and the

smaller Loko Puako, around which intensive taro and breadfruit cultivation occurred. Scattered around the fishponds and taro loi'i, and situated on higher ground, were the homes of the laborers who worked the land. As suggested by Handy, by late pre-contact times, the fairly sizable population dwelling in the region utilized coastal fishing areas and inland garden plots for subsistence, cultivating sweet potatoes near shore, or taro in terraced lo'i in the wetter valleys inland.

By the time of contact, the Lahaina region had become an important socio-political center and the residence of several powerful chiefs, most notably Kahekili, one of the highest ranking on Maui. Lahaina was considered by high chiefs to be a favorable place due to the abundance of natural resources and its close proximity to the islands of Lana'i and Moloka'i (Handy and Handy 1972).

In 1789, Kamehameha I invaded Maui and defeated Kahekili at the Battle of Kepaniwai O Iao (Speakman 1978). In post-contact times, Lahaina became the center of the Hawaiian monarchy. Kamehameha I spent time there between his battles of conquest, while his son, Kamehameha III, resided in Lahaina in preference to Honolulu. Many high status individuals connected with the monarchy lived in Lahaina, even after the official capitol of the kingdom was moved to Honolulu in 1845.

In 1820, about 40 years after Captain James Cook's discovery of the Hawaiian Islands, the islands transitioned

from the traditional Hawaiian social system to one influenced by New England whaling ships and missionaries. The population of West Maui continued to decline in the second half of the 19th century followed by the collapse of the Pacific whaling industry in the 1860's which was prompted by the discovery of oil in Pennsylvania a decade or so earlier. In the Lahaina area, sugar production developed in the mid-1800s, while further north, different crops were tried, including coffee and pineapples.

With the introduction of sugar cane cultivation and the importation of foreign labor to work on the plantation, the character of Lahaina changed. Combined with the industrialization of the local sugar industry, Lahaina emerged as a plantation town with residential camps surrounding the downtown commercial area. Although now reliant on the visitor industry, Lahaina Town's present character reflects a blend of its whaling and plantation era past.

b. ***Interviews***

A number of interviews were carried out with persons having a notable connection to or knowledge of the project vicinity, with specific focus on traditional and customary uses. The taped transcripts of these interviews are available from Pacific Legacy, Inc. Refer to Appendix "A". These interviews grouped themselves into discussions along the following subjects:

(1) ***The Waine'e Area***

The subject site is located in the traditional *ahupua'a*

of Waine'e. The interviewees discussed the connected nature of everything in the *ahupua'a*, from the mountains to the shore and beyond into the sea. This connectedness should be borne in mind when considering cultural impacts; impacts to one feature might result in broader effects.

(2) ***The Hauola Stone***

Located some distance to the north of the project site, this artifact is considered of paramount importance to all of the interviewees for its cultural associations. It is associated with many cultural practices, including birthing and healing. Several of the interviewees recall the Stone last being used some time ago, in their youth or even earlier, but others stated that cultural practices were still occurring. The Stone's connection to the entire area was stressed and concern expressed should anything occur to this object.

(3) ***Surf and Fishing***

Several of the interviewees discussed the traditional practice of surfing and the surfing locations of Keawaiki and 'Uo, in proximity to the Small Boat Harbor. There was concern that further development of the harbor could displace the surfers. Before the harbor was built, the shoreline area was also popular as a fishing spot, but some of the fishing grounds were destroyed by the harbor.

(4) ***Further Issues***

Many of the interviewees expressed concern and regret that the traditional, native character of Lahaina had been shunted aside in the face of tourism and development. The Hauola Stone, in particular, represents a last vestige of the traditional settlement and there was great concern that it not be impacted in any fashion.

c. ***Cultural Impact Analysis Assessment***

The proposed project is not anticipated to have any adverse impact on traditional or cultural practices. Particular concern has been shown during the design process toward avoiding the Hauola Stone, which many interviewees considered vital. The improved comfort station will not impact surfing or fishing or change the existing character of Lahaina Town.

9. ***Scenic and Open Space Resources***

The design of the new comfort station will be in accordance with the standards of the Lahaina Historic District, including the Architectural Style Book for Lahaina. The building color scheme will be plantation green with a red or green roof and will be complementary to the Pioneer Inn.

The new comfort station will be constructed in the same location as the existing restroom facility and is, therefore, viewed as the continuation of an existing use. The new comfort station will be 17-feet, 5-inches in height, approximately three (3) feet higher than the existing structure, and is not expected to have an adverse effect upon views to or from the harbor and surrounding area. The area

around the new comfort station and parking area will be relandscaped with native plants and trees, whenever possible, to complement the historic and cultural character of the harbor and its environs.

A large banyan tree, located on the shoreward side of the comfort station, as well as boats moored in the harbor mitigate potential adverse impacts on views from the ocean towards the land. See Figure 9.

B. IMPACTS TO THE COMMUNITY SETTING

1. Population and Local Economy

On a short-term basis, the proposed project will support construction and construction-related employment. Over the long term, the project will allow public demand for restroom facilities and the need for ADA-compliance at this facility to be met.

The proposed action is not considered a population generator.

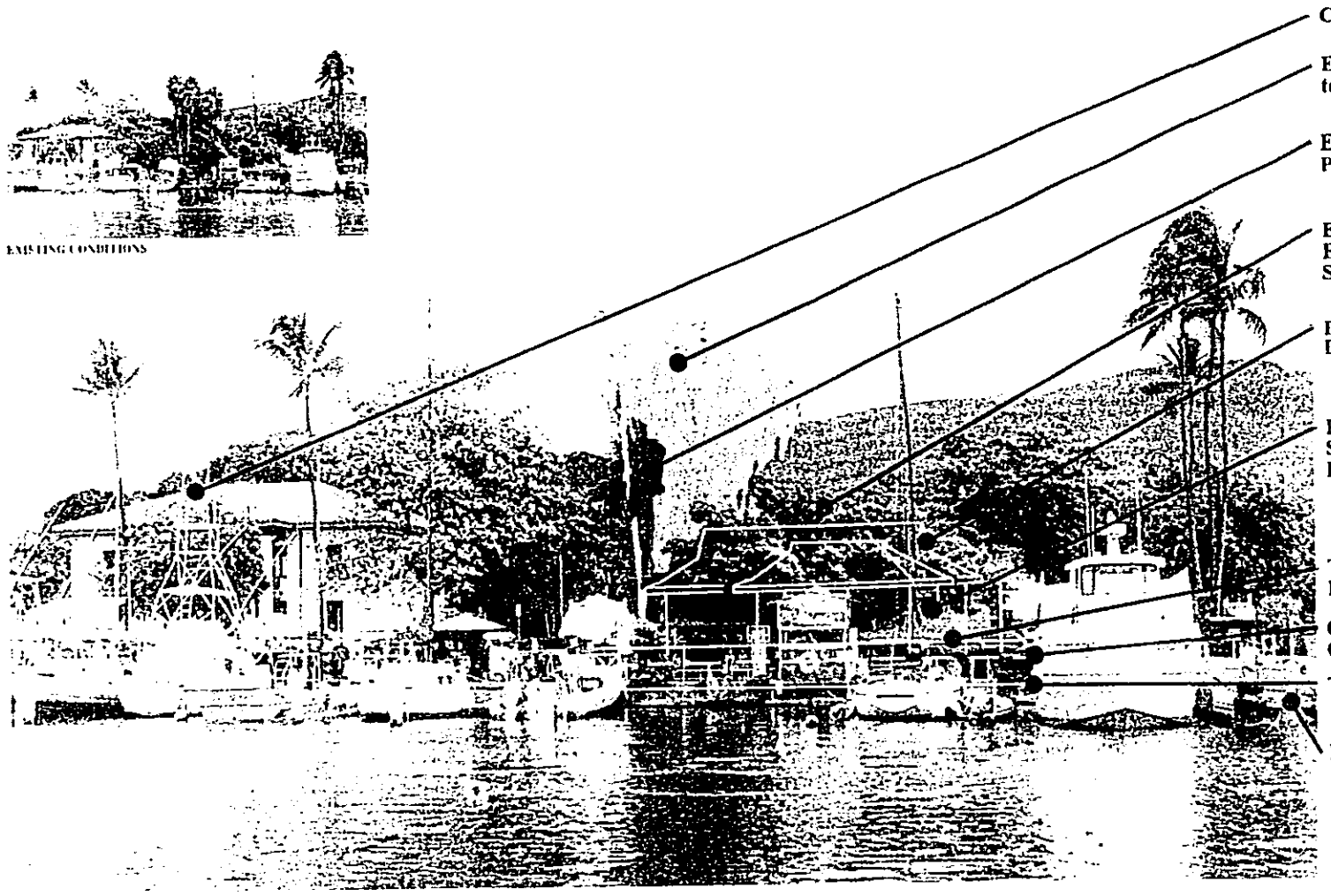
2. Agriculture

The improved comfort station will be located within the State Urban district and is a conforming use. The proposed action will not impact the inventory of lands available for agricultural cultivation nor lands currently in agricultural use.

3. Emergency Services

The new comfort station is not anticipated to affect service capabilities of police, fire, and emergency medical services. The project will not extend service area limits for emergency services.

EXISTING CONDITIONS



Source: Mitsunaga & Associates, Inc.

Figure 9

Proposed Lahaina Small Boat Harbor
Comfort Station Improvements
East View from Breakwater

Prepared for: State of Hawaii, Dept. Of Land and Natural Resources

MUNEKIYO & HIRAGA, INC

4. ***Educational Services***

The new comfort station will not generate new population and is, therefore, not anticipated to place new or increased demands upon education facilities and services. Construction activities have potential to generate noise which may be heard at the Kamehameha III Elementary School. Coordination with the school's administration will be undertaken to ensure open communication during the construction phase of work. Long-term adverse impacts to the school is not anticipated as a result of the new comfort station project.

5. ***Recreational Services***

The new comfort station will upgrade the existing facilities. Users of both the Lahaina Small Boat Harbor and Banyan Tree Park will benefit from this action. As no new population will be generated, there are no anticipated negative impacts to recreational services associated with the project.

6. ***Solid Waste***

A solid waste management plan will be developed for the disposal of clearing, grubbing, and demolition-based material from the site during construction. This plan will be developed in coordination with the Solid Waste Division of the County Department of Public Works and Environmental Management.

Once completed, solid waste generated by the comfort station will be served by a private collection company. Collected refuse will be disposed of at the County's Central Maui landfill. There are no adverse impacts to the landfill capacity anticipated from the proposed improvements.

C. *IMPACTS TO INFRASTRUCTURE*

1. *Roadway System*

As both parking and vehicular traffic in the immediate vicinity of the comfort station are extremely limited, minimal impact is anticipated to occur during construction activities. Appropriate traffic management controls will be utilized during the construction period to minimize impacts to vehicle and pedestrian traffic flow in the area.

Due to its scenic location in an area of historic sites, retail shops, restaurants, and ocean recreational activities, the harbor area attracts a great number of visitors. Typically, local streets and on-street parking stalls in the area are well-used by visitors, as well as by residents and employees who live and work in the area. Traffic volumes and parking space use in the area increases during peak visitor seasons and on Boat Days. Within the harbor area, the availability of parking is limited to existing on-street parking stalls, bus loading zones, and public and private off-street parking facilities.

It is noted that two (2) of the existing parking stalls located adjacent to the comfort station site will be converted to accessible stalls to meet the needs of this population segment. It is further noted that the Maui County Code does not specify parking requirements for comfort stations.

2. *Water System*

The existing comfort station has an average daily use of 1,650 gallons per day or approximately 275 gallons per day per stall (1,650 divided by 6 stalls). Based on this estimate, the projected

consumption for this project would be approximately 4,950 gallons per day plus 350 gallons per day for irrigation, for a total projected demand of 5,300 gallons per day. Water will be furnished by the Department of Water Supply's Lahaina-Alaeloa water system. The domestic water and irrigation demand for the new comfort station is not anticipated to have an adverse effect on existing County water source and storage facilities, as well as water transmission and distribution systems. Detailed domestic, fireflow, and irrigation calculations will be submitted to the County Department of Water Supply for review in connection with the proposed processing of the building permit application for the comfort station. All water system improvements will be designed in accordance with applicable regulatory design standards.

3. ***Wastewater System***

The proposed project is not anticipated to impact existing County wastewater collection and treatment facilities. Wastewater calculations for the new comfort station will be submitted to the County Department of Public Works and Environmental Management for review as part of the building permit approval process. All wastewater system improvements will be designed in accordance with appropriate regulatory design criteria.

4. ***Drainage and Erosion Control***

For land-based construction activities, soil loss will be minimized during the construction period by implementing appropriate Best Management Practices and erosion control measures such as the following:

1. Minimize the time of construction.

2. Retain existing ground cover until the latest possible date to complete construction.

3. Early construction of drainage features, as applicable.

4. Use temporary area sprinklers for watering active construction zones as needed.

5. Use temporary berms, filter berms, and cut-off ditches, where needed, and as applicable, for control of erosion.

6. Water graded areas thoroughly after construction activity has ceased for the day and on weekends and holidays.

Other site specific BMPs will also be implemented, as appropriate. Site work will conform to County standards and will be coordinated with the Department of Public Works and Environmental Management.

5. ***Electrical and Telephone Systems***

The increase in electrical consumption with the proposed improvements will not adversely impact electrical service delivery in the West Maui region. Coordination will be carried out with Maui Electrical Company during the demolition of the existing comfort station and construction of the new comfort station. The proposed improvements will not adversely impact telephone services.

D. *CUMULATIVE AND SECONDARY IMPACTS*

The proposed action involves the demolition of an existing comfort station and the construction of a new comfort station at the same location. The proposed action is a stand-alone project which can be funded, designed and constructed independently of other projects affecting the Lahaina Small Boat Harbor. The proposed action is not anticipated to have significant adverse effects, either primary or secondary. The proposed

action will meet an existing need for an improved accessible comfort station facility in Lahaina Town.

Chapter IV

Relationship to Land Use Plans, Policies and Controls

IV. RELATIONSHIP TO LAND USE PLANS, POLICIES AND CONTROLS

A. STATE LAND USE DISTRICTS

Pursuant to Chapter 205A, HRS, all lands in the State have been divided and placed into one (1) of four (4) land use districts by the State Land Use Commission. These land use districts have been designated "Urban", "Rural", "Agricultural", and "Conservation". The site of the proposed comfort station improvements is located within the limits of the State Urban district. See Figure 10. The proposed action is deemed permissible within the State Urban district.

B. MAUI COUNTY GENERAL PLAN

The 1990 update of the Maui County General Plan establishes broad objectives and policies to guide the long-range development of the County. As indicated by the Maui County Charter, the purpose of the General Plan shall be to:

> *... indicate desired population and physical development patterns for each island within the county; shall address the unique problems and needs of each island and region within the county; shall explain the opportunities and the social, economic, and environmental consequences related to potential developments; and shall set forth the desired sequence, patterns, and characteristics of future developments. The general plan shall identify objectives to be achieved, and priorities, policies and implementing actions to be pursued with respect to population density, land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design, and other matters related to development.*

The proposed action is in keeping with the following General Plan objectives and policies:

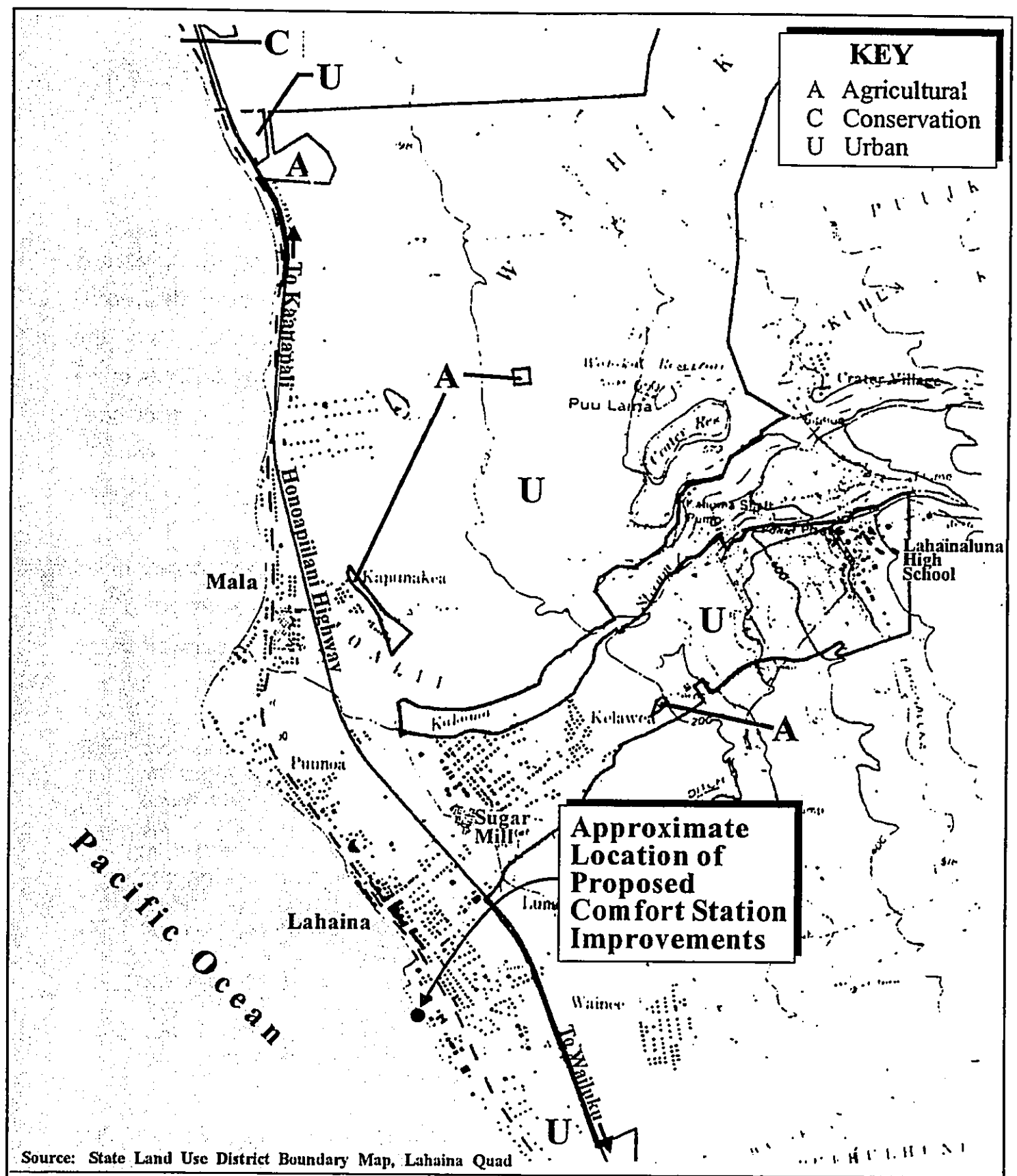


Figure 10 Proposed Lahaina Small Boat Harbor Comfort Station Improvements
State Land Use District Classifications

0 500 1000 2000 Feet

Prepared for: State of Hawaii, Dept. Of Land and Natural Resources

MUNEKIYO & HIRAGA, INC.

LAND USE:

Objective: To preserve for present and future generations existing geographic, cultural, and traditional community lifestyles by limiting and managing growth through environmentally sensitive and effective use of land in accordance with the individual character of the various communities and regions of the County.

Policy: *Identify and preserve significant historic and cultural sites.*

ENVIRONMENT:

Objective: To use the County's land-based physical and ocean-related coastal resources in a manner consistent with sound environmental planning practice.

Policy: Evaluate all land-based development relative to its impact on the County's land and ocean ecological resources.

URBAN DESIGN:

Objective: To see that all developments are well designed and are in harmony with their surroundings.

Policy

Require that appropriate principles of urban design be observed in the planning of all new developments.

PUBLIC UTILITIES AND FACILITIES:

Objective: To improve the quality and availability of public facilities throughout Maui County.

Policies:

- Seek improvement in the maintenance and operation of public facilities.

- Encourage the development of public facilities which will be architecturally and ecologically compatible with their surroundings and foster community development.

RECREATION AND OPEN SPACE:

Objective: To provide high-quality recreational facilities to meet the present and future needs of our residents of all ages and physical ability.

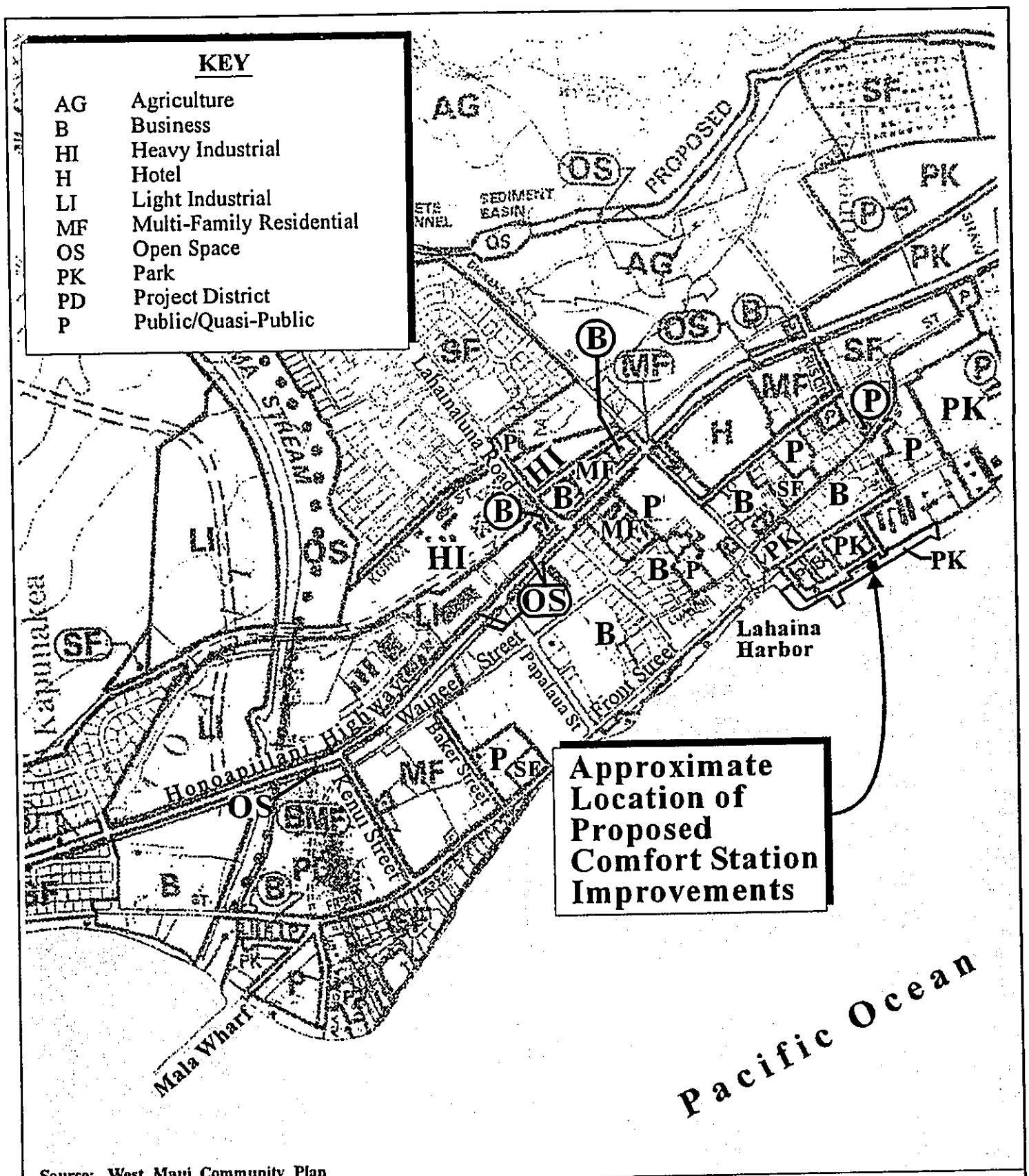
Policy: Maintain and upgrade existing recreational facilities to meet community needs.

C. *WEST MAUI COMMUNITY PLAN*

The project site is located in the West Maui Community Plan region, one (1) of the nine (9) Community Plan regions established in the County of Maui. Planning for each region is guided by the respective Community Plans, which are designed to implement the Maui County General Plan. Each Community Plan contains recommendations and standards which guide the sequencing, patterns, and characteristics of development in the region.

Land use guidelines are established by the West Maui Community Plan land use map. The site of the proposed comfort station improvement is designated for "Park" use by the Community Plan's land use map. See Figure 11. The proposed project is in keeping with the land uses designated by the West Maui Community Plan.

The West Maui Community Plan sets forth goals which are statements identifying preferred conditions. Goals, objectives and policies



Source: West Maui Community Plan

Figure 11 Proposed Lahaina Small Boat Harbor Comfort Station Improvements
West Maui Community Plan
Land Use Designations

0 250 500 1000 Feet

Prepared for: State of Hawaii, Dept. Of Land and Natural Resources

MUNEKIYO & HIRAGA, INC.

associated with the development of the proposed project include the following:

Goals:

- An attractive, well-planned community with a mixture of compatible land uses in appropriate areas to accommodate the needs of residents and visitors in a manner that provides for the stable social and economic well-being of residents and the preservation and enhancement of the region's open space areas and natural environmental resources.

- An attractive and functionally integrated urban environment that enhances neighborhood character, promotes quality design at the resort destinations of Kaanapali and Kapalua, defines a unified landscape planting and beautification theme along major public roads and highways, watercourses, and at major public facilities, and recognizes the historic importance and traditions of the region.

- Timely and environmentally sound planning, development, and maintenance of infrastructure systems which serve to protect and preserve the safety and health of the region's residents, commuters, and visitors through the provision of clean water, effective waste disposal, and efficient transportation systems which meet the needs of the community.

Objectives and Policies:

- Ensure that new projects or developments address potential impacts on archaeological, historical, and cultural resources and identify all cultural resources within the project area as part of initial project studies. Further require that all proposed activity adequately mitigate potential adverse impacts on cultural resources.

- Maintain the scale, building massing and architectural character of historic Lahaina town.

- Establish, expand and maintain parks, public and private open spaces, public facilities, cemeteries, and public shoreline areas within Lahaina Town.

- Building Character:

a. New building and renovation of existing buildings in Lahaina town should respect the scale, texture, materials, and facades of existing structures in the Lahaina Historic District.

b. Building heights should reflect the context of existing building heights and massing in the Lahaina Historic District. The maximum building heights shall be two stories or 35 feet with a mixture of one- to two-story building heights encouraged.

c. Building design should complement the pedestrian character of Lahaina town. Restraint and harmonious relationships with natural and man-made surroundings should characterize building form; harsh forms or shapes should be avoided; sloped roofs should be encouraged. Design elements which relate to human scale should be emphasized. Design features should reflect prevalent town themes through traditional or contemporary means.

The proposed project is intended to accommodate the public's need for an upgraded accessible restroom facility in a heavily-traffic area.

D. ***COUNTY ZONING***

There are three (3) historic districts on the island of Maui - two (2) in Lahaina (Historic District Nos. 1 and 2) and one (1) in Wailuku (Historic District No. 3). Regulations on building and uses within these districts are governed by the provisions of Chapter 19.52 of the Maui County Code. The project area is located within the limits of Historic District No. 1. The regulations for Historic District Nos. 1 and 2, which are both located in Lahaina Town, covers a multitude of uses ranging from single-family to public/quasi-public to business/commercial uses.

The historic district review and approval process provides a means of insuring orderly, efficient growth and development within the County's historic districts. Toward this end, an application for Historic District

Approval will be prepared and submitted to the Maui County Cultural Resources Commission for review and approval.

E. COASTAL ZONE MANAGEMENT/SPECIAL MANAGEMENT AREA

The project area is located within the County of Maui's Special Management Area (SMA). Pursuant to Chapter 205A, HRS, and the Rules and Regulations of the Maui Planning Commission, actions proposed within the SMA are evaluated with respect to Hawaii Coastal Zone Management Program (HCZMP) and SMA objectives, policies and guidelines. This section addresses the project's relationship to applicable coastal zone management considerations, as set forth in Chapter 205A, HRS and the Rules and Regulations of the Maui Planning Commission.

An application for an SMA Use Permit will be prepared and submitted to the Maui Planning Commission for review and approval.

1. Recreational Resources

Objective: Provide coastal recreational opportunities accessible to the public.

Policies:

a. Improve coordination and funding of coastal recreational planning and management; and

b. Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

(i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;

(ii) Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to

the state for recreation when replacement is not feasible or desirable;

(iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;

(iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;

(v) Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;

(vi) Adopting water quality standards and regulating point and non-point sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;

(vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and

(viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of Section 46-6, HRS.

Response: The proposed project is expected to improve existing restroom service for visitors and residents who use the harbor, Banyan Tree Park, or the surrounding area of Lahaina Town.

2. ***Historical/Cultural Resources***

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

Policies:

a. Identify and analyze significant archeological resources;
b. Maximize information retention through preservation of remains and artifacts or salvage operations; and
c. Support state goals for protection, restoration, interpretation, and display of historic resources.

Response: The project area is located within the Lahaina National Historic Landmark District and falls within the zoning limits of Lahaina Historic District No. 1. Historic sites in the vicinity of the proposed project include the Hauola Stone, the Brick Palace, the Pioneer Inn, the Lahaina Courthouse and the Banyan Tree. The proposed improvements to the comfort station are not anticipated to impact historic resources. The project site has been previously disturbed.

An archaeological inventory survey was carried out by Pacific Legacy, Inc. in November 2004. See Appendix "A". Archaeological monitoring will be carried out during the construction of the new comfort station, as required by SHPD. Should human remains be inadvertently discovered during ground-altering activities, work will promptly cease in the immediate area of the find, and the find will be protected from further damage. The State Historic Preservation Division will be immediately notified and procedures for the treatment of inadvertently discovered human remains will be followed pursuant to Chapter 6E, HRS.

3. ***Scenic and Open Space Resources***

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

Policies:

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

Response: The proposed structure will be designed in accordance with Lahaina historic district design standards to ensure visual compatibility with surrounding land uses. The proposed comfort station improvements are not anticipated to impact coastal scenic and open space resources, nor will it adversely affect public views to and along the coastline.

4. ***Coastal Ecosystem***

Objective: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

a. Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;
b. Improve the technical basis for natural resource management;
c. Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;
d. Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and
e. Promote water quantity and quality planning and

management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.

Response: Appropriate Best Management Practices and erosion control measures will be implemented to minimize the effects of stormwater runoff during implementation of the project and to ensure that coastal ecosystems are not adversely impacted by construction activities.

5. ***Economic Use***

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

Policies:

a. Concentrate coastal dependent development in appropriate areas;

b. Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and

c. Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:
   (i) Use of presently designated locations is not feasible;
   (ii) Adverse environmental effects are minimized; and
   (iii) The development is important to the State's economy.

Response: The proposed project is consistent with the goals of the West Maui Community Plan, which guides growth and

development in the region. It improves a public facility that is important to the pedestrian traffic. There are no adverse impacts to coastal zone resource parameters as a result of the project.

6. ***Coastal Hazards***

Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence and pollution.

Policies:

a. Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;
b. Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint pollution hazards;
c. Ensure that developments comply with requirements of the Federal Flood Insurance Program; and
d. Prevent coastal flooding from inland projects.

Response: The proposed comfort station improvements lie within Zone B, areas between the limits of 100- and 500-year flooding. The proposed improvements will be constructed in accordance with County requirements for developments within flood hazard areas. In addition, the proposed improvements will be designed in accordance with the Drainage Standards of the County of Maui to ensure that the project will not adversely affect downstream and adjoining properties from the effects of flooding and erosion.

7. ***Managing Development***

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

Policies:

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

Response: Opportunities for public participation were provided via a stakeholders' meeting in April 2004 which was held to discuss the preliminary conceptual plans for the proposed project (see Chapter IX of this document). As the project is located within the Lahaina Historic District, presentations were made at public meetings of the Cultural Resources Commission in September and November of 2004. In addition, this Environmental Assessment has been prepared for public review in compliance with Chapter 343, HRS, and Chapter 200 of Title II, HAR. All aspects of development will be conducted in accordance with applicable Federal, State and County standards. Opportunities for review of the proposed action are offered through the regulatory review processes for construction and development permits.

8. *Public Participation*

Objective: Stimulate public awareness, education, and participation in coastal management.

Policies:

a. Promote public involvement in coastal zone management processes;
b. Disseminate information on coastal management issues by

means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and

c. Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Response: The proposed project is subject to County of Maui Special Management Area (SMA) and Historic District Approvals. Opportunities for public awareness, education, and participation in coastal management are provided through these entitlement processes, as well as through Federal and State regulatory review processes. Public input is being received from stakeholder groups as part of the project planning process.

9. *Beach Protection*

Objective: Protect beaches for public use and recreation.

Policies:

a. Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;

b. Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and

c. Minimize the construction of public erosion-protection structures seaward of the shoreline.

Response: The subject property is located mauka (towards the mountain) of the Lahaina Small Boat Harbor and is not anticipated to impact beach resources in an adverse manner.

10. ***Marine Resources***

Objective:

Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

Policies:

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

Resources: Best Management Practices will be implemented during construction to support the policies of effective management of marine resources.

F. *SHORELINE RULES FOR THE MAUI PLANNING COMMISSION*

The project site, identified by TMK 4-6-01: 01, is not immediately adjacent to the shoreline. The Lahaina Small Boat Harbor, identified by TMK 4-6-01: 02, is located between Parcel 01 and the shoreline. The shoreline in and around the Lahaina Small Boat Harbor is hardened by a concrete bulkhead within the inner harbor and is protected by a rock mound breakwater. The shoreline was certified in 1982 and runs along the seaward side of the existing pier and inner harbor bulkhead. As set forth

in Chapter 203 of Title 11, The Shoreline Rules for the Maui Planning Commission, the shoreline setback for Parcel 02 is calculated to be 25 feet. The proposed comfort station improvements are located 37-feet, 6-inches from the certified shoreline and therefore, not within the shoreline setback area.

G. *NATIONAL ENVIRONMENTAL POLICY ACT COORDINATION*

While the proposed action is subject to the National Environmental Policy Act (NEPA), preliminary consultation with the Federal Transit Administration (FTA) indicates that the proposed action may meet the FTA's criteria for a categorical exclusion. Coordination with the FTA is ongoing to ensure that requirements of NEPA are fully addressed.

Chapter V

Summary of Adverse Environmental Effects Which Cannot Be Avoided

V. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

The proposed development will result in unavoidable construction-related impacts as described in Chapter III, Potential Impacts and Mitigation Measures.

Potential effects include noise-generated impacts occurring from site preparation and construction activities. In addition, temporary air quality impacts associated with dust generated from construction activities, and exhaust discharged by construction equipment. It should be noted, however, that these impacts are expected to be minimized through the implementation of the appropriate mitigative measures identified in Chapter III. The proposed project is not anticipated to create any significant, long-term, adverse environmental effects.

Chapter VI

Alternatives to the Proposed Action

VI. ALTERNATIVES TO THE PROPOSED ACTION

A. NO ACTION ALTERNATIVE

In addition to maintaining present physical conditions, the "no action" alternative would retain existing operating and accessibility conditions at the comfort station while public demand on the facilities continue to grow. Taking both public demand and ADA requirements into account, the "no action" alternative is not deemed a viable alternative. Accordingly, the "no action" alternative was not considered.

B. DEFERRED ACTION ALTERNATIVE

A "deferred action" alternative would have similar consequences as the "no action" alternative in that the use and functional objectives of the proposed project would be delayed and would not be immediately realized.

This alternative could result in potentially higher development costs due to increases in labor and material costs or as a result of changes to infrastructure or the existing physical or socio-economic environment (i.e., window of opportunity and opportunity costs). Based on the preceding, the "deferred action" alternative was not considered.

C. SITE ALTERNATIVES WITHIN THE HISTORIC DISTRICT

Alternatives included constructing a new comfort station further north in the Banyan Tree Park area and improving the existing facilities in the old courthouse. These location alternatives were eventually rejected as having greater, adverse environmental impacts than the preferred alternative, due principally to the necessity of installing new sewer lines.

D. DEVELOPMENT PLAN ALTERNATIVES

During the project's concept development process, use and operational

factors were examined with regard to the proposed comfort station improvements. This evaluation included an examination of existing activities and pedestrian traffic with regard to current comfort station use. This process also involved an analysis of space needs, missions and functions, area requirements, spaces and adjacencies, and space relations and layouts. The objective of this process was to develop conceptual plans that would serve as a framework for public review and comment, which would in turn serve as a basis for any needed plan modifications, as well as for the formulation of potential alternative schemes.

The preliminary conceptual plans for the proposed project were presented at a stakeholders' meeting on April 8, 2004. Meetings with the Cultural Resources Commission helped further revise the design alternatives. At a September 2, 2004 meeting of the CRC, a design was presented which included a 26-foot by 48-foot structure with a different arrangement of facilities and no storage closet. Other iterations of the conceptual plan included a 26-foot by 40-foot structure with fewer stalls and differing exterior design.

The formulation of preferred and alternative design schemes is an iterative process and various factors were considered, including but not limited to the following:

1. The location of historic sites in the area and potential proximity impacts to those sites.
2. The location of existing facilities in the area, such as the Pioneer Inn, the Lahaina Public Library, and King Kamehameha School III Elementary School, and potential use impacts to these facilities.
3. Surrounding structures and uses in the area and potential impacts to vehicle and pedestrian traffic, open space areas, mauka-makai views, and lateral views along the shoreline.

Several designs for the improved comfort station were formulated, using various materials, roof-types, and color schemes. Many were rejected as being out of character for the Historic District. The use of composite materials was rejected, as was the design of a shingled roof. Finally, it was determined that the improved comfort station will be designed with traditional, natural materials on all exteriors, with a corrugated metal roof, in either red or green. See Figure 12 and Figure 13.

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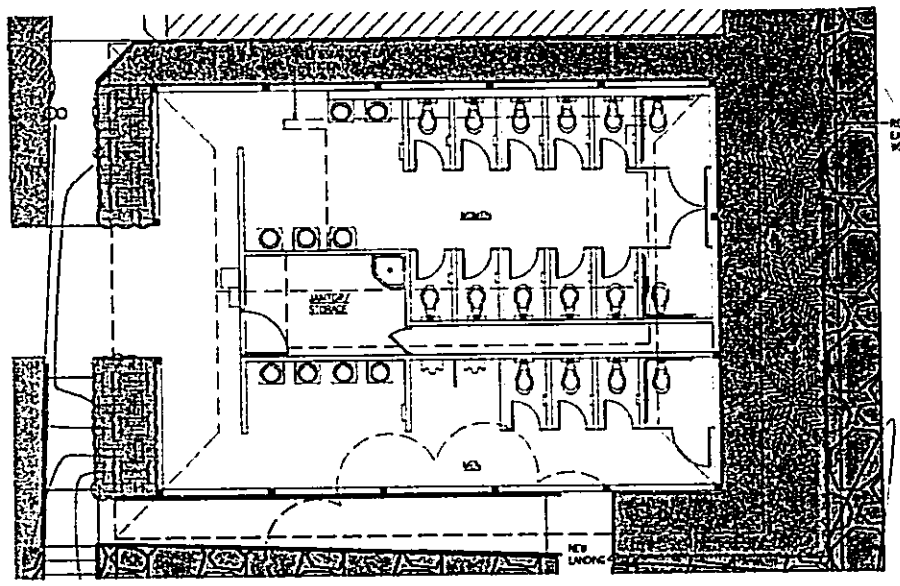
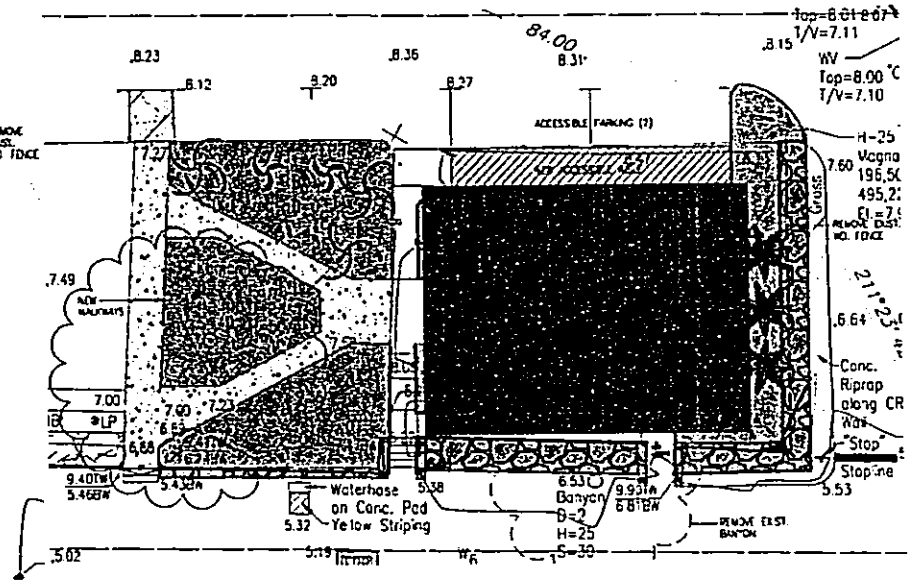
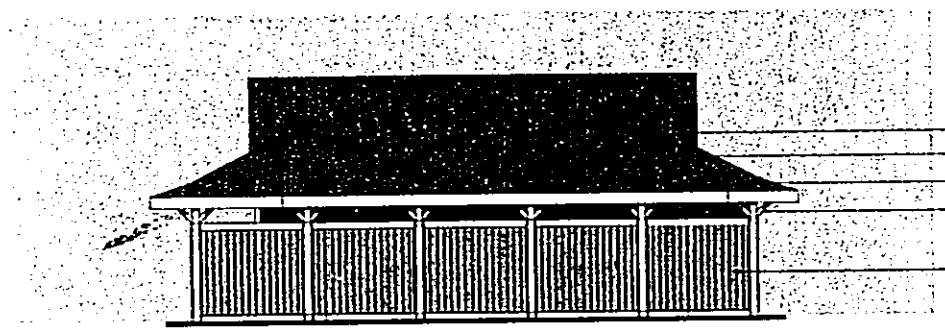


Comfort Station Floor Plan



Site Plan



East and West Elevations

North Elevation

Source: Mitsunaga & Associates, Inc.

Figure 12

Proposed Lahaina Small Boat Harbor
Comfort Station Improvements
Floor Plan and Elevation with Red Roof

NOT TO SCALE

Prepared for: State of Hawaii, Dept. of Land and Natural Resources

MUNEKIYO & HIRAGA, INC.

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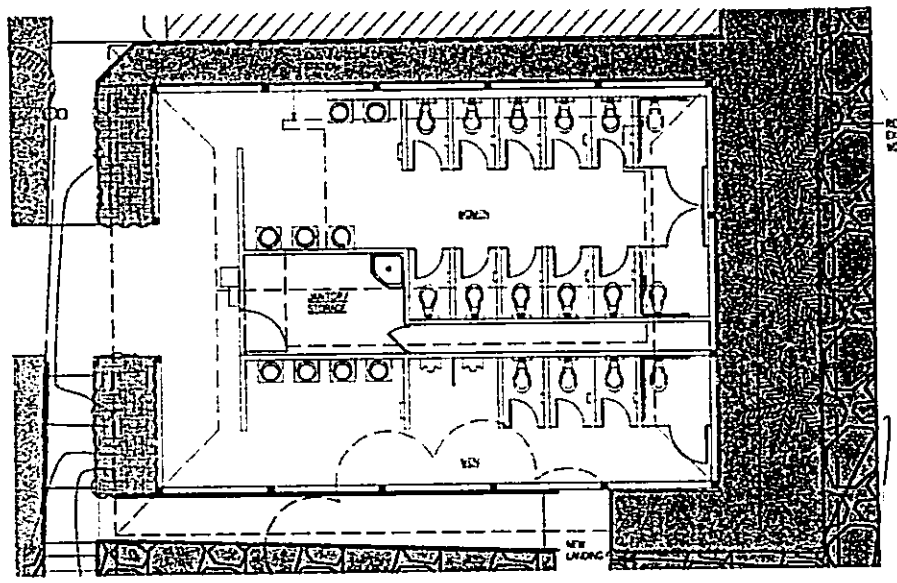

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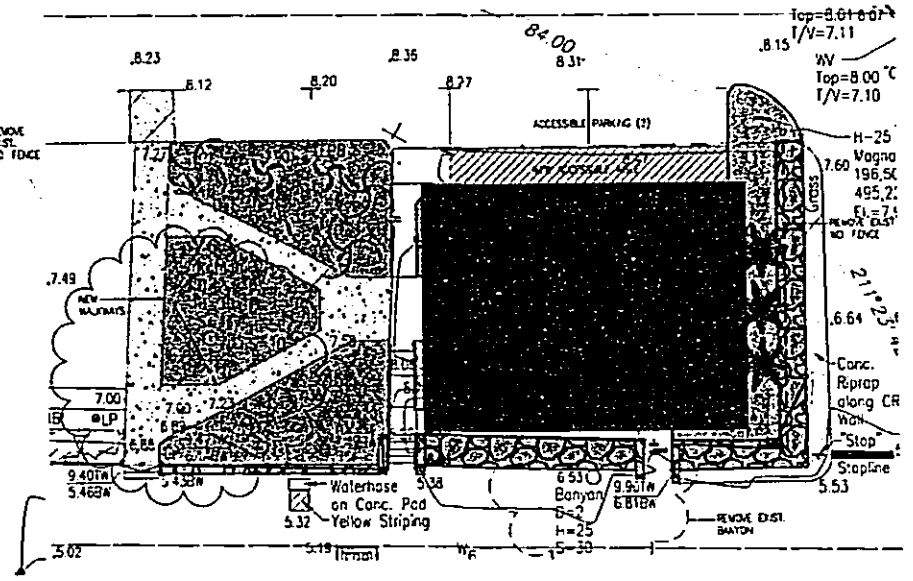

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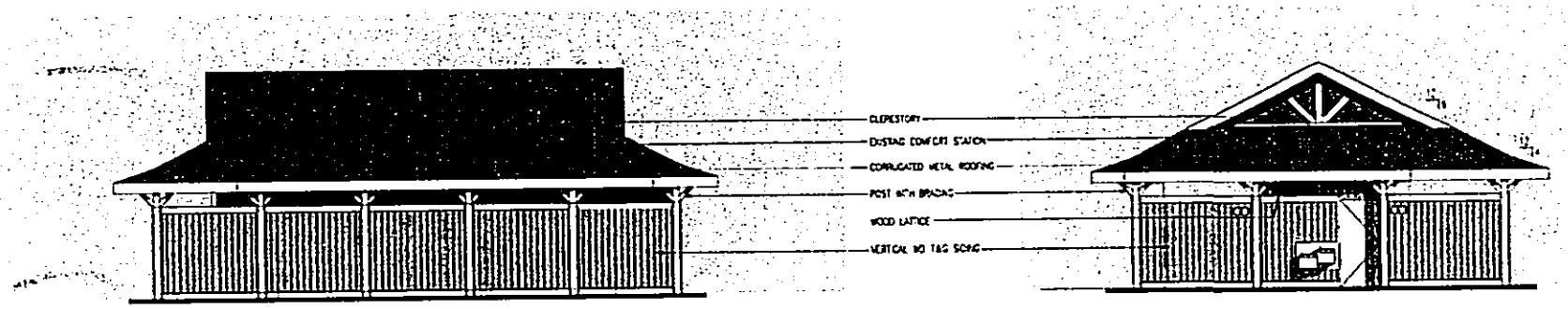

East and West Elevations

North Elevation

Source: Mitsunaga & Associates, Inc.

Figure 13

Proposed Lahaina Small Boat Harbor
Comfort Station Improvements
Floor Plan and Elevation with Green Roof

NOT TO SCALE

MUNEKIYO & HIRAGA, INC.

Prepared for: State of Hawaii, Dept. of Land and Natural Resources

Chapter VII

Irreversible and Irretrievable Commitments of Resources

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The development of the proposed project is anticipated to result in the irreversible and irretrievable commitment of land and fiscal resources. Other resource commitments include energy, labor, and material resources. The commitment of these resources, however, is considered appropriate when evaluating the benefits to be derived from the proposed project versus the consequences of taking no action.

Chapter VIII

Findings and Conclusions

VIII. FINDINGS AND CONCLUSIONS

Every phase of the proposed action, expected consequences, both primary and secondary, and the cumulative as well as the short-term and long-term effects of the action have been evaluated in accordance with the Significance Criteria of Section 11-200-12 of the Administrative Rules. Discussion of project conformance to the criteria is noted as follows:

1. ***No Irrevocable Commitment to Loss or Destruction of any Natural or Cultural Resource Would Occur as a Result of the Proposed Project***

   The proposed action is not anticipated to adversely impact known habitats of rare, endangered, or threatened species of flora or fauna. An archaeological inventory survey was carried out by Pacific Legacy, Inc. See Appendix "A". Impacts to archaeological or historic resources are not anticipated by the replacement comfort station. As deemed applicable by the SHPD, archaeological monitoring during ground altering activities will mitigate potential adverse impacts. Should any historic and cultural features, including human burials, be found during construction, work in the area of the find shall be promptly halted and the find protected from further disturbance. The SHPD will be immediately contacted to determine the significance of the find and establish appropriate mitigating measures, if necessary.

2. ***The Proposed Action Would Not Curtail the Range of Beneficial Uses of the Environment***

   The proposed action will improve upon the existing comfort station by providing additional use capacity and by achieving ADA compliance. It is not anticipated to curtail the range of beneficial uses to the environment. To the extent practicable, trees which must be removed will be replanted in the area.

3. ***The Proposed Action Does Not Conflict With the State's Long-Term Environmental Policies or Goals or Guidelines as Expressed in Chapter 344, HRS***

The State Environmental Policy and Guidelines are set forth in Chapter 344, HRS. The proposed action is in consonance with those policies and guidelines.

4. ***The Economic or Social Welfare of the Community or State Would Not Be Substantially Affected***

The project will directly benefit the local economy by providing construction and construction-related employment. In the long term, the proposed project is anticipated to have a beneficial effect upon the welfare of the community by providing upgraded restroom facilities which are ADA compliant.

5. ***The Proposed Action Does Not Affect Public Health***

The improved comfort station will be able to serve the public demand better than the existing facility. No adverse impacts to the public health are anticipated.

6. ***No Substantial Secondary Impacts, Such as Population Changes or Effects on Public Facilities, are Anticipated***

The proposed project is not a source of new population to the region. In this regard, the proposed project is not anticipated to adversely affect public services in the region, such as schools, police, and fire protection.

7. ***No Substantial Degradation of Environmental Quality is Anticipated***

During the construction phase of the project, there will be short-term air and noise quality impacts. In the long term, there are no anticipated impacts upon air quality and ambient noise levels. The proposed comfort

station improvements are not expected to significantly affect the open space and scenic character of the area. No substantial degradation of environmental quality resulting from the action is anticipated.

8. ***The Proposed Action Does Not Involve a Commitment to Larger Actions, Nor Would Cumulative Impacts Result in Considerable Effects On The Environment***

As previously noted, the proposed action involves the demolition of an existing comfort station and the construction of a new comfort station at the same location. The proposed action is a stand-alone project which can be funded, designed and constructed independently of other projects affecting the Lahaina Small Boat Harbor. The proposed action is not anticipated to have significant adverse effects, either primary or secondary. The comfort station replacement project is deemed an existing need to meet current demands.

9. ***No Rare, Threatened or Endangered Species or Their Habitats Would be Adversely Affected By The Proposed Action***

There are no known rare, threatened, or endangered species of flora and fauna, nor habitats of such within the project area.

10. ***Air Quality, Water Quality or Ambient Noise Levels Would Not Be Detrimentally Affected By The Proposed Project***

Construction activities will result in short-term air quality and noise impacts. Dust control measures, such as regular watering and sprinkling, and installation of dust screens will be implemented to minimize wind-blown emissions. Noise impacts will occur primarily from construction equipment. Equipment mufflers or other noise attenuating equipment, as well as proper equipment and vehicle maintenance, will be used during construction activities.

In the long term, the proposed project is not anticipated to have a significant impact on air quality or ambient noise conditions.

11. ***The Proposed Project Would Not Affect Environmentally Sensitive Areas, Such As Flood Plains, Tsunami Zones, Erosion-prone Areas, Geologically Hazardous Lands, Estuaries, Fresh Waters or Coastal Waters***

The project site is located within Flood Zone B, an area of coastal flooding. The proposed project will be developed in accordance with Special Flood Hazard Area requirements. The project is not anticipated to affect any erosion-prone areas or geologically hazardous lands, estuaries, fresh or coastal waters.

12. ***The Proposed Project Will Not Substantially Affect Scenic Vistas and Viewplanes Identified in County or State Plans or Studies***

The design of the comfort station will be in accordance with historic district design standards. The existing banyan tree screens the comfort station from the ocean to land views. The proposed action is not anticipated to impact scenic vistas or viewplanes.

13. ***The Proposed Project Will Not Require Substantial Energy Consumption***

The subject project will involve the commitment of fuel for construction equipment, vehicles, and machinery during construction and maintenance activities.

In the context of the region's overall energy consumption, the replacement comfort station's demand for energy is not considered excessive, nor is it considered substantial.

Based on the foregoing findings, this Final EA is being filed as a Finding of No

Significant Impact or FONSI.

Chapter IX

Stakeholders' Meeting of April 8, 2004

IX. STAKEHOLDERS' MEETING OF APRIL 8, 2004

A stakeholders' meeting was held to present the initial conceptual plans for both the Lahaina Ferry Pier Improvement Project and the New Comfort Station Project. Invitations to the stakeholders meeting were sent to elected government officials and government agencies, as well as to parties which could be affected by the proposed action, such as harbor users, businesses, government facilities (school, library), and community groups in the area.

The meeting was held on April 8, 2004 at the Lahaina Intermediate School Cafeteria with approximately 25 persons in attendance. Representatives of the State Department of Land and Natural Resources, along with project consultants, handled the presentation, responded to questions, and received comments on the project's preliminary conceptual plans.

A summary of comments relevant to the proposed action that were received at this meeting follows.

1. The Hauola Stone is very sacred and the area around it is Kapu (sacred).
2. Potential impacts to historic sites need to be examined.
3. To provide for greater use and convenience, the new comfort station should be located in the area around the Lahaina Small Boat Harbor pier.

These comments were taken into consideration during the design process for the proposed comfort station improvements.

Chapter X

List of Permits and Approvals

X. LIST OF PERMITS AND APPROVALS

The following Federal, State and County permits and approvals are anticipated to be required for project implementation:

County of Maui

1. Special Management Area Use Permit (Maui Planning Commission)
2. Historic District Approval (Maui County Cultural Resources Commission)
3. Demolition and Building Permits (Department of Public Works and Environmental Management)
4. Special Flood Hazard Area Development Permit (Department of Planning)

State of Hawaii

1. Noise Permit (Department of Health)
2. Disability and Communication Access Board (DCAB)

Chapter XI

Parties Consulted During the Preparation of the Draft Environmental Assessment; Letters Received and Responses to Substantial Comments

XI. PARTIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT; LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

The following parties were consulted during the preparation of the Draft EA. Consultation with the listed Native Hawaiian organizations will take place during the Draft EA process in compliance with Section 106 of the National Historic Preservation Act. These organizations will receive copies of the Draft EA. Agency comments and responses to substantive comments are also included in this section.

1. Ranae Ganske-Cerizo, Acting District Conservationist
Natural Resources Conservation Service
U.S. Department of Agriculture
210 Imi Kala Street, Suite 209
Wailuku, Hawaii 96793-2100

2. George Young, P.E.
Chief, Regulatory Branch
U.S. Department of the Army
U.S. Army Engineer District, Hnl.
Attn: CEPOH-EC-R
Bldg. 230, Room 201
Fort Shafter, Hawaii 96858-5440

3. Robert P. Smith
Pacific Islands Manager
U. S. Fish and Wildlife Service
300 Ala Moana Blvd., #3-122, Box 50088
Honolulu, Hawaii 96813

4. Micah Kane, Chairman
State of Hawaii
Department of Hawaiian Home Lands
P.O. Box 1879
Honolulu, Hawaii 96805

5. Chiyome L. Fukino, M.D., Director
State of Hawaii
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

6. Herbert Matsubayashi
District Environmental Health Program Chief
State of Hawaii
Department of Health
54 High Street
Wailuku, Hawaii 96793

7. Peter T. Young, Director
State of Hawaii
Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809

8. Dean Aoki, ADA Coordinator
State of Hawaii
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

9. Jason Koga, District Land Agent
State of Hawaii
Department of Land and Natural Resources - Maui District Land Office
54 South High Street, Room 101
Wailuku, Hawaii 96793

10. Melissa Kirkendall, Ph.D.
State Historic Preservation Division
Maui District Office
130 Mahalani Street
Wailuku, Hawaii 96793

11. Nathan Napoka, Chief
State Historic Preservation Division
History and Culture Branch
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

12. Skippy Hau, Aquatic Biologist
State of Hawaii
Division of Aquatic Resources
Department of Land and Natural Resources
130 Mahalani Street
Wailuku, Hawaii 96793

13. P. Holly McEldowney, Administrator
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, Hawaii 96707

14. Rodney K. Haraga, Director
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

15. Fred Cajigal, Maui District Engineer
State of Hawaii
Department of Transportation
Highways Division
650 Palapala Drive
Kahului, Hawaii 96732

16. Clyde Namu'o, Administrator
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

17. Carl Kaupalolo, Chief
County of Maui
Department of Fire Control
200 Dairy Road
Kahului, Hawaii 96732

18. Michael W. Foley, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

19. Cultural Resources Commission
c/o Dawn Duensing
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

20. Glenn Correa, Director
County of Maui
Department of Parks and Recreation
1580-C Kaahumanu Avenue
Wailuku, Hawaii 96793

21. Tom Phillips, Chief
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawaii 96793

22. Gilbert Coloma-Agaran, Director
County of Maui
Department of Public Works
and Environmental Management
200 South High Street
Wailuku, Hawaii 96793

23. Kyle Ginoza, Director
County of Maui
Department of Transportation
200 South High Street
Wailuku, Hawaii 96793

24. George Tengan, Director
County of Maui
Department of Water Supply
200 South High Street
Wailuku, Hawaii 96793

25. Ezekiela "Zeke" Kalua, Executive Director
West Maui Taxpayers Association
181 Lahainaluna Road, Suite "H"
Lahaina, Hawaii 96761

26. Theo Morrison, Executive Director
Lahaina Town Action Committee
648 Wharf Street, Suite 102
Lahaina, Hawaii 96761

27. Keoki Freeland, Executive Director
Lahaina Restoration Foundation
120 Dickenson Street
Lahaina, Hawaii 96761

28. Bobbie Best, Librarian
Lahaina Public Library
680 Wharf Street
Lahaina, Hawaii 96761

29. Patty Nishiyama, Executive Director
Na Kupuna O Maui
320 Kaeo Place
Lahaina, Hawaii 96761

30. Akoni Akana, Executive Director
Friends of Moku'ula
505 Front Street
Lahaina, Hawaii 96761

31. Thelma Shimaoka, Community Resource Coordinator
Office of Hawaiian Affairs
140 Ho'ohana Street, Suite 206
Kahului, Hawaii 96732

32. Vanessa Medeiros, District Supervisor
Department of Hawaiian Home Lands
Maui District Office
655 Kaumualii Street
Wailuku, Hawaii 96793

33. Rose Marie Duey, Island Representative
Alu Like, Inc.
Maui Island Center
1977 Kaohu Street
Wailuku, Hawaii 96793

34. Senator Roz Baker
415 South Beretania Street
Room 228
Honolulu, Hawaii 96813

35. Representative Kam Tanaka
415 South Beretania Street
Room 319
Honolulu, Hawaii 96813

36. Councilmember JoAnne Johnson
Maui County Council
200 South High Street
Wailuku, Hawaii 96793

37. Best Western Pioneer Inn
Jim Lennon, General Manager
658 Wharf Street
Lahaina, Hawaii 96761

38. King Kamehameha III Elementary School
Lindsay Ball, Principal
611 Front Street
Lahaina, Hawaii 96761

39. Lahaina Arts Society
Graham Watson, Executive Director
648 Wharf Street, Suite 103
Lahaina, Hawaii 96761

40. Kim Ball, President
Hi-Tech Surf & Sports
425 Koloa Street
Kahului, Hawaii 96732

41. Kevin and Pam Baughman
277 Wili Ko Place, Suite 4
Lahaina, Hawaii 96761

42. Tony Whitehead
801 Olowalu Road
Lahaina, Hawaii 96761

43. David Jung
Island Marine Activities
Molokai Ferry
658 Front Street, Suite 101
Lahaina, Hawaii 96761

44. Don Couch, Executive Assistant
Office of the Mayor
County of Maui
200 South High Street
Wailuku, Hawaii 96793

45. Steve Knight
Expeditions
Lahaina/Lanai Passenger Ferry
658 Front Street, Suite 127
Lahaina, Hawaii 96761

46. Stuart Kahan
Mala Wharf Fishing and Recreation Association
1028 Wainee Street, E-5
Lahaina, Hawaii 96761

NOV 02 2004

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

REPLY TO
ATTENTION OF

October 29, 2004

Regulatory Branch

Mr. Mich Hirano
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Hirano:

This is written in regards to your request for comments on the proposed Lahaina Small Boat Harbor Comfort Station Improvements located at the Lahaina Small Boat Harbor, Lahaina, Hawaii. The proposed project consists of the demolition of the existing comfort station and construction of a new station with handicap access to meet accessibility criteria under the Americans with Disabilities Act.

We have reviewed the project information you provided with respect to the Corps' authority to issue Department of the Army (DA) permits under Section 404 of the Clean Water Act (33 USC 1344). Although the footprint of the new comfort station will increase by approximately 825 square feet, it does not appear that ground disturbing activities conducted on this parcel will involve the discharge of dredged or fill material into the nearby ocean. Therefore a Department of the Army permit will not be required for this project.

File number **POH-2004-1015** is assigned to this project. Should you have questions, you may contact Ms. Lolly Silva at 438-7023 or by FAX at 438-4060.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

MUNEKIYO & HIRAGA, INC.

November 22, 2004

George P. Young, Chief
Department of the Army
Regulatory Branch
Building 223
Fort Shafter, Hawaii 96858-5440

SUBJECT: Early Consultation Request for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Chief Young:

Thank you for your letter of October 29, 2004, responding to our request for early consultation comments on the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we note that ground-altering activities associated with the proposed project will not discharge into the nearby ocean. We acknowledge your conclusion that a Department of the Army permit is not required for the proposed action.

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mai/lbhcom/earlycnst/army.res

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

LINDA LINGLE
GOVERNOR OF HAWAII

OCT 14 2004

CHIYOME L. FUKINO, M. D.
DIRECTOR OF HEALTH

LORRIN W. PANG, M. D., M. P.H.
DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2102

October 12, 2004

Mr. Mich Hirano
Munekiyo & Hiraga, Inc.
305 South High Street, Suite 104
Wailuku, Hawai`i 96793

Dear Mr. Hirano:

Subject: **Proposed Lahaina Small Boat Harbor Comfort Station Improvements, TMK: (2) 4-6-1:1, Lahaina, Maui**

Thank you for the opportunity to participate in the early consultation process for the environmental assessment.

1. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules, Chapter 11-46 "Community Noise Control". A noise permit may be required and should be obtained before the commencement of work.

2. Chapter 501, "Asbestos Requirements" requires owners or operators of a demolition or renovation activity to thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos using a certified inspector pursuant to HAR, Chapter 504. The Applicant is required to file with the Noise, Radiation and Indoor Air Quality Branch, Asbestos Demolition/Renovation Notification at least ten (10) working days prior to the demolition of each building (regardless of the presence of asbestos) or the disturbance of regulated asbestos containing materials during renovation activities. All regulated quantities and types of asbestos containing materials would be subject to emission control, proper collection, containerizing, and disposal at a permitted landfill by a licensed asbestos contractor using certified persons. Questions concerning asbestos requirements should be directed to Mr. Thomas Lileikis of the Noise, Radiation and Indoor Air Quality Branch at (808) 586-5800.

Should you have any questions, please call me at 984-8230.

Sincerely,

Herbert S. Matsubayashi
District Environmental Health Program Chief

c: NRIAQ

MUNEKIYO & HIRAGA, INC.

November 22, 2004

Herbert Matsubayashi, District Environmental
Health Program Chief
State of Hawaii
Department of Health
Maui District Health Office
54 High Street
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Request for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Mr. Matsubayashi:

Thank you for your letter of October 12, 2004, responding to our request for early consultation comments on the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we note the following:

1. The applicant acknowledges that a noise permit may be required if noise from construction activities exceeds the maximum allowable levels and will comply as necessary.

2. The applicant acknowledges the requirements for a thorough asbestos inspection using a certified asbestos inspector. The applicant acknowledges the requirement to file an Asbestos Demolition/Renovation Notification prior to the commencement of renovation activities and will comply as appropriate.

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mai/lbhcom/earlycnsl/doh.res

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

NOV 0 8 2004

LINDA LINGLE
GOVERNOR OF HAWAII

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

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 5, 2004

LD-NAV
LAHAINABOATHARBOR.RCM

Munekiyo and Hiraga, Inc.
Mich Hirano, Planner
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Hirano:

SUBJECT: Pre-Assessment Consultation for Lahaina Small Boat Harbor Comfort Station Improvements Proposed DLNR Project

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

The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of the subject your letter dated October 6, 2004 pertaining to the proposed project to the following DLNR Divisions for their review and comment:

- Division of Forestry and Wildlife
- Division of State Parks
- Engineering Division
- Commission on Water Resource Management
- Office of Conservation and Coastal Lands
- Land-Maui District Land Office

Enclosed please find a copy of the Engineering Division comment and Maui District Land Office response.

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

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

Very truly yours,

DIERDRE S. MAMIYA
Administrator

C: MDLO

LINDA LINGLE
GOVERNOR OF HAWAII

RECEIVED
LAND DIVISION
2004 OCT 28 A 10:10
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

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

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
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COMMISSION ON WATER RESOURCE MANAGEMENT
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FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

October 22, 2004

LD/NAV
LAHAINABOATHARBOR.COM

Suspense Date: 10/29/04

MEMORANDUM:

TO: XXX Division of State Parks
XXX Division of Forestry and Wildlife
XXX Office of Conservation and Coastal Lands
XXX Commission on Water Resource Management
√XXX Engineering Division
XXX Maui District Land Office

FROM: Dierdre S. Mamiya, Administrator
Land Division

SUBJECT: Pre-Assessment Consultation
Proposed: Lahaina Small Boat Harbor Comfort Station Improvements
Applicant: Department of Land and Natural Resources
Consultant: Munekiyo & Hiraga, Inc. (808-244-2015)

Please review the attached letter dated October 15, 2004 pertaining to the subject matter and submit your comments if any on Division letterhead (signed and dated) by the suspense date. Should you need more time to review the document, please contact Nick Vaccaro at 587-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

( ) We have no comments.

(X) Comments attached.

Signed:

Date: 10/28/04

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/NAV
Ref.: LAHAINABOATHARBOR.COM

COMMENTS

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

(X) **Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone B.**

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

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

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

( ) Mr. Robert Sumimoto at (808) 523-4254 or Mr. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.

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

( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.

( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.

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

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

Signed: _____
ERIC T. HIRANO, CHIEF ENGINEER

Date: 10/28/04

LINDA LINGLE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

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

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU
DEPUTY DIRECTOR - WATER

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

October 22, 2004

LD/NAV
LAHAINABOATHARBOR.COM

Suspense Date: 10/29/04

MEMORANDUM:

TO: XXX Division of State Parks
XXX Division of Forestry and Wildlife
XXX Office of Conservation and Coastal Lands
XXX Commission on Water Resource Management
XXX Engineering Division
XXX Maui District Land Office

FROM: Dierdre S. Mamiya, Administrator
Land Division

SUBJECT: Pre-Assessment Consultation
Proposed: Lahaina Small Boat Harbor Comfort Station Improvements
Applicant: Department of Land and Natural Resources
Consultant: Munekiyo & Hiraga, Inc. (808-244-2015)

Please review the attached letter dated October 15, 2004 pertaining to the subject matter and submit your comments if any on Division letterhead (signed and dated) by the suspense date. Should you need more time to review the document, please contact Nick Vaccaro at 587-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

( ) We have no comments.

(X) Comments attached.

Signed: Charlene E. Unoki

Date: 10/26/04

County of Maui should be consulted.

#1221

LINDA LINGLE
GOVERNOR OF HAWAII

RECEIVED
LAND DIVISION
2004 OCT 28 P 3:27

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

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

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU
DEPUTY DIRECTOR - WATER

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HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

October 22, 2004

LD/NAV
LAHAINABOATHARBOR.COM

Suspense Date: 10/29/04

MEMORANDUM:

TO: XXX Division of State Parks
✓XXX Division of Forestry and Wildlife
XXX Office of Conservation and Coastal Lands
XXX Commission on Water Resource Management
XXX Engineering Division
XXX Maui District Land Office

FROM: Dierdre S. Mamiya, Administrator
Land Division

SUBJECT: Pre-Assessment Consultation
Proposed: Lahaina Small Boat Harbor Comfort Station Improvements
Applicant: Department of Land and Natural Resources
Consultant: Munekiyo & Hiraga, Inc. (808-244-2015)

Please review the attached letter dated October 15, 2004 pertaining to the subject matter and submit your comments if any on Division letterhead (signed and dated) by the suspense date. Should you need more time to review the document, please contact Nick Vaccaro at 587-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

(X) We have no comments.

( ) Comments attached.

Signed: Paul J Conry

Date:

PAUL J. CONRY, ADMINISTRATOR
DIVISION OF FORESTRY AND WILDLIFE

OCT 27 2004

LINDA LINGLE
GOVERNOR OF HAWAII

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LAND DIVISION
2004 OCT 28 A 10:14

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

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU
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AQUATIC RESOURCES
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LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 22, 2004

LD/NAV
LAHAINABOATHARBOR.COM

Suspense Date: 10/29/04

MEMORANDUM:

TO: XXX Division of State Parks
XXX Division of Forestry and Wildlife
XXX Office of Conservation and Coastal Lands
XXX Commission on Water Resource Management
XXX Engineering Division
XXX Maui District Land Office

FROM: Dierdre S. Mamiya, Administrator
Land Division

SUBJECT: Pre-Assessment Consultation
Proposed: Lahaina Small Boat Harbor Comfort Station Improvements
Applicant: Department of Land and Natural Resources
Consultant: Munekiyo & Hiraga, Inc. (808-244-2015)

Please review the attached letter dated October 15, 2004 pertaining to the subject matter and submit your comments if any on Division letterhead (signed and dated) by the suspense date. Should you need more time to review the document, please contact Nick Vaccaro at 587-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

( ) We have no comments. ( ) Comments attached.

Signed: W. Paty for

Date: 10/27/04

MUNEKIYO & HIRAGA, INC.

November 22, 2004

Deirdre Mamiya, Administrator
State of Hawaii
Department of Land and Natural Resources
Post Office Box 621
Honolulu, Hawaii 96809

SUBJECT: Early Consultation Request for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Ms. Mamiya:

Thank you for your letter of November 5, 2004, responding to our request for early consultation comments on the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments and comment letter from the Land Division dated October 19, 2004, we note the following:

1. The applicant acknowledges that the project site is located in Flood Zone B.

2. Anticipated water demands and calculations will be provided to the Engineering Division for inclusion in the State Water Projects Plan Update.

3. Executive Order No. 80 sets aside the use of this comfort station parcel for park purposes and vested control and management of the site with the County of Maui. The County of Maui has been consulted regarding the proposed action and is fully supportive of the proposed improvements. Coordination with the County will be on-going throughout the project.

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mai/tbhcomf/earlycnst/dlnr.res

PHONE (808) 594-1888

FAX (808) 594-1865

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

OCT 22 2004

HRD04/1603

October 20, 2004

Munekiyo & Hiraga, Inc.
Attn: Mich Hirano, Planner
305 High Street
Suite 104
Wailuku, HI 96793

RE: Request for early review and comment on proposed Lahaina Small Boat Harbor Comfort Station improvements, Lahaina, Maui, TMK: 4-6-001:001

Dear Mich Hirano,

The Office of Hawaiian Affairs (OHA) is in receipt of your October 6, 2004, request for comments on the above-proposed project, which would include the demolition of the existing comfort station and the construction of and new one at the same location. OHA offers the following comments.

OHA commends Maui County for attempting to improve infrastructure discrepancies within Lahaina Small Boat Harbor, including meeting the accessibility criteria of the Americans with Disabilities Act.

Consideration must be given to applicable cultural gathering and access rights during and after construction activities. Native Hawaiian traditional gathering rights and public access to and along the shoreline should not be restricted – even during construction – except as necessary to ensure safety. If such safety-related restrictions are put in place, alternate public access routes must be provided.

OHA recommends that any permanent landscaping use native and endemic vegetation. This will enable the area to absorb as much water as is locally and naturally possible, while also ensuring fewer introductions of alien species to our fragile ecosystems.

We will rely on your assurances that the Class A waters of Lahaina Small Boat Harbor will be managed to assure the protection and propagation of endemic and native sealife, that there will be no discharge of dredged or fill material into the harbor, and that appropriate measures will be taken to prevent runoff of fuel, oil and cement products from non-permeable surfaces near the harbor, such that no discharge or leaching into the ocean will occur.

OHA further requests assurances from the applicant that should iwi or Native Hawaiian cultural or traditional deposits be found during ground disturbance or excavation, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Thank you for the opportunity to comment. We look forward to the opportunity to review the forthcoming Environmental Assessments for this project. If you have further questions, please contact Heidi Guth at 594-1962 or e-mail her at heidig@oha.org.

Sincerely,

Clyde W. Nāmu'o
Administrator

CC: Thelma Shimaoka
OHA – Maui Office
140 Hoohana Street
Suite 206
Kahului, HI 96732

MUNEKIYO & HIRAGA, INC.

November 22, 2004

Clyde Namu'o, Administrator
State of Hawaii
Office of Hawaiian Affairs
711 Kapi'olani Boulevard, Suite 500
Honolulu, Hawaii 96813

SUBJECT: Early Consultation Request for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Mr. Namu'o,

Thank you for your letter of October 20, 2004, responding to our request for early consultation comments on the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina; Maui, Hawaii. In response to your comments, we note the following:

1. A Cultural Impact Assessment has been prepared for the proposed project and will be included in the Draft Environmental Assessment (EA). The report concludes that no traditional or cultural practices should be affected negatively by the proposed action. This meets the applicant's intention to avoid adverse impacts in this area.

2. The landscape plans for the proposed action will use native and endemic vegetation at the improved comfort station site.

3. There will be no discharge of dredged or filled material into the harbor basin during construction.

4. Should any cultural or human remains be found during ground altering activities, work will immediately halt and the appropriate agencies contacted. This issue will be discussed more fully in the Draft EA.

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mail/bhcom/earlycnst/oha.res

NOV 09 2004

ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

WAYNE A. BOTEILHO
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

November 5, 2004

Mr. Peter T. Young, Chairperson
Department of Land and Natural Resources
Division of Boating and Ocean Recreation
333 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Young:

RE: Pre-Consultation Comments for the proposed Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii TMK: 4-6-001 (LTR 2004/4200)

The Maui County Cultural Resources Commission (CRC) discussed the proposed Lahaina Small Boat Harbor Comfort Station at its regular meeting on November 4, 2004. The CRC offers the following comments:

1. The CRC was generally pleased with the architectural design and site plan. The Commissioners expressed some concern over roof materials and commented that this design element needs further consideration. The CRC iterated that the *Architectural Style Book for Lahaina* must be the guide in designing the proposed comfort station.

2. Commissioners are concerned with potential visual impact of this facility on the central core of the Lahaina Historic District, which is also a National Historic Landmark.

3. The CRC noted that archaeological monitoring will be a requirement for this project, as it is located in a sensitive cultural area and burials are known to be present in the general vicinity.

4. The CRC favored the landscaping proposals for the facility, but emphasized that irrigation must be included to keep the area in good condition. Commissioners requested that the banyan tree on the makai wall be examined to determine whether the tree is undermining the historic wall. If so, this tree should be removed.

5. Lighting and signage for the new facility are to comply with the design standards for the historic district.

6. The CRC noted the need to identify a responsible entity for cleaning and maintaining the proposed comfort station. Commissioners stated that the condition of the existing facility is unacceptable and the replacement facility should be cleaned and properly maintained so that it does not deteriorate as the current facilities have.

7. The CRC supported the installation of a shower at the facility.

8. Public testimony unanimously supported the replacement comfort station.

9. Commissioners discussed the possible need for short-term parking for those who wish to quickly use the facility and requested that the DNLR consider this issue.

Thank you for this opportunity to comment. If additional clarification is required, please contact Ms. Dawn E. Duensing, Cultural Resources Planner, at 270-7841.

Sincerely,

LORI SABLAS, Chairperson
Maui County Cultural Resources Commission

LS:DED:jlp
c: Alan Arakawa, Mayor, County of Maui
Michael W. Foley, Director, Maui Planning Department
Kyle Ginoza, Director, Maui Department of Transportation
Gil Coloma-Agaran, Director, Department of Public Works & Environmental Management
Melanie Chinen, State Historic Preservation Division
Dawn Duensing, Cultural Resources Planner
CRC members
Mich Hirano, AICP, Munekiyo and Hiraga, Inc.
General File
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MUNEKIYO & HIRAGA, INC.

November 22, 2004

Lori Sablas, Chairperson
County of Maui
Department of Planning
Cultural Resources Commission
250 South High Street
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Request for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Ms. Sablas:

Thank you for your letter of November 5, 2004, responding to our request for early consultation comments on the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. Our responses to your comments have been numbered in accordance with the numbering in your letter.

1. The applicant intends on-going coordination with the Cultural Resources Commission (CRC) to address such issues as design and materials. The *Architectural Style Book for Lahaina* will be the guide used during the design process of the proposed project.

2. The applicant acknowledges the Commission's comment regarding the potential visual impacts of any project within the Historic District. Visual impacts and mitigation measures will be addressed in the Draft Environmental Assessment (EA).

3. An Archaeological Inventory Survey has been carried out for the proposed project and will be included in the Draft EA. This report makes recommendations concerning archaeological monitoring and will be submitted to the State Historic Preservation Division for review and approval.

4. The applicant acknowledges the Commission's comments regarding the need for irrigation for the comfort station landscaping. Executive Order No. 80 sets aside the use of this comfort station parcel for park purposes and vested control and management of the site with the County of Maui. However, general maintenance will be the responsibility of the Department of Land and Natural Resources,

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

Division of Boating and Ocean Recreation (DOBOR), and the County of Maui. Coordination between the DOBOR and the County of Maui will be undertaken to ensure the new comfort station is adequately maintained. In addition, consideration will be given to the existing banyan tree and its potential impacts to the sea wall.

5. Lighting and signage will comply with the standards established for the Historic District.

6. As discussed in No. 4 above, coordination between the Department of Land and Natural Resources and the County of Maui will be undertaken to ensure proper maintenance of the facility.

7. The applicant acknowledges the CRC's support for the installation of a shower at the improved facility.

8. The applicant gratefully acknowledges that public testimony for the proposed action was unanimously supportive.

9. The applicant acknowledges that the CRC expressed the possible need for short-term parking at the improved facility. We note that parking is regulated by Maui County Code, Chapter 10.48, and any change to parking regulations will require action by the Maui County Council.

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

M Hirano

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mail\bhcomf\earlycnst\crc.res

ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

WAYNE A. BOTEILHO
Deputy Director

OCT 29 200

COUNTY OF MAUI
DEPARTMENT OF PLANNING

October 28, 2004

Mr. Mich Hirano, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Hirano:

RE: Pre-Consultation Comments for the Proposed Lahaina Small Boat Harbor Comfort Station Improvements located at TMK: 4-6-001: 001, Lahaina, Island of Maui, Hawaii (LTR 2004/3820)

The Maui Planning Department (Department) provides the following comments in preparation of the Draft Environmental Assessment (EA).

1. Land Use Designations:

   a. State - Urban District
   b. West Maui Community Plan - Park
   c. Zoning, Title 19, Maui County Code - Historic District No. 1

2. The project area is located within the Special Management Area and is subject to review pursuant to Chapter 205A, HRS, and the Special Management Area (SMA) Rules for the Maui Planning Commission. Discuss how the proposed action complies with the objectives and policies of Chapter 205A, HRS, and the SMA Rules for the Maui Planning Commission.

3. The proposed action is scheduled for review by the Cultural Resources Commission at the November 4, 2004, meeting. Please incorporate any comments from the Commission into the Draft EA.

4. Disclose funding and sources for construction and continued maintenance.

5. Once construction has been completed, identify the agency responsible for continued maintenance and repair.

6. Discuss how the project's design complies with the Title 19, MCC, and the Lahaina Historic Design Guidelines.

7. Given the close proximity of the proposed project to coastal resources, discuss mitigative measures to reduce the impact of non-point source pollution.

8. A SMA Permit, Historic District Permit, and Flood Development Permit will be required for the proposed action.

Thank you for the opportunity to comment. Please include the Department on the distribution list for the Draft EA. Should you require additional clarification, please contact Ms. Kivette A. Caigoy, Environmental Planner, of my office at 270-7735.

Sincerely,

MICHAEL W. FOLEY
Planning Director

MWF:KAC:lar
c: Wayne A. Boteilho, Deputy Planning Director
Clayton I. Yoshida, AICP, Planning Program Administrator
Kivette A. Caigoy, Environmental Planner
Dawn Duensing, Staff Planner
General File
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MUNEKIYO & HIRAGA, INC.

November 22, 2004

Michael W. Foley, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Request for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Mr. Foley:

Thank you for your letter of October 28, 2004, responding to our request for early consultation comments on the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. Our responses to your comments have been numbered in accordance with the numbering in your letter.

1. The applicant acknowledges that the project site occupies the State Land Use, Community Plan, and County Zoning designations which you have provided.

2. The applicant acknowledges that the project site is located within the County's Special Management Area (SMA). The proposed project's compliance with the rules applicable to activity within the SMA will be addressed in the Draft Environmental Assessment (EA).

3. The Draft EA will include discussion pertaining to the review of the project at the November 4, 2004 meeting of the Cultural Resources Commission.

4. Funding sources for construction activities will be included in the Draft EA. As you are aware, Executive Order No. 80 sets aside the use of this comfort station parcel for park purposes and vests control and management of the site with the County of Maui. However, general maintenance is the responsibility of the Department of Land and Natural Resources, Division of Boating and Ocean Recreation. The operational responsibilities and maintenance of the new comfort station will be discussed in the Draft EA.

5. Please refer to the discussion in No. 4 above.

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

6. The Draft EA will discuss the proposed project's compliance with Maui County zoning and the Lahaina Historic District Guidelines.

7. The Draft EA will discuss potential impacts to coastal waters, as well as proposed mitigative measures.

8. The applicant acknowledges that an SMA Permit, Historic District Permit, and Flood Development Permit will be required for the proposed action.

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mal/lbhcom/earlycnst/planning.res

NOV 05 2004

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 South High Street
WAILUKU, MAUI, HAWAII 96793
Telephone (808) 270-7816 • Fax (808) 270-7833

October 29, 2004

Mr. Mich Hirano, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku HI 96793

SUBJECT: Proposed Lahaina Small Boat Harbor Comfort Station Improvements - TMK (2) 4-6-001:001
- demolition of existing comfort station and reconstruction of a new comfort station

Dear Mr. Hirano:

Thank you for the opportunity to provide comments on this project proposal.

Source Availability and Consumption

The project area is served by our Lahaina system with Launiupoko aquifer as major source of water. As of September 2004, pending projects in West Maui at some stage of discretionary review total roughly 14.5 MGD, of which about 5.6 MGD plan to connect to the county system. DWS does NOT grant or imply any guarantee of water until an application for water meter has been received and reviewed.

The EA should include expected potable and non-potable water usage for the proposed improvements. The existing facility on 375 sf area with 7 stalls has an average daily use of 1,650 gallons, which is about 235 gpd per stall. Based on this estimate, anticipated increase in consumption for this project would be approximately 2,100 gallons. Using statewide system standard guidelines, parcel this size would use about 476 gpd.

System Infrastructure

The project site is served by a 12-inch waterline along Wharf Street, 1 1/2-inch water meter and a fire hydrant situated within 250 feet of the parcel. The applicant will be required to submit domestic, irrigation and fire flow calculations to determine meter capacity and adequate fire protection. Installation of reduced pressure back-flow prevention approved by the Department will likewise be required if one does not already exist. We encourage the applicant to contact our Engineering Division at 270-7835.

Conservation

We suggest that the applicant consider the following water conservation measures:

Use of brackish and/or reclaimed water sources for all non-potable water uses, including irrigation and dust control during construction. Reclaimed water is readily available at the Lahaina Wastewater Facility.

Utilize Low-Flow Fixtures and Devices: Maui County Code Subsection 16.20A.680 requires the use of low-flow water fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Water conserving washing machines, ice-makers and other units are also available.

Use Climate-adapted Plants: The project is located in Maui Planting Plan-Plant Zones 3 & 5. We encourage the applicant to consider the use of appropriate native and non invasive species and to avoid the use of potentially invasive plants in the landscape plan. Native plants adapted to the area conserve water and protect the watershed

from degradation due to invasive alien species. Attached is a list of appropriate plants for the zones as well as potentially invasive plants to avoid.

Maintain Fixtures to Prevent Leaks: A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons a day. Please refer to "The Costly Drip".

Look for Opportunities to Conserve Water: Periodically check for leaks in faucets and toilet tanks.

Pollution Prevention

In order to protect ground and surface water resources, we recommend that the applicant adopt Best Management Practices (BMPs) designed to minimize infiltration and runoff from construction, vehicle operations as well as from daily activities. We ask the applicant to take precautionary measures during construction to prevent construction materials and debris and eroded soils from entering coastal waters.

Should you have any questions regarding system infrastructure and requirements, please call our Engineering Division at 270-7835 and any questions on source availability or conservation and resource matters, please contact our Water Resources and Planning Division at 270-7199.

Sincerely,

George Y. Tengan
Director

eam
CC: Engineering Division
Applicant, with attachments:
The Costly Drip
Maui County Planting Plan - Plant Zone 3 & 5 - Saving Water in the Yard - What and How to Plant in your Area
Ordinance No. 2108 - A Bill for an Ordinance Amending Chapter 16.20 of the Maui County Code, Pertaining to the Plumbing Code

MUNEKIYO & HIRAGA, INC.

November 22, 2004

George Tengan, Director
County of Maui
Department of Water Supply
200 South High Street
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Request for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Mr. Tengan:

Thank you for your letter of October 29, 2004, responding to our request for early consultation comments on the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we note the following:

1. The applicant acknowledges that the Department of Water Supply (DWS) will not issue temporary construction meters nor guarantee that additional water will be available. There is an existing meter for the facility which will continue to be used after the proposed improvements.

2. The Draft Environmental Assessment (EA) will include anticipated water usage for the proposed improvements.

3. Domestic and irrigation water calculations, along with fire flow calculations, will be submitted to your department in order to determine adequacy during the building permit process.

4. The applicant acknowledges that reduced pressure back-flow prevention may be required for the improved facility if one does not already exist.

5. The applicant acknowledges your recommendations regarding water conservation measures and will consider the feasibility and applicability of those suggestions.

6. Best Management Practices will be utilized to minimize runoff and protect area water sources.

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mail\bhcom\\earlycnst\dws.res

ALAN M. ARAKAWA
MAYOR

NOV 05 4

200 South High Street
Wailuku, Maui, Hawaii USA
96793-2155
Telephone (808) 270-7855
Fax (808) 270-7870
e-mail: mayors.office@co.maui.hi.us

OFFICE OF THE MAYOR
Ke`ena O Ka Meia

COUNTY OF MAUI
Kalana O Maui

November 4, 2004

Mich Hirano
Munekiyo & Hiraga
305 High Street
Wailuku, Hawaii 96793

Dear Mich,

I have received your packet regarding the Lahaina Small Boat Harbor Comfort Station Improvements. I have reviewed them with the Mayor and his staff. We have the following comments:

1. The overall design is very good. We appreciate and fully support the two to one ratio of men's stalls to women's stalls.
2. We respectfully request that vandal resistant fixtures and partitions be utilized as this area is out of the way of the main traffic flow at night and has been prone to vandals.
3. We are concerned about the effects of the salty air due to the proximity of the comfort station to the ocean. Please consider saltwater resistant materials in the construction of the building. If it is possible, please consider the use of recycled plastic lumber.

Thank you for your interest in our opinion. Please do not hesitate to call me if you have any further questions.

Sincerely,

Don Couch
Executive Assistant to the Mayor
County of Maui

MUNEKIYO & HIRAGA, INC.

November 22, 2004

Don Couch, Executive Assistant
County of Maui
Office of the Mayor
200 South High Street
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Request for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Mr. Couch:

Thank you for your letter of November 4, 2004, responding to our request for early consultation comments on the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we note the following:

1. Coordination with your office resulted in the current design ratio for men's and women's stalls. The applicant looks forward to continuing this coordination.

2. The applicant is dedicated to the idea of a clean, modern facility that will retain that character for as long as is feasible. To this end, crime preventative design considerations have been taken into account involving building visibility and exterior lighting in order to discourage unsanctioned and criminal activities. The specific equipment to be used in the improved comfort station will determined during the design phase of the proposed project.

3. As discussed in No.2, the applicant intends to improve the comfort station to retain its character for as long as is feasible. As the proposed project is located in the Lahaina Historic District, certain guidelines regarding building materials have to be followed, pursuant to the *Architectural Style Book for Lahaina*. These issues are being considered during the Environmental Assessment process.

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mal/bhcomf/earlycnst/mayor.res

ALAN M. ARAKAWA
MAYOR

OUR REFERENCE
YOUR REFERENCE

POLICE DEPARTMENT
COUNTY OF MAUI

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

THOMAS M. PHILLIPS
CHIEF OF POLICE

KEKUHAUPIO R. AKANA
DEPUTY CHIEF OF POLICE

NOV 10 2004

November 3, 2004

Mr. Mich Hirano, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Dear Mr. Hirano:

SUBJECT: Proposed Lahaina Small Boat Harbor Comfort Station Improvements

Thank you for your letter of October 6, 2004, requesting comments on the above subject.

We have reviewed the information submitted for this project and have enclosed a copy of our comments. As always, thank you for giving us the opportunity to comment on this project.

Very truly yours,

Assistant Chief Sydney Kikuchi
for: Thomas M. Phillips
Chief of Police

c: Michael Foley, Planning Department

Enclosure

TO : **THOMAS PHILLIPS, CHIEF OF POLICE, COUNTY OF MAUI**

VIA : **CHANNELS** 1 2 → 11/01/04

FROM : **SCOTT Y. MIGITA, P.O. III, LAHAINA BIKE PATROL**

SUBJECT : **PROPOSED LAHAINA SMALL BOAT HARBOR COMFORT STATION IMPROVEMENTS**

Sir, this transmittal is being submitted regarding a proposal for improvements to the Lahaina Small Boat Harbor comfort station. This proposal is to increase the number of stalls to meet the increased public demand and the size of the stalls to become ADA (Americans with Disabilities Act) compliant. The existing property and comfort station are owned by the State of Hawaii as this project is being initiated by the Department of Land and Natural Resources (DLNR). Currently, the existing comfort station contains approximately 375 square feet of floor space with seven (7) restroom stalls. The new facility is planned to contain approximately 1,200 square feet of floor area with twelve (12) female restroom stalls and four (4) male restroom stalls and two (2) urinals as well as a paved parking area with handicap accessibility. The restroom will also include two (2) female handicap accessible stalls and one (1) male handicap accessible stall.

At this time, the only concern which I have from a traffic and safety perspective would be to provide security for this facility to ensure the safety of the general public. This comfort station should also be closed and secured overnight as there are transient individuals in the area which may use this facility for narcotics or other illicit activity which may result in property damage to this facility and/or injuries to individuals. Such illicit activities have taken place and were addressed by police at the unsecured restrooms at Mala Wharf.

Submitted for your information and perusal.

Scott Y. MIGITA, E-1122
P.O. III, Lahaina Bike Patrol
10/26/2004 at 1253 hours

RECOMMEND THAT THIS PROJECT MOVE FORWARD. CONCUR WITH OFFICER MIGITA'S ASSESSMENT.

1512
10/26/04 1515

A WELL ILLUMINATED AREA MIGHT HELP DETER CRIMINAL ACTIVITY. LAHAINA PATROL WILL BE PROACTIVE TO DO OUR PART. THE PROPOSED BATHROOM FACILITY IS LONG OVER DUE FOR A WORLD DESTINATION.

A/CAPT V[illegible]OS
1335 hours

MUNEKIYO & HIRAGA, INC.

November 22, 2004

Thomas Phillips, Chief
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawaii 96793

SUBJECT: Early Consultation Request for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Chief Philips:

Thank you for your letter of November 3, 2004, responding to our request for early consultation comments on the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we note that it is anticipated that the improved facility will be open 24 hours a day, 7 days a week, as the existing facility is. Crime preventative design considerations have been taken into account involving building visibility and exterior lighting in order to discourage unsanctioned and criminal activities.

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mail\bhcom\earlycnst\mpd.res

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

FRIENDS OF
MOKU'ULA, INC.
I Ka Wā Mamua, Ka Wā Mahope
The Future Is In The Past

(808) 661-3659
Fax (808) 661-1676
505 Front Street, Suite 234
Lāhainā, Maui, Hawai'i 96761
E-mail: friends@mokuula.com
www.mokuula.com

October 26, 2004

Mr. Mich Hirano, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Aloha Mich,

RE: Proposed Lahaina Small Boat Harbor Comfort Station Improvements

Thank you for your letter of October 6th with reference to the State of Hawaii, DLNR's proposal to demolish the existing comfort station and construct a new comfort station at the Lahaina Small Boat Harbor.

I reviewed the proposed site plan and understand the need for upgrading and expanding the comfort station. My concerns are as follows:

- Who is responsible for the general maintenance? Will it be the County of Maui or will they be contracting out?
- Will the facility be open 24 hours or will they operate only at certain hours? If it will be in operation for certain hours, will the facility then be secured?
- Is the equipment being used, i.e. toilets, sinks, vandal-proof and/or low maintenance?

Although these concerns may not be pertinent to SMA process, I am submitting my concerns in anticipation that they will be addressed by the appropriate review committees and commissions.

Thank you for giving the Friends of Moku'ula an opportunity to comment on the proposed improvements to the Lāhainā Small Boat Harbor.

Me ka ha'aha'a,

Akoni Akana
Executive Director

/sak

MUNEKIYO & HIRAGA, INC.

November 22, 2004

Akoni Akana, Executive Director
Friends of Moku'ula
505 Front Street, Suite 234
Lahaina, Hawaii 96761

SUBJECT: Early Consultation Request for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Mr. Akana:

Thank you for your letter of October 26, 2004, responding to our request for early consultation comments on the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we note the following:

1. Executive Order No. 80 sets aside the use of this comfort station parcel for park purposes and vested control and management of the site with the County of Maui. However, maintenance of the comfort station will be the responsibility of the Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DOBOR) . The manner of implementation of the maintenance will be discussed in the Draft EA. Solid-waste generated from the facility will be disposed of by a private contractor.

2. It is anticipated that the improved facility will be open 24 hours a day, 7 days a week, as the existing facility is. Crime preventative design considerations have been taken into account involving building visibility and exterior lighting in order to discourage unsanctioned and criminal activities.

3. The specific equipment to be used in the improved comfort station will determined during the design phase of the proposed project. Both the Department of Land and Natural Resources and the County of Maui are dedicated to the idea of a clean, modern facility that will retain that character for as long as is feasible.

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

Thank you again for providing your input to the proposed action. A copy of the Draft Environmental Assessment will be provided to your office for review and comment.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mai/lbhcomf/earlycnst/mokuula.res

Chapter XII

Parties Consulted During the Preparation of the Final Environmental Assessment; Letters Received and Responses to Substantial Comments

XII. PARTIES CONSULTED DURING THE PREPARATION OF THE FINAL ENVIRONMENTAL ASSESSMENT, LETTERS RECEIVED AND RESPONSES TO SUBSTANTIVE COMMENTS

The following parties were sent a copy of the Draft EA. The State Historic Preservation Officer, in compliance with Section 106 of the National Historic Preservation Act, also received a copy of the Draft EA. Agency comments and responses to substantive comments are included in this section.

1. Ranae Ganske-Cerizo, Acting District Conservationist
Natural Resources Conservation Service
U.S. Department of Agriculture
210 Imi Kala Street, Suite 209
Wailuku, Hawaii 96793-2100

2. George Young, P.E.
Chief, Regulatory Branch
U.S. Department of the Army
U.S. Army Engineer District, Hnl.
Attn: CEPOH-EC-R
Bldg. 230, Room 201
Fort Shafter, Hawaii 96858-5440

3. Robert P. Smith
Pacific Islands Manager
U. S. Fish and Wildlife Service
300 Ala Moana Blvd., #3-122, Box 50088
Honolulu, Hawaii 96813

4. Micah Kane, Chairman
State of Hawaii
Department of Hawaiian Home Lands
P.O. Box 1879
Honolulu, Hawaii 96805

5. Chiyome L. Fukino, M.D., Director
State of Hawaii
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801

6. Herbert Matsubayashi
District Environmental Health Program Chief
State of Hawaii
Department of Health
54 High Street
Wailuku, Hawaii 96793

7. Peter T. Young, Director
State of Hawaii
Department of Land and Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809

8. Dean Aoki, ADA Coordinator
State of Hawaii
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

9. Charlene Unoki, District Land Agent
State of Hawaii
Department of Land and Natural Resources - Maui District Land Office
54 South High Street, Room 101
Wailuku, Hawaii 96793

10. Melissa Kirkendall, Ph.D.
State Historic Preservation Division
Maui District Office
130 Mahalani Street
Wailuku, Hawaii 96793

11. Nathan Napoka, Chief
State Historic Preservation Division
History and Culture Branch
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

12. Skippy Hau, Aquatic Biologist
State of Hawaii
Division of Aquatic Resources
Department of Land and Natural Resources
130 Mahalani Street
Wailuku, Hawaii 96793

13. P. Holly McEldowney, Administrator
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, Hawaii 96707

14. Rodney K. Haraga, Director
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

15. Fred Cajigal, Maui District Engineer
State of Hawaii
Department of Transportation
Highways Division
650 Palapala Drive
Kahului, Hawaii 96732

16. Clyde Namu'o, Administrator
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

17. Carl Kaupalolo, Chief
County of Maui
Department of Fire Control
200 Dairy Road
Kahului, Hawaii 96732

18. Michael W. Foley, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

19. Cultural Resources Commission
c/o Dawn Duensing
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

20. Glenn Correa, Director
County of Maui
Department of Parks and Recreation
1580-C Kaahumanu Avenue
Wailuku, Hawaii 96793

21. Tom Phillips, Chief
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawaii 96793

22. Gilbert Coloma-Agaran, Director
County of Maui
Department of Public Works
and Environmental Management
200 South High Street
Wailuku, Hawaii 96793

23. Kyle Ginoza, Director
County of Maui
Department of Transportation
200 South High Street
Wailuku, Hawaii 96793

24. George Tengan, Director
County of Maui
Department of Water Supply
200 South High Street
Wailuku, Hawaii 96793

25. Ezekiela "Zeke" Kalua, Executive Director
West Maui Taxpayers Association
181 Lahainaluna Road, Suite "H"
Lahaina, Hawaii 96761

26. Theo Morrison, Executive Director
Lahaina Town Action Committee
648 Wharf Street, Suite 102
Lahaina, Hawaii 96761

27. Keoki Freeland, Executive Director
Lahaina Restoration Foundation
120 Dickenson Street
Lahaina, Hawaii 96761

28. Bobbie Best, Librarian
Lahaina Public Library
680 Wharf Street
Lahaina, Hawaii 96761

29. Patty Nishiyama, Executive Director
Na Kupuna O Maui
320 Kaeo Place
Lahaina, Hawaii 96761

30. Akoni Akana, Executive Director
Friends of Moku'ula
505 Front Street
Lahaina, Hawaii 96761

31. Thelma Shimaoka, Community Resource Coordinator
Office of Hawaiian Affairs
140 Ho'ohana Street, Suite 206
Kahului, Hawaii 96732

32. Vanessa Medeiros, District Supervisor
Department of Hawaiian Home Lands
Maui District Office
655 Kaumualii Street
Wailuku, Hawaii 96793

33. Rose Marie Duey, Island Representative
Alu Like, Inc.
Maui Island Center
1977 Kaohu Street
Wailuku, Hawaii 96793

34. Senator Roz Baker
415 South Beretania Street
Room 228
Honolulu, Hawaii 96813

35. Representative Kam Tanaka
415 South Beretania Street
Room 319
Honolulu, Hawaii 96813

36. Councilmember JoAnne Johnson
Maui County Council
200 South High Street
Wailuku, Hawaii 96793

37. Best Western Pioneer Inn
Jim Lennon, General Manager
658 Wharf Street
Lahaina, Hawaii 96761

38. King Kamehameha III Elementary School
Lindsay Ball, Principal
611 Front Street
Lahaina, Hawaii 96761

39. Lahaina Arts Society
Graham Watson, Executive Director
648 Wharf Street, Suite 103
Lahaina, Hawaii 96761

40. Kim Ball, President
Hi-Tech Surf & Sports
425 Koloa Street
Kahului, Hawaii 96732

41. Kevin and Pam Baughman
277 Wili Ko Place, Suite 4
Lahaina, Hawaii 96761

42. Tony Whitehead
801 Olowalu Road
Lahaina, Hawaii 96761

43. David Jung
Island Marine Activities
Molokai Ferry
658 Front Street, Suite 101
Lahaina, Hawaii 96761

44. Don Couch, Executive Assistant
Office of the Mayor
County of Maui
200 South High Street
Wailuku, Hawaii 96793

45. Steve Knight
Expeditions
Lahaina/Lanai Passenger Ferry
658 Front Street, Suite 127
Lahaina, Hawaii 96761

46. Stuart Kahan
Mala Wharf Fishing and Recreation Association
1028 Wainee Street, E-5
Lahaina, Hawaii 96761

LINDA LINGLE
GOVERNOR OF HAWAII

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186
E-mail: oeqc@health.state.hi.us

December 29, 2004

Peter Young
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Eric Hirano

Dear Mr. Young:

Subject: Draft Environmental Assessment (EA)
Lahaina Small Boat Harbor Comfort Station Improvements

We have the following comment to offer:

Cultural impacts assessment: You have presented background information and informant interviews relative to the project area. What is lacking is the analysis or *assessment* of the project impacts to the existing cultural resources. You need to draw a conclusion about impacts from the information presented. Please include this in the final EA.

If you have any questions, call Nancy Heinrich at 586-4185.

Sincerely,

GENEVIEVE SALMONSON
Director

c: Mich Hirano, Munekiyo & Hiraga

MUNEKIYO & HIRAGA, INC.

January 25, 2005

Genevieve Salmonson, Director
State of Hawaii
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

SUBJECT: Draft Environmental Assessment for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Ms. Salmonson:

Thank you for your letter of December 29, 2004, providing comments on the Draft Environmental Assessment (EA) for the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comment, we confirm that conclusions about impacts from the analysis of the cultural impact assessment associated with the proposed project will be incorporated in the Final EA.

Thank you again for providing comments on the Draft EA.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mail\bhcom\oeqc.res

planning environment

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhinconline.com

LINDA LINGLE
GOVERNOR OF HAWAII

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

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

YVONNE Y. IZU
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

January 3, 2005

Mr. Michael T. Munekiyo
Munekiyo & Hiraga, Inc.
305 High Street
Wailuku, Hawaii 96793

Log No: 2004.3710
Doc No: 0412SC29

Dear Mr. Munekiyo:

SUBJECT: National Historic Preservation Act, Section 106 Compliance – Draft Environmental Assessment (DEA) for the Proposed Lahaina Small Boat Harbor Comfort Station Improvements
Paunau, Lahaina, Maui
TMK: (2) 4-6-001:001

Thank you for the opportunity to comment on a DEA for the proposed improvements to the comfort station at Lahaina Small Boat Harbor. We received the subject DEA on December 29, 2004, and provide the following comments. Our review is based on historic maps, aerial photographs, records, and reports maintained at the State Historic Preservation Division (SHPD). In addition, Nathan Napoka (History and Culture Branch), Thomas Lim and Susan Tasaki (Architecture Branch), and Melissa Kirkendall (Archaeology Branch) have all conducted field inspections in connection with the proposed undertaking.

The proposed undertaking includes the demolition and reconstruction of the existing comfort station located at Lahaina Small Boat Harbor. The reconstruction will expand the facility from 375 square feet (s.f.) to about 1,200 s.f. in size to accommodate both compliance with the Americans with Disabilities Act (ADA) and increased public use. There will be concomitant changes in storage and public parking as well.

An archaeological inventory survey has been conducted within the proposed Area of Potential Effect (APE), identifying two historic sites: a subsurface cultural fill deposit dating primarily to the 19th century A.D, and a sea wall (Ah Sam et al. 2004. *Archaeological Inventory Survey and*

Cultural Impact Assessment for the Comfort Station Replacement During the Lahaina Pier Improvement Project, Lahaina Maui). The cultural fill deposit has been deemed significant under Criterion D and the sea wall may be significant under multiple criteria. While we have requested a few minor revisions to this report, we anticipate accepting it as adequate and final once the revised report is submitted. The archaeological consultant has recommended on-site archaeological monitoring during any ground disturbance connected with the proposed improvements, and we concur with this recommendation.

Staff of our Architecture and History and Culture Branches have reviewed the subject undertaking, and believe that "no historic properties will be affected" by the proposed improvements to the existing comfort station. Staff of our Archaeology Branch believe that the proposed undertaking may have an "adverse effect" on archaeological properties but that a finding of "no adverse effect" may be made provided on-site archaeological monitoring occurs during any ground disturbance associated with the action.

Should you have any questions about archaeological matters, please contact Melissa Kirkendall on Maui at 243-5169. Should you have any questions about architectural matters, please contact Thomas Lim on O`ahu at 692-8030. Should you have any questions about burial or cultural matters, please contact Nathan Napoka, Branch Chief, History and Culture Branch, at 587-0192 on O`ahu.

Sincerely,

Melanie A. Chinen
Deputy State Historic Preservation Officer

SC: slc

C: Carol Braegelmann, Environmental Protection Specialist, Office of Human & Natural Environment, Federal Transit Administration, 400 Seventh Street, SW, Washington, DC 20590
Gilbert Coloma-Agaran, Director, Dept of Public Works & Environmental Management, 250 S. High Street, Wailuku, HI 96793
Michael Foley, Director, Dept of Planning, 250 S. High Street, Wailuku, HI 96793
Eric Hirano, Administrator, Engineering Division, DLNR
Lee Keatinge, The President's Advisory Council on Historic Preservation
Thomas Lim, Branch Chief, Architecture Branch
Maui Section, Archaeology Branch
Maui Cultural Resources Commission, Dept of Planning, 250 S. High Street, Wailuku, HI 96793
Nathan Napoka, Branch Chief, History and Culture Branch
Richard Rice, Administrator, DOBOR, DLNR

MUNEKIYO & HIRAGA, INC.

January 25, 2005

Melanie Chinen, Administrator
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

SUBJECT: Draft Environmental Assessment for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Ms. Chinen:

Thank you for your letter of January 3, 2005, providing comments on the Draft Environmental Assessment for the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we acknowledge that you anticipate accepting the archaeological report as adequate following your recommended revisions. An updated Archaeological Inventory Report incorporating the recommended revisions will be included in the Final EA. We also acknowledge that you anticipate a finding of no impact to historic properties by the Architecture and Cultural Branches, as well as finding of no adverse effect by the Archaeological Branch provided that on-site archaeological monitoring occurs during any ground-disturbing activities.

On behalf of the applicant agency, we confirm a qualified archaeologist will be on-site to monitor all ground-disturbing activities. A monitoring plan will be submitted to SHPD for review and approval prior to the commencement of construction.

planning environment

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhinconline.com

Thank you again for providing your input to the proposed action.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mail/lbhcom/shpd.res

LINDA LINGLE
GOVERNOR

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

JAN 13 2005

RODNEY K. HARAGA
DIRECTOR

Deputy Directors
BRUCE Y. MATSUI
BARRY FUKUNAGA
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.1519

January 10, 2005

Mr. Mich Hirano, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Hirano:

Subject: Lahaina Small Boat Harbor Comfort Station
Draft Environmental Assessment (DEA),
Special Management Area Use Permit (SM1 2004/0038), and
Historic District Approval (HDC 2004/0012)
TMK: (2) 4-6-01: 01

Thank you for your transmittal requesting our review of the subject project.

We have been working with the Department of Land and Natural Resources to fund this project through the Federal Transit Administration (FTA) program, and are fully supportive of it.

We appreciate the opportunity to provide comments.

Very truly yours,

Bill Mata

for RODNEY K. HARAGA
Director of Transportation

LINDA LINGLE
GOVERNOR
STATE OF HAWAII

DEC 28 2004

MICAH A. KANE
CHAIRMAN
HAWAIIAN HOMES COMMISSION

BEN HENDERSON
DEPUTY TO THE CHAIRMAN

KAULANA H. PARK
EXECUTIVE ASSISTANT

STATE OF HAWAII

DEPARTMENT OF HAWAIIAN HOME LANDS

P.O. BOX 1879

HONOLULU, HAWAII 96805

December 23, 2004

Mr. Mich Hirano, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Hirano:

Thank you for the opportunity to review the Draft Environmental Assessment report for the "Proposed Lahaina Small Boat Harbor Comfort Station Improvements" project on Maui. The Department of Hawaiian Home Lands has no comments to offer.

Should you have any questions, please call the Planning Office at (808) 586-3836.

Aloha and mahalo,

for Micah A. Kane, Chairman
Hawaiian Homes Commission

c: Mr. Michael Foley, Director
Department of Planning

MUNEKIYO & HIRAGA, INC.

2004 DEC -8 PM 4:30

December 8, 2004

Charlene Unoki, Acting District Land Agent
Department of Land and Natural Resources
54 South High Street, Room 101
Wailuku, Hawaii 96793

SUBJECT: Draft Environmental Assessment in Support of Proposed Lahaina Small Boat Harbor Comfort Station Improvements
(SM1 2004/0038) (HDC 2004/0012)

Dear Ms. Unoki:

This letter is transmitted to coordinate concurrent agency review requirements of the Draft Environmental Assessment (EA) and review of the County Special Management Area (SMA) Use Permit and Historic District (HDC) applications for the subject project. The Draft EA is incorporated in the enclosed application document.

Pursuant to Chapter 343, HRS and Chapter 200, Title 11, Administrative Rules, Environmental Impact Statement Rules, the notice of availability of the Draft EA will be published in the Environmental Notice on December 8, 2004. The applicant and accepting authority for the Draft EA is the State of Hawaii, Department of Land and Natural Resources (DLNR). The 30-day comment deadline is January 7, 2005. Comments received relevant to the Draft EA will be processed for evaluation and response by the applicant, DLNR. Comments received relevant to the County entitlement applications will be processed for evaluation by the Department of Planning.

To facilitate processing of the review requirements of the Draft EA and County land use applications, it would be appreciated if you would provide your written comments to me and a copy to the County of Maui, Department of Planning. Contacts and addresses are as follows:

1. Mich Hirano, AICP
   Munekiyo & Hiraga, Inc.
   305 High Street, Suite 104
   Wailuku, Hawaii 96793

Refer to GEO 80

DEC 16 2004

2. Michael W. Foley, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

If you have any questions, please call me at (808) 244-2015.

Thank you for your cooperation in facilitating this concurrent review process.

Very truly yours,

Mich Hirano, AICP

MH:tn
Attachment
cc: Michael W. Foley, Director, Department of Planning
mail\bhcomf\dtnrmaui.ltr

We have no comments.
Charlene E. Unoki
12/15/04

LINDA LINGLE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF AQUATIC RESOURCES
130 MAHALANI STREET
WAILUKU, HAWAII 96793
Phone (808) 243-5294

January 4, 2005

To: Mich Hirano, AICP
Munekiyo & Hiraga, Inc.

From: Skippy Hau, Aquatic Biologist

Subject: Draft Environmental Assessment for Lahaina Small boat Harbor Comfort Station Improvements (SM1 2004/0038) (HDC 2004/0012)

Most of our concerns have been addressed by other agencies through early consultation comments.

Best management practices should be followed during demolition and construction to minimize runoff from this site.

During 2004, there were six honu nests located at Kamehameha Iki Park, south of the comfort station. Green turtle or honu are Federally protected as a threatened species. Turtle nesting occurrs between May and August. Loud noises, and excessive lighting should be avoided or minimized at night during the nesting season.

If the project is completed before May 2006, there should be no conflict with turtle nesting.

Thank you for letting us comment. We look forward to a new and improved comfort station.

c: Michael W Foley, County Planning Dept.
DAR - Oahu

MUNEKIYO & HIRAGA, INC.

January 25, 2005

Skippy Hau, Aquatic Biologist
State of Hawaii
Department of Land and Natural Resources
Division of Aquatic Resources
130 Mahalani Street
Wailuku, Hawaii 96793

SUBJECT: Draft Environmental Assessment for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Mr. Hau,

Thank you for your letter of January 4, 2005, providing comments on the Draft Environmental Assessment for the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we note the following:

1. Best Management Practices will be implemented during demolition and construction-related activities in order to minimize potential adverse impacts to aquatic resources from the project site.

2. The proposing agency acknowledges your information regarding the honu (green turtle) nests located south of the comfort station. The proposing agency will undertake all feasible measures to ensure that this threatened species is not impacted by the comfort station improvements. All construction activities will be carried out during the daylight hours. A completion date for construction-activities cannot be guaranteed at present. Should, however, construction-activities extend into May of 2006, the proposing agency looks forward to coordination with your department and any other applicable entities in order to mitigate any potential impacts to the honu.

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhinconline.com

Thank you again for providing your input to the proposed action.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mail\bhcom\dlnr.res

JAN 11 2005

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M. D.
DIRECTOR OF HEALTH

LORRIN W. PANG, M. D., M. P. H.
DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2102

January 10, 2005

Mr. Mich Hirano, AICP
Munekiyo & Hiraga, Inc.
305 South High Street, Suite 104
Wailuku, Hawai`i 96793

Dear Mr. Hiraga:

Subject: **Draft Environmental Assessment in Support of Proposed Lahaina Small Boat Harbor Comfort Station Improvements**
TMK: (2) 4-6-1:1
SM1 2004/0038, HDC 2004/0012

The following comments are offered for the proposed Lahaina Small Boat Harbor Comfort Station Improvements:

1. National Pollutant Discharge Elimination System (NPDES) permit coverage is required for this project. The Clean Water Branch should be contacted at 808 586-4309.

2. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control". A noise permit may be required and should be obtained before the commencement of work.

3. Chapter 501, "Asbestos Requirements" requires owners or operators of a demolition or renovation activity to thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos using a certified inspector pursuant to HAR, Chapter 504. The Applicant is required to file with the Noise, Radiation and Indoor Air Quality Branch, Asbestos Demolition/Renovation Notification at least ten (10) working days prior to the demolition of each building (regardless of the presence of asbestos) or the disturbance of regulated asbestos containing materials during renovation activities. All regulated quantities and types of asbestos containing materials would be subject to emission control, proper collection, containerizing, and disposal at a permitted landfill by a licensed asbestos contractor using certified persons. Questions concerning asbestos requirements should be directed to Mr. Thomas Lileikis of the Noise, Radiation and Indoor Air Quality Branch at (808) 586-5800.

Should you have any questions, please call me at 984-8230.

Sincerely,

Herbert S. Matsubayashi
District Environmental Health Program Chief

c: Michael Foley

MUNEKIYO & HIRAGA, INC.

January 25, 2005

Herbert Matsubayashi, District Environmental
Health Program Chief
State of Hawaii
Department of Health
Maui District Health Office
54 High Street
Wailuku, Hawaii 96793

SUBJECT: Draft Environmental Assessment for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Mr. Matsubayashi:

Thank you for your letter of January 10, 2005, providing comments on the Draft Environmental Assessment for the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we note the following:

1. A National Pollutant Discharge Elimination System permit for the proposed project will not be required for the proposed improvements since no change to the site elevation and grades are anticipated. Only minor fine grading activities will be carried out around the comfort station building site.

2. All proposed construction activity will be in compliance with HAR, Chapter 11-46, "Community Noise Control". The proposing agency will determine if a noise permit is required for construction-related activities and will obtain one if it is deemed appropriate.

3. The proposing agency will comply with all applicable regulations concerning asbestos, pursuant to Chapter 501, Hawaii Administrative Rules.

planning environment

305 High Street, Suite 104 'Wailuku, Hawaii 96793 'ph: (808)244-2015 'fax: (808)244-8729 'planning@mhinconline.com

Thank you again for providing your input to the proposed action.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mail\bh\comf\doh.res

ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

WAYNE A. BOTEILHO
Deputy Director

JAN 0 5 2005

COUNTY OF MAUI
DEPARTMENT OF PLANNING

December 30, 2004

Mr. Mich Hirano, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Hirano:

RE: Draft Environmental Assessment for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station located at TMK: 4-6-001: 001, Lahaina, Island of Maui, Hawaii (LTR 2004/4509)

The Maui Planning Department (Department) received your request for comments on the Draft EA prepared in accordance with Chapter 343, HRS, for the proposed improvements to the Lahaina Small Boat Harbor Comfort Station. The Department's comments are as follows:

1. It should be noted that the proposed project is located within the National Lahaina Landmark District, which is also a trigger for the environmental review process.

2. Recommend including a map identifying the proposed action and the location of historic/cultural sites within proximity of the project area.

3. Discuss the proposed action's relevance to the Shoreline Rules of the Maui Planning Commission, particularly §12-203-12, in *Chapter IV, Relationship to Land Use Plans, Policies and Controls*.

4. The Cultural Resources Commission (CRC) will be reviewing and commenting on the Draft EA at the January 6, 2005, meeting. Any comments received will be forwarded under separate cover.

Thank you for the opportunity to comment. Should you require additional clarification, please contact Ms. Kivette A. Caigoy, Environmental Planner, at 270-7735.

Sincerely,

for MICHAEL W. FOLEY
Planning Director

MWF:KAC:lar
c: Wayne Boteilho, Deputy Planning Director
Kivette A. Caigoy, Environmental Planner
Dawn Duensing, Cultural Resources Planner
TMK File
General File
K:\WP_DOCS\PLANNING\EA\DEAComments\2004\4509_LahainaHarborCmftStn.wpd

MUNEKIYO & HIRAGA, INC.

January 25, 2005

Michael W. Foley, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

SUBJECT: Draft Environmental Assessment for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Mr. Foley,

Thank you for your letter of December 30, 2004, providing comments on the Draft Environmental Assessment for the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we note the following:

1. The Environmental Assessment (EA) notes that the proposed project's location within the National Lahaina Landmark District is a trigger for the environmental review process as set forth in Chapter 343, Hawaii Revised Statutes.

2. A map will be included in the Final EA which denotes the location of the proposed project relative to nearby historical and cultural sites.

3. The subject property is not a shore fronting property. The parcel that is located seaward of the subject property is the Lahaina Small Boat Harbor, identified by TMK 4-6-01:2. This parcel includes a rock mound breakwater and a hardened bulkhead along the inside of the harbor basin. The shoreline within the Lahaina Small Boat Harbor was certified in 1982 and runs seaward of the existing pier and seaward of the bulkhead along the inner harbor. The proposed new comfort station is located 37 feet, 6 inches from the certified shoreline and is in conformance with the Shoreline Rules of the Maui Planning Commission. This information will be included in the Final EA.

4. We acknowledge that the comments of the Cultural Resources Commission resulting from the January, 6, 2005 meeting will be sent under separate cover.

planning environment

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 planning@mhinconline.com

Thank you again for providing your input to the proposed action.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mai/lbhcom/planning.res

ALAN M. ARAKAWA
Mayor

MICHAEL W. FOLEY
Director

WAYNE A. BOTEILHO
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

January 7, 2005

Mr. Peter T. Young, Chairperson
Department of Land and Natural Resources
Division of Boating and Ocean Recreation
333 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Mr. Young:

RE: Draft Environmental Assessment for the proposed Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii TMK: 4-6-001 (HDC 2004/0012)

The Maui County Cultural Resources Commission (CRC) considered the Draft Environmental Assessment for the Lahaina Small Boat Harbor Comfort Station at its regular meeting on January 6, 2005. After due deliberation, the CRC offers the following comments:

1. Commissioners emphasized that this project is located in a culturally significant area and must be carefully planned. The National Survey of Historic Sites and Buildings noted:

> *Perhaps no island town so well preserves the atmosphere of a mid-19th century Hawaiian seaport as does Lahaina.... Despite the fact that surviving historic structures are relatively few, the town preserves much of the atmosphere of a Hawaiian native village and of a mid-19th century island port. The magnificent natural setting, with its backdrop of purple mountains and foreground of blue sea, remains unspoiled; and palms and other trees shade the streets and homes as they did in missionary days. However, paved streets, curbs, new buildings in contemporary architectural styles, and other developments are cumulatively making their effects felt and causing the historic scene to fade.*

2. Commissioners remain concerned with the potential visual impact of this facility on the central core of the Lahaina Historic District, which is also a National Historic Landmark. The Draft EA does not adequately discuss how this proposed building might impact the viewplane both from land and from the ocean.

3. In its November 5, 2004 letter, the CRC requested that the banyan tree on the historic makai wall be examined to determine whether the tree is undermining the wall. The CRC requests that a certified arborist determine whether this tree is undermining the historic wall, and if it is, the tree should be removed. Should the banyan tree be removed, it may be necessary to replace it with a more suitable native species that would conceal the proposed building from the ocean viewplane.

4. The proposed building's roof material should be traditional "toe-tongue" corrugated metal, painted green or red. Commissioners emphasized that no composite materials shall be used as *The Architectural Style Book for Lahaina* specifies that traditional materials shall be used in the Lahaina Historic Districts.

5. Please note that the fort in Banyan Tree Park is not a historic site. The small boat harbor, seawall, palm trees, and the southeast and southwest walls (1920s) adjacent to the existing comfort station are historic sites. This is not noted in the Draft EA. These sites should be assigned a State Inventory of Historic Places (SIHP) number. Furthermore, the Carthaginian did not sink offshore of Kihei.

6. The CRC noted that the archaeological testing conducted at the site is inadequate. Further archaeological testing should be done in order to complete the Archaeological Inventory Survey (AIS) according to the Rules and Regulations for Archaeological Inventory Surveys. Testing around Test Unit 1 should be expanded to determine the extent of this site. Site boundaries should be determined during the AIS. Furthermore, land uses are generally presented in an AIS as land uses help identify what sites were at the project location in the past and what subsurface discoveries might be expected during archaeological monitoring. Please provide the land use of the Land Commission Awards in the project area.

7. Even though much of this site is fill, there is a potential to encounter artifacts and human remains. Archaeological monitoring during all ground-disturbing actions, including but not limited to demolition, new

construction, and landscaping, will be required for this project. The project site is located in a sensitive cultural area and burials have been discovered in the general vicinity.

8. Please include the State Historic Preservation Division comment letter in the final EA.

9. As this project is subject to Section 106 regulations and located in a National Historic Landmark, we remind you that the FTA is responsible for all findings. The FTA should notify and invite the Advisory Council on Historic Preservation and the Secretary of the Interior National Park Service to participate in this action.

10. Commissioners again expressed concern over the large size of the replacement structure. Even though they agreed that there is a great need for this facility, it will impact the Historic District.

11. Please include indigenous species in the landscaping plan, including ulu and loulu.

12. Commissioners requested that the Department of Land and Natural Resources consider loaning or donating any cultural artifacts found during construction to a local repository such as the Maui Historical Society.

13. The Draft EA does not address construction staging, which may also impact cultural resources.

14. As a reminder, lighting and signage for the proposed facility must comply with the design standards for the historic district.

Thank you for this opportunity to comment. If additional clarification is required, please contact Ms. Dawn E. Duensing, Cultural Resources Planner, at 270-7841.

Sincerely,

Lori Sablas

LORI SABLAS, Chairperson
Maui County Cultural Resources Commission

LS:DED:jlp
c: Alan Arakawa, Mayor, County of Maui
Michael W. Foley, Director, Maui Planning Department
Kyle Ginoza, Director, Maui Department of Transportation
Gil Coloma-Agaran, Director, Department of Public Works & Environmental Management
Carol Braegelmann, Federal Transit Administration
Melanie Chinen, State Historic Preservation Division
Dawn Duensing, Cultural Resources Planner
Kivette Caigoy, Environmental Planner
Mich Hirano, AICP, Munekiyo and Hiraga, Inc.
CRC file
CRC members
General File
K:\WP_DOCS\PLANNING\LETTERS\ltr2005\4200LahComfortStationDraftEA.wpd

MUNEKIYO & HIRAGA, INC.

January 25, 2005

Lori Sablas, Chairperson
County of Maui
Cultural Resources Commission
250 South High Street
Wailuku, Hawaii 96793

SUBJECT: Draft Environmental Assessment for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Ms. Sablas,

Thank you for your letter of January 3, 2005, providing comments on the Draft Environmental Assessment (EA) for the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. Our responses below are numbered to correspond to your comments.

1. We acknowledge your emphasis on the culturally significant nature and character of Lahaina.

2. The Final EA will discuss the anticipated visual impacts from both the land and the ocean resulting from the proposed project.

3. The Department of Land and Natural Resources (DLNR) will determine whether the existing banyan tree is undermining the historic sea wall, as well as the feasibility and advisability of replacing this tree. This assessment will be carried out during the design phase of the project. Findings of this assessment will be reviewed with the Cultural Resources Commission (CRC) and the Architectural Branch of the State Historic Preservation Division (SHPD). We note the proposed comfort station improvements will not adversely impact the sea wall or the banyan tree.

4. The design of the proposed comfort station will comply with the *Architectural Style Book for Lahaina*. No composite or other non-traditional materials will be used in any exteriors. The roof will be "toe-tongue", corrugated metal, in either red or green. These alternative color schemes will be presented at the CRC meeting during the Historic District Approval application for final decision.

planning environment

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhinconline.com

5. The comment that the fort in Banyan Tree Park is not a historic structure is acknowledged and will be amended in the Final EA.

   The sea wall will be identified as a historic site in the Final EA and an application for a State Inventory of Historic Places (SIHP) number has been made to SHPD by the project archaeologist. The Lahaina Small Boat Harbor has been developed over a number of years. Based on review of historical data, including photographs and government documents, the pier is pre-1949, the harbor was first dredged in 1955, the bulkhead and breakwater were in place by 1960 and the access road, parking and new marina facilities were built in around 1970. As discussed with SHPD, trees are not usually given State Inventory of Historic Places (SIHP) numbers unless they are significant features of a site of have been planted with a special significance. Based on the information provided in the cultural impact assessment, it appears the palm trees do not meet the criteria for a SIHP number.

   The comment in reference to the location of the Carthaginian sinking has been forwarded to the archaeologist and corrections will be made in the revised Archaeological Inventory Survey Report. A copy of the revised report will be included in the Final EA.

6. The subsurface testing for the Archaeological Inventory Survey followed guidance from the State Archaeologist, SHPD Maui District. The areas identified for subsurface testing were determined by the State Archaeologist after a site reconnaissance made in October 2004. The SHPD is the regulatory agency for the Archaeological Inventory Survey and has indicated in their review letter that upon receipt of the minor revisions requested, the SHPD anticipates deeming the report adequate. The review letter also states the background section acceptably establishes the ahupua`a settlement pattern and predicts the likely site pattern in the project area. The Land Use Commission awards in the project area are provided in the Draft EA, Appendix A, Page 10. A copy of the SHPD review letter is attached herewith as Exhibit "A" and will be included in the Final EA.

7. Following coordination with the SHPD, it has been determined that archaeological monitoring will be performed during all ground-altering activities.

8. The SHPD comment letter on the proposed project will be included in the Final EA.

9. The Federal Transit Administration (FTA) is the final, supervisory agency for the proposed project. As such, we confirm that all required coordination with other agencies, pursuant to Section 106, National Historic Preservation Act, will be carried out.

10. We acknowledge the Commission's concerns over potential impacts to the Historic District. These concerns have been addressed in the Final EA.

11. The landscaping plan includes the use of indigenous species of flora, such as Loulu Palms.

12. DLNR is taking your request under consideration regarding the loan or donation of any cultural artifacts found at the project site to a local repository such as the Maui Historic Society. This will be incorporated in the Monitoring Plan.

13. We acknowledge that the Draft EA does not discuss construction staging. This detail is more properly finalized during the grading and building permitting phase of the project. A staging plan will be submitted to the Department of Planning as part of the standard conditions of the Special Management Area Use Permit.

14. Lighting and signage for the improved comfort station will comply with the design standards for the Historic District. Final determination of lighting will be provided for CRC approval during the Historic District application process.

Thank you again for providing your comments to the proposed action.

Very truly yours,

Mich Hirano, AICP

MH:tn
Attachment
cc: Eric Yuasa, Department of Land and Natural Resources
mail/bhcomf/crcletter.res

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 29, 2004

Paul Cleghorn, Ph.D.
Pacific Legacy, Inc.
332 Uluniu Street
Kailua, Hawai'i 96734

Log No: 2004.3706
Doc No: 0412MK26

Dear Dr. Cleghorn:

SUBJECT: National Historic Preservation Act, Section 106 Compliance - Review of an Archaeological Inventory Survey Report Prepared in Support of the Proposed Comfort Station at Lahaina Small Boat Harbor [Federal/FTA] Paunau Ahupua'a, Lahaina District, Maui TMK (2) 4-6-001: 001

Thank you for the opportunity to review this report which our staff received on November 18, 2004 (Ah Sam *et al.* 2004, *Archaeological Inventory Survey and Cultural Impact Assessment for the Comfort Station Replacement During the Lahaina Pier Improvement Project, Lahaina, Maui, [TMK 4-6-01;01]*. Pacific Legacy, Inc. ms.). The following comments pertain to the archaeological portion of the subject report. Our office does not normally review cultural impact assessments (CIA). If, however, comments on the subject CIA are warranted, they will be provided by staff of our History and Culture Branch.

The background section acceptably establishes the ahupua'a settlement pattern and predicts the likely site pattern in the project area. The historical information provided summarizes the history of the post-contact period land uses. The summary of previous archaeological work in the area provides a baseline for the current work.

The survey has adequately covered the 0.578-acre project area documenting one historic property. Subsurface testing (two hand excavated test units) produced the evidence of this site. The site consists of a mix of cultural material from the late 1800s through the early 1900s. Based on the description, the deposit appears to have resulted from historic fill behind the sea wall, possibly during construction of the sea wall itself. In general, the report provides acceptable documentation of the findings. We have several recommended revisions, all of them minor, as follows.

EXHIBIT A

- We note that no Statewide Inventory of Historic Places (SIHP) number has been assigned to the deposit. Please revise the report to include the site number for the deposit.
- In addition, the report does not mention the SIHP number for the sea wall. If it has not been assigned a number to date, please obtain one from the State Historic Preservation Division (SHPD) and include information on the sea wall (the portion fronting the comfort station location) for the revised report.
- Please include the ahupua'a in the title and on the title page.

We concur that the historic fill deposit is significant under Criterion "D". We believe that the sea wall is significant under multiple criteria and will evaluate this in review of the revised report. We also agree with the recommended mitigation of on-site archaeological monitoring during construction. We concur with your suggestion that if the historic fill deposit is encountered during the monitoring program, work will cease and the deposit will be evaluated for integrity. Additional controlled excavation may be appropriate at this time.

Once we receive the revisions requested above, we anticipate deeming the report adequate and accepting it as final. As always, if you disagree with our comments or have questions, please contact Dr. Melissa Kirkendall (Maui/Lana'i SHPD 243-5169) as soon as possible to resolve these concerns.

Sincerely,

Melanie A. Chinen
Deputy State Historic Preservation Officer

MK:sic

C: Bert Ratte, DPWEM, County of Maui
Michael Foley, Director, Dept of Planning, 250 S. High Street, Wailuku, HI 96793
Maui Cultural Resources Commission, Dept. of Plng, 250 S. High Street, Walluku, HI 96793
Eric Hirano, Administrator, Engineering Division, DLNR [ATTN: Eric Yuasa]

ALAN M. ARAKAWA
Mayor

GLENN T. CORREA
Director

JOHN L. BUCK III
Deputy Director

(808) 270-7230
Fax (808) 270-7934

JAN 03 2005

DEPARTMENT OF PARKS & RECREATION

700 Hali'a Nakoa Street, Unit 2 , Wailuku, Hawaii 96793

December 28, 2004

Mich Hirano, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Mr. Hirano:

SUBJECT: Draft Environmental Assessment in Support of Proposed Lahaina Small Boat Harbor Comfort Station Improvements, SM1 2004/0038, HDC 2004/0012

We have reviewed the Draft Environmental Assessment and Applications for Special Management Area Use Permit and Historic District Approval for the subject project and have no comments or objections to the proposed action.

Thank you for the opportunity to review and comment. Should there be any questions, please contact Mr. Patrick Matsui, Chief of Parks Planning and Development, at 270-7387.

Sincerely,

GLENN T. CORREA
Director

c: Patrick Matsui, Chief of Parks Planning and Development
Michael W. Foley, Director of Planning

JAN 10 2005

ALAN M. ARAKAWA
MAYOR

OUR REFERENCE
YOUR REFERENCE

POLICE DEPARTMENT
COUNTY OF MAUI

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

THOMAS M. PHILLIPS
CHIEF OF POLICE

KEKUHAUPIO R. AKANA
DEPUTY CHIEF OF POLICE

December 27, 2004

Mr. Mich Hirano, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Dear Mr. Hirano:

SUBJECT: Draft Environmental Assessment in Support of Proposed Lahaina Small Boat Harbor Comfort Station Improvements (SM1 2004/0038) (HDC 2004/0012)

Thank you for your letter of December 7, 2004, requesting comments on the above subject.

We have reviewed the information submitted for this project and have enclosed a copy of our comments. Thank you for giving us the opportunity to comment on this project. We hope you have a safe and happy holiday season.

Very truly yours,

Assistant Chief Sydney Kikuchi
for: Thomas M. Phillips
Chief of Police

c: Michael Foley, Planning Department

Enclosure

COPY

TO : **THOMAS PHILLIPS, CHIEF OF POLICE, COUNTY OF MAUI**

VIA : **CHANNELS** 12/23/04

FROM : **SCOTT Y. MIGITA, ACTING SERGEANT, LAHAINA SPECIALIZED UNITS**

SUBJECT : **PROPOSED LAHAINA SMALL BOAT HARBOR COMFORT STATION IMPROVEMENTS**

Sir, this transmittal is being submitted regarding a Draft Environmental Assessment and Applications for Special Management Area Use Permit and Historic District Approval regarding the proposed Lahaina Small Boat Harbor comfort station improvements. Mr. Mich HIRANO of Munekiyo & Hiraga, Inc. has prepared this document on behalf of the State of Hawaii, Department of Land and Natural Resources.

Upon reviewing this document, my concerns regarding the issue on traffic and safety remains the same as mentioned in my To-From dated 10/26/04. One additional recommendation that had been suggested is that the comfort station be well illuminated to help in deterring criminal activity and for the safety of citizens using the facility and officers patrolling the area. It is understood that additional public restroom facilities are needed to accommodate the high demand by our visitors and locals that frequent the Lahaina Boat Harbor and the vicinity.

Submitted for your information and perusal.

THIS IS A MUCH-NEEDED IMPROVEMENT. SECURITY MEASURES (LIGHTING) SHOULD BE INCORPORATED. RECOMMEND PROCEEDING AS SOON AS POSSIBLE. 12/27/04

Scott Y. MIGITA, E-1122
A/Sgt., Lahaina Specialized Units
12/15/2004 at 0923 hours

cc: Michael W. FOLEY, Director
County of Maui, Department of Planning

COPY

TO : THOMAS PHILLIPS, CHIEF OF POLICE, COUNTY OF MAUI

VIA : CHANNELS 11/01/04

FROM : SCOTT Y. MIGITA, P.O. III, LAHAINA BIKE PATROL

SUBJECT : PROPOSED LAHAINA SMALL BOAT HARBOR COMFORT STATION IMPROVEMENTS

Sir, this transmittal is being submitted regarding a proposal for improvements to the Lahaina Small Boat Harbor comfort station. This proposal is to increase the number of stalls to meet the increased public demand and the size of the stalls to become ADA (Americans with Disabilities Act) compliant. The existing property and comfort station are owned by the State of Hawaii as this project is being initiated by the Department of Land and Natural Resources (DLNR). Currently, the existing comfort station contains approximately 375 square feet of floor space with seven (7) restroom stalls. The new facility is planned to contain approximately 1,200 square feet of floor area with twelve (12) female restroom stalls and four (4) male restroom stalls and two (2) urinals as well as a paved parking area with handicap accessibility. The restroom will also include two (2) female handicap accessible stalls and one (1) male handicap accessible stall.

At this time, the only concern which I have from a traffic and safety perspective would be to provide security for this facility to ensure the safety of the general public. This comfort station should also be closed and secured overnight as there are transient individuals in the area which may use this facility for narcotics or other illicit activity which may result in property damage to this facility and/or injuries to individuals. Such illicit activities have taken place and were addressed by police at the unsecured restrooms at Mala Wharf.

Submitted for your information and perusal.

RECOMMEND THAT THIS PROJECT MOVE FORWARD. CONCUR WITH OFFICER MIGITA'S ASSESSMENT.

1512
10/26/04 1615

A WELL ILLUMINATED AREA MIGHT HELP DETER CRIMINAL ACTIVITY. LAHAINA PATROL WILL BE PROACTIVE TO DO OUR PART. THE PROPOSED BATHROOM FACILITY IS LONG OVER DUE FOR A WORLD DESTINATION.

A/CPT V. [illegible]
1335 HRS.

Scott Y. MIGITA, E-1122
P.O. III, Lahaina Bike Patrol
10/26/2004 at 1253 hours

MUNEKIYO & HIRAGA, INC.

January 25, 2005

Thomas Philips, Chief
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawaii 96793

SUBJECT: Draft Environmental Assessment for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Chief Philips,

Thank you for your letter of December 27, 2004, providing comments on the Draft Environmental Assessment for the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we note that crime preventative design considerations have been taken into account and includes maintaining building visibility and providing exterior lighting. It should be noted, however, that the lighting of the comfort station must conform to the Lahaina Historic District Guidelines owing to its location in the Historic District. As indicated in the Draft EA, the comfort station will be open and accessible 24 hours a day, seven days a week as is the existing comfort station.

We note your earlier comments were responded to by letter dated November 22, 2004 and included in the Draft EA.

Thank you again for providing your input to the proposed action.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mail\bhcom\mpd.res

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhinconline.com

ALAN M. ARAKAWA
MAYOR

GEORGE Y. TENGAN
Director
JEFFREY T. PEARSON, PE
Deputy Director

JAN 20 2005

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI

200 South High Street
WAILUKU, MAUI, HAWAII 96793
Telephone (808) 270-7816 • Fax (808) 270-7833

January 7, 2005

Mr. Mich Hirano, AICP
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku HI 96793

SUBJECT: Draft Environmental Assessment in Support of Proposed Lahaina Small Boat Harbor Comfort Station Improvements - TMK (2) 4-6-001:001 - demolition of existing comfort station with 6 stalls and construction of a new one with 18 stalls.

Dear Mr. Hirano:

Thank you for the opportunity to provide additional comments on this project proposal. We note that our comment letter of October 29, 2004 is included in the DEA document.

The applicant's projected consumption for this project is 5,300 gpd including irrigation. This is a reasonable estimate as it is based on the existing facility's average daily use of 1650 gpd or 275 gpd per stall.

We encourage the applicant to integrate water conservation techniques in the project design and construction and adopt Best Management Practices (BMPs) designed to minimize infiltration and runoff from construction and vehicle operations. We have attached sample BMPs for reference. Additional information can be obtained from the State Department of Health.

Should you have any questions, please call our Water Resources and Planning Division at 270-7199.

Sincerely,

George Y. Tengan
Director

eam
CC: Engineering Division
Planning Department

United States
Environmental Protection
Agency

Office of Water
Washington, DC 20460

840-B-92-002
January 1993

EPA

Guidance Specifying Management Measures For Sources Of Nonpoint Pollution In Coastal Waters

Issued Under the Authority of
Section 6217(g) of the Coastal Zone Act
Reauthorization Amendments of 1990

III. CONSTRUCTION ACTIVITIES

A. Construction Site Erosion and Sediment Control Management Measure

(1) Reduce erosion and, to the extent practicable, retain sediment onsite during and after construction, and

(2) Prior to land disturbance, prepare and implement an approved erosion and sediment control plan or similar administrative document that contains erosion and sediment control provisions.

1. Applicability

This management measure is intended to be applied by States to all construction activities on sites less than 5 acres in areas that do not have an NPDES permit[3] in order to control erosion and sediment loss from those sites. This management measure does not apply to: (1) construction of a detached single family home on a site of 1/2 acre or more or (2) construction that does not disturb over 5,000 square feet of land on a site. (NOTE: All construction activities, including clearing, grading, and excavation, that result in the disturbance of areas greater than or equal to 5 acres or are a part of a larger development plan are covered by the NPDES regulations and are thus excluded from these requirements.) Under the Coastal Zone Act Reauthorization Amendments of 1990, States are subject to a number of requirements as they develop coastal NPS programs in conformity with this management measure and will have flexibility in doing so. The application of management measures by States is described more fully in *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance*, published jointly by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

2. Description

The goal of this management measure is to reduce the sediment loadings from construction sites in coastal areas that enter surface waterbodies. This measure requires that coastal States establish new or enhance existing State erosion and sediment control (ESC) programs and/or require ESC programs at the local level. It is intended to be part of a comprehensive land use or watershed management program, as previously detailed in the Watershed and Site Development Management Measures. It is expected that State and local programs will establish criteria determined by local conditions (e.g., soil types, climate, meteorology) that reduce erosion and sediment transport from construction sites.

Runoff from construction sites is by far the largest source of sediment in urban areas under development (York County Soil and Water Conservation District, 1990). Soil erosion removes over 90 percent of sediment by tonnage in urbanizing areas where most construction activities occur (Canning, 1988). Table 4-14 illustrates some of the

[3] On May 27, 1992, the United States Court of Appeals for the Ninth Circuit invalidated EPA's exemption of construction sites smaller than 5 acres from the storm water permit program in *Natural Resources Defense Council* v. *EPA*, 965 F.2d 759 (9th Cir. 1992). EPA is conducting further rulemaking proceedings on this issue and will not require permit applications for construction activities under 5 acres until further rulemaking has been completed.

measured sediment loading rates associated with construction activities found across the United States. As seen in Table 4-14, erosion rates from natural areas such as undisturbed forested lands are typically less than one ton/acre/year, while erosion from construction sites ranges from 7.2 to over 1,000 tons/acre/year.

Table 4-14. Erosion and Sediment Problems Associated With Construction

Location	Problem	Reference
United States	Sediment loading rates vary from 36.5 to 1,000 ton/ac/yr. These are 5 to 500 times greater than those from undeveloped land. Approximately 600 million tons of soil erodes from developed sites each year. Construction site sediment in runoff can be 10 to 20 times greater than that from agricultural lands.	York County Soil and Water Conservation District, 1990
Franklin County, FL	Sediment yield (ton/ac/yr): forest < 0.5 rangeland < 0.5 tilled 1.4 construction site 30 established urban < 0.5	Franklin County, FL
Wisconsin	Erosion rates range from 30 to 200 ton/ac/yr (10 to 20 times those of cropland).	Wisconsin Legislative Council, 1991
Washington, DC	Erosion rates range from 35 to 45 ton/ac/yr (10 to 100 times greater than agriculture and stabilized urban land uses).	MWCOG, 1987
Anacostia River Basin, VA, MD, DC	Sediment yields from portions of the Anacostia Basin have been estimated at 75,000 to 132,000 ton/yr.	U.S. Army Corps of Engineers, 1990
Washington	Erosion rates range from 50 to 500 ton/ac/yr. Natural erosion rates from forests or well-sodded prairies are 0.01 to 1.0 ton/ac/yr.	Washington Department of Ecology, 1989
Anacostia River Basin, VA, MD, DC	Erosion rates range from 7.2 to 100.8 ton/ac/yr.	USGS, 1978
Alabama	1.4 million tons eroded per year.	Woodward-Clyde, 1991
North Carolina	6.7 million tons eroded per year.	
Louisiana	5.1 million tons eroded per year.	
Oklahoma	4.2 million tons eroded per year.	
Georgia	3.8 million tons eroded per year.	
Texas	3.5 million tons eroded per year.	
Tennessee	3.3 million tons eroded per year.	
Pennsylvania	3.1 million tons eroded per year.	
Ohio	3.0 million tons eroded per year.	
Kentucky	3.0 million tons eroded per year.	

Eroded sediment from construction sites creates many problems in coastal areas including adverse impacts on water quality, critical habitats, submerged aquatic vegetation (SAV) beds, recreational activities, and navigation (APWA, 1991). For example, the Miami River in Florida has been severely affected by pollution associated with upland erosion. This watershed has undergone extensive urbanization, which has included the construction of many commercial and residential buildings over the past 50 years. Sediment deposited in the Miami River channel contributes to the severe water quality and navigation problems of this once-thriving waterway, as well as Biscayne Bay (SFWMD, 1988).

ESC plans are important for controlling the adverse impacts of construction and land development and have been required by many State and local governments, as shown in Table 4-13 (in the Site Development section of this chapter). An ESC plan is a document that explains and illustrates the measures to be taken to control erosion and sediment problems on construction sites (Connecticut Council on Soil and Water Conservation, 1988). It is intended that existing State and local erosion and sediment control plans may be used to fulfill the requirements of this management measure. Where existing ESC plans do not meet the management measure criteria, inadequate plans may be enhanced to meet the management measure guidelines.

Typically, an ESC plan is part of a larger site plan and includes the following elements:

- Description of predominant soil types;
- Details of site grading including existing and proposed contours;
- Design details and locations for structural controls;
- Provisions to preserve topsoil and limit disturbance;
- Details of temporary and permanent stabilization measures; and
- Description of the sequence of construction.

ESC plans ensure that provisions for control measures are incorporated into the site planning stage of development and provide for the reduction of erosion and sediment problems and accountability if a problem occurs (York County Soil and Water Conservation District, 1990). An effective plan for urban runoff management on construction sites will control erosion, retain sediments on site, to the extent practicable, and reduce the adverse effects of runoff. Climate, topography, soils, drainage patterns, and vegetation will affect how erosion and sediment should be controlled on a site (Washington State Department of Ecology, 1989). An effective ESC plan includes both structural and nonstructural controls. Nonstructural controls address erosion control by decreasing erosion potential, whereas structural controls are both preventive and mitigative because they control both erosion and sediment movement.

Typical nonstructural erosion controls include (APWA, 1991; York County Soil and Water Conservation District, 1990):

- Planning and designing the development within the natural constraints of the site;
- Minimizing the area of bare soil exposed at one time (phased grading);
- Providing for stream crossing areas for natural and man-made areas; and
- Stabilizing cut-and-fill slopes caused by construction activities.

Structural controls include:

- Perimeter controls;
- Mulching and seeding exposed areas;
- Sediment basins and traps; and
- Filter fabric, or silt fences.

Some erosion and soil loss are unavoidable during land-disturbing activities. While proper siting and design will help prevent areas prone to erosion from being developed, construction activities will invariably produce conditions where erosion may occur. To reduce the adverse impacts associated with construction, the construction management measure suggests a system of nonstructural and structural erosion and sediment controls for incorporation into an

ESC plan. Erosion controls have distinct advantages over sediment controls. Erosion controls reduce the amount of sediment transported off-site, thereby reducing the need for sediment controls. When erosion controls are used in conjunction with sediment controls, the size of the sediment control structures and associated maintenance may be reduced, decreasing the overall treatment costs (SWRPC, 1991).

3. Management Measure Selection

This management measure was selected to minimize sediment being transported outside the perimeter of a construction site through two broad performance goals: (1) **reduce** erosion and (2) **retain** sediment onsite, to the extent practicable. These performance goals were chosen to allow States and local governments flexibility in specifying practices appropriate for local conditions.

While several commentors responding to the draft (May 1991) guidance expressed the need to define "more measurable, enforceable ways" to control sediment loadings, other commentors stressed the need to draft management measures that do not conflict with existing State programs and allow States and local governments to determine appropriate practices and design standards for their communities. These management measures were selected because virtually all coastal States control construction activities to prevent erosion and sediment loss.

The measures were specifically written for the following reasons:

(1) Predevelopment loadings may vary greatly, and some sediment loss is usually inevitable;

(2) Current practice is built on the use of systems of practices selected based on site-specific conditions; and

(3) The combined effectiveness of erosion and sediment controls in systems is not easily quantified.

4. Erosion Control Practices

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above.

Erosion controls are used to reduce the amount of sediment that is detached during construction and to prevent sediment from entering runoff. Erosion control is based on two main concepts: (1) disturb the smallest area of land possible for the shortest period of time, and (2) stabilize disturbed soils to prevent erosion from occurring.

a. *Schedule projects so clearing and grading are done during the time of minimum erosion potential.*

Often a project can be scheduled during the time of year that the erosion potential of the site is relatively low. In many parts of the country, there is a certain period of the year when erosion potential is relatively low and construction scheduling could be very effective. For example, in the Pacific region if construction can be completed during the 6-month dry season (May 1 - October 31), temporary erosion and sediment controls may not be needed. In addition, in some parts of the country erosion potential is very high during certain parts of the year such as the spring thaw in northern areas. During this time of year, melting snowfall generates a constant runoff that can erode soil. In addition, construction vehicles can easily turn the soft, wet ground into mud, which is more easily washed offsite. Therefore, in the north, limitations should be placed on grading during the spring thaw (Goldman et al., 1986).

b. Stage construction.

ıid areawide clearance of construction sites. Plan and stage land disturbance activities so that only the area ently under construction is exposed. As soon as the grading and construction in an area are complete, the area uld be stabilized.

clearing only those areas immediately essential for completing site construction, buffer zones are preserved and l remains undisturbed until construction begins. Physical markers, such as tape, signs, or barriers, indicating the its of land disturbance, can ensure that equipment operators know the proposed limits of clearing. The area of watershed that is exposed to construction is important for determining the net amount of erosion. Reducing the ent of the disturbed area will ultimately reduce sediment loads to surface waters. Existing or newly planted getation that has been planted to stabilize disturbed areas should be protected by routing construction traffic around l protecting natural vegetation with fencing, tree armoring, retaining walls, or tree wells.

c. Clear only areas essential for construction.

ten areas of a construction site are unnecessarily cleared. Only those areas essential for completing construction ivities should be cleared, and other areas should remain undisturbed. Additionally, the proposed limits of land turbance should be physically marked off to ensure that only the required land area is cleared. Avoid disturbing getation on steep slopes or other critical areas.

d. Locate potential nonpoint pollutant sources away from steep slopes, waterbodies, and critical areas.

ıterial stockpiles, borrow areas, access roads, and other land-disturbing activities can often be located away from tical areas such as steep slopes, highly erodible soils, and areas that drain directly into sensitive waterbodies.

e. Route construction traffic to avoid existing or newly planted vegetation.

here possible, construction traffic should travel over areas that must be disturbed for other construction activity. iis practice will reduce the area that is cleared and susceptible to erosion.

f. Protect natural vegetation with fencing, tree armoring, and retaining walls or tree wells.

ee armoring protects tree trunks from being damaged by construction equipment. Fencing can also protect tree ınks, but should be placed at the tree's drip line so that construction equipment is kept away from the tree. The ee drip line is the minimum area around a tree in which the tree's root system should not be disturbed by cut, fill, soil compaction caused by heavy equipment. When cutting or filling must be done near a tree, a retaining wall tree well should be used to minimize the cutting of the tree's roots or the quantity of fill placed over the tree's ots.

g. Stockpile topsoil and reapply to revegetate site.

ecause of the high organic content of topsoil, it cannot be used as fill material or under pavement. After a site is leared, the topsoil is typically removed. Since topsoil is essential to establish new vegetation, it should be tockpiled and then reapplied to the site for revegetation, if appropriate. Although topsoil salvaged from the existing ite can often be used, it must meet certain standards and topsoil may need to be imported onto the site if the existing ɔpsoil is not adequate for establishing new vegetation.

h. Cover or stabilize topsoil stockpiles.

Unprotected stockpiles are very prone to erosion and therefore stockpiles must be protected. Small stockpiles can be covered with a tarp to prevent erosion. Large stockpiles should be stabilized by erosion blankets, seeding, and/or mulching.

i. Use wind erosion controls.

Wind erosion controls limit the movement of dust from disturbed soil surfaces and include many different practices. Wind barriers block air currents and are effective in controlling soil blowing. Many different materials can be used as wind barriers, including solid board fence, snow fences, and bales of hay. Sprinkling moistens the soil surface with water and must be repeated as needed to be effective for preventing wind erosion (Delaware DNREC, 1989); however, applications must be monitored to prevent excessive runoff and erosion.

j. Intercept runoff above disturbed slopes and convey it to a permanent channel or storm drain.

Earth dikes, perimeter dikes or swales, or diversions can be used to intercept and convey runoff above disturbed areas. An earth dike is a temporary berm or ridge of compacted soil that channels water to a desired location. A perimeter dike/swale or diversion is a swale with a supporting ridge on the lower side that is constructed from the soil excavated from the adjoining swale (Delaware DNREC, 1989). These practices should be used to intercept flow from denuded areas or newly seeded areas to keep the disturbed areas from being eroded from the uphill runoff. The structures should be stabilized within 14 days of installation. A pipe slope drain, also known as a pipe drop structure, is a temporary pipe placed from the top of a slope to the bottom of the slope to convey concentrated runoff down the slope without causing erosion (Delaware DNREC, 1989).

k. On long or steep, disturbed, or man-made slopes, construct benches, terraces, or ditches at regular intervals to intercept runoff.

Benches, terraces, or ditches break up a slope by providing areas of low slope in the reverse direction. This keeps water from proceeding down the slope at increasing volume and velocity. Instead, the flow is directed to a suitable outlet, such as a sediment basin or trap. The frequency of benches, terraces, or ditches will depend on the erodibility of the soils, steepness and length of the slope, and rock outcrops. This practice should be used if there is a potential for erosion along the slope.

l. Use retaining walls.

Often retaining walls can be used to decrease the steepness of a slope. If the steepness of a slope is reduced, the runoff velocity is decreased and, therefore, the erosion potential is decreased.

m. Provide linings for urban runoff conveyance channels.

Often construction increases the velocity and volume of runoff, which causes erosion in newly constructed or existing urban runoff conveyance channels. If the runoff during or after construction will cause erosion in a channel, the channel should be lined or flow control BMPs installed. The first choice of lining should be grass or sod since this reduces runoff velocities and provides water quality benefits through filtration and infiltration. If the velocity in the channel would erode the grass or sod, then riprap, concrete, or gabions can be used.

n. Use check dams.

Check dams are small, temporary dams constructed across a swale or channel. They can be constructed using gravel or straw bales. They are used to reduce the velocity of concentrated flow and, therefore, to reduce the erosion in

wale or channel. Check dams should be used when a swale or channel will be used for a short time and therefore s not feasible or practical to line the channel or implement flow control BMPs (Delaware DNREC, 1989).

o. *Seed and fertilize.*

eding establishes a vegetative cover on disturbed areas. Seeding is very effective in controlling soil erosion once dense vegetative cover has been established. However, often seeding and fertilizing do not produce as thick a getative cover as do seed and mulch or netting. Newly established vegetation does not have as extensive a root stem as existing vegetation and therefore is more prone to erosion, especially on steep slopes. Care should be ken when fertilizing to avoid untimely or excessive application. Since the practice of seeding and fertilizing does t provide any protection during the time of vegetative establishment, it should be used only on favorable soils in ry flat areas and not in sensitive areas.

p. *Use seeding and mulch/mats.*

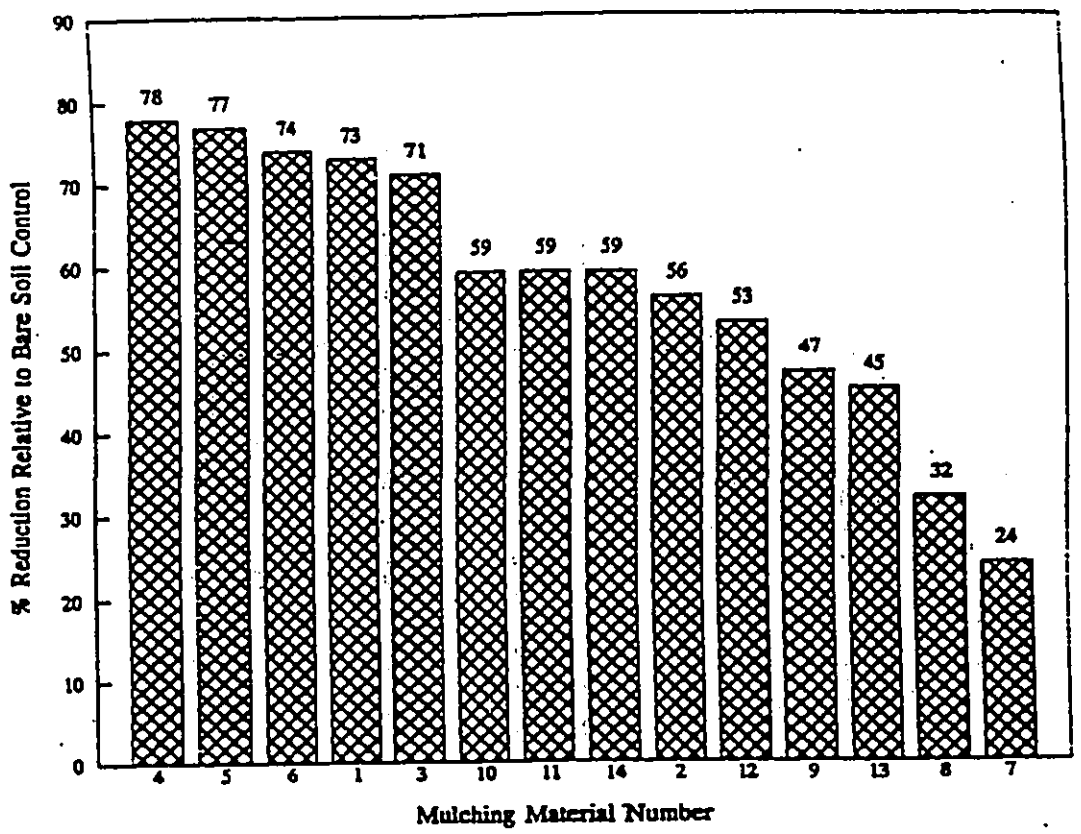
eding establishes a vegetative cover on disturbed areas. Seeding is very effective in controlling soil erosion once e vegetative cover has been established. The mulching/mats protect the disturbed area while the vegetation comes established.

e management of land by using ground cover reduces erosion by reducing the flow rate of runoff and the raindrop pact. Bare soils should be seeded or otherwise stabilized within 15 calendar days after final grading. Denuded eas that are inactive and will be exposed to rain for 30 days or more should also be temporarily stabilized, usually planting seeds and establishing vegetation during favorable seasons in areas where vegetation can be established. very flat, non-sensitive areas with favorable soils, stabilization may involve simply seeding and fertilizing. ulching and/or sodding may be necessary as slopes become moderate to steep, as soils become more erosive, and areas become more sensitive.

q. *Use mulch/mats.*

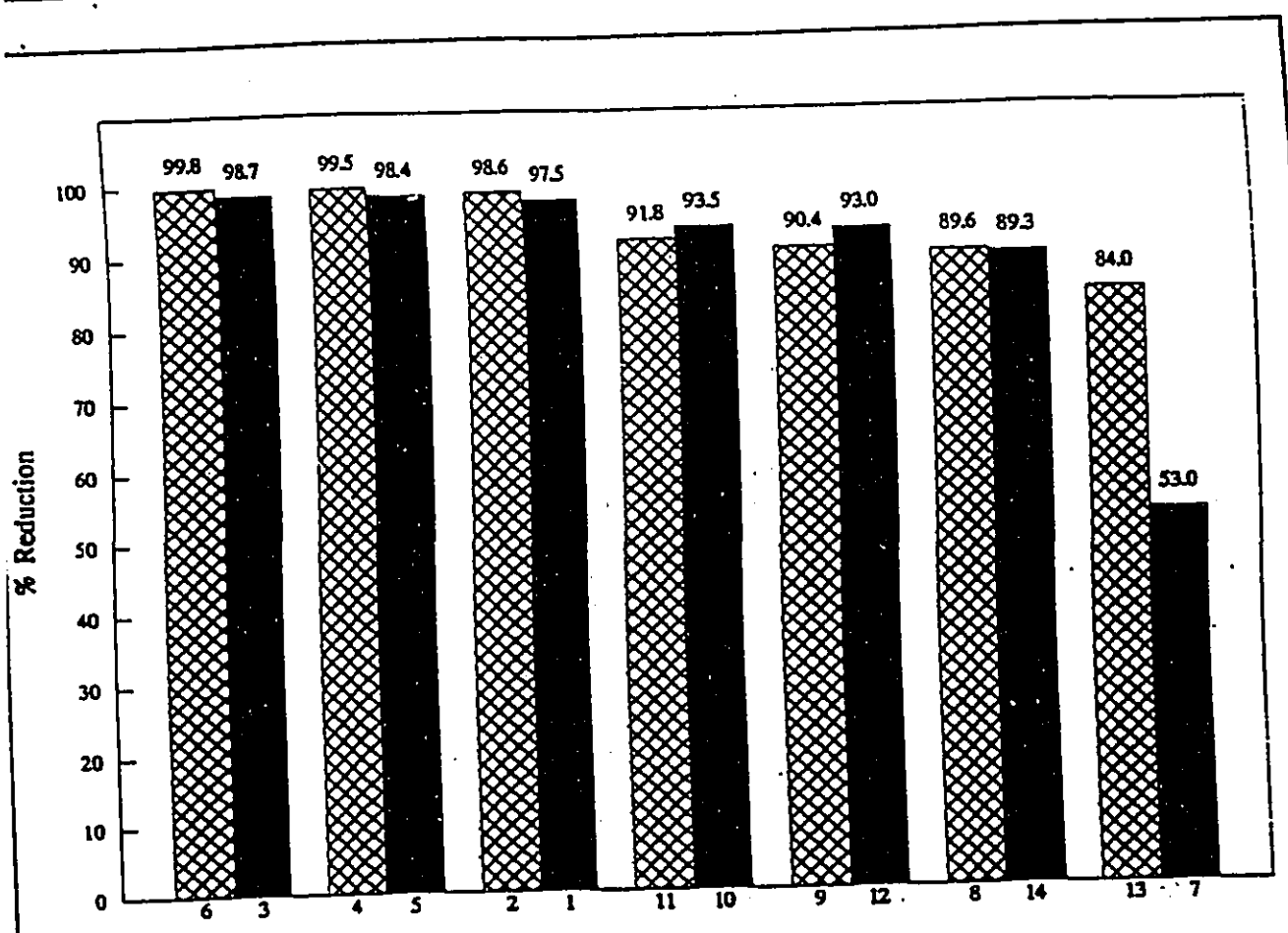
lulching involves applying plant residues or other suitable materials on disturbed soil surfaces. Mulchs/mats used clude tacked straw, wood chips, and jute netting and are often covered by blankets or netting. Mulching alone ould be used only for temporary protection of the soil surface or when permanent seeding is not feasible. The eful life of mulch varies with the material used and the amount of precipitation, but is approximately 2 to 6 onths. Figure 4-5 shows water velocity reductions that could be expected using various mulching techniques. imilarly, Figure 4-6 shows reductions in soil loss achievable using various mulching techniques. During times of ar when vegetation cannot be established, soil mulching should be applied to moderate slopes and soils that are t highly erodible. On steep slopes or highly erodible soils, multiple mulching treatments should be used. On a igh-elevation or desert site where grasses cannot survive the harsh environment, native shrubs may be planted. terlocking ceramic materials, filter fabric, and netting are available for this purpose. Before stabilizing an area, is important to have installed all sediment controls and diverted runoff away from the area to be planted. Runoff ay be diverted away from denuded areas or newly planted areas using dikes, swales, or pipe slope drains to tercept runoff and convey it to a permanent channel or storm drain. Reserved topsoil may be used to revegetate site if the stockpile has been covered and stabilized.

Consideration should be given to maintenance when designing mulching and matting schemes. Plastic nets are often sed to cover the mulch or mats; however, they can foul lawn mower blades if the area requires mowing.



Mulch Material	Characteristics
1	100% wheat straw/top net
2	100% wheat straw/two nets
3	70% wheat straw/30% coconut fiber
4	70% wheat straw/30% coconut fiber
5	100% coconut fiber
6	Nylon monofilament/two nets
7	Nylon monofilament/rigid/bonded
8	Vinyl monofilament/flexible/bonded
9	Curled wood fibers/top net
10	Curled wood fibers/two nets
11	Antiwash netting (jute)
12	Interwoven paper and thread
13	Uncrimped wheat straw – 2,242 kg/ha
14	Uncrimped wheat straw – 4,484 kg/ha

Figure 4-5. Water velocity reductions for different mulch treatments (adapted from Harding, 1990).



Mulch Material	Characteristics
1	100% wheat straw/top net
2	100% wheat straw/two nets
3	70% wheat straw/30% coconut fiber
4	70% wheat straw/30% coconut fiber
5	100% coconut fiber
6	Nylon monofilament/two nets
7	Nylon monofilament/rigid/bonded
8	Vinyl monofilament/flexible/bonded
9	Curled wood fibers/top net
10	Curled wood fibers/two nets
11	Antiwash netting (jute)
12	Interwoven paper and thread
13	Uncrimped wheat straw – 2,242 kg/ha
14	Uncrimped wheat straw – 4,484 kg/ha

Figure 4-6. Actual soil loss reductions for different mulch treatments (adapted from Harding, 1990).

r. Use sodding.

Sodding permanently stabilizes an area. Sodding provides immediate stabilization of an area and should be used in critical areas or where establishment of permanent vegetation by seeding and mulching would be difficult. Sodding is also a preferred option when there is a high erosion potential during the period of vegetative establishment from seeding.

s. Use wildflower cover.

Because of the hardy drought-resistant nature of wildflowers, they may be more beneficial as an erosion control practice than turf grass. While not as dense as turfgrass, wildflower thatches and associated grasses are expected to be as effective in erosion control and contaminant absorption. Because thatches of wildflowers do not need fertilizers, pesticides, or herbicides, and watering is minimal, implementation of this practice may result in a cost savings (Brash et al., undated). In 1987, Howard County, Maryland, spent $690.00 per acre to maintain turfgrass areas, compared to only $31.00 per acre for wildflower meadows (Wilson, 1990).

A wildflower stand requires several years to become established; maintenance requirements are minimal once the area is established (Brash et al., undated).

5. Sediment Control Practices[4]

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above.

Sediment controls capture sediment that is transported in runoff. Filtration and detention (gravitational settling) are the main processes used to remove sediment from urban runoff.

a. Sediment Basins

Sediment basins, also known as silt basins, are engineered impoundment structures that allow sediment to settle out of the urban runoff. They are installed prior to full-scale grading and remain in place until the disturbed portions of the drainage area are fully stabilized. They are generally located at the low point of sites, away from construction traffic, where they will be able to trap sediment-laden runoff.

Sediment basins are typically used for drainage areas between 5 and 100 acres. They can be classified as either temporary or permanent structures, depending on the length of service of the structure. If they are designed to function for less than 36 months, they are classified as "temporary"; otherwise, they are considered permanent structures. Temporary sediment basins can also be converted into permanent urban runoff management ponds. When sediment basins are designed as permanent structures, they must meet all standards for wet ponds.

b. Sediment Trap

Sediment traps are small impoundments that allow sediment to settle out of runoff water. Sediment traps are typically installed in a drainageway or other point of discharge from a disturbed area. Temporary diversions can be

[4]Adapted from Goldman (1986).

used to direct runoff to the sediment trap. Sediment traps should not be used for drainage areas greater than 5 acres and typically have a useful life of approximately 18 to 24 months.

c. Filter Fabric Fence

Filter fabric fence is available from many manufacturers and in several mesh sizes. Sediment is filtered out as urban runoff flows through the fabric. Such fences should be used only where there is sheet flow (i.e., no concentrated flow), and the maximum drainage area to the fence should be 0.5 acre or less per 100 feet of fence. Filter fabric fences have a useful life of approximately 6 to 12 months.

d. Straw Bale Barrier

A straw bale barrier is a row of anchored straw bales that detain and filter urban runoff. Straw bales are less effective than filter fabric, which can usually be used in place of straw bales. However, straw bales have been effectively used as temporary check dams in channels. As with filter fabric fences, straw bale barriers should be used only where there is sheet flow. The maximum drainage area to the barrier should be 0.25 acre or less per 100 feet of barrier. The useful life of straw bales is approximately 3 months.

e. Inlet Protection

Inlet protection consists of a barrier placed around a storm drain drop inlet, which traps sediment before it enters the storm sewer system. Filter fabric, straw bales, gravel, or sand bags are often used for inlet protection.

f. Construction Entrance

A construction entrance is a pad of gravel over filter cloth located where traffic leaves a construction site. As vehicles drive over the gravel, mud, and sediment are collected from the vehicles' wheels and offsite transport of sediment is reduced.

g. Vegetated Filter Strips

Vegetated filter strips are low-gradient vegetated areas that filter overland sheet flow. Runoff must be evenly distributed across the filter strip. Channelized flows decrease the effectiveness of filter strips. Level spreading devices are often used to distribute the runoff evenly across the strip (Dillaha et al., 1989).

Vegetated filter strips should have relatively low slopes and adequate length and should be planted with erosion-resistant plant species. The main factors that influence the removal efficiency are the vegetation type, soil infiltration rate, and flow depth and travel time. These factors are dependent on the contributing drainage area, slope of strip, degree and type of vegetative cover, and strip length. Maintenance requirements for vegetated filter strips include sediment removal and inspections to ensure that dense, vigorous vegetation is established and concentrated flows do not occur. Maintenance of these structures is discussed in Section II.A of this chapter.

6. Effectiveness and Cost Information

a. Erosion Control Practices

The effectiveness of erosion control practices can vary based on land slope, the size of the disturbed area, rainfall frequency and intensity, wind conditions, soil type, use of heavy machinery, length of time soils are exposed and unprotected, and other factors. In general, a system of erosion and sediment control practices can more effectively reduce offsite sediment transport than can a single system. Numerous nonstructural measures such as protecting natural or newly planted vegetation, minimizing the disturbance of vegetation on steep slopes and other highly

erodible areas, maximizing the distance eroded material must travel before reaching the drainage system, and locating roads away from sensitive areas may be used to reduce erosion.

Table 4-15 contains the available cost and effectiveness data for some of the erosion controls listed above. Information on the effectiveness of individual nonstructural controls was not available. All reported effectiveness data assume that controls are properly designed, constructed, and maintained. Costs have been broken down into annual capital costs, annual maintenance costs, and total annual costs (including annualization of the capital costs).

b. Sediment Control Practices

Regular inspection and maintenance are needed for most erosion control practices to remain effective. The effectiveness of sediment controls will depend on the size of the construction site and the nature of the runoff flows. Sediment basins are most appropriate for drainage areas of 5 acres or greater. In smaller areas with concentrated flows, silt traps may suffice. Where concentrated flow leaves the site and the drainage area is less than 0.5 ac/100 ft of flow, filter fabric fences may be effective. In areas where sheet flow leaves the site and the drainage area is greater than 0.5 acre/100 ft of flow, perimeter dikes may be used to divert the flow to a sediment trap or sediment basin. Urban runoff inlets may be protected using straw bales or diversions to filter or route runoff away from the inlets.

Table 4-16 describes the general cost and effectiveness of some common sediment control practices.

c. Comparisons

Figure 4-7 illustrates the estimated TSS loading reductions from Maryland construction sites possible using a combination of erosion and sediment controls in contrast to using only sediment controls. Figure 4-8 shows a comparison of the cost and effectiveness of various erosion control practices. As can be seen in Figure 4-8, seeding or seeding and mulching provide the highest levels of control at the lowest cost.

Table 4-15. ESC Quantitative Effectiveness and Cost Summary

Practice	Design Constraints or Purpose	Percent Removal of TSS	Useful Life (years)[a]	Construction Cost	Annual Maintenance Cost (as % construction cost)	Total Annual Cost
Sod	Immediate erosion protection where there is high erosion potential during vegetative establishment.	Average: 99% Observed range: 98% - 99% References: Minnesota Pollution Control Agency, 1989; Pennsylvania, 1983 cited in USEPA, 1991	2	Average: $0.2 per ft^2 [$11,300 per acre] Range: $0.1 - $1.1 References: SWRPC, 1991; Schueler, 1987; Virginia, 1980	Average: 5% Range: 5% Reference: SWRPC, 1991	$0.20 per ft^2 $7,500 per acre
Seed	Establish vegetation on disturbed area.	After vegetation established- Average: 90% Observed range: 50% - 100% References: SCS, 1985 cited in EPA, 1991; Minnesota Pollution Control Agency, 1989; Oberts, 1984 cited in City of Austin, 1988; Delaware Department of Natural Resources, 1989	2	Average: $400 per acre Range: $200 - $1000 per acre References: Wisconsin DOT cited in SWRPC, 1991; SWRPC, 1991; Goldman, 1986; Virginia, 1980	Average: 20% Range: 15% - 25% References: Wisconsin DOT cited in SWRPC, 1991; SWRPC, 1991	$300 per acre
Seed and Mulch	Establish vegetation on disturbed area.	After vegetation established- Average: 90% Observed range: 50% - 100% References: SCS, 1985 cited in EPA, 1991; Minnesota Pollution Control Agency, 1989; Oberts, 1984 cited in City of Austin, 1988; Delaware Department of Natural Resources, 1989	2	Average: $1,500 per acre Range: $800 - $3,500 per acre References: Goldman, 1986; Washington DOT, 1990; NC State, 1990; Schueler, 1987; Virginia, 1980; SWRPC, 1991	Average: NA[b] Range: NA References: None	$1,100 per acre

Table 4-15. (Continued)

Practice	Design Constraints or Purpose	Percent Removal of TSS	Useful Life (years)[a]	Construction Cost	Annual Maintenance Cost (as % construction cost)	Total Annual Cost
Mulch	Temporary stabilization of disturbed area.	Observed range: sand: 20% slope / 50% slope wood fiber @ 1500 lb/ac: 50-60% / 0-20% wood fiber @ 3000 lb/ac: 50-85% / 50-70% straw @ 3000 lb/ac: 90-100% / 95% Silt-loam: 20% slope / 50% slope wood fiber @ 1500 lb/ac: 20-60% / 40-60% wood fiber @ 3000 lb/ac: 60-90% / 60-70% straw @ 3000 lb/ac: 80-95% / 70-90% Silt-clay-loam: 10-30% slope / 30-50% slope wood fiber @ 1500 lb/ac: 5% / -- wood fiber @ 3000 lb/ac: 40% / -- jute netting: 30-60% / 30% straw @ 3000 lb/ac: 40-70% / 20-40% wood chips @ 10,000 lb/ac: 60-80% / 50-60% mulch blanket: 60-80% / 50-60% excelsior blanket: 60-80% / 50-60% multiple treatment (straw and jute): 90% / 90% References: Minnesota Pollution Control Agency, 1989; Kay, 1983 cited in Goldman, 1986	Straw mulch: 0.25 Wood fiber mulch: 0.33 Jute netting: 0.33 Straw and jute: 0.33	Straw mulch: Average: $1,700 per acre Range: $500 - $5,000 per acre References: Wisconsin DOT cited in SWRPC, 1991; Washington DOT, 1990; Virginia, 1980 Wood fiber mulch: Average: $1,000 per acre Range: $100 - $2,300 per acre References: Washington DOT, 1990; Virginia, 1980 Jute netting: Average: $3,700 per acre Range: $3,500-$4,100 per acre References: Washington DOT, 1990; Virginia, 1980 Straw and jute: Average: $5,400 per acre Range: $4,000-$9,100 per acre References: Washington DOT, 1990; Virginia, 1980	Average: NA[b] Range: NA References: None	Straw mulch: $7,500 per acre Wood fiber mulch: $3,500 per acre Jute netting: $12,500 per acre Straw and jute: $18,000 per acre

Table 4-15. (Continued)

Practice	Design Constraints or Purpose	Percent Removal of TSS	Useful Life (years)[a]	Construction Cost	Annual Maintenance Cost (as % construction cost)	Total Annual Cost
Terraces	Break up long or steep slopes.	Observed range: Land Slope / Reduction in Erosion 1-12% / 70% 12-18% / 60% 18-24% / 55% Additionally, if the slope steepness is halved, while other factors are held constant, the soil loss potential decreases 2-1/2 times. If both the slope and length are halved, the soil loss potential is decreased 4 times. References: Goldman, 1986; Beasley, 1972	2	Average: $5 per lin ft Range: $1 - $12 References: SWRPC, 1991; Goldman, 1986; Virginia, 1991	Average: 20% Range: 20% Reference: SWRPC, 1991	$4 per lin ft
All Erosion Controls	Reduce amount of sediment entering runoff.	Average: 85% Observed range: 85% Reference: Schueler, 1990	--	Varies but typically low	Varies but typically low	Varies but typically low

NA - Not available.
[a] Useful life estimated as length of construction project (assumed to be 2 years).
[b] For Total Annual Cost, assume Annual Maintenance Cost = 2% of construction cost.

Table 4-16. ESC Quantitative Effectiveness and Cost Summary for Sediment Control Practices

Practice	Design Constraints or Purpose	Percent Removal of TSS	Useful Life (years)[a]	Construction Cost	Annual Maintenance Cost (as % construction cost)	Total Annual Cost
Sediment basin	Minimum drainage area = 5 acres, maximum drainage area = 100 acres	Average: 70% Observed range: 55% - 100% References: Schueler, 1990; Engle, BW and Jarrett, AR, 1990; Baumann, 1990	2	Less than 50,000 ft^3 storage Average: \$0.60 per ft^3 storage (\$1,100 per drainage acre[c]) Range: \$0.20 - \$1.30 per ft^3 Greater than 50,000 ft^3 storage Average: \$0.3 per ft^3 storage (\$550 per drainage acre[c]) Range: \$0.10 - \$0.40 per ft^3 References: SWRPC, 1991	Average: 25% Range: 25% References: Denver COG cited in SWRPC, 1991; SWRPC, 1991	Less than 50,000 ft^3 storage \$0.40 per ft^3 storage \$700 per drainage acre[b] Greater than 50,000 ft^3 storage \$0.20 per ft^3 storage \$900 per drainage acre[c]
Sediment trap	Maximum drainage area = 5 acres	Average: 60% Observed range: (-7%) - 100% References: Schueler, et al., 1990; Tahoe Regional Planning Agency, 1989; Baumann, 1990	1.5	Average: \$0.60 per ft^3 storage (\$1,100 per drainage acre[c]) Range: \$0.20 - \$2.00 per ft^3 References: Denver COG cited in SWRPC, 1991; SWRPC, 1991; Goldman, 1986	Average: 20% Range: 20% References: Denver COG cited in SWRPC, 1991; SWRPC, 1991	\$0.70 per ft^3 storage \$1,300 per drainage acre[c]
Filter Fabric Fence	Maximum drainage area = 0.5 acre per 100 feet of fence. Not to be used in concentrated flow areas.	Average: 70% Observed range: 0% - 100% sand: 80% - 99% silt-loam: 50% - 80% silt-clay-loam: 0% - 20% References: Munson, 1991; Fisher et al., 1984; Minnesota Pollution Control Agency, 1989	0.5	Average: \$3 per lin ft (\$700 per drainage acre[c] Range: \$1 - \$8 per lin ft References: Wisconsin DOT cited in SWRPC, 1991; SWRPC, 1991; Goldman, 1986; Virginia, 1991; NC State, 1990	Average: 100% Range: 100% References: SWRPC, 1991	\$7 per lin ft \$850 per drainage acre[c]

Table 4-16. (Continued)

Practice	Design Constraints or Purpose	Percent Removal of TSS	Useful Life (years)[a]	Construction Cost	Annual Maintenance Cost (as % construction cost)	Total Annual Cost
Straw Bale Barrier	Maximum drainage area = 0.25 acre per 100 feet of barrier. Not to be used in concentrated flow areas.	Average: 70% Observed Range: 70% References: Virginia, 1980 cited in EPA, 1991	0.25	Average: $4 per lin ft ($1,600 per drainage acre[d] Range: $2 - $6 per lin ft References: Goldman, 1986; Virginia, 1991	Average: 100% Range: 100% References: SWRPC, 1991	$17 per lin ft $6,800 per drainage acre[d]
Inlet Protection	Protect storm drain inlet.	Average: NA Observed Range: NA References: None	1	Average: $100 per inlet Range: $50 - $150 References: SWRPC, 1991; Denver COG cited in SWRPC, 1991; Virginia, 1991; EPA cited in SWRPC, 1991	Average: 60% Range: 20% - 100% References: SWRPC, 1991; Denver COG cited in SWRPC, 1991	$150 per inlet
Construction Entrance	Removes sediment from vehicles wheels.	Average: NA Observed Range: NA References: None	2	Average: $2,000 each Range: $1,000 - $4,000 References: Goldman, 1986; NC State, 1990	Average: NA[e] Range: NA References: None	$1,500 each
				With washrack: Average: $3,000 each Range: $1,000 - $5,000 References: Virginia, 1991		$2,200 each

Table 4-16. (Continued)

Practice	Design Constraints or Purpose	Percent Removal of TSS	Useful Life (years)[a]	Construction Cost	Annual Maintenance Cost (as % construction cost)	Total Annual Cost
Vegetative Filter Strip	Must have sheet flow.	Average: 70% Observed Range: 20% - 80% References: Hayes and Hairston, 1983 cited in Casman, 1990; Dillaha et al., 1989, cited in Glick et al., 1991; Virginia Department of Conservation, 1987; Nonpoint Source Control Task Force, 1983 cited in Minnesota PCA, 1989; Schueler, 1987	2	Established from existing vegetation- Average: $0 Range: $0 References: Schueler, 1987 Established from sod- Average: $11,300 per acre Range: $4,500 - $48,000 per acre References: Schueler, 1987; SWRPC, 1991	Average: NA Range: NA References: None	NA

NA - Not available.
[a] Useful life estimated as length of construction project (assumed to be 2 years)
[c] For Total Annual Cost, assume Annual Maintenance Cost=20% of construction cost.
[b] Assumes trap volume = 1800 cf/ac (0.5 inches runoff per acre).
[c] Assumes drainage area of 0.5 acre per 100 feet of fence (maximum allowed).
[d] Assumes drainage area of 0.25 acre per 100 feet of barrier (maximum allowed).

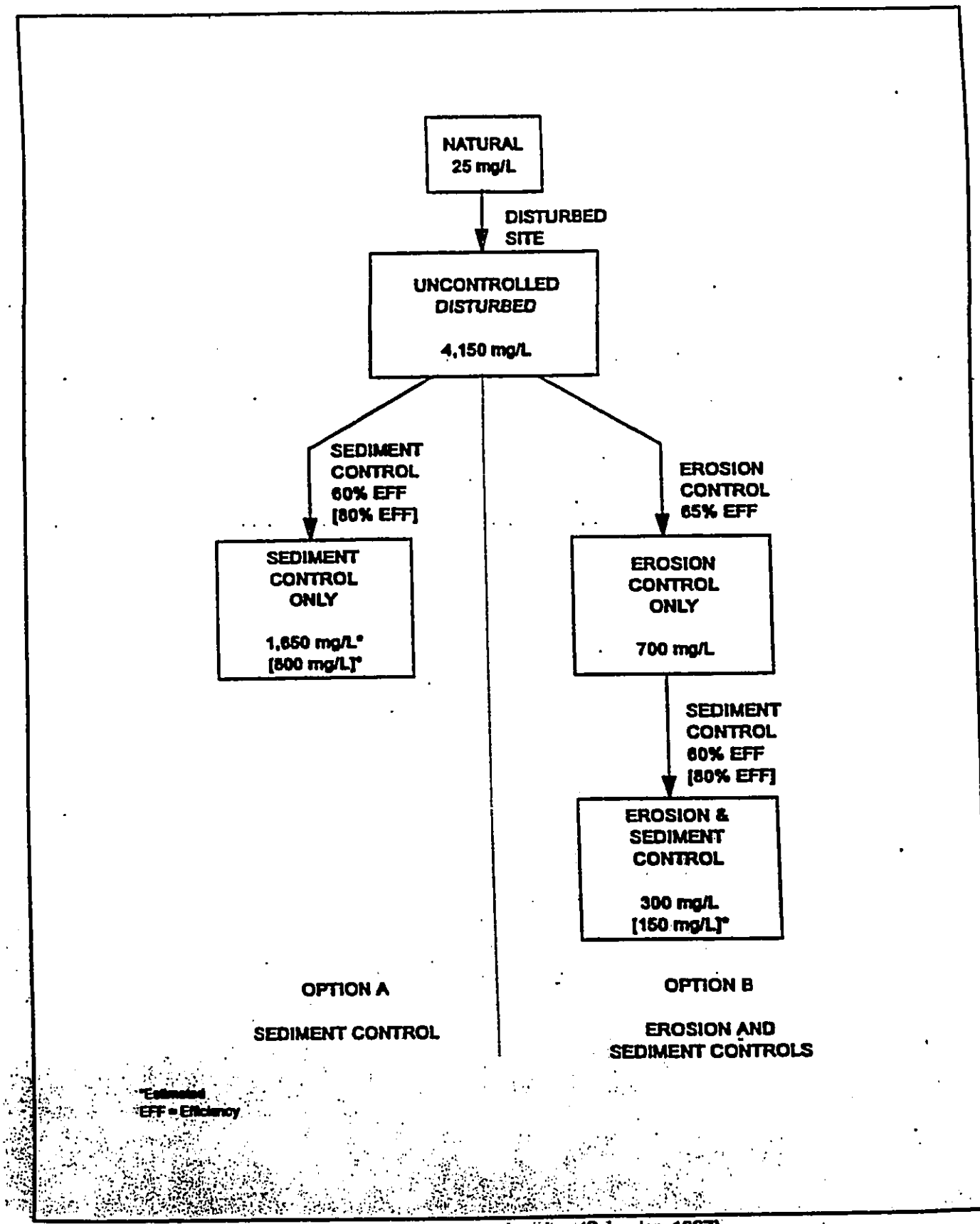
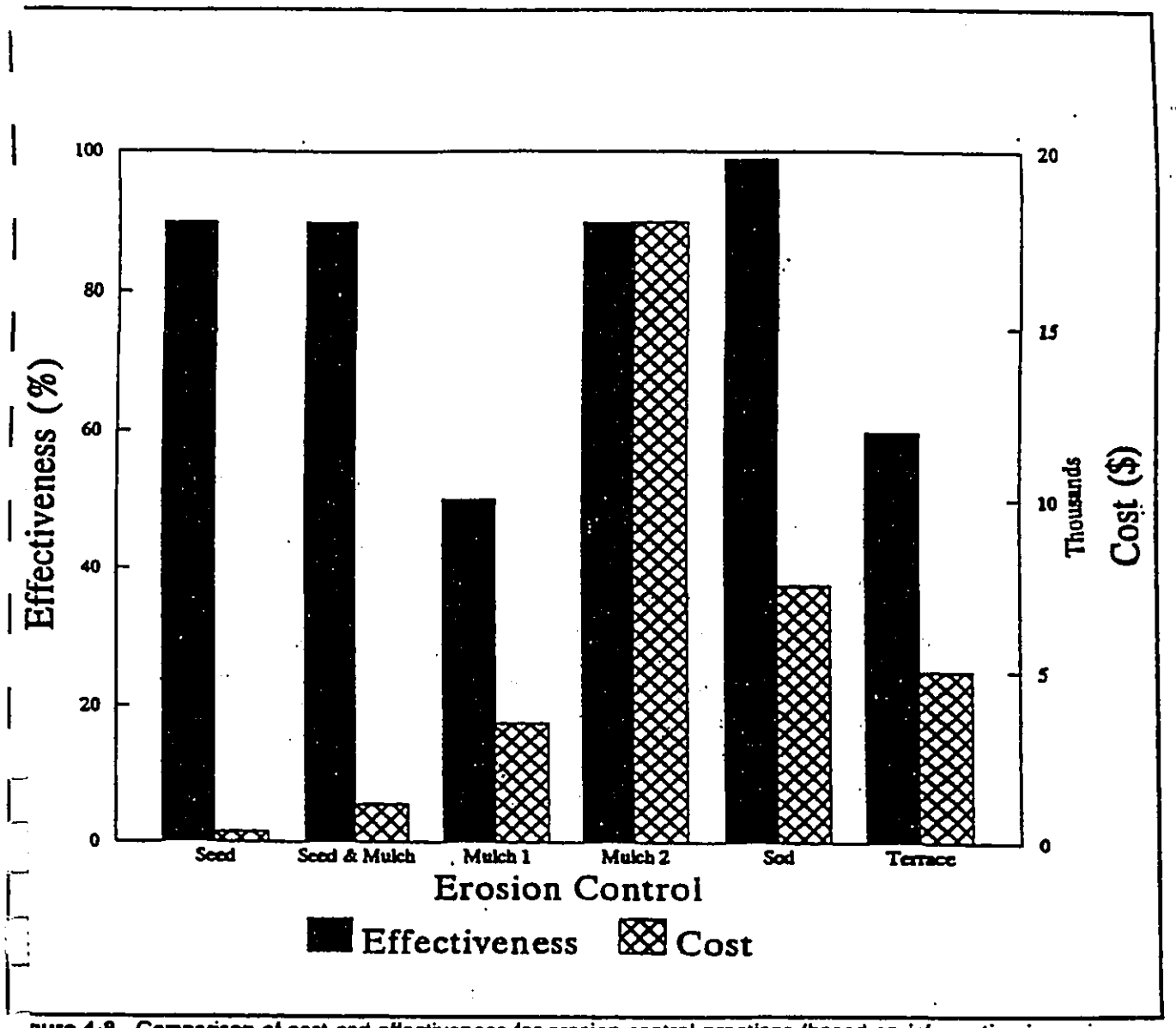


Figure 4-7. TSS concentrations from Maryland construction sites (Schueler, 1987).



gure 4-8. Comparison of cost and effectiveness for erosion control practices (based on information in bles 4-15 and 4-16).

B. Construction Site Chemical Control Management Measure

(1) Limit application, generation, and migration of toxic substances;

(2) Ensure the proper storage and disposal of toxic materials; and

(3) Apply nutrients at rates necessary to establish and maintain vegetation without causing significant nutrient runoff to surface waters.

1. Applicability

This management measure is intended to be applied by States to all construction sites less than 5 acres in area and to new, resurfaced, restored, and reconstructed road, highway, and bridge construction projects. This management measure does not apply to: (1) construction of a detached single family home on a site of 1/2 acre or more or (2) construction that does not disturb over 5,000 square feet of land on a site. (NOTE: All construction activities, including clearing, grading, and excavation, that result in the disturbance of areas greater than or equal to 5 acres or are a part of a larger development plan are covered by the NPDES regulations and are thus excluded from these requirements.) Under the Coastal Zone Act Reauthorization Amendments of 1990, States are subject to a number of requirements as they develop coastal NPS programs in conformance with this management measure and will have flexibility in doing so. The application of management measures by States is described more fully in *Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance*, published jointly by the U.S. Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce.

2. Description

The purpose of this management measure is to prevent the generation of nonpoint source pollution from construction sites due to improper handling and usage of nutrients and toxic substances, and to prevent the movement of toxic substances from the construction site.

Many potential pollutants other than sediment are associated with construction activities. These pollutants include pesticides (insecticides, fungicides, herbicides, and rodenticides); fertilizers used for vegetative stabilization; petrochemicals (oils, gasoline, and asphalt degreasers); construction chemicals such as concrete products, sealers, and paints; wash water associated with these products; paper; wood; garbage; and sanitary wastes (Washington State Department of Ecology, 1991).

The variety of pollutants present and the severity of their effects are dependent on a number of factors:

(1) **The nature of the construction activity.** For example, potential pollution associated with fertilizer usage may be greater along a highway or at a housing development than it would be at a shopping center development because highways and housing developments usually have greater landscaping requirements.

(2) **The physical characteristics of the construction site.** The majority of all pollutants generated at construction sites are carried to surface waters via runoff. Therefore, the factors affecting runoff volume,

such as the amount, intensity, and frequency of rainfall; soil infiltration rates; surface roughness; slope length and steepness; and area denuded, all contribute to pollutant loadings.

(3) **The proximity of surface waters to the nonpoint pollutant source.** As the distance separating pollutant-generating activities from surface waters decreases, the likelihood of water quality impacts increases.

a. Pesticides

Insecticides, rodenticides, and herbicides are used on construction sites to provide safe and healthy conditions, reduce maintenance and fire hazards, and curb weeds and woody plants. Rodenticides are also used to control rodents attracted to construction sites. Common insecticides employed include synthetic, relatively water-insoluble chlorinated hydrocarbons, organophosphates, carbamates, and pyrethrins.

b. Petroleum Products

Petroleum products used during construction include fuels and lubricants for vehicles, for power tools, and for general equipment maintenance. Specific petroleum pollutants include gasoline, diesel oil, kerosene, lubricating oils, and grease. Asphalt paving also can be particularly harmful since it releases various oils for a considerable time period after application. Asphalt overloads might be dumped and covered without inspection. However, many of these pollutants adhere to soil particles and other surfaces and can therefore be more easily controlled.

Nutrients

Fertilizers are used on construction sites when revegetating graded or disturbed areas. Fertilizers contain nitrogen and phosphorus, which in large doses can adversely affect surface waters, causing eutrophication.

d. Solid Wastes

Solid wastes on construction sites are generated from trees and shrubs removed during land clearing and structure installation. Other wastes include wood and paper from packaging and building materials, scrap metals, sanitary wastes, rubber, plastic and glass, and masonry and asphalt products. Food containers, cigarette packages, leftover food, and aluminum foil also contribute solid wastes to the construction site.

e. Construction Chemicals

Chemical pollutants, such as paints, acids for cleaning masonry surfaces, cleaning solvents, asphalt products, soil additives used for stabilization, and concrete-curing compounds, may also be used on construction sites and carried in runoff.

f. Other Pollutants

Other pollutants, such as wash water from concrete mixers, acid and alkaline solutions from exposed soil or rock, and alkaline-forming natural elements, may also be present and contribute to nonpoint source pollution.

Revegetation of disturbed areas may require the use of fertilizers and pesticides, which, if not applied properly, may become nonpoint source pollutants. Many pesticides are restricted by Federal and/or State regulations.

Hydroseeding operations, in which seed, fertilizers, and lime are applied to the ground surface in a one-step operation, are more conducive to nutrient pollution than are the conventional seedbed-preparation operations, in which fertilizers and lime are tilled into the soil. Use of fertilizers containing little or no phosphorus may be required by

local authorities if the development is near sensitive waterbodies. The addition of lime can also affect the pH of sensitive waters, making them more alkaline.

Improper fueling and servicing of vehicles can lead to significant quantities of petroleum products being dumped onto the ground. These pollutants can then be washed off site in urban runoff, even when proper erosion and sediment controls are in place. Pollutants carried in solution in runoff water, or fixed with sediment crystalline structures, may not be adequately controlled by erosion and sediment control practices (Washington Department of Ecology, 1991). Oils, waxes, and water-insoluble pesticides can form surface films on water and solid particles. Oil films can also concentrate water-soluble insecticides. These pollutants can be nearly impossible to control once present in runoff other than by the use of very costly water-treatment facilities (Washington Department of Ecology, 1991).

After spill prevention, one of the best methods to control petroleum pollutants is to retain sediments containing oil on the construction site through use of erosion and sediment control practices. Improved maintenance and safe storage facilities will reduce the chance of contaminating a construction site. One of the greatest concerns related to use of petroleum products is the method for waste disposal. The dumping of petroleum product wastes into sewers and other drainage channels is illegal and could result in fines or job shutdown.

The primary control method for solid wastes is to provide adequate disposal facilities. Erosion and sediment control structures usually capture much of the solid waste from construction sites. Periodic removal of litter from these structures will reduce solid waste accumulations. Collected solid waste should be removed and disposed of at authorized disposal areas.

Improperly stored construction materials, such as pressure-treated lumber or solvents, may lead to leaching of toxics to surface water and ground water. Disposal of construction chemicals should follow all applicable State and local laws that may require disposal by a licensed waste management firm.

3. Management Measure Selection

This management measure was selected based on the potential for many construction activities to contribute to nutrient and toxic NPS pollution.

This management measure was selected because (1) construction activities have the potential to contribute to increased loadings of toxic substances and nutrients to waterbodies; (2) various States and local governments regulate the control of chemicals on construction sites through spill prevention plans, erosion and sediment control plans, or other administrative devices; (3) the practices described are commonly used and presented in a number of best management practice handbooks and guidance manuals for construction sites; and (4) the practices selected are the most economical and effective.

4. Practices

As discussed more fully at the beginning of this chapter and in Chapter 1, the following practices are described for illustrative purposes only. State programs need not require implementation of these practices. However, as a practical matter, EPA anticipates that the management measure set forth above generally will be implemented by applying one or more management practices appropriate to the source, location, and climate. The practices set forth below have been found by EPA to be representative of the types of practices that can be applied successfully to achieve the management measure described above.

a. Properly store, handle, apply, and dispose of pesticides.

Pesticide storage areas on construction sites should be protected from the elements. Warning signs should be placed in areas recently sprayed or treated. Persons mixing and applying these chemicals should wear suitable protective clothing, in accordance with the law.

Application rates should conform to registered label directions. Disposal of excess pesticides and pesticide-related wastes should conform to registered label directions for the disposal and storage of pesticides and pesticide containers set forth in applicable Federal, State, and local regulations that govern their usage, handling, storage, and disposal. Pesticides and herbicides should be used only in conjunction with Integrated Pest Management (IPM) (see Chapter 2). Pesticides should be the tool of last resort; methods that are the least disruptive to the environment and human health should be used first.

Pesticides should be disposed of through either a licensed waste management firm or a treatment, storage, and disposal (TSD) facility. Containers should be triple-rinsed before disposal, and rinse waters should be reused as product.

Other practices include setting aside a locked storage area, tightly closing lids, storing in a cool, dry place, checking containers periodically for leaks or deterioration, maintaining a list of products in storage, using plastic sheeting to line the storage area, and notifying neighboring property owners prior to spraying.

b. Properly store, handle, use, and dispose of petroleum products.

When storing petroleum products, follow these guidelines:

- Create a shelter around the area with cover and wind protection;
- Line the storage area with a double layer of plastic sheeting or similar material;
- Create an impervious berm around the perimeter with a capacity 110 percent greater than that of the largest container;
- Clearly label all products;
- Keep tanks off the ground; and
- Keep lids securely fastened.

Oil and oily wastes such as crankcase oil, cans, rags, and paper dropped into oils and lubricants should be disposed of in proper receptacles or recycled. Waste oil for recycling should not be mixed with degreasers, solvents, antifreeze, or brake fluid.

c. Establish fuel and vehicle maintenance staging areas located away from all drainage courses, and design these areas to control runoff.

Proper maintenance of equipment and installation of proper stream crossings will further reduce pollution of water by these sources. Stream crossings should be minimized through proper planning of access roads. Refer to Chapter 3 for additional information on stream crossings.

d. Provide sanitary facilities for constructions workers.

e. Store, cover, and isolate construction materials, including topsoil and chemicals, to prevent runoff of pollutants and contamination of ground water.

f. Develop and implement a spill prevention and control plan. Agencies, contractors, and other commercial entities that store, handle, or transport fuel, oil, or hazardous materials should develop a spill response plan.

Post spill procedure information and have persons trained in spill handling on site or on call at all times. Materials for cleaning up spills should be kept on site and easily available. Spills should be cleaned up immediately and the contaminated material properly disposed of. Spill control plan components should include:

- Stop the source of the spill.
- Contain any liquid.
- Cover the spill with absorbent material such as kitty litter or sawdust, but do not use straw. Dispose of the used absorbent properly.

g. *Maintain and wash equipment and machinery in confined areas specifically designed to control runoff.*

Thinners or solvents should not be discharged into sanitary or storm sewer systems when cleaning machinery. Use alternative methods for cleaning larger equipment parts, such as high-pressure, high-temperature water washes, or steam cleaning. Equipment-washing detergents can be used, and wash water may be discharged into sanitary sewers if solids are removed from the solution first. (This practice should be verified with the local sewer authority.) Small parts can be cleaned with degreasing solvents, which can then be reused or recycled. Do not discharge any solvents into sewers.

Washout from concrete trucks should be disposed of into:

- A designated area that will later be backfilled;
- An area where the concrete wash can harden, can be broken up, and then can be placed in a dumpster; or
- A location not subject to urban runoff and more than 50 feet away from a storm drain, open ditch, or surface water.

Never dump washout into a sanitary sewer or storm drain, or onto soil or pavement that carries urban runoff.

h. *Develop and implement nutrient management plans.*

Properly time applications, and work fertilizers and liming materials into the soil to depths of 4 to 6 inches. Using soil tests to determine specific nutrient needs at the site can greatly decrease the amount of nutrients applied.

i. *Provide adequate disposal facilities for solid waste, including excess asphalt, produced during construction.*

j. *Educate construction workers about proper materials handling and spill response procedures. Distribute or post informational material regarding chemical control.*

MUNEKIYO & HIRAGA, INC.

January 25, 2005

George Tengan, Director
County of Maui
Department of Water Supply
200 South High Street
Wailuku, Hawaii 96793

SUBJECT: Draft Environmental Assessment for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Mr. Tengan,

Thank you for your letter of January 7, 2005, providing comments on the Draft Environmental Assessment for the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we note the following:

1. We acknowledge your concurrence on the estimated water consumption for the project.

2. Certain design considerations are being given in regard to water conservation measures for the improved comfort station, such as use of native plants in landscaping and low flow fixtures. Best Management Practices (BMPs) will be incorporated into the project to minimize runoff from project activities. We acknowledge receipt of the sample BMPs provided by your office.

Thank you again for providing comments on the Draft EA.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mai/bhcomf/dws.res

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96733-6898 • (808) 871-8461

December 21, 2004

Mr. Mich Hirano, AICP
Munekiyo & Hiraga, Inc.
305 S. High Street, Suite 104
Wailuku, HI 96793

Dear Mr. Hirano:

Subject: Draft Environmental Assessment in Support of Proposed Lahaina Small Boat Harbor Comfort Station Improvements
(SM1 2004/0038) (HDC 2004/0012)

Thank you for allowing us to comment on the subject project.

In reviewing the information transmitted and our records, we have no objection to the subject project. We encourage the applicant's electrical consultant to meet with us as soon as practical to verify the project's electrical requirements so that service can be provided on a timely basis.

If you have any questions or concerns, please call Dan Takahata at 871-2385.

Sincerely,

Neal Shinyama
Manager, Engineering

NS/dt:lkh

cc: Michael W. Foley, Director - County of Maui, Department of Planning
250 S. High St. Wailuku, HI 96793

MUNEKIYO & HIRAGA, INC.

January 25, 2005

Neal Shinyama, Manager
Maui Electric Company, Ltd.
210 West Kamehameha Avenue
Kahului, Hawaii 96733

SUBJECT: Draft Environmental Assessment for Proposed Improvements to the Lahaina Small Boat Harbor Comfort Station, Lahaina, Maui, Hawaii (TMK (2) 4-6-1:1)

Dear Shinyama,

Thank you for your letter of December 21, 2004, providing comments on the Draft Environmental Assessment for the proposed improvements to the Lahaina Small Boat Harbor Comfort Station, located in Lahaina, Maui, Hawaii. In response to your comments, we note that the applicant will coordinate with your office regarding electrical requirements as soon as is feasible.

Thank you again for providing your input to the proposed action.

Very truly yours,

Mich Hirano, AICP

MH:tn
cc: Eric Yuasa, Department of Land and Natural Resources
mail/LBHComf/meco.res

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhinconline.com

References

References

County of Maui, General Plan of the County of Maui, 1990 Update.

County of Maui, Maui County Data Book 2003, September 2003.

County of Maui, West Maui Community Plan, February 1996.

Department of the Army, Draft Environmental Statement - Lahaina Small Boat Harbor, July 1976.

Federal Emergency Management Agency, Flood Insurance Rate Map Community/Panel No. 150003/0163C, August 3, 1998.

Handy, E.S. Craighill, Hawaiian Planter Vol.1: His Plants, Methods, and Areas of Cultivation, Honolulu: Bishop Museum Press, 1940.

Handy, E.S. Craighill and Elizabeth Green Handy, Native Planters in Old Hawaii: Their Life, Lore, and Environment, Honolulu: Bishop Museum Press, 1972.

Munekiyo, Arakawa & Hiraga, Inc., Final Environmental Assessment - Westside Resource Center, December 2000.

Munekiyo & Hiraga, Inc., Final Environmental Assessment - Proposed Front Street Commercial Building, October 2002.

Pukui, Mary Kawena et. al., Place Names of Hawai'i, Honolulu: University of Hawaii Press, 2nd ed., 1974.

SMS, Maui County Community Plan Update Program: Socio-Economic Forecast Phase I Report (Final Version), June 14, 2002.

Speakman, Commins E. Jr., Mowee: An Informal History of the Hawaiian Island, Salem: Peabody Museum of Salem, 1978.

University of Hawaii, Department of Geography, Atlas of Hawaii, Third Edition, 1998.

U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii, 1972.

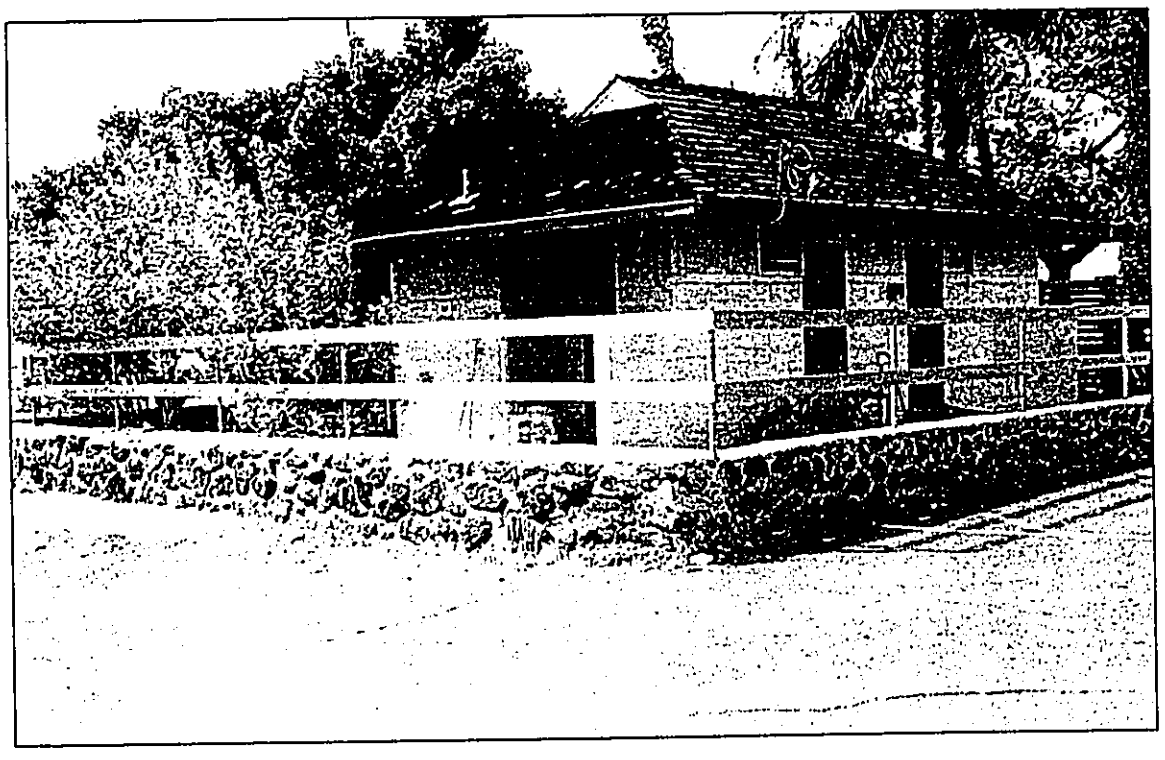
U.S. Department of Justice, American Disability Act, Title II, Accessibility Guidelines.

Wilson Okamoto & Associates, Inc., County of Maui Infrastructure Assessment Update, May 2003.

Appendix A

Archaeological Inventory Survey and Cultural Impact Assessment for the Comfort Station Replacement During the Lahaina Pier Improvement Project

ARCHAEOLOGICAL INVENTORY SURVEY
AND
CULTURAL IMPACT ASSESSMENT
FOR THE
COMFORT STATION REPLACEMENT
DURING THE LAHAINA PIER
IMPROVEMENT PROJECT,
LAHAINA, MAUI
(TMK: 4-6-01:01)



Prepared by:
Pacific Legacy, Inc.
January 2005

ARCHAEOLOGICAL INVENTORY SURVEY
AND
CULTURAL IMPACT ASSESSMENT
FOR THE
COMFORT STATION REPLACEMENT DURING THE LAHAINA PIER IMPROVEMENT PROJECT,
LAHAINA DISTRICT, WAINE`E AHUPUA`A,
ISLAND OF MAUI
(TMK: 4-6-01:01)

Prepared by
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Solomon H. Kailihiwa, III, B.A.
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Prepared for

EKNA Services, Inc.
615 Pi`ikoi St. Suite 300
Honolulu, HI 96814

January 2005

ABSTRACT

Pacific Legacy, Inc. at the request of EKNA Services, Inc. conducted an archaeological inventory survey and an cultural impact assessment (CIA) for the proposed replacement of the comfort station as part of the Lahaina Pier Improvement Project, in the *ahupua`a* of Waine`e, Maui, Hawaii. This project is being proposed by the State Department of Land and Natural Resources – Division of Boating and Ocean Recreation (DLNR-DOBOR) to improve the harbor facilities at Lahaina, and is being partially funded by the Federal Transit Administration (FTA) and is thus an "undertaking" as defined in 36 CFR 800.16(y). The current investigations are being conducted to fulfill the federal agency's (FTA) obligations under Section 106 of the National Historic Preservation Act of 1966, as amended.

The Lahaina Historic District is listed as a National Landmark because it is associated with the "Whaling Era". This designation makes it crucial that the architecture of the new comfort station be consistent with the Lahaina Historic District Guidelines.

To gather information about the Lahaina area, for the CIA, background research was undertaken and interviews were conducted with people knowledgeable about the area known as Lahaina today. The interviewees were either cultural practitioners in Lahaina, or from Lahaina.

Two historic sites were identified during the current investigations; the first is an historic sea wall (SIHP No. 50-50-03-5646) fronting the comfort station, constructed in the 1920's; and the second is a subsurface historic deposit (SIHP No. 50-50-03-5651).

Test excavations in the comfort station site area revealed that most of the area is composed of fill materials. The only exception to this is a thin deposit containing sparse numbers of mid- to late-19th century artifacts (SIHP No. 50-50-03-5651). No subsurface features (including human burials) were found in the excavations. This 19th century deposit is being assessed as potentially significant as it has the potential to yield important information on the history of Lahaina.

It is recommended that when trenching occurring in the northern portion of the comfort station sites that an archaeological monitor be present. If this 19th century deposit is encountered, it is recommended that two or three controlled excavation units be excavated adjacent to the trench to sample these deposits.

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1.0 INTRODUCTION

Pacific Legacy, Inc. under contract to EKNA Services, Inc. conducted an archaeological inventory Survey and a Cultural Impact Assessment for the replacement of the comfort station as part of the Lahaina Harbor improvement project located in the *ahupua`a* of Waine`e on the island of Maui (TMK: 4-6-01:01) (Figure 1). This project is being proposed by the State Department of Land and Natural Resources – Division of Boating and Ocean Recreation (DLNR-DOBOR) to improve the harbor facilities at Lahaina, and is being partially funded by the Federal Transit Administration (FTA) and is thus an "undertaking" as defined in 36 CFR 800.16(y). The current investigations are being conducted to fulfill the federal agency's (FTA) obligations under Section 106 of the National Historic Preservation Act of 1966, as amended.

The Archaeological Inventory Survey and Cultural Impact Assessment consisted of three separate, but interrelated tasks:

1. archival research,
2. oral interviews with knowledgeable persons; and
3. test excavations

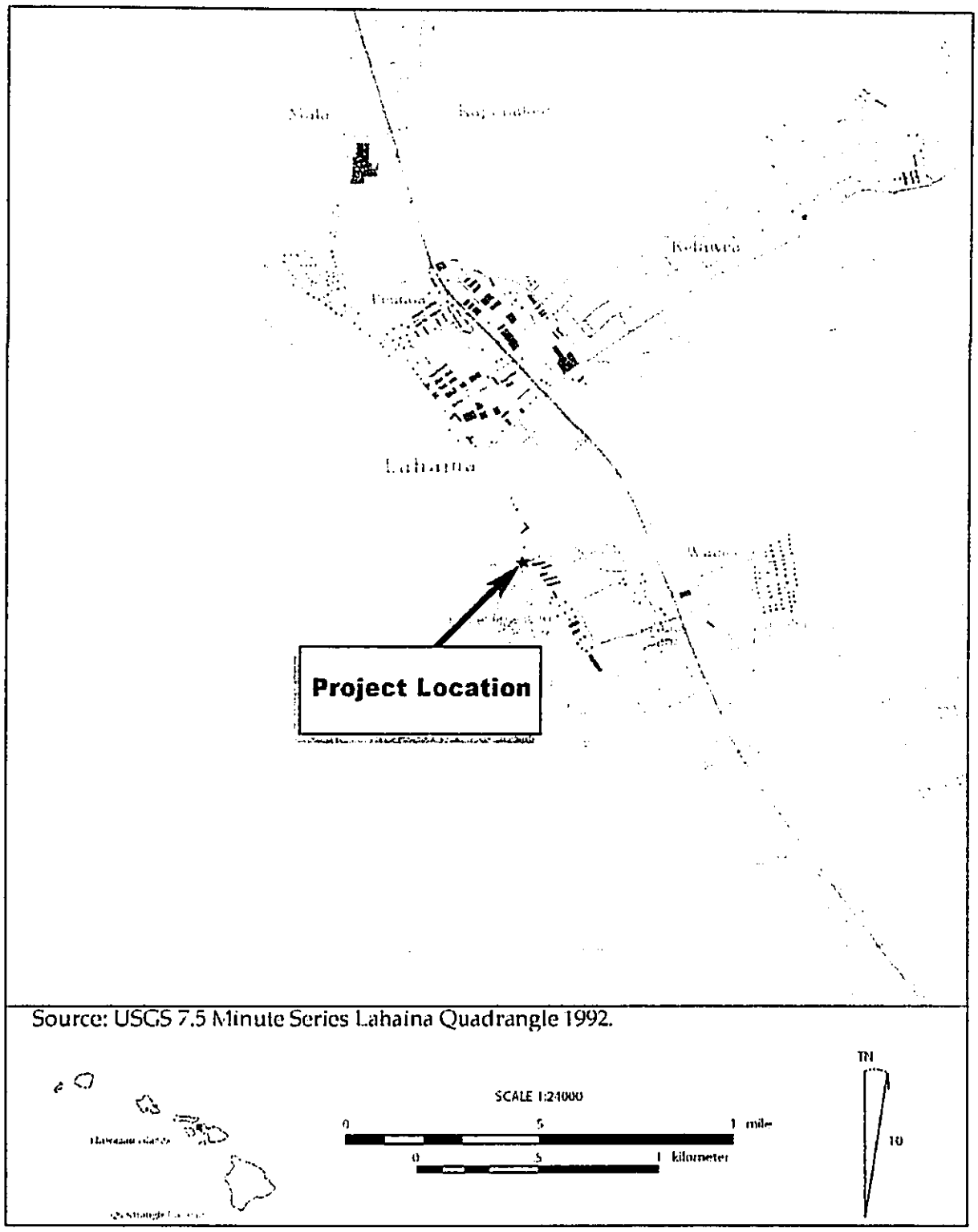
These investigations were conducted as part of an Environmental Assessment (EA) being conducted for this project. Jessica Ah Sam conducted the archival research, Solomon H. Kailihiwa, III, B.A. conducted the oral interviews on Maui from 3 May 2004 to 7 May 2004, and James D. McIntosh and Solomon H. Kailihiwa, III conducted the archaeological test excavations during the week of 18 October 2004. Paul L. Cleghorn, Ph.D. served as principal investigator.

1.1 ENVIRONMENTAL SETTING

The Lahaina Pier Improvement Project is in the District of Lahaina, on the island of Maui, Hawai`i. Maui is the second largest island in Hawai`i and formed by two volcanoes, Haleakalā and Hale Mahina. Lahaina is on the west coast of Maui, in one of the drier regions of the island. The area of Lahaina receives the lowest amount of average annual rainfall, at 15 inches per year (Juvik and Juvik 1998). During the winter months it is common for the trade winds to cease, producing heavy humidity and storms from the south (Klieger et al 1995).

The town of Lahaina is situated on Pulehu silt loam, 0 to 3 percent slopes (PpA) (Foote et al. 1972: map 94, p. 116). This soil is typical of sugarcane fields, home sites, and wildlife habitat.

Vegetation in the area consisted of introduced plants which included: coconut (*Cocos nucifera*), seamberry palm (*Coccothrinax* sp.), areca (*Chrysalidocarpus lutescens*), indian almond (*Terminalia catappa*), *milo* (*Thespesia populnea*), banyan (*Ficus* sp.), crown flower (*Calotropis Gigantea*), and hibiscus (*Hibiscus* sp.).



Source: USGS 7.5 Minute Series Lahaina Quadrangle 1992.

Figure 1. Proposed Project Location.

2.0 METHODS

2.1 ARCHIVAL RESEARCH

The primary means of collecting background information for the project area was by conducting archival research at the State Historic Preservation Division (SHPD) library and the State Library, and the State Archives. Research consisted of viewing early traveler's accounts, Land Commission Awards testimonies, and reports of previous archaeological investigations

2.2 ORAL *INTERVIEWS*

Oral interviews were conducted, so that traditional cultural practices that take place, or have taken place could be identified. These interviews constitute the conducting of a Cultural Impact Assessment (CIA). The methods used follow Office of Environmental Quality Control guidelines for assessing cultural impacts. The purpose of a CIA is to identify traditional cultural practices which could be compromised by proposed development projects, and to comply with the Hawai'i State Department of Health Act 50.

The CIA guidelines state that project properties as well as surrounding property areas, shall be studied to determine the potential for significant and/or adverse effects on cultural practices of the community and State from the proposed construction or development. These guidelines also recommend personal interviews be conducted with knowledgeable informants and traditional cultural practitioners, concerning the cultural practices identified for the area.

On April 26, 2000 Governor Ben Cayetano signed Act 50 into law. The following CIA investigations are intended to satisfy Act 50, which has the stated purpose to:

> (1) Require that environmental impact statements include the disclosure of the effects of a proposed action on the cultural practices of the community and State; and (2) Amend the definition of "significant effect" to include adverse effects on cultural practices.

In order to perform the CIA investigation, attempts were made to contact various people that were knowledgeable of the Lahaina area. The people interviewed ranged from cultural practitioners to those born and raised in Lahaina. Many *Kanaka Maoli* (native Hawaiian) terms are used throughout the report. The depth of the Hawaiian language is such that, often, much is lost in translation to English. To hold the ideas from the *Kānaka Maoli* that were interviewed truer to form, terms are left in their Hawaiian form rather than being translated into English. An English explanation of the Hawaiian term is presented at first usage to give the non-native speaker an idea of the word's meaning.

Semiformal interviews were conducted and recorded on audio microcassettes. The interviews followed a "talk-story" format and the questions led to themes so that the interviewee would be able to tell what he or she thought was most important to them. The audio microcassettes were

not transcribed. The interviewees that agreed to a taped interview signed a release form. The microcassettes and release forms are on file at Pacific Legacy.

2.3 ARCHAEOLOGICAL TESTING

Controlled excavation units were excavated with trowel, brush, and a steel *o`o* (digging stick) for compacted deposits. Excavated material was screened through .25in wire mesh and a representative sample of cultural material was collected (all traditional artifacts and a sample of historic material – modern material was noted but generally not collected). Excavation notes and digital photographs were taken during the course of excavation. One excavated face of each unit was drawn in profile and soil layers were described using standard nomenclature and munsell soil color notations.

The collected artifacts were brought back to the laboratory where they were cleaned, examined, identified and a selection was photographed.

3.0 HISTORIC BACKGROUND

The town of Lahaina is believed to have acquired its name from a traveling chief on his journey through the island of Maui. During the chief's voyage, he stopped in Lahaina at noon to rest and commented *"kau keia ka la-haina"*, which literally means cruel sun (Maui Historical Society 1961). The original spelling was Lā-hainā. Over time the diacriticals have been dropped, but the original spelling included *kahakō* over two of the 'a's, which elongated the pronunciation of the vowel and a hyphen between La and Haina (Pukui et al. 1976: 127). But there are also other suggestions as to the origin of the name, that Lahaina was once known as *Lele* (to jump around) because of the *ali`i* short stays on the island (Klieger et al. 1995).

A well-known chief to Maui, Kahekili, ruler of all the islands except Hawai`i, made his home and royal court at Lahaina from 1736 until his death in 1794. Soon after Kahekili's death, Kāmehameha I returned to Maui, where he had once shortly ruled and chose to establish his home and government out of Lahaina. Kāmehameha I was very influential in the lucrative sandalwood trade (1790's-1829) which Lahaina served as the main Maui port to ship goods to China. But when Kāmehameha I died in 1819 his son Kāmehameha II (Liholiho) (1796-1824) was unable to maintain the strong leadership his father had possessed and the royal seat along with the town of Lahaina began to lose its strength. The young king made the decision to give the chiefs more power and allowed one of his fathers wives to begin violating Hawaiian taboos, thus leading to the conversion of many Hawaiians to the Catholic faith by missionaries who had arrived in 1820 (Day 1984). In 1819, the first whaling ships arrived to Honolulu and Lahaina ports, and Kāmehameha II used the growing whaling trade (1819-1859) as his bargaining power with the chiefs (Bartholomew and Bailey 1994).

In 1825, Kauikeaouli (Kāmehameha III), younger brother of Liholiho, seceded to the throne. Synonymous with the Kāmehameha III reign was also the institution of the Lahaina as the capital from 1820-1840 (Bartholomew and Bailey 1994). With Kāmehameha III at reign, he began establishing a new palace in Lahaina. Construction of the palace continued after the king's death in 1854, but before the construction was complete a strong wind-storm demolished the structure in 1858 (ibid.).

Lahaina was increasingly becoming overwhelmed with the whaling ships and their crews beginning in 1820. A total of 549 whaling ships had landed in Lahaina in 1854. However, the unruly crews totaling 1250-1500 men looking for drink and women where living by the saying "No God west of the Horn" led to their unwillingness to behave (Community Planning Inc. 1961). Yet, these unruly sailors also helped Lahaina flourish commercially. But the recession of the whaling industry in 1860 had a direct negative affect on the town of Lahaina.

It was not until the United States Civil War (1861-1865) that the whaling industry and the town of Lahaina felt its biggest decline. Once the port of San Francisco was developed and the transcontinental railroad was running, whaling ships no longer had a purpose to sail to the Hawaiian Islands because the San Francisco Port was larger and more accessible. As the whaling industry declined in Lahaina, the Lahaina Sugar Company and Pioneer Mill was

established in 1861 (Monahan 2003). Pioneer Mill's railroad allowed the sugar to be processed and bagged in Lahaina and then taken by train to Pu`u Keka`a (McGerty and Spear 2003).

By the 1960's the plantations were going into decline as there was a rise in tourism around the Kaanapali and Lahaina area (McGerty and Spear 2003). The presence of golf courses, hotels, resorts and shops continued to increase and bring the tourism industry to the Lahaina District.

Presently, the core of Lahaina Town is a tourist/resort destination primarily comprised of retail shops and restaurants. The town is also the location for cruise ships to motor tourist in once they have anchored offshore, allowing for heavy flows of pedestrian traffic. But just a few blocks back from the main Front Street is the local Lahaina community and residential area. This mixture of locals and visitors still exist from the days of the sandalwood and whaling fleets to today, allowing the Lahaina Historic District to maintain its historic whaling-era atmosphere.

3.1 LAHAINA HISTORIC DISTRICT

On December 29, 1962 the Lahaina Historic District was listed as a National Historic Landmark. Lahaina was listed as a National Historic Landmark because "Lahaina preserves the atmosphere of a mid-19th century Hawaiian seaport, when it was a favorite port of call for American whalers. It was also the center of missionary activities" (National Historic Landmark, nd)

In 1970, the Lahaina Historic District was nominated to the National Register of Historic Places (See Appendices A and B). It was listed in on the Hawaii Register of Historic Places in 1971 (See Appendix C). The district boundaries include an arbitrary rectangular land boundary of 33 acres; the northeast boundary lies above Honoapiilani Highway and includes the Pioneer Sugar Mill, the south boundary is the beginning of the Makila site, the southwest boundary runs into the Pacific Ocean, and the north boundary stops at Puunoa Point (Figure 3). In the National Survey of Historic Sites and Buildings Registration Form, the following eight historic sites and structures were listed as contributing elements to the Historic District (National Register of Historic Places 1970).

The Baldwin House

In 1834, Ephraim Spaulding began the construction of what is now known as the Baldwin House. The house is located on Front Street at Dickenson Street. The two-story house is constructed from coral blocks and sits on 42,360 square feet of property (National Register of Historic Places 1970). The Spauldings took residence of the home in 1835; however they only resided in the house until 1836 when Dr. Dwight Baldwin and his family moved in to replace the Spauldings. The Baldwin's lived in the home until 1868 when Dr, Baldwin was transferred to Honolulu. Along with being a government physician for the islands of Maui, Molokai, and Lanai, Dr. Baldwin's positions also included pastor of the Hawaiian church of Lahaina, seamen's chaplain, and a medical doctor. It was also his duty to greet guests to the Lahaina Mission and the nearby Lahainaluna Seminary. With all of Dr. Baldwin's company and business affairs he expanded the house in 1847-1849 to include a dispensary and office.

Dr. Baldwin and his wife had their son Henry P. Baldwin in the Baldwin home and as Henry got older he and his wife, became very involved on the Island of Maui. Mrs. Henry P. Baldwin used the home to sponsor a community center in which the house acted as the center for a kindergarten, night-school, circulating library, language school, and high school. These activities helped establish the house as a center for Hawaiian social and cultural development. At the time the National Registration Form was filed the home was no longer being used for any purpose but remained in "excellent condition" (National Register of Historic Places 1970).

Old Spring House
The Old Spring House is known as one of the last links to the whaling era. The small stone building is located south of the Baldwin House, off Front Street. Constructed by Rev. William Richards in 1823, the spring house served as a water supply to the Richard's residence, the entire community, and for ships anchored at the Lahaina Pier including the whaling ships and their crews.

Court House
The Court House as it now stands is not the original court house. In 1858 the original court house was destroyed by forceful winds from Kauaula Valley. The Interior Department responded to request for reconstruction of all the government offices affected by the storm and the government gave Lahaina an appropriation of $6000.00 for the Lahaina Court and Custom House and Government Offices to be repaired.

The building was rebuilt again in 1925 but the structure still maintains part of the old structure with additions. The Court House was determined eligible to be included in the Lahaina Historic District because of its links to the kingdom. Located in front of the Court House is "Hawaii's largest" banyan tree (National Register of Historic Places 1970).

Old Prison (Hale Paahao)
Located on the corner of Prison Road and Wainee Street, the Old Prison was built of heavy planks enclosed by a coral wall. During the whaling era the prison held many uncontrollable seamen along with the normal criminals of Lahaina. Most criminals were put into the prison for not obeying the sundown curfew. In 1852 on the request of the prison's physician a new sleeping facility for the prisoners was constructed. The physician believed the old sleeping arrangements were unhealthy and many illnesses could be prevented if the prisoners had better sleeping quarters. The original cell house burnt down in 1958; in its place a wooden gate house was constructed in 1959. The prison now serves as a historic tourist site.

Wainee Church and Cemetery (Waiola)
The present church on Wainee Street between Chapel and Shaw Streets was recently constructed in 1953. The church and adjoining cemetery are owned by the Waiola Protestant Church.

When the missionaries first arrived, services were held in temporary structures until 1832 when a new stone church ordered by chief Hoapili was finished. However, this church could not withstand strong storms and was destroyed once and then again by a fire in 1894. The current church was dedicated in 1953 and renamed Waiola.

Unlike the church, the cemetery has remained in its same location even with all the structural changes to the church. It is believed to date to 1823 when the missionaries first arrived. It contains the bodies of Hawaiian royalty such as, Keōpūolani, wife of Kāmehameha I. Other nobles include Governor Hoapili, King Kaumualii, Princess Nahienaena, Queen Kalakua and Governess Liliha. Also, pioneer missionary the Rev. William Richards who advised the Hawaiian monarchy is buried in the Waiola Cemetery (National Register of Historic Places 1970).

Hale Aloha
Known as the first stone church in the islands, Hale Aloha is situated In the middle of Wainee, Hale, and Chapel Streets and Prison Road and is said to have been built in 1823. The 15,900 square feet of land is owned by Waiola Protestant Church. The church was rebuilt in 1855-1858. At the time of its reconstruction it was "the largest sectional meeting house of its time" (National Register of Historic Places 1970: 7).

United States Marine Hospital
The United States Marine Hospital is owned by the Bernice P. Bishop Estate and sits on the northeast side of Front Street, between Kenui and Baker Streets. The hospital's date is uncertain but there are references to it by 1843 from Herman Melville (Maui Historical Society 1961). The two-story coral block building was sold to three Sisters of Society of the Holy Trinity who turned the hospital into the St. Cross School for girls. Once the school was moved to Oahu the church housed the Episcopal Minister but was later abandoned in 1908. The building's significance is its connection with the maritime days (National Register of Historic Places 1970).

Roman Catholic Church (Maria Lanakila First Catholic Church)
The site of the Roman Catholic Church is on Wainee and Dickenson Streets. The first church located on the property was built in 1846. By 1858, the original church had been destroyed and a new church was constructed on the same property. It is unclear how long this church survived but another church was built in 1928. This church is still in existence today and said to contain parts of the original 1846 church, such as the ceiling (National Register of Historic Places 1970).

3.1.1 Non-contributing Sites
The Lahaina Historic District is comprised of the above described eight historic sites listed on the Lahaina Historic District Nomination Form. Interestingly, but also confusing the issue, is the State Historic Preservation Division's Historic Register, listed on the State Historic Preservation Division Web page (http://www.hawaii.gov/dlnr/hpd). This register lists the Lahaina Historic District as being comprised of approximately 60 sites. It is not clear what these sites are. However, there are several additional sites that have been recorded within the boundary of the Lahaina Historic District that must be considered as non-contributing elements until such time as they are formally evaluated by the SHPD. These sites are described below.

Hau`ola Stone (Site 50-50-03-1202) (Figure 4)
The Hau`ola Stone, also known as, Pōhaku Hau`ola, still exist today in it original location and is still used by Native Hawaiians. The Hau`ola Stone is a large couch shaped boulder, which is located in shallow water, on the north side of the Lahaina Pier (Figures 4, 5, and 6). Legend

says a woman trying to escape from her enemies was saved by the gods, when they turned her into stone (James 2001). Tradition states that the stone contains healing properties. It is believed to cure labor pains and rejuvenate health. The Hau`ola Stone is also a sacred place where the umbilical cords of new born children are placed. During the time of chiefs, it was thought that by hiding the umbilical cord in the rocks crevices, the child would grow up to be a chief (Maui Historical Society 1961). Today umbilical cords are still placed in the rocks crevices to hide the cord from rats. The belief is, if a rat eats the cord the child will become a thief (Cleghorn and Kailihiwa 2004).

Kāmehameha I's Brick Palace (Site 50-50-03-2951) (Figure 4)
Kāmehameha I's Brick Palace was once located on Wharf Street between Market Street and Papelekane Street. Kamehameha I, resided in this palace from 1802, for a little over a year while he collected taxes on Maui, Lanai, Molokai, and Kahoolawe (Maui Historical Society 1964). It is unclear when the structure was destroyed. Today, the brick foundation of Kāmehameha I's Palace is still visible.

Aus Site (Site 50-50-03-1797) (Figure 4)
The "Aus Site" is located at 731 Wainee Street on the west side of Seaman's Hospital. The site consisted of three refuse pits. Within the three pits, the artifacts recovered include, a variety of glass sherds, a probable adze fragment, grooming tools, leather, batteries, and other historic artifacts. These artifacts are from the late 19th or early 20th century (Frederickson et al. 1988).

Site 50-50-03-2968 (Figure 4)
The State Historic Preservation Division had no description for site 50-50-03-2968 (State Historic Preservation Division, GIS).

Human Remains (Site 50-50-03-3550) (Figure 4)
Site 50-50-03-3550 is a single human burial. Associated artifacts with the burial included volcanic glass sherds (State Historic Preservation Division, GIS) (See Figure 4).

Heiau (Figure 7)
Before 1823, a heiau existed on the future site of the Lahaina Wharf. After 1823, the stones from the Heiau were removed and used to surround the tomb of Keōpūolani. Keōpūolani was the wife of Kāmehameha I and mother of Kāmehameha II and III (Community Planning Inc. 1961).

3.2 CARTHAGINIAN II
The original Carthaginian, constructed in Sweden, sunk off-shore of Lahaina in 1972, while en route to Oahu (Kubota 2002). The Carthaginian II was chosen to replace the old whaling vessel and has been anchored at the Lahaina Pier for over thirty years. The Carthaginian II is a German-made vessel christened in 1920, making the ship 84 years old. The ship houses a whaling museum inside, which serves as a tourists attraction and the ship has been photographed and painted in various depictions of Lahaina. Currently the Carthaginian II is owned by the Lahaina Restoration Foundation (Wilson 2002). High costs to maintain and berth the Carthaginian II are forcing the Lahaina Restoration Foundation to donate the ship to Atlantis Adventures, who plan to sink it off shore of Lahaina as an artificial reef site.

3.3 LAND COMMISSION AWARDS

Land Commission Awards for the Lahaina Historic District and the proposed project area can be found on the Tax Map Key 4-6-09. The Lahaina Historic District is in the *ahupua`a* of Polanui, Pahoa, Puehuehunui and Wainee. The proposed project in the Lahaina Harbor, is in the *ahupua`a* of Wainee. In the *ahupua`a* of Wainee, several Land Commission Awards were granted; they were awarded as follows:

Land Commission Award	Owner
322	Kaipo
6869.2	Kawaioahu
4533.2	Ualo
5207B.2.	R. Kalaipaihala
752	A.M. Birch
4878.1	Makaiole
6787.1	Hanaumua
6786	Kamohomoho
484.3	Kaihe`ekai
3425.1B	Alu
6795	Kaluahine Nui
241	S.O. Burrows
6218.1	Maunae
4878-FF1	Po`opu`u
6784.2	Na`ai
4878.2	Olala
6784.1	Na`ai
5207B.3	R. Kalaipaihala

4.0 PREVIOUS ARCHAEOLOGY

Numerous archaeological studies have been conducted in the Lahaina Historic District and surrounding vicinity. The first study was completed in 1965 by Fredericksen and Fredericksen (Fredericksen and Fredericksen 1965). From 1965 to 1996 a total of 21 other studies were conducted (Major and Klieger 1995).

A majority of these 21 reports came about in the 1970's when archaeological research in the area was prevalent. Hommon (1973), Conolly (1974), Joerger and Kaschko (1979) and Ahlo and Morgenstein (1980) all wrote reports on the area formerly known as Mala pier. Major and Klieger in their 1995 report state that the Mala pier area was tested by Aki Sinoto (1975), Davis (1974), and Hammatt (1978). In these studies human Hawaiian burials were discovered on and near the beach on at Mala Pier.

In March of 1975, Paul L. Cleghorn carried out a series of test excavations at the Seamen's Hospital or United States Marine Hospital (site 50-Ma-D5-10) in Lahaina. The purpose of the excavation was to expose portions of the hospitals foundation. During Phase I, the features encountered included a possible old roadway, the foundation of a wall (1819), a mortar slab, a human burial, and 1,229 artifacts. While most of the artifacts were historic period artifacts, some were traditional Hawaiian artifacts (Cleghorn 1975).

During the months of June and July of 1991, Paul H. Rosendahl, Ph.D., Inc. (PHRI) completed a survey of the Lahaina Bypass Section of the Honoapiilani Highway Realignment Project for the Department of Transportation of the State of Hawaii. The inventory survey documented four archaeologically sites, however three of the sites (2484, 2489, and 2490) had previously been recorded. Site 2847 was the newly discovered site. This site is a walled enclosure (Rosendahl 1991).

In 1994, Berdena Burgett and Robert L. Spear completed an archaeological inventory survey of a 8.8 acre parcel in the land of Kainehi, where a single human burial (Site 50-50-03-3550) was identified (Burgett and Spear 1994). No other associated materials, burials, or cultural deposits were found during the archaeological inventory survey.

In 1992 Bishop Museum received a research contract from the County of Maui and administered by the Lahaina Restoration Foundation. The purpose of the research was to focus on the private residence of King Kāmehameha III, Moku`ula, an island within the former fishpond, Loko o Mokuhinia (Site 50-50-03-2967). Klieger, et al. (1995) describe the extensive findings on Moku`ula and its relation to the royal family. Before the project began it was unclear if the location of the King's Palace was correct, but after excavations it was confirmed that the palace did lie under the Malu`ulu o Lele Park and some architectural features still remain. The Moku`ula site was determined to be eligible for listing in the National Register of Historic Places under criteria A, B, and D. Before the Kāmehameha dynasty the site was home to *Mō`ī* Pi`ilani, a ruling chief of Maui, Molokai, Lanai, and Kahoolawe bays. A stone tomb on the site housed the remains of the royal family of Maui and the Kāmehameha lineage until it

was moved to Waine`e Cemetery, some time after Kāmehameha III's death in 1854. The palace site was also used for taro production. It is believed that Moku`ula functioned as a residence for the Kāmehameha family from late pre-contact to 1837. However, evidence does not suggest the site was the primary home for the Kāmehameha family. The collection of artifacts and lack of midden suggest it was only used on occasions. The site was listed on the State Register of Historic Places in 1994 and on the National Register of Historic Places in 1997.

In the summer of 2004, Xamanek Researches conducted archaeological monitoring at Kamehameha III Elementary School. Four sites were identified during the monitoring phase: 50-50-03-4982, 4983, 4984, and 5174. Human burials were encountered at sites 4982 and 4984. Three probable human burial features were encountered in 4982 and 12 human burial features were encountered at site 4984. The burials were encountered in a brown sandy clay loam in the middle to S region of the school (Fredericksen and Fredericksen 2001).

5.0 CULTURAL IMPACT ASSESSMENT: BEFORE THERE WAS WHALING

The following people were recommended by respected members of the Maui community as individuals that would be knowledgeable of the Lahaina Area.

Akoni Akana is the executive director of Friends of Moku`ula, a nonprofit organization dedicated to restoring, protecting, and preserving historically significant sites including the island and pond in Lahaina known as Moku`ula and Mokuhinia respectively.

George "Keoki" W. Freeland is the executive director of the Lahaina Restoration Foundation, a nonprofit organization that strives to faithfully restore, maintain, and interpret the physical, historical, and cultural legacy of Lahaina.

George Manulani Kaimiola is a volunteer with the Maui Historical Society and the Friends of Moku`ula and conducts the historical Lahaina walking tours for Maui Nei. Maui Nei is a cultural tourism company dedicated to presenting the traditions of Hawaii to Maui's visitors, and works in partnership with Friends of Moku`ula.

**Ke`eaumoku Kapu** is the vice president of Hui O Wa`a Kaulua, a nonprofit organization currently based in Lahaina devoted to educating Hawaii's youth in the Hawaiian culture through double-hull and single-hull canoe sailing activities.

Charles Lindsey currently works for the Kaho`olawe Island Restoration Commission (KIRC). He was born and raised in Lahaina. The Lindsey family is one of the few old Lahaina families that has retained its property on Front Street.

Nā Kūpuna O Maui is an organization of respected elders of the Maui Community.

Ann Kaleilokelani Tsuha (Kalei) also works for the KIRC. She was born and raised in Lahaina. Kalei is the education/cultural chair for the Hui O Wa`a Kaulua.

The people that were interviewed had many concerns about the proposed improvements to the Lahaina Harbor Area. Emphasized by many of the interviewees was that further development would not just impact the local area, but it would also have systemic repercussions for the surrounding Lahaina area.

5.1 WAINE`E

Akoni Akana, Kalei Tsuha, and representatives from Nā Kūpuna O Maui discussed the linkages of features in the area. Akoni Akana discussed, that culturally, everything in the *ahupua`a* is connected, from the mountain to the sea. He gave the example of Moku`ula (Figure 2) being more than "just Moku`ula," but the connection to the *ali`i* of the *ahupua`a* of Waine`e.

Kalei Tsuha, when asked about the connections of the places in the Lahaina area, conveyed the following:

> Mokuhinia's entrance was not far from the Hauola stone; Kāmehameha III's red brick house was built extremely close to the stone. Moku'ula was the *pu'uhonua* and refuge for Kauikeaouli (Kāmehameha III) and his residence too. The fish pond was near at Pa Kala. The fishing was great, the *'aumākua* shark and *mo'o* [Kihawahine] resided in the area, Kananaka, the man-eating half shark/half woman resided near the reef between the surf of 'Uo and Keawaiki, the *ali'i* and *maka'āinana* would continue to surf right outside of the Harbor mouth, which is the famous Keawaiki surf and 'Uo surf, the Waine'e church [which was where the *ali'i* prayed and were buried], Luakini street is near the area, fishing *ko'a* (shrine) and *heiau* (temple) were near 505 Front Street and the old Puamana area. Taro patches stretched from Waine'e all the way up to Kaua'ula, Kahili, and Halona Valley, Lahainaluna High School is also within the *ahupua'a*. Canal street was a real canal where folks would paddle their canoes up the stream into Mokuhinia and Moku'ula. Whaling vessels would anchor off of canal to collect the fresh water before they continued on their journey. Pu'upa'upa'u [Mt. Ball] was the fortified battle hill, similar to Ka'uiki Hill in Hāna. David Malo is buried on the top of this hill.

The *ahupua`a* connections did not stop at the shore, but went out into the ocean as well. Akoni Akana, Keeaumoku Kapu, and George Kaimiola named the reef as Kapapalimuāpi`ilani (Figure 1). As the name suggests, this reef was favored by the noted Maui chief Pi`ilani as a place for gathering limu. All of the interviewees stated that it is important to keep the connections of all aspects of the *ahupua`a* in mind when considering the cultural impacts within the project area. Most importantly is the connection of the Hauola stone to Waine`e.

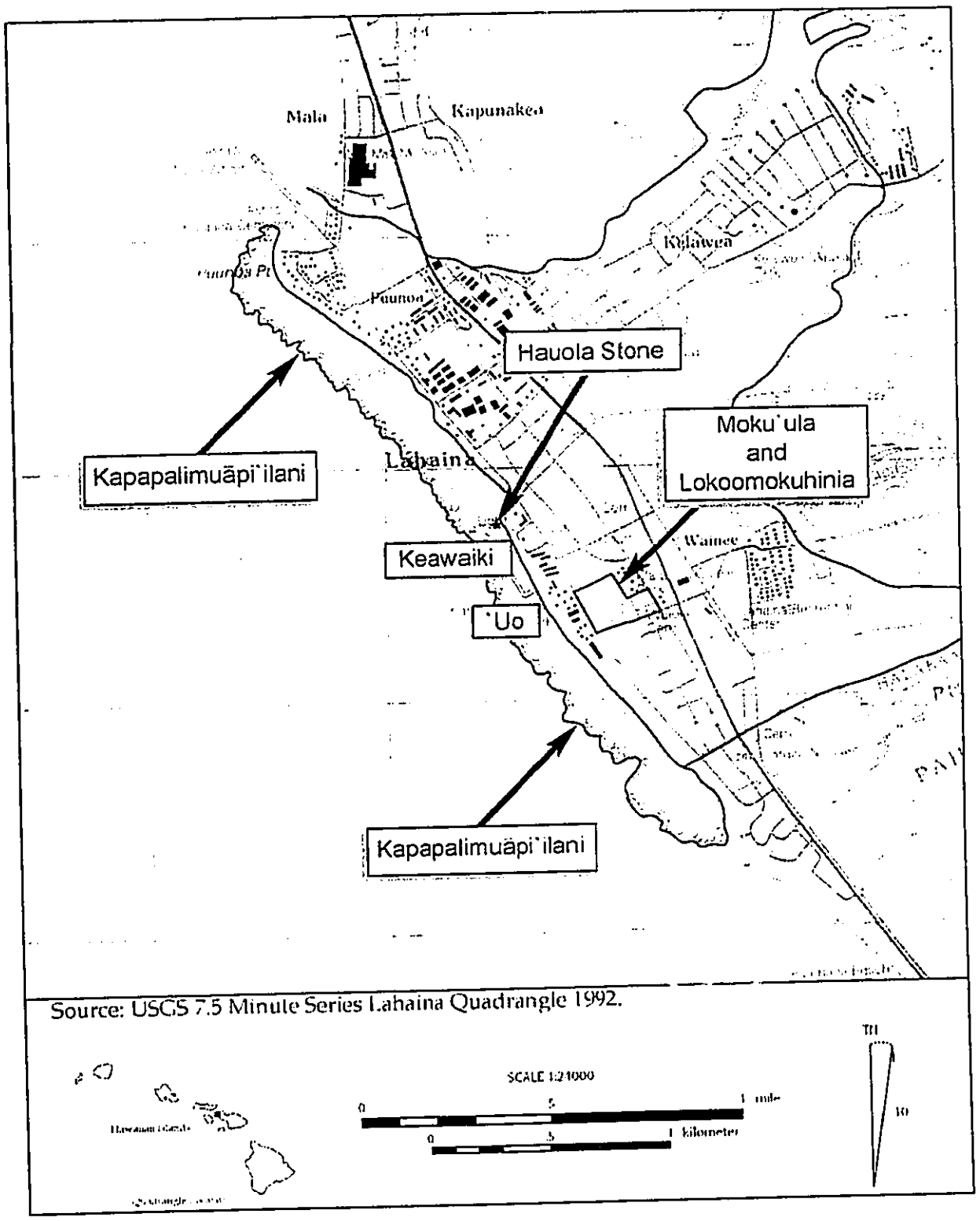


Figure 2. Traditional Places in Lahaina.

5.2 THE HAUOLA STONE

The Hauola stone (Figures 2, 3, and 4) is located 57m NW of the Lahaina Harbor lighthouse at the base of the rock wall. According to all of the interviewees, this stone is still in its original place. Akoni Akana and Kalei Tsuha both stated that the stone is much more than a birthing stone, but also a healing stone used to help those who were terminally ill, and the stone was also used as a place for hiding babies' umbilical cords. Pukui (1983) speaks thusly of the Hauola Stone:

> There is a stone in the sea at Lahaina, Maui, called Pōhaku-o-Hauola, where pregnant women went to sit to ensure an easy birth. The umbilical cords of babies were hidden in crevices in the stone. (Pukui 1983: 154)

Members of Nā Kūpuna O Maui stressed the importance of the Hauola Stone, stating that if anything happened to the stone, all of Lahaina would be "wiped out." Ke`eaumoku Kapu also emphasized that if anything were to happen to the stone it would become the "Haumake Stone" [*make* meaning death; the stone would no longer bring life, but death]. He further went on to say, "When shit (*sic*) starts to happen, that's when shit (*sic*) starts to fly. This place is so sensitive that [if] anything was to occur . . . [it] would have major [re]percussions." Akoni Akana conveyed the following when talking about the Hauola Stone. The meaning of the word *hau* is cold, chilly, as in water, but it is also the *hau* tree (*Hibiscus tiliaceus*) which grows abundant in wet areas and brackish water areas near the shore. *Hau* is used for medicine, *ama* (outrigger float), and for making cordage. Thus, *hau* can be used for cordage or cord. The *kaona* (concealed reference) of the cord is that the cord is representative of the *piko* (umbilical cord, an attachment to a greater whole, e.g. one's ancestors or descendants). The Hauola stone could be seen as the connection to life or health.

In an email transmission Kalei further explained *hau* in the following manner:

> *Hau* also means to be laid out or lay before; as an offering; or to offer a sacrifice or prayer. I believe that Hauloa meant that it was a place that folks offered prayers or sacrifices for healing while laying upon the stone. Perhaps the one who needed the treatment was laid out [*hau*] for healing [*ola*].

Akoni Akana and Kalei Tsuha both spoke about the commingling of the *kai* (seawater) and the *wai* (freshwater) being areas used for purification, cleansing, healing, and ceremony. According to Akoni Akana all of the waters, including the rain, from this area are sacred. The name of the rain is Ka`alani and it comes in from the ocean. It is not a drenching rain, but it passes through the area and one can see it move.

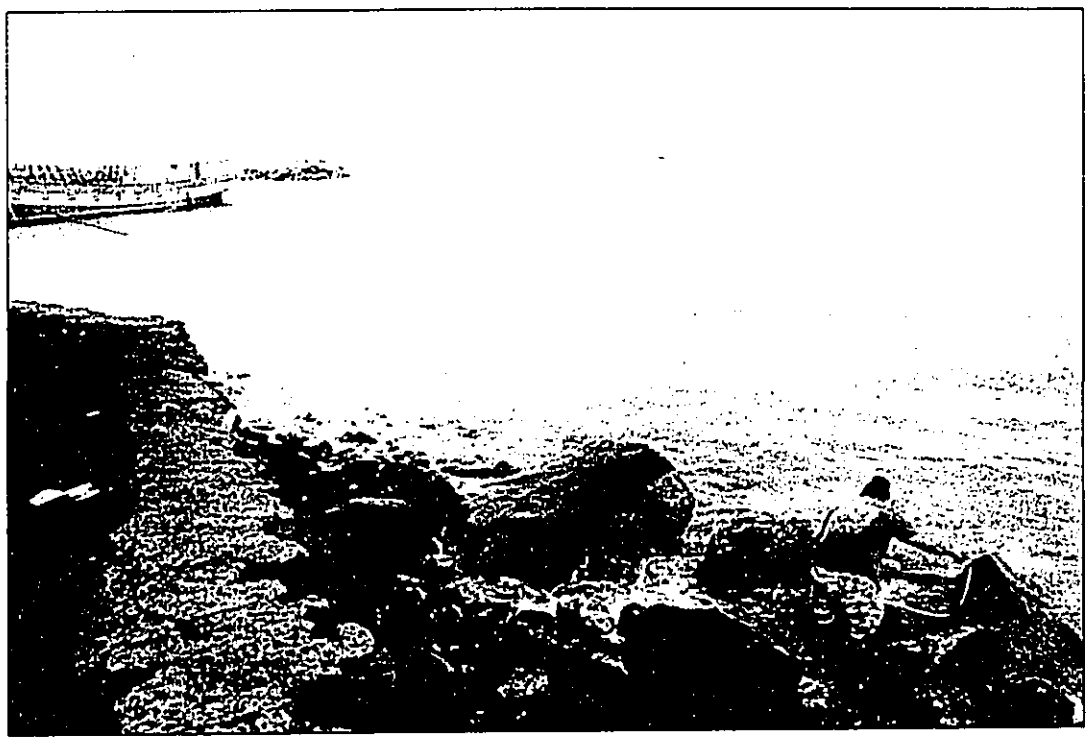


Figure 3. Hauola Stone at Low Tide.

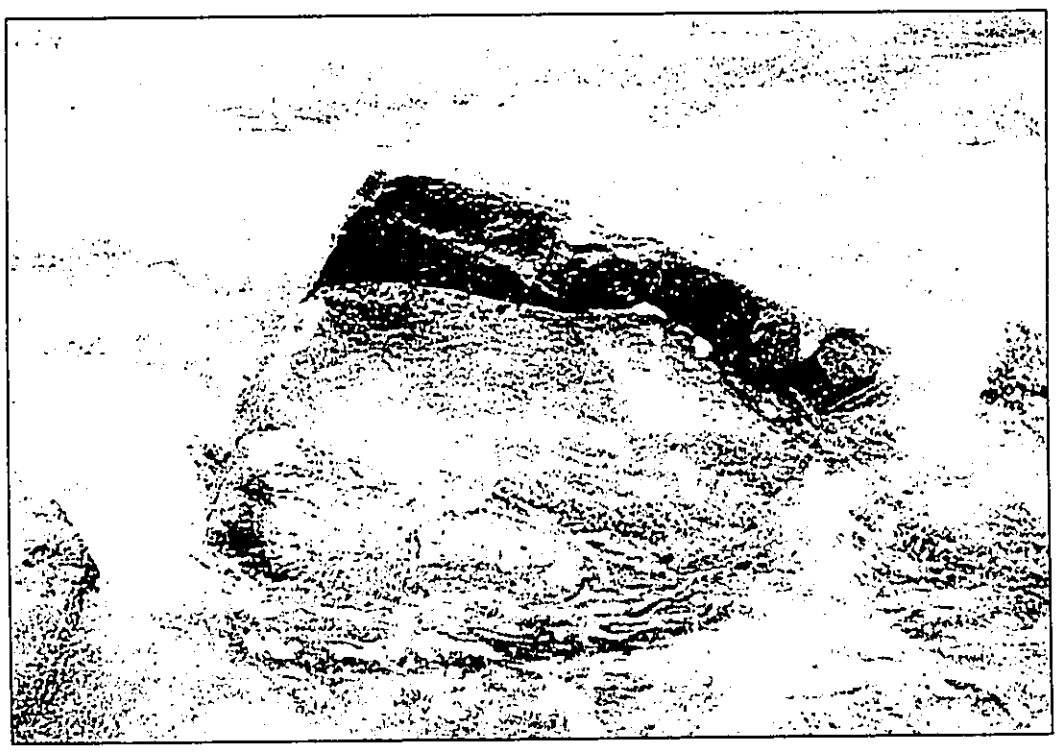


Figure 4. Hauola Stone at High Tide.

Kalei Tsuha goes on to talk further about the importance of the ocean in the Hawaiian culture:

> The ocean is seen in the Hawaiian culture as a place of refuge. It's a place that one retreats to for healing, cleansing, purging, and help. It's a place that reminds us of the nine months that (we) resided in our mother's womb; a place of security, of protection, and of nurturing. It is natural for a Hawaiian to sit in a place, such as the Hauola stone, for spiritual, mental and physical health and well being. *Kapu kai* and *Hi`uwai* were both important for the healing and the cleansing of illness and disease. The Hauola stone is a reminder of all those who've come before for healing, and of those who still utilize it today, and we hope (it) will still be there for future generations.

Akoni Akana, Charles Lindsey, George Kaimiola, and Kalei Tsuha spoke of the stone as still *being used today*. Charles Lindsey recalls seeing people going down to the stone when he was growing up. Kalei Tsuha knew of people still visiting the rock, but they are likely visiting during early morning or late evening hours when there will be little or no spectators. Akoni Akana, himself has used the stone in recent times. An old friend was terminally ill so Akoni and some of his friends took him down to the stone to help ease his passing.

Akoni Akana recalled that the last known birth at the stone was ca. 1920. This information was relayed to him by Ned Lindsey. Ned Lindsey's aunt was a midwife and she assisted in the birth.

5.3 SURF AND FISHING

Akoni Akana, Ke`eaumoku Kapu, George Kaimiola, Charles Lindsey, and Kalei Tsuha spoke of the surf at Lahaina Harbor. The surfing spots were known as Keawaiki, located right outside of the Lahaina Harbor entrance, and `Uo, located just to the south of Keawaiki (Figure 2).

George Kaimiola related that surfing is the sport of Hawaii's kings, and, that at times, the surf was so nice that the people would sit back and watch Kanaloa (one of the primary Hawaiian deities) surf.

People are still surfing at Keawaiki and `Uo today (Figures 2 and 5) Ke`eaumoku Kapu has concerns that further development of the Lahaina Harbor area would push the surfers further down to the areas abundant with *wana* (sea urchins).

Charles Lindsey and Kalei Tsuha both recalled seeing the shoreline lined with *akule* (*Trachurops crumenophthalmus*) and *`ōpelu* (*Decapterus pinnulatus*) boats before the harbor was built. The area was known for *`ama`ama* (*Mugil cephalus*), *moi* (*Polydactylus sexfilis*), *kūmū* (*Upeneus porphyreus*), *kūpīpī* (*Abudefduf sordidus*), *āholehole* (*Kuhlia sandvicensis*), *manini* (*Acanthurus sandvicensis*), *uouoa*(*Neomyxus chaptalii*), and *he`e* (*Polypus* sp). Kalei Tsuha's grandmother gathered *he`e* in the area. There are stories of her grandmother going down to the shore, calling the fish and gathering them up in her *mu`umu`u* (dress). Some of the fishing grounds were destroyed during the dredging for the original harbor (Figures 1 and 6).

Charles Lindsey recalled his grandfather taking care of a shark *`aumakua* just south of Lahaina at a placed called `Ūhā`īlio (*lit.* dog's lap). It is a dogleg-shaped inlet where a shark *`aumakua*

resided. His grandfather would put out offerings to the shark, go out fishing at night, and, in no time, return with his canoe full of fish. Charles' grandfather passed the task of taking care of the shark to Charles' uncle, but his uncle moved away from the area and there is no one from his family tending the shark now.

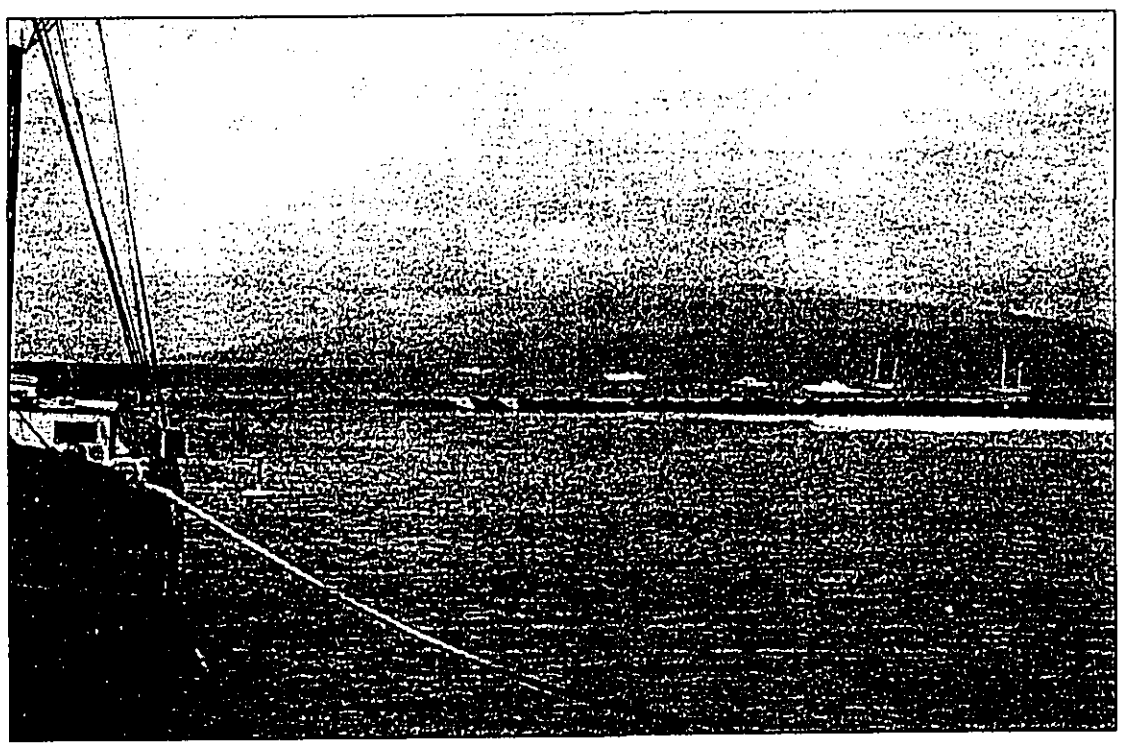


Figure 5. The Surf at Keawaiki.

5.4 Further Concerns

Many of the interviewees felt that much of what is important to the Hawaiian Culture, especially in Lahaina, has been pushed aside to make way for tourists and their money. Kalei Tsuha asserts that the vicinity of the Hauola Stone is the last bit of land that is Hawaiian in Lahaina. Ke'eaumoku Kapu pointed out the location of Kāmehameha's taro patch, the *heiau* (temple), and Kāmehameha's brick palace, and how they have been swept aside to accommodate those things that are not Hawaiian. Kalei Tsuha's father can no longer stand to walk down Front Street, it saddens him.

George Kaimiola gives cultural tours to the people disembarking the cruise liners and their tenders. While he admits that he does make money off of the tourists, he will not sacrifice his culture to make money. He feels that making the island more accessible to tourists will inevitably lead to tourists buying up all the land that they see for sale, making the island less accessible to the local population. The *Kanaka Maoli* connection to the land will be severed

because the sale of land to foreigners will make it no longer possible to visit culturally important areas. Concerns were raised about disturbing the Hauola Stone. It is still in its original position and anything that negatively impacts the Hauola Stone will have dire consequences on the whole of Lahaina.

Fishing and surfing are carried out in the waters of Waine'e. Surfing is often times dangerous because the break is in the vicinity of the harbor entrance and boat traffic.

Figure 6. Lahaina Harbor.

6.0 ARCHAEOLOGICAL INVESTIGATIONS

Archaeological investigations took place at the comfort station for the Lahaina Harbor. The comfort station is located on the W corner of the intersection at Canal Street and Wharf Street (Figure 7) and was built in the early 1980's. The site is bounded an all four sides by 2 sets of walls constructed of waterworn basalt boulders mortared with concrete.

The SE and SW walls of the site were built during the 1920's and have been assigned SIHP No. 50-50-03-5646. Both of these walls are 1.2 m thick with the heights of the wall range from 80cm at the intersection of Wharf St and Canal St to 140cm at the harbor end of Canal St. The wall along the SW extent of the site is ca. 140cm tall along its entire length, and appears to have been breached in two areas to allow access to the comfort station. This SW wall extends ca. 100 meters north beginning at Canal St. and ending nearly in front of the Pioneer Inn. The interior face of the SE wall ranges from 60-70cm (Figure 7).

The NW and NE walls of the site are 40cm thick. The exterior faces of the walls are ca 65-70cm high. The interior faces of the walls are ca. 40-60cm high (Figure 7). These two walls were built at the same time as the comfort station.

A total of two test units were excavated in the vicinity of the comfort station at Lahaina Harbor. Test Unit 1 was located in the NE corner of the project area (Figure 7). Test Unit 2 was located in the SW corner of the project area (Figure 7).

6.1 TEST INVESTIGATIONS

The entirety of TU1 was excavated to a depth of 75cm below the ground surface. Due to the paucity of artifacts encountered during the excavation from 45-75 cm below surface, a 50cm x 50cm probe to 1m below surface was placed in the SW corner of the unit.

The entirety of TU2 was excavated to a depth of 75cm below the ground surface. A 50cm x 100cm probe to 1m below surface was placed in the W half of the unit. Both units were excavated according to stratigraphic layer

The excavated soil deposits were screened with a .25in mesh. A representative sample of cultural material was collected. The uncollected items were noted.

Test Unit 1 (TU1) was a 1m x 1m located in the NE corner of the project area. The soil deposits included very straight bands of strata (Figure 7) consistent with fill soils and a possible mid-late 19th century living surface and soil surface (SIHP No. 50-50-03-5651). The soils are described below.

Stratigraphic Layer	Depth Below Surface (cm)	Description
Ia	0-17	Reddish Brown (2.5YR 4/3) clay; blocky structure; moist, friable, slightly plastic, slightly sticky, abrupt smooth boundary.
Ib	17-22	Dark Reddish Brown (5YR 3/3) clay; blocky structure; moist, very friable, slightly plastic, slightly sticky; abrupt smooth boundary.
Ic	22-33	Dusky Red (10R 3/3) clay; blocky structure; moist, friable, slightly sticky, very plastic; abrupt smooth boundary.
II	33-45	Dark Brown (7.5YR 3/2) silty loam; blocky structure; moist, friable, plastic, sticky; abrupt smooth boundary; possible mid-late 19th century living surface.
III	45- 100+	Dusky Red (2.5YR 3/2) silty loam; blocky structure, moist, friable, sticky, slightly plastic;

The whole of TU1 was excavated to a depth of 75cm below surface. The SW quadrant of TU1 was excavated to a depth of 1m below surface. Excavation was halted in TU1 due to the lack of cultural material present.

Layers Ia through Ic were compacted clay fills that noticeably differed from Layers II and III. Layer II was a dark brown silty loam that was not compact. Layer III was a dusky red silty loam with abundant palm roots present. The marked difference between Layers Ic and II suggests that Layer II was a possible living surface. Artifacts found in Layer II date to the mid-late 19th century suggesting that the top of Layer III was a mid-late 19th century soil surface. The artifacts are described in the next section.

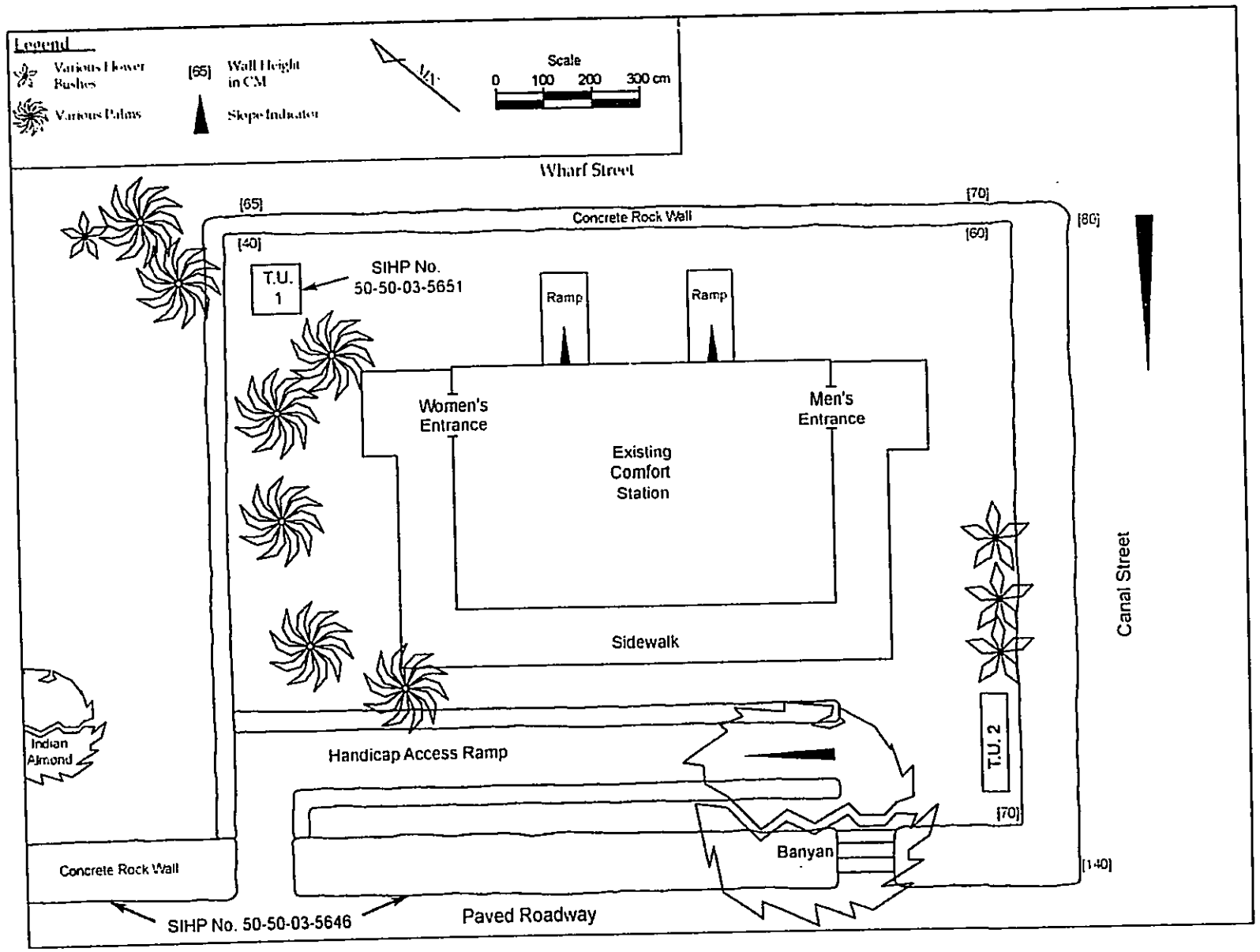


Figure 7. Plan View Map of Project Area.

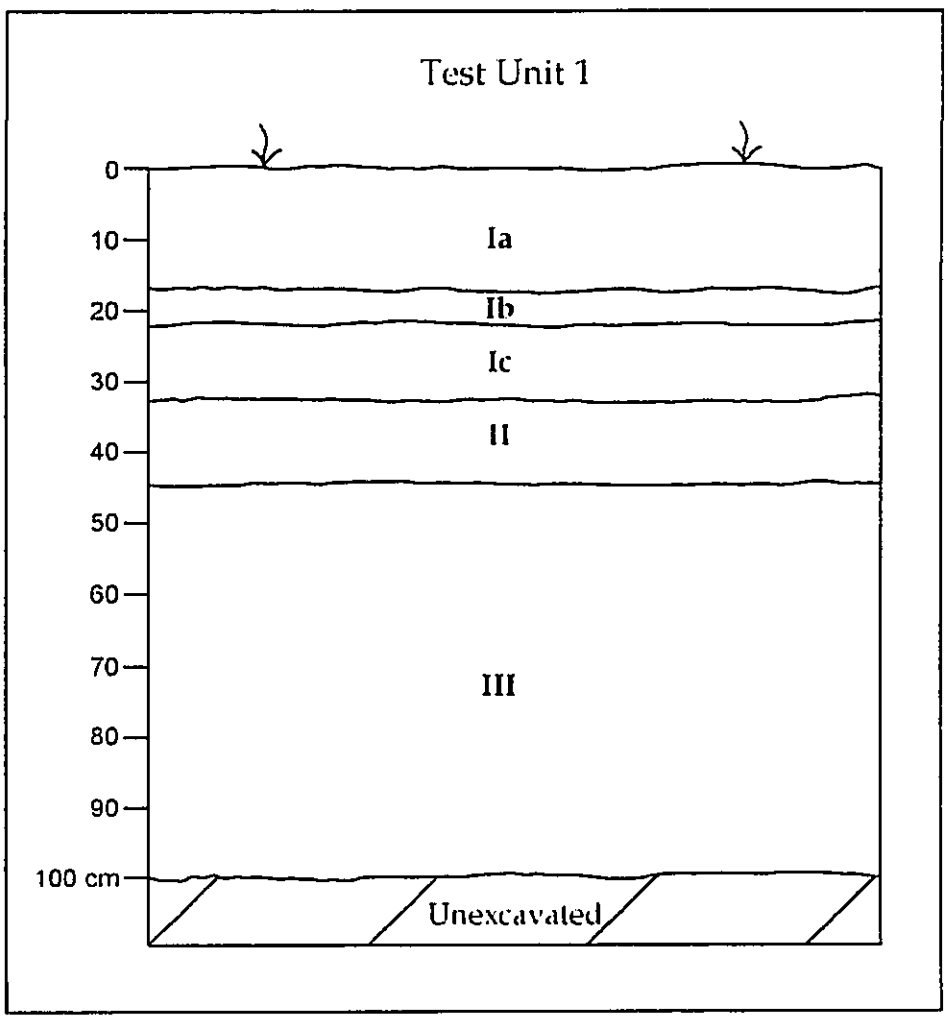


Figure 8. Test Unit 1 Profile.

Test Unit 2 (TU2) was a 2m x 0.5m trench located in the SW corner of the project area (Figure 7). Two stratigraphic layers of soil were present (Figure 9). The W quarter of TU2 contained abundant coral, basalt, and concrete rubble mixed in with the soil (Figure 10, and 11). The rubble ranged in size from pebbles to boulders. The soils are described below.

Stratigraphic Layer	Depth Below Surface (cm)	Description
I	0-17	Dark Reddish Brown (5YR 2.5/2) silty clay; blocky structure; moist, friable, very plastic, slightly sticky, abrupt smooth boundary.
II	17-100+	Dusky Red (2.5YR 3/2) silty clay; blocky structure; moist, friable, sticky, slightly plastic; Base of excavation.
Lens A	22-32	Very Dusky Red (10 R 2.5/2) clay; blocky structure; moist, friable, plastic, slightly sticky.
Lens B	50-70	Very Dusky Red (10 R 2.5/2) clay; blocky structure; moist, friable, plastic, slightly sticky.

TU2 as a whole as excavated to a depth of 75cm below surface. The W half of the unit was excavated to a depth of 1m below surface. Excavation halted in TU2 due to the presence of a large coral boulder that was too big to remove safely from the unit, despite attempts to break it into smaller pieces with a steel *o`o*. The base of excavation was below the existing roadway that fronts the harbor.

The soils of TU2 were not well compacted. Void spaces opened up throughout the unit during excavation. A void space opened up in the NE corner of TU2 and had a PVC pipe in it (Figure 12).

The artifacts recovered from TU2 were a mix of traditional, mid-late 19th century, and modern, and suggests that the two stratigraphic layers present are mixed fill. The artifacts are described in the next section.

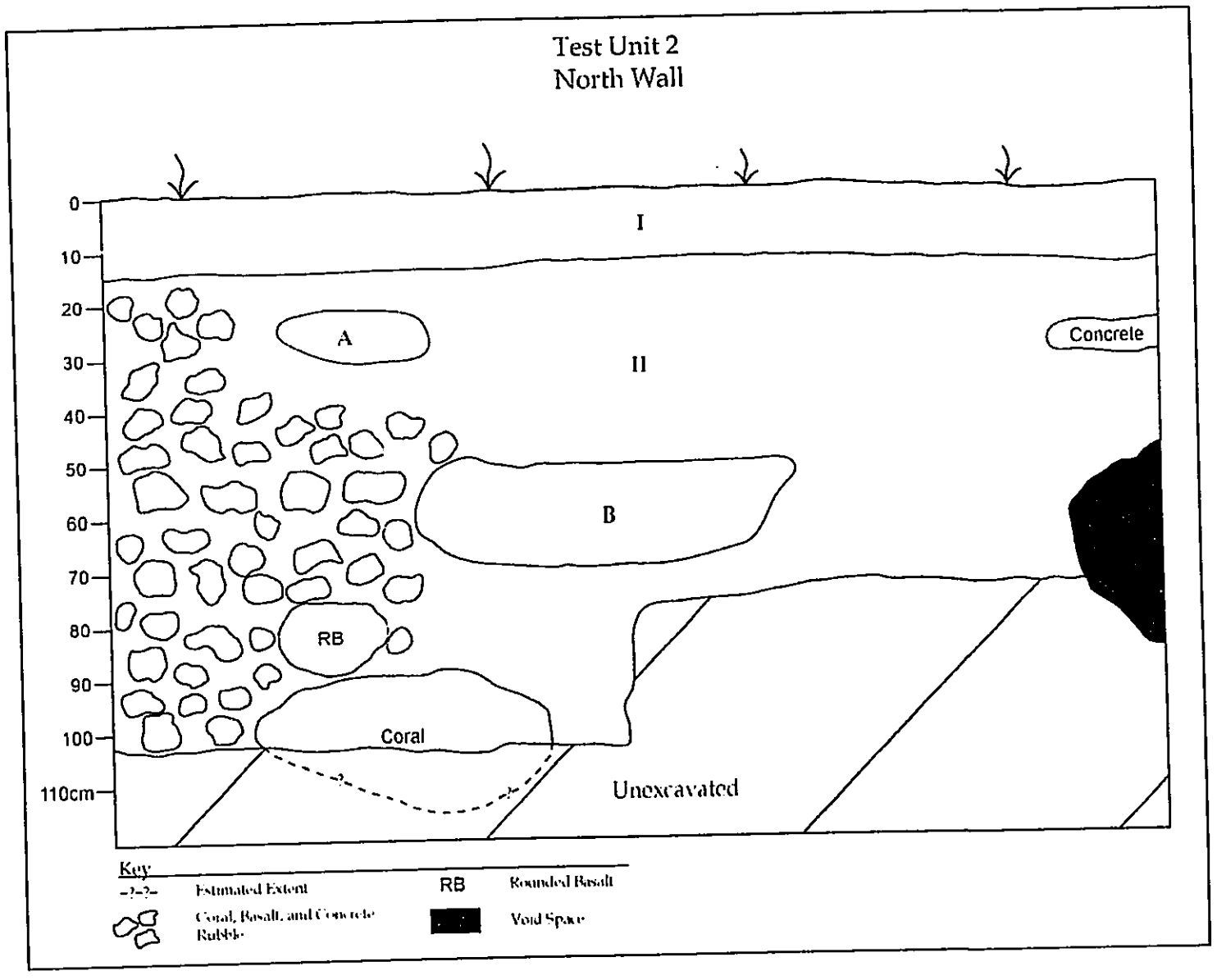


Figure 9. Test Unit 2 Profile, N Wall.

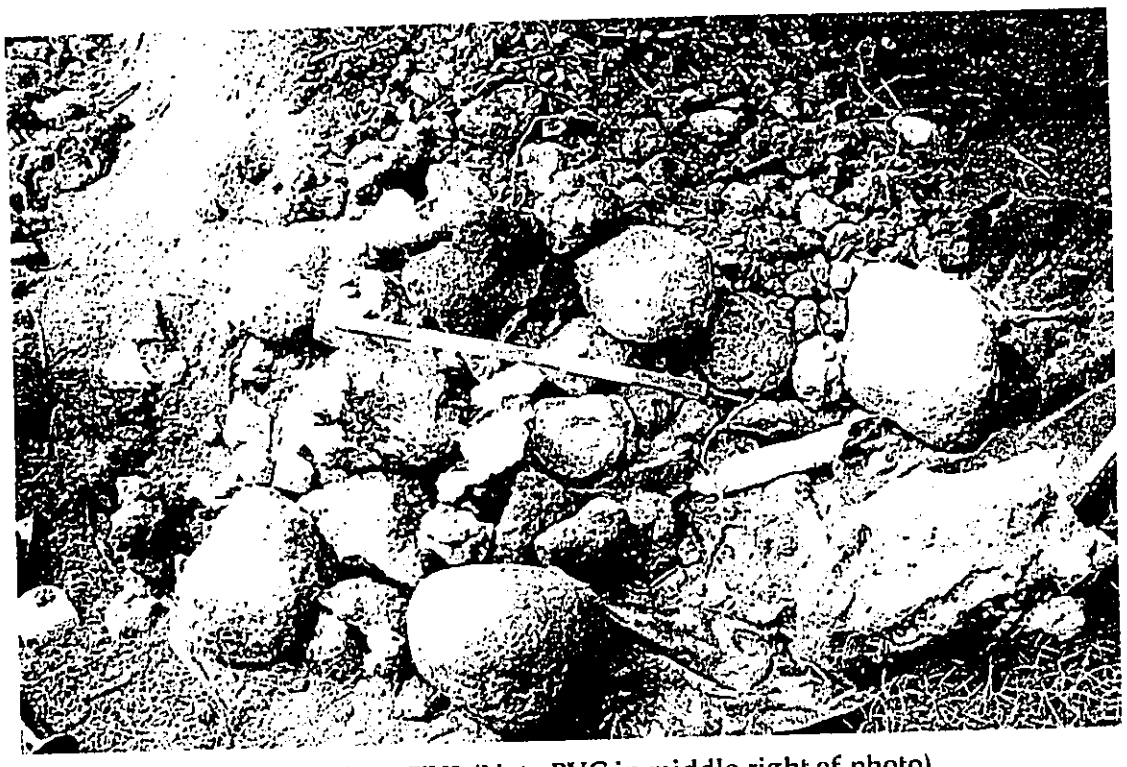


Figure 10. Rubble Removed from TU2 (Note PVC in middle right of photo).

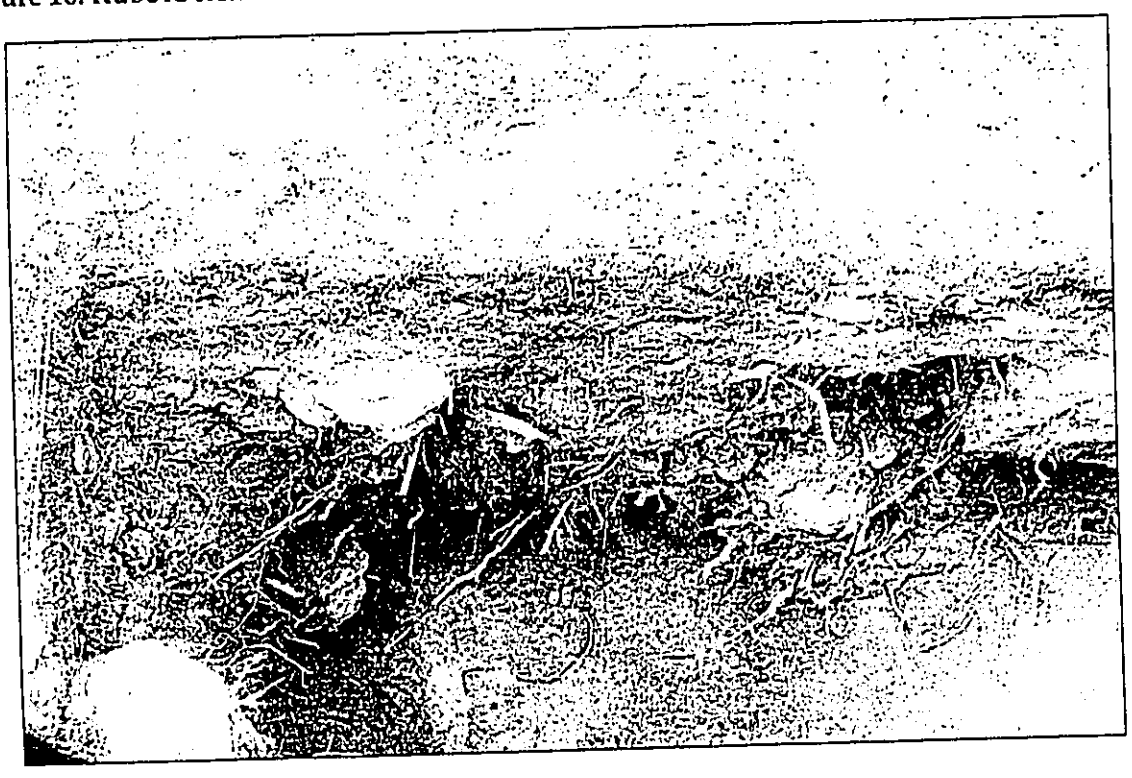


Figure 11. Western Quarter of TU2.

Figure 12. Void Space in NE corner of TU2.

6.2 ARTIFACTS

The cultural material encountered during excavation was sparsely deposited. The items recovered from the test units were a mixed assemblage of traditional, whaling period, and 20th century artifacts. Table 1 lists the types of artifacts encountered during excavation.

Two basalt flakes with polish on them were recovered from TU1 Layers II and III (Figure 6). Glass, ceramic, fishbone and marine shell were also found within Layers II and III.

In TU2, the neck of a ceramic Bristol Ale bottle, and a piece of whiteware with a "Warranted" stamp on it were encountered (Figure 7). These two pieces suggest dates of mid-late 19th century. They were also mixed in with recent nails and pennies that had dates from 1944 to 1975. *Kukui* (*Aleurites moluccana*) nuts were recovered during excavation of TU2. None of them were worked, but suggested that either there was a *kukui* nut tree present in the area or they floated in from some other locale.

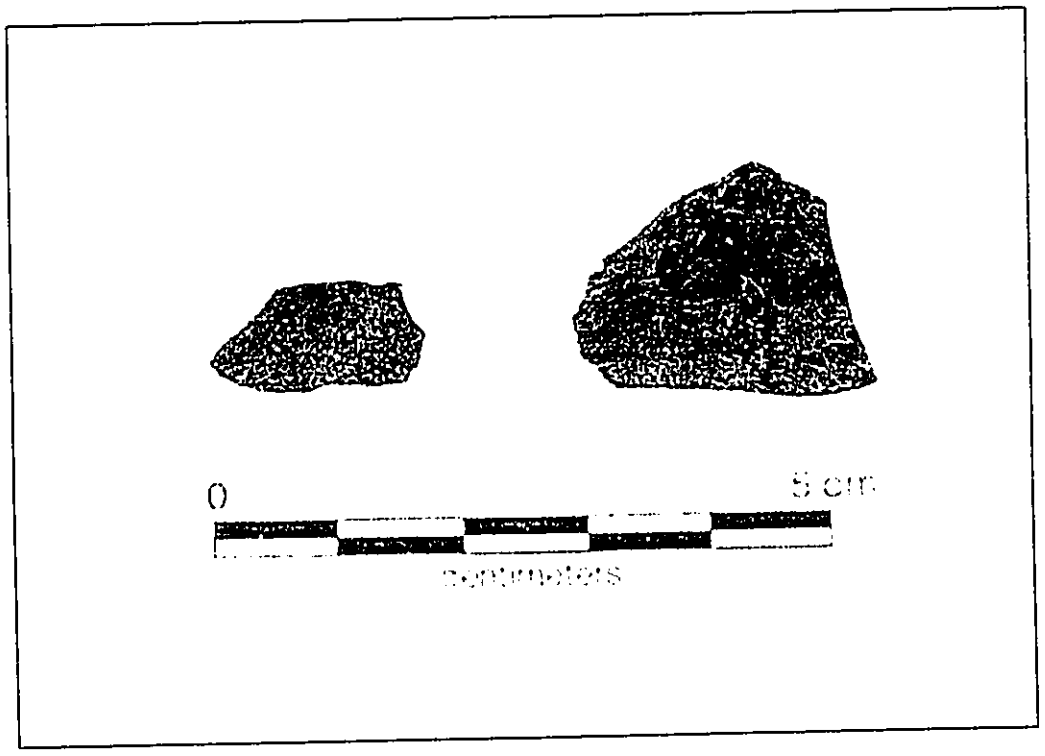


Figure 13. Basalt Flakes with polish from TU1.

Table 1.

CULTURAL MATERIALS RECOVERED FROM TEST EXCAVATIONS

Test Unit 1:

Layers Ia - Ic
Glass
window glass
bottle glass

Ceramics
white ceramic body sherds (coffee cup?)

Bone
4-hole button

Metal
pencil erasure band
aluminum pop top

Other
plastic
waterworn pebbles
nerita shell
Sheraton coffee stirrer
concrete
red plastic straw

Layer II
Glass
black glass
brown glass
green glass
window glass

Ceramic
white ceramic body sherd

Other
cowrie shell
sea urchin
fishbone
basalt flake with polish

Layer III
basalt flake with polish
clam shell
turbo shell

Test Unit 2:

Fill
Glass
clear glass
olive green glass
green glass

Ceramics
white ceramic fragments
Bristol ceramics
clay marble

Bone
4-hole button

Metal
nails
crown cap
pennies

Other
basalt flake
kukui
fish bone
mammal bone
sawed mammal bone
green concrete tile
concrete
PVC pipe

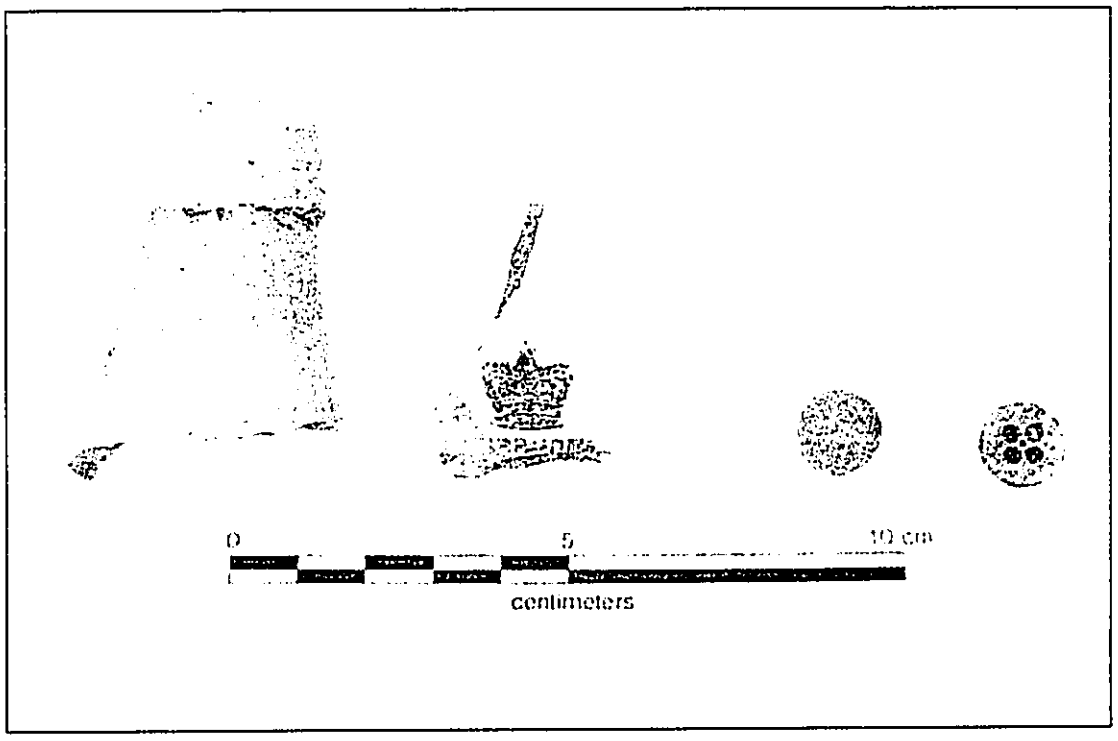


Figure 14. Selected Items from TU2: Bristol Ale, Stamped Whiteware, Clay Marble, Bone Button.

7.0 SIGNIFICANCE

The National Historic Preservation Act of 1966 (as amended) authorizes the Secretary of Interior to expand and maintain a National Register of Historic Places (NRHP) that contains a listing of districts, sites, buildings, structures and objects significant in American history, architecture, archaeology, engineering and culture. A property may be listed in the NRHP if it meets criteria for evaluation defined at 36 CFR §60.4:

> The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
>
> (a) That are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> (b) That are associated with the lives of persons significant in our past; or
>
> (c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> (d) That have yielded, or may be likely to yield, information important in prehistory or history.

The State of Hawaii recognizes the above criteria under HRS §13-275-6, and has also added a fifth significance criterion to the evaluation process:

> (e) That have an important value to the Native Hawaiian people or to another ethnic group of the State due to associations with cultural practices once carried out or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts – these associations being important to the group's history and cultural identity.

The comfort station site consists of:

1. the comfort station that was built in the 1980s;
2. walls on the NE and NW which were built at about the same time as the comfort station;
3. walls on the SE and SW that were built in the 1920s (SIHP No. 50-50-03-5646); and
4. the mid- to late-19th occupation deposit (SIHP No. 50-50-0305651) that was exposed in the test excavations.

Of these resources, the only resource that appears to meet any of the above significance criteria is the mid-late 19th century deposit. This deposit has not revealed any subsurface features and only sparse artifacts. However, this deposit has the potential to yield information important in the history of Lahaina and thus meets Criterion D.

8.0 SUMMARY AND DISCUSSION

This report has presented the results of an archaeological inventory survey and a cultural impact assessment for the Lahaina Pier Improvement Project, replacement of the existing comfort station, in Lahaina, Maui. The Lahaina Pier Improvement Project is being proposed by the State Department of Land and Natural Resources – Division of Boating and Ocean Recreation. This portion of the project consists of replacing the existing comfort station. The purpose of these investigations were to determine the history of land use in this portion of Lahaina, if any archaeological sites have been recorded in the vicinity of the proposed project and if the present cultural resources were still being used in traditional Hawaiian practices. The research was conducted through archival research at the State Historic Preservation Division (SHPD) library and the State Library and Archives, through information gathered during interviews with people knowledgeable about the area, and limited test excavation at the comfort station site. The people contacted for interviews were either from Lahaina or cultural practitioners in Lahaina.

The Lahaina Historic District is listed as a National Historic Landmark under the definition that it maintains the atmosphere of a Hawaiian seaport and port of call for American whalers. The contractors blueprints and drawings for the replacement comfort station keep with the theme mentioned and will not alter the atmosphere of the Lahaina Historic District (Figures 9 and 10).

From the research gathered, the following eight sites listed on the Lahaina Historic District nomination form: the Baldwin House, the Old Spring house, the Court House, the Old Prison, Wanie`e Church and Cemetery, Hale Aloha, United States Marine Hospital and the Roman Catholic Church. These sites are listed as part of the Lahaina Historic District (Site 50-50-03-3001).

While assessing the cultural impact of such a project, one must not just look at the single point where construction would take place. The interviewees made it very clear that one must look at the area as a whole, not a part. What happens in part of the *ahupua`a* affects the whole of the *ahupua`a*. The oral interviews that were conducted indicated that there are ongoing traditional cultural practices and existing traditional cultural places in Lahaina that predate the whaling era. The interviewees are very concerned about any activities that could potentially have a negative impact on those practices and places.

Information gathered from the interviews suggests that improvements proposed to the existing comfort station should not adversely impact ongoing traditional cultural practices or existing traditional cultural places.

Test excavations at the comfort station site revealed that this portion of Lahaina is mainly composed of fill deposits. These deposits contain a mixture of traditional Hawaiian artifacts (basalt flakes, a volcanic glass flake, and a basalt flake with polish that was probably struck form a stone adze), early historic artifacts (glass bottle fragments, a ceramic marble, white

ceramics for dinnerware, and portions of a ceramic bottle dating to the middle to late 19th century, and modern materials (pop tops, crown caps, beer bottle fragments, plastic, etc.).

The possible exception to this situation is in Test Unit 1, located along the northern boundary of the comfort station site, where a possible mid- to late-19th century deposit was encountered (SIHP No. 50-50-03-5651). The possibility that this is an intact deposit is because of its soil type and the material remains found in Layer II. Layer II was considerably less compacted than Layer I and did not contain the mix of artifacts that Layer I contained. Layer II contained sparse artifacts dating from the mid- to late 19th century. By means of contrast, Layer II contained very cultural material (one piece of brown bottle glass and a single basalt flake, which could have migrated downward from Layer II due to root action). Unfortunately Layer II, the possible intact layer produced very little cultural material – a few ceramic sherds, a little bottle glass, and a basalt flake with polish; no subsurface features were found associated with this layer.

No human remains were encountered in the test excavations, which is interesting given the numerous sets of human remains that have been found nearby at the Kamehameha III Elementary School. One possible reason for the lack of human remains in the subject property verses the Elementary School property is they types of soils present in the two areas. The Elementary School property contains loamy sands, which contain many of the sets of remains. No such loamy sand was encountered in our test excavations.

RECEIVED AS FOLLOWS

LAHAINA (PROPOSED IMPROVEMENTS)

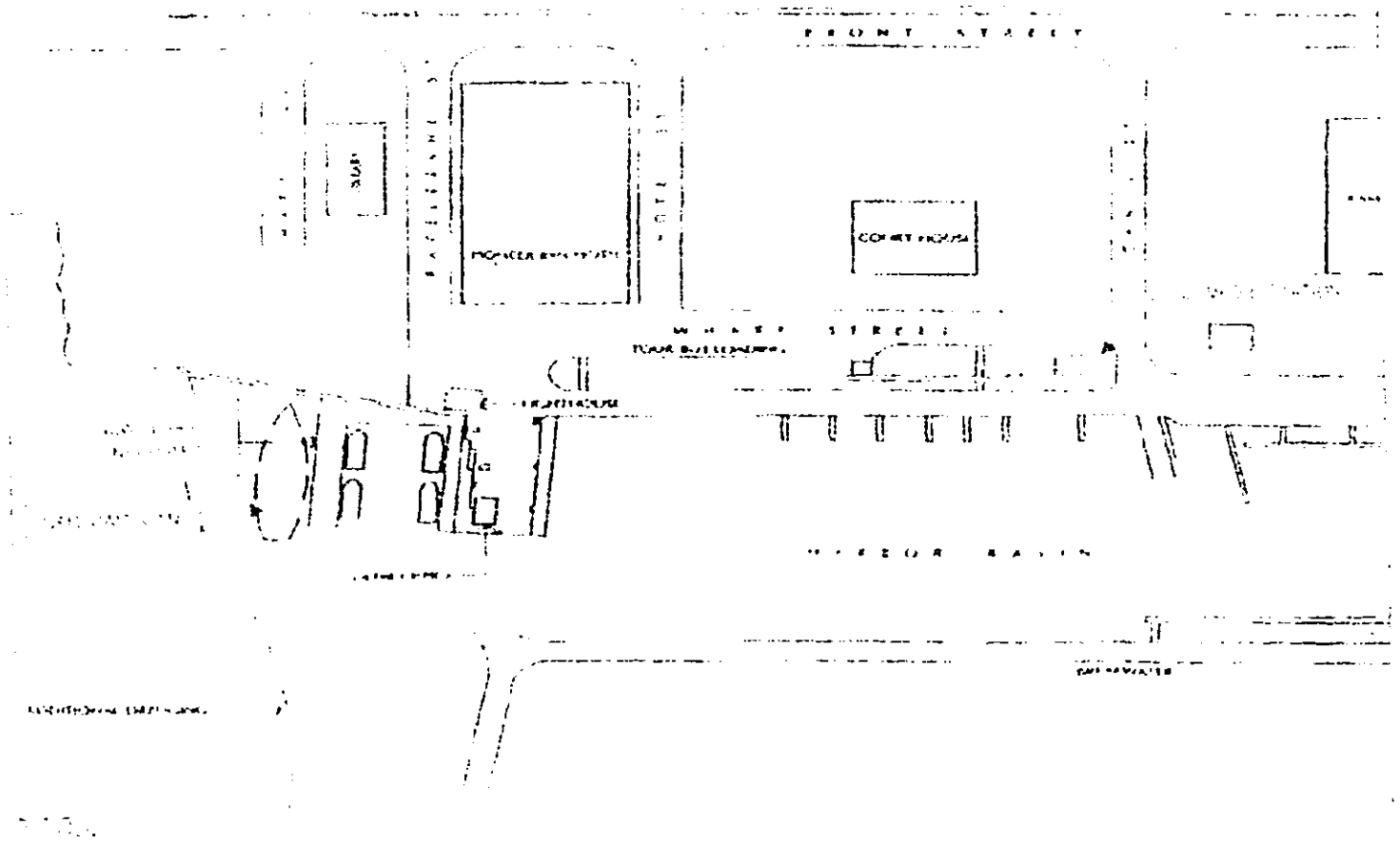


Figure 15. Project Map showing location of the Comfort Station (Provided by EKNA, Inc.).

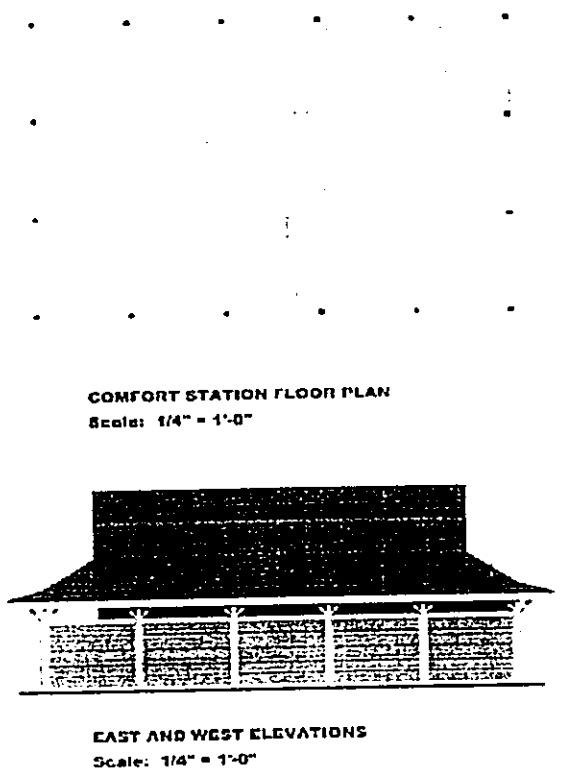


Figure 16. Replacement Comfort Station Plans (Provided by Mitsunaga & Associates, Inc.).

9.0 RECOMMENDATIONS

The results of the archaeological inventory survey and the cultural impact assessment suggest that there is a low potential of affecting any of the listed historical sites in the Lahaina Historic District during the replacement of the comfort station. The Lahaina Historic District is listed as a National Historic Landmark and on the National and State Register of Historic Places because it maintains the atmosphere of a Hawaiian seaport and port of call for American whalers. It is crucial that the architecture of the new comfort station be consistent with the Lahaina Historic District Guidelines to ensure the atmosphere remains that of a Hawaiian seaport and port of call for American whalers.

The northern part of the comfort station site appears to contain the remnant of an early-late 19th century occupation (SIHP No. 50-50-03-5651). It is recommended that any trenches excavated along the northern portion of the comfort station site that extend to over 30 cm (12 in) be monitored. If the mid-late 19th century deposit (SIHP No. 50-50-03-5651) is present, it is recommended that 2-3 1m x 1m units be excavated adjacent to the edge of the trench to sample these potentially significant deposits. This sampling would mitigate any adverse effects to this deposit.

10.0 REFERENCES

Ahlo, Hamilton, and Maurice Morgenstein
1980 Archaeological Testing and Excavations Near the Mouth of Kahoma Stream, Lahaina, Maui. On file at the State Historic Preservation library. Kapolei.

Bartholomew, Gail and Bren Bailey
1994 *Maui Remembers: A Local History.* Mutual Publishing, Honolulu, Hawaii.

Burgett, Berdena and Robert L. Spear
1994 An Archaeological Inventory Survey of a 8.8 Acre Parcel in the Land of Kainehi, District of Lahaina, Paunau Ahupua`a, Island of Maui [TMK: 4-5-03: 12,13,15,38,39, and 40]. On file at the State Historic Preservation library. Kapolei.

Cleghorn, Paul L.
1975 Phase I Archaeological Research at the Seamen's Hospital (Site D5-10), Lahaina, Maui. On file at the State Historic Preservation library. Kapolei.

Connolly, R.D.
1974 Phase I Archaeological Survey of Kahoma Stream Flood Control Project, Maui. On file at the State Historic Preservation library. Kapolei.

Community Planning Inc.
1961 Proposal for the Historical Restoration and Preservation of Lahaina, Island of Maui, State of Hawaii. On file at the State Historic Preservation library. Kapolei.

Davis, Bert
1974 Preliminary Report, Mala Wharf Burials, Phase I, Mala, Lahaina, Maui Island. On file at the State Historic Preservation library. Kapolei.

Day, Grove A.
1984 *A Biographical Dictionary: History Makers of Hawaii.* Mutual Publishing of Honolulu. Honolulu.

Foote, Donald E., Elmer L. Hill, Sakuichi Nakamura, and Floyd Stephens
1973 *Soil Survey of the Island of Hawaii, State of Hawaii.* United States Department of Agriculture. Washington D.C.

Frederickson, Erik, Demaris Frederickson
2001 Archaeological Monitoring Report for the King Kamehameha III Elementary School Electrical System Upgrade Project, Lahaina *Ahupua`a*, Lahaina District, Lahaina, Maui (TMK 4-6-02: 13, and 4-6-02: 14). On file at the State Historic Preservation Library. Kapolei.

Fredericksen, W., and D. Fredericksen
1965 Report on the Archaeological Excavation of the "Brick Palace of King Kamehameha I at Lahaina, Maui, Hawaii [TMK 4-6-01: 7]. On file at the State Historic Preservation library. Kapolei.

Fredericksen, Walter M., Demaris L. Fredericksen, and Erik M. Fredericksen
1988 The Aus Site: H.S. #50-03-1797, A Preliminary Archaeological Inventory Survey Report. On file at the State Historic Preservation library. Kapolei.

Hammatt, Hallett
1978 Archaeological Investigation and Monitoring, Mala Wharf Boat-Launch Ramp Area, Lahaina, Maui. On file at the State Historic Preservation library. Kapolei.

Hommon, Robert
1973 Report of a Walk-Through Survey of Kahoma Stream Flood C0ontrol Project Area. On file at the State Historic Preservation library. Kapolei.

James, Van
2001 *Ancient Sites of Maui, Moloka`i, and Lāna`i: Archaeological Places of Interest in the Hawaiian Islands.* Mutual Publishing of Honolulu.

Joerger, Pauline, and Michael Kaschko
1979 A Cultural History Overview of the Kahoma Stream Flood Control Project, Lahaina, Maui, and Ma`alaea Small Boat Harbor Project, Maalaea, Maui, Hawaii. On file at the State Historic Preservation library. Kapolei.

Juvik, Sonia P. and James O. Juvik
1998 *Atlas of Hawai`i, Third Edition.* University of Hawai`i Press, Honolulu, HI.

Klieger, P. C. (Ed.), B. Dixon, S. A. Lebo, H.'Lennstrom, D. Gosser, and S. D. Clark
1995 Moku`ula: History and Archaeological Excavations at the Private Palace of King Kamehameha III in Lahaina, Maui. On file at the State Historic Preservation library. Kapolei.

Kubota, Gary
2002 Group debates floating museum's fate. Star Bulletin. com, Posted on: Sunday October 20, 2002. Honolulu Star Bulletin, Honolulu, Hawaii. http://starbulletin.com/2002/10/20/news/story11.html.

Major, Maurice and P. Christian Klieger
1995 Historical Background and Archaeological Testing at Pikanele's Kuleana in Lahaina, Maui: An Inventory Survey Report of LCA 310.3 (Royal Patent 1729.2, TMK [2] 4-6-07: 13. On file at the State Historic Preservation library. Kapolei.

Maui Historical Society
1961 *Lahaina Historical Guide.* Star-Bulletin Printing Company, Honolulu, HI.

McGerty, Leann, and Robert S. Spear
2003 A Cultural Impact Assessment on a Piece of Property Located in Kan`anapali, Hanaka`ō`ō Ahupua`a, Lahaina District, Maui Island, Hawaii [TMK: 4-4-06: 56]. On file at the State Historic Preservation library. Kapolei.

Monahan, Christopher M,
2003 An Archaeological Assessment Report on 17.746 Acres of Land (Lahaina Business Park, Phase II) on an Undeveloped Lot in Lahaina, Moali`i Ahupua`a, Lahaina District, Maui Island, Hawaii [TMK: 4-5-10: 007]. On file at the State Historic Preservation library. Kapolei.

National Historic Landmark
Nd National Historic Landmarks webpage, Lahaina Historic District. http://tps.cr.nps.gov/nhl/detail.cfm.

National Register of Historic Places
1970 Nomination Form for National Register of Historic Places. Completed in 1970 by Lynn H. Thompson. Placed on the register 1970. Available at the State Historic Preservation Division, Hawaii.

Pukui, M. K., S. H. Elbert, and E. T. Mookini
1976 *Place Names in Hawaii.* University Press of Hawaii. Honolulu.

Rosendahl, Paul H.
1991 Archaeological Inventory Survey Honoapiilani Highway realignment Project Lahaina Bypass Section- Modified Corridor Alignment: Lands of Honokowai, Hanakaoo, Waihikuli, Panaewa, Kuia, Halakaa, Puehuehunui, Pahoa, Polanui, and Launiupoko, Lahaina District, Island of Maui. On file at the State Historic Preservation library. Kapolei.

Sinoto, A.
1975 An Archaeological Reconnaissance of the Mala Wharf Boat-Launch Ramp Area, Lahaina, Maui. On file at the State Historic Preservation library. Kapolei.

State Historic Preservation Division
2004 GIS, Global Information System. Used May 5, 2004.

Wilson, Christie
2002 Carthaginian II to be scuttled. Honolulu Advertiser.com, Posted on: Wednesday 2 2002. Honolulu Advertiser, Honolulu, Hawaii. http://the.honoluluadvertiser.com/article/2002/Oct/02/ln/ln21a.html.

APPENDIX A

NATIONAL REGISTER OF HISTORIC PLACES
LAHAINA HISTORIC DISTRICT

Apr-21-2004 09:26am From-STATE Historic Preservation 808 692 8020 T-895 P.001 F-637

Form 10-900
(July 1969)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM

(Type all entries – complete applicable sections)

STATE: Hawaii
COUNTY: Maui
FOR NPS USE ONLY
ENTRY NUMBER | DATE

1. NAME
COMMON: Lahaina
AND/OR HISTORIC: Lahaina Historic District

2. LOCATION
STREET AND NUMBER:
CITY OR TOWN: Lahaina
STATE: Hawaii | CODE | COUNTY: Maui | CODE

3. CLASSIFICATION

CATEGORY (Check One)	OWNERSHIP	STATUS	ACCESSIBLE TO THE PUBLIC
☒ District ☐ Site ☐ Building ☐ Structure ☐ Object	☐ Public ☐ Private ☒ Both Public Acquisition: (partial) ☒ In Process ☐ Being Considered	☐ Occupied ☐ Unoccupied ☒ Preservation work in progress	☐ Yes: Restricted ☐ Yes: Unrestricted ☐ No

PRESENT USE (Check One or More as Appropriate)

☐ Agriculture	☐ Government	☒ Park	☐ Transportation	☐ Comments
☒ Commercial	☐ Industrial	☐ Private Residence	☐ Other (Specify)	
☐ Educational	☐ Military	☐ Religious		
☐ Entertainment	☒ Museum	☐ Scientific		

4. OWNER OF PROPERTY
OWNER'S NAME: Multiple ownership
STREET AND NUMBER:
CITY OR TOWN: STATE: CODE

5. LOCATION OF LEGAL DESCRIPTION
COURTHOUSE, REGISTRY OF DEEDS, ETC.: Maui County Courthouse
STREET AND NUMBER:
CITY OR TOWN: Wailuku
STATE: Hawaii CODE

6. REPRESENTATION IN EXISTING SURVEYS
TITLE OF SURVEY: Town of Lahaina Map
DATE OF SURVEY: 1854 ☒ Federal ☐ State ☐ County ☐ Local
DEPOSITORY FOR SURVEY RECORDS: Survey Division, State of Hawaii
CITY OR TOWN: Honolulu
STATE: Hawaii CODE

12/29/62 NPS designate NL.
Boundaries established by NPS

Apr-21-2004 09:27am From-STATE Historic Preservat on 808 692 8020 T-895 P 002

7. DESCRIPTION

CONDITION (Check One): Excellent; Good; Fair; Deteriorated; Ruins; Unexposed

(Check One): Altered; Unaltered

(Check One): Moved; Original Site

DESCRIBE THE PRESENT AND ORIGINAL (if known) PHYSICAL APPEARANCE

Steady progress, albeit somewhat slow due to state and county commitments, is being made by the Lahaina Restoration Foundation and the Maui Historic Commission. Work on restoration of the Seaman's Hospital has been started. Foundations of the King's home have been exposed and are being interpreted by signs on the plexiglass shields covering the excavations.

The district still contains a number of incompatible structures but interest in the area has grown and successful battles have been fought to keep a high-rise structure off the main waterfront.

SEE INSTRUCTIONS.

1-21-2004 09:27am From-STATE Historic Preservation 808 692 8020 T-865 P 003/013 F-8

8. SIGNIFICANCE

PERIOD (Check One or More as Appropriate)

☐ Pre-Columbian	☐ 16th Century	☐ 18th Century	☐ 20th Century
☐ 15th Century	☐ 17th Century	☒ 19th Century	

SPECIFIC DATE(S) (If Applicable and Known)

AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

Aboriginal	☒ Education	☒ Political	☐ Urban Planning
☐ Prehistoric	☐ Engineering	☒ Religion/Philosophy	☐ Other (Specify)
☐ Historic	☐ Industry		
☐ Agriculture	☐ Invention	☐ Science	
☐ Architecture	☐ Landscape Architecture	☐ Sculpture	
☐ Art		☐ Social/Humanitarian	
☒ Commerce	☐ Literature		
☐ Communications	☐ Military	☐ Theater	
☐ Conservation	☒ Music	☐ Transportation	

STATEMENT OF SIGNIFICANCE

(See original submission)

SEE INSTRUCTIONS

9. MAJOR BIBLIOGRAPHICAL REFERENCES

(See original submission)

10. GEOGRAPHICAL DATA

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY						OR	LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES					
CORNER	LATITUDE Degrees	Minutes	Seconds	LONGITUDE Degrees	Minutes	Seconds		LATITUDE Degrees	Minutes	Seconds	LONGITUDE Degrees	Minutes	Seconds
NW	[illegible]			-57°									
NE	21°			-156°									
SE	20°			-156°									
SW	20°			-157°									

APPROXIMATE ACREAGE OF NOMINATED PROPERTY:

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE:	CODE	COUNTY	CODE
STATE:	CODE	COUNTY	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE

11. FORM PREPARED BY

NAME AND TITLE: Lynn H. Thompson, Superintendent

ORGANIZATION: Haleakala National Park — DATE: 09/03/70

STREET AND NUMBER: P. O. Box 456

CITY OR TOWN: Kahului, Maui — STATE: Hawaii 96732 — CODE

STATE LIAISON OFFICER CERTIFICATION

As the designated State Liaison Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service. The recommended level of significance of this nomination is:

National ☐ State ☐ Local ☐

Name (already included)

Title _____

Date _____

NATIONAL REGISTER VERIFICATION

I hereby certify that this property is included in the National Register.

_____
Chief, Office of Archaeology and Historic Preservation

Date _____

ATTEST:

_____
Keeper of The National Register

Date _____

INSTRUCTIONS

APPENDIX B

NATIONAL SURVEY OF HISTORIC SITES AND BUILDINGS SUPPLEMENTARY SHEETS
(ATTACHED TO THE NATIONAL REGISTER OF HISTORIC PLACES NOMINATION FORM, LAHAINA HISTORIC DISTRICT)

[illegible] DEPARTMENT [illegible]
NATIONAL PARK SERVICE

NATIONAL SURVEY OF HISTORIC SITES AND BUILDINGS

[illegible] Theme XXI, Special Study - Hawaii History
(About [illegible] acres are [illegible]
contained in historic district by [illegible] acre
[illegible] consultant, [illegible]
[illegible] of the west coast of the [illegible] Marine Hospital)
[illegible] The property within the proposed historic
[illegible] by a number of [illegible], organizations, and private [illegible]
[illegible] and individuals (see [illegible]
of the [illegible] noted below). However, the Court House Square, a logical place to [illegible] a [illegible], is owned by the State of Hawaii, and is administered, evidently, by the Department of Accounting and General Services, Division of Public Works, [illegible] Office Building, 465 South King Street, Honolulu 13, Hawaii.

7. Importance and Description.

Significance: Perhaps no island town so well preserves the atmosphere of a mid-19th century [illegible] seaport as does Lahaina; and thus it seems to be the key site for illustrating and commemorating one of the broad factors which resulted in the Americanization of Hawaii and which helped lead eventually to the annexation of the Islands by the United States -- the whaling industry. From about 1830 to about 1860 the semi-annual visits of the American whaling fleet to Lahaina and other Hawaiian ports constituted a [illegible] force in island economy, stimulating a diversified agriculture and a [illegible] trade which helped spread Western technology among the Hawaiian people. Also, the [illegible] of thousands of seamen for liquor and women resulted in [illegible] [illegible] the authorities attempting to enforce the missionary induced "blue laws," a [illegible] campaign which the forces of law and order eventually won, with important effects upon the social and political conditions in the Islands. The vital and long-continued [illegible] of the whalers for bases in the Islands was one of the primary factors bringing Hawaii to the attention of the United States Government. In addition, Lahaina was the royal residence and capital during much of the critical period when Hawaii was changing from a feudal autocracy to a constitutional monarchy, and it was associated with many of the key events of that transition.

According to tradition, Lahaina was from time immemorial a favorite residence of Maui kings [illegible] and a convenient port for inter-island travelers. The [illegible] [illegible] of all the islands except [illegible] [illegible]

[illegible] Society. "Historical Sites of Maui [illegible] Historical Society, [illegible]; Albert Pierce Taylor, "Lahaina: the Versailles of Old Hawaii," [illegible]

[illegible] Community Planning, Inc., [illegible] History of [illegible] and Preservation of Lahaina . . . (Honolulu, [illegible]); [illegible] of Hawaii, Commission on Historical Sites, [illegible] "Historic Sites on [illegible] Which Should Be Preserved" ([illegible], 1960).

[illegible] | Fair to excellent | Various | [illegible]
[illegible] | [signature] | [illegible] C. [illegible], Historian | [illegible]

[illegible] SPACE IS NEEDED [illegible] AND [illegible]

NATIONAL [illegible]

NATIONAL SURVEY OF HISTORIC SITES AND BUILDINGS
SUPPLEMENTARY SHEET

This sheet is to be used for giving additional information or comments, for more space for any item on the regular form, and for recording pertinent data from future studies, visitations, etc. Be brief, but use as many Supplement Sheets as necessary. When items are continued they should be listed, if possible, in numerical order of the items. All information given should be headed by the item number, its name, and the word (cont'd), as, 6. Description and Importance (cont'd) . . .

STATE	NAME(S) OF SITE
Hawaii	Lahaina

7. Importance and Description (continued)

and Kamehameha the Great landed here to begin his final conquest of Maui. By that time the port had become a well-known point of call for trading and exploring vessels, whose captains found the open roadstead a safe and convenient anchorage. For a couple of decades after 1812 it was an important shipping point for the sandalwood trade.

A new era of prominence and activity for Lahaina began in December, 1819, when Kamehameha II moved his residence here for several months. From then until 1843 Lahaina was a frequent, though not continuous, royal residence and capital. In 1819, also, the first American whaling ships reached the islands, and by 1822 there were 34 whalers making Hawaii a base of refreshment. From that time the number increased rapidly. Although Honolulu was originally the port most favored by the whalers, Lahaina often surpassed it in the number of recorded visits, particularly from about 1840 to 1855. Another event which was to have much effect upon the growth and social structure of Lahaina was the arrival of the first missionaries in the islands during 1820. The first missionaries to become established at Lahaina, the Rev. C. S. Stewart and the Rev. William Richards, arrived in 1823 accompanied by Queen Mother Keopuolani. These three factors -- political prominence, visits of whaling ships, and the development of a particularly influential mission under the protection of some of the most powerful chiefs of the land, resulted, as one writer has somewhat exuberantly said, in starting Lahaina "off to a historical romp that probably will never be equalled."

The great event of 1823 was the death of Keopuolani at Lahaina. Within an hour before "joining the Great Majority" she had been baptized as a Christian, an occurrence which proved a great stimulus to increasing the influence of the missionaries. King Kaumualii of Kauai was, at his special request, buried beside Keopuolani in 1824. The bodies of Kamehameha II and his queen were brought back from London in 1825 and interred at Lahaina until they were later moved to the royal tomb in Honolulu. When Kamehameha III ascended the throne, he settled upon Lahaina as his home and seat of government.

Meanwhile, the missionaries were making rapid advances, drawing thousands of Hawaiians to worship and persuading the chiefs, especially the able governor of Maui, Chief Hoapili, to institute regulations against the sale of liquor and against visits to ships by island women. These restrictions were considered too rigorous by the "sea-bittered" sailors who swarmed ashore seeking pleasure, and in 1825 the crew of the English whaler Daniel rioted through the town for three days, twice threatening the lives of the Rev. Richards and his wife. Two years later the crew of another English whaler, the John Palmer, actually fired their cannons at the Richards house to force

NATIONAL PARK SERVICE

NATIONAL SURVEY OF HISTORIC SITES AND BUILDINGS
SUPPLEMENTARY SHEET

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STATE	NAME(S) OF SITE
Hawaii	Lahaina

7. Importance and Description (continued)

the release of their American captain who had been detained by the authorities in an effort to obtain the return of four "base women" who had been illegally enticed aboard the vessel. These difficulties with unruly seamen lasted as long as Lahaina remained a whaling port, but the Hawaiians, by controlling liquor and enforcing curfews, maintained the upper hand, and Lahaina was known as a more orderly port than Honolulu. Even so, one minister in the late 1860's described the town as "one of the breathing-holes of hell."

Lahaina, as the island capital, was associated with many of the most important political developments in the kingdom during the reigns of Kamehameha II and Kamehameha III. Here Kaahumanu, Queen Regent, promulgated the famous laws based on the Ten Commandments. Here the first Hawaiian Legislature met in 1840, and the first written constitution was promulgated at Lahaina during the same year. Since much of this evolution from feudalism was undertaken with the advice of the Rev. Mr. Richards, it perhaps is not too much of an exaggeration to say that Lahaina at this time was "the cradle of Hawaiian democracy." Even after the seizure of the islands by the British during 1843, it was decided that the capital should be at Honolulu, and Lahaina was relegated to the position of an occasional royal residence.

Lahaina was at the height of its prosperity as a whaling port about 1846, at which time about 400 ships a year visited the town to replenish their water and supplies. In that year the population of Lahaina numbered 3,557 persons, of whom 212 were foreigners. There were 1096 houses, mostly strung out along the kukui-shaded main street, 10 schools, a seamen's chapel, 1 main church with 5 or 6 district churches, and a number of public buildings. "About 500 native families," it was reported, "eat at the table in the style of civilization."

By 1862 the whaling industry was in a definite and permanent decline. The effect on Lahaina was marked. Prosperity ended, prices fell, cattle and crops were a drug on the market, and ship chandleries and retail stores began to wither. The town subsided to a lower level of economic importance, and life revolved around the sugar mill, later known as the Pioneer Mill Company, which was established about 1860-1861, and around several other mills and plantations which sprang up from time to time in the vicinity. By 1885, when Charles Warren Stoddard visited Lahaina, the town was "a charming, drowsy and dreamy village."

The principal historic structures and sites still visible include the following:

NATIONAL SURVEY OF HISTORIC SITES AND BUILDINGS
SUPPLEMENTARY SHEET

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STATE	PARK(S) OF SITE
Hawaii	Lahaina

7. Importance and Description (continued)

1. Baldwin House. This handsome two-story home, built of coral blocks, with a two-story wing, is located on Front Street at Dickenson Street; it and the 42360-square-foot lot on which it stands are owned by the H. P. Baldwin Estate.

The missionaries at Lahaina were given a tract of land for residence purposes by the local nobility in 1823, and the Rev. William Richards moved into a two-story stone dwelling (since destroyed) there in 1827. In 1832 Ephriam and Julia Spaulding arrived in Lahaina to join the mission staff, and in 1834 Spaulding started construction of the main section and "cook house" of the present Baldwin House adjoining the Richards dwelling. Completed early in 1835, the house was occupied by the Spauldings until 1836, when they left Lahaina due to poor health. Dr. Dwight Baldwin and his family moved into the house when the Spauldings left and occupied it until Dr. Baldwin was transferred to Honolulu in 1866 (some sources say the Baldwins lived in the house until 1871). During this long occupancy the structure became known as the "Baldwin House."

Dr. Baldwin, in addition to serving as pastor of the Hawaiian church at Lahaina and, for a time, as seamen's chaplain, was a medical doctor; and he was government physician for the islands of Maui, Molokai, and Lanai. It was his duty to greet visitors to the Lahaina mission and the nearby Lahainaluna Seminary; and guests were thus frequent. He renovated the structure extensively in 1847-1849 and added the right wing as a dispensary and office.

Dr. Baldwin's son, Henry P. Baldwin, was born in this house and later acquired extensive interests on the Island of Maui. The house has remained in the Baldwin family to the present time. It served an important part in Hawaiian social and cultural development when Mrs. Henry P. Baldwin sponsored a community center there which included a kindergarten, night-school, circulating library, language school, and high school. Used until lately as a community center, clinic, and Girl Scout headquarters, it now (April, 1962) appears to be closed but is kept in excellent condition. It is one of the oldest and best preserved missionary dwellings.

2. Old Spring House. Located 200 feet south of the Baldwin House and set well back from Front Street at the rear of a later frame structure, this small stone building is privately owned.

It is said to have been built by the Rev. William Richards in 1823 to enclose a spring to supply water not only for his own dwelling nearby but for the entire community and for ships anchored off the town. According to local tradition, a hand

-1-

NATIONAL PARK SERVICE

NATIONAL SURVEY OF HISTORIC SITES AND BUILDINGS
SUPPLEMENTARY SHEET

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STATE	TOWN(S) OR VICINITY
Hawaii	Lahaina

7. Importance and Description (continued)

pump here was visited by crews of sailors who "constantly rolled huge casks for water." The Spring House apparently is thus one of the few remaining physical links with the whaling era.

3. Court House. This solid, two-story stone building stands on Wharf Street, in the 1.9-acre square bounded by Wharf, Hotel, Front, and Canal Streets; it is owned by the State of Hawaii.

In 1858 a violent windstorm damaged the governor's house and the Hale Piula, the former palace which housed the government offices. A survey early in that year resulted in a recommendation that a new building to house the customs offices and courts should be built on the site of the old stone fort. Funds were appropriated for the "Lahaina Court and Custom House and Government Offices," and the new building was reported as nearly complete by December, 1859. In addition to the offices mentioned above, it contained the governor's office, post office, and "a room in which to starve the jury into unanimity." The building was extensively rebuilt in 1925, with a considerable change in its appearance. The basic structure remains, however. Still housing about the same types of offices as when it was first erected, it serves as a link with the days of the kingdom. The Court House Square is famed today for its banyan tree, planted by the sheriff of Lahaina in 1873 and proclaimed today as "Hawaii's largest."

4. Old Prison (Hale Paahao). This one-story jailhouse, built of heavy planks, stands at the corner of Wainee Street and Prison Road in grounds 0.82 acre in extent surrounded by a high wall of coral blocks. It is owned by the County of Maui.

In addition to ordinary criminals, the authorities at Lahaina generally had on their hands a number of boisterous seamen who had run afoul of the law in one way or another during their periods of "refreshment" ashore. During the 1830's and 1840's prisoners usually were confined in the fort which stood on the seaward side of the present square. The most common cause of incarceration was failure to obey the sundown curfew. Liberty expired with the setting of the sun when, said one visitor during the 1840's, the sailors, drunk or sober, "must be off to their ships, or into the fort," and he painted a vivid picture of the reeling seamen hustling along to the shore "harassed and hung upon by native girls, who flock here in the ship season, from other parts, to get the ready wages of sin."

In 1851 the fort physician complained that conditions for prisoners were unhealthful, and evidently as a result construction of a new prison was started in 1852.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL SURVEY OF HISTORIC SITES AND BUILDINGS
SUPPLEMENTARY SHEET

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STATE	(NAME(S) OF SITE)
Hawaii	Lahaina

7. Importance and Description (continued)

The main cell block, built of planks, was constructed in that year, but the wall around the grounds, built of coral blocks from the old fort, was not erected until about 1854. Prisoners performed much of the labor. The original cell house burned in 1953; and it and the wooden gate house were reconstructed in 1959 and now present a fine appearance. The prison is open to the public as an historical exhibit.

5. Waiola Church and Cemetery (Waiola Cemetery and Church). The present church structure (1953) and the old cemetery occupy a tract of 2.45 acres on Wainee Street, between Chapel and Shaw Streets. The property is owned by the Waiola Protestant Church.

For several years after the American Board missionaries reached Lahaina in 1823, services were held in temporary structures. In 1828 the chiefs, led by Hoapili, proposed to build a new stone church, and the present site was selected. The corner-stone was laid on September 14, 1828, for this "first stone meeting-house built at the Islands." Dedicated on March 5, 1832, this large, two-story, galleried Waiola Church was twice destroyed by Kaumaula winds and once, in 1894, by a fire of incendiary origin. The present church structure was dedicated in 1953, at which time the name was changed to Waiola.

The adjoining cemetery is said to date from 1823. It contains the body of Keopuolani, wife of Kamehameha the Great and mother of Kamehameha II and Kekauluohi III. She was largely responsible for the overthrow of the kapu system, and her early interest in Christianity was of much assistance in the founding of the Protestant missions. She is said to have been the first convert of the missionaries in the islands. Other prominent Hawaiian nobles interred here include Governor Hoapili, King Kauikeaouli, Princess Nahienaena, Queen Kalakua, and Governess Liliha. Here too is buried the Rev. William Richards, the pioneer missionary and advisor to the Hawaiian monarchy. Seeing his grave near that of the nobles, a visitor late in the 1840's was constrained to write, "There they lie in the burying-ground, hard by together, the missionary teacher and the converted heathen."

6. Hale Aloha. This dilapidated stone building stands behind the Episcopal Cemetery in about the center of the large block bounded by Wainee, Hale, and Chapel Streets and Prison Road. It is best reached from Wainee Street. It stands on a 15900-square-foot tract owned by Waiola Protestant Church.

The predecessor of this building, known as the Hale Halawai, or Hale Lua, is sometimes said to have been built as early as 1823; and it, instead of the Wainee

RECEIVED AS FOLLOWS

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL SURVEY OF HISTORIC SITES AND BUILDINGS
SUPPLEMENTARY SHEET

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STATE	NAME(S) OF SITE
Hawaii	Lahaina

7. Importance and Description (continued)

Church, is occasionally claimed as the first stone church in the islands. At any rate, this "sectional" meetinghouse was in bad condition by 1855, and the church voted to rebuild completely, the walls being "too old fashioned to be tolerated in these up-ahead days." The present building, called "Hale Aloha," was completed in 1859 and was "the largest sectional meeting house of the time.". In 1860 the government fitted it out for use as an English Church. The building is now in a ruinous condition.

7. United States Marine Hospital. On the landward side of Front Street, between Kenui and Puhi Streets, about 0.6 mile north of the Baldwin House (Dickenson St.). It is owned by the Bernice P. Bishop Estate.

In 1852 Captain John Stetson was appointed first American vice consular agent in Lahaina. Probably it was shortly thereafter that a marine hospital was established for sick and injured American merchant seamen. At any rate, Herman Melville noted that one of his shipmates was discharged from the Achusnet at Lahaina on May 29, 1843, and died in the United States Marine Hospital of a "disreputable disease." The hospital would accommodate about 60 men. In 1865 the structure was sold to the Episcopal Church and became a school for girls, and during the 1870's it was turned into a vicarage and served as such for more than 30 years.

The exterior walls of the two-story stone structure have been covered with shingles, but the front verandahs running the length of both stories still remain, and the building retains its historical integrity. It is used as a residence and is in fair condition. It is an important link with the days of Lahaina's maritime glory.

8. Roman Catholic Church (Status: Lanakila First Catholic Church). At Waineе and Dickenson Streets, this building is still an active Catholic Church. It and the adjoining cemetery occupy a tract of 3.091 acres.

The first resident Roman Catholic priests arrived at Lahaina on April 21, 1846. A church was built on the present site that same year, but it was replaced by a new structure in 1858. The present concrete church, erected in 1927-1928, was built on the same foundation and is almost a replica of the older frame structure; it is said that the original ceiling was retained in the new building.

"NATIONAL PARK SE...

NATIONAL SURVEY OF HISTORIC SITES AND BUILDINGS
SUPPLEMENTARY SHEET

This sheet is to be used for giving additional information or comments, for more space for any item on the regular form, and for recording pertinent data from future studies, visitations, etc. Be brief, but use as many Supplement Sheets as necessary. When items are continued they should be listed, if possible, in numerical order of the items. All information given should be headed by the item number, its name, and the word (cont'd), as, 6. Description and Importance (cont'd) . . .

STATE	NAME(S) OF SITE
Hawaii	Lahaina

7. Importance and Description (continued)

Built in 1901 and therefore not strictly connected with Lahaina's most significant era, this well-known hotel is nevertheless a key part of the Lahaina scene. The description of the hotel in one guide book - "a large box of a building . . . with a wide balcony and decorative wooden railing" - may be accurate, but it fails to convey the tropical atmosphere of Lahaina's first hotel.

Condition of the Site: Lahaina today is a quiet plantation town which is beginning to stir with new life as recent harbor developments bring additional recreational and commercial boating activity and as nearby newly built resorts increase tourist visits. Despite the fact that surviving historic structures are relatively few, the town preserves much of the atmosphere of a Hawaiian native village and of a mid-19th century island port. The magnificent natural setting, with its backdrop of purple mountains and foreground of blue sea, remains unspoiled; and palms and other trees shade the streets and homes as they did in missionary days. However, paved streets, curbs, new buildings in contemporary architectural styles, and other developments are cumulatively making their effects felt and causing the historic scene to fade.

Recognizing the economic and cultural benefits of the town's historic heritage, the County of Maui and a cooperating organization, the Lahaina Restoration Committee, have obtained by contract from a planning firm a study of the historical values and a program for restoration. The proposal, presented early in 1961, called for a restoration district which covers 31.79 acres, including all of the principal historic sites except the Marine Hospital. On August 18, 1961, the county adopted an interim zoning ordinance which set aside about 8½ acres as the Lahaina Historic District. Within this area are the Court House, Pioneer Hotel, Baldwin House, and the Opening House.

-8-

APPENDIX C

HAWAII REGISTER OF HISTORIC PLACES
CERTIFICATION OF PROPERTY

HAWAII REGISTER OF HISTORIC PLACES
CERTIFICATION OF PROPERTY

Submitted to the Hawaii Places Review Board, Hawaii Foundation for History and the Humanities on October 8, 1971,

50:01:3001 (number), LAHAINA HISTORIC DISTRICT (name),

is hereby placed on the Hawaii Register of Historic Places and designated as VALUABLE with STATE significance.

Archaeologist
William K. Kikuchi

Architect
Kalston Nagara

Historian
Frances Jackson

Hawaiiana Specialist

Sociologist
Bernhard Hormann

on October 8, 1971

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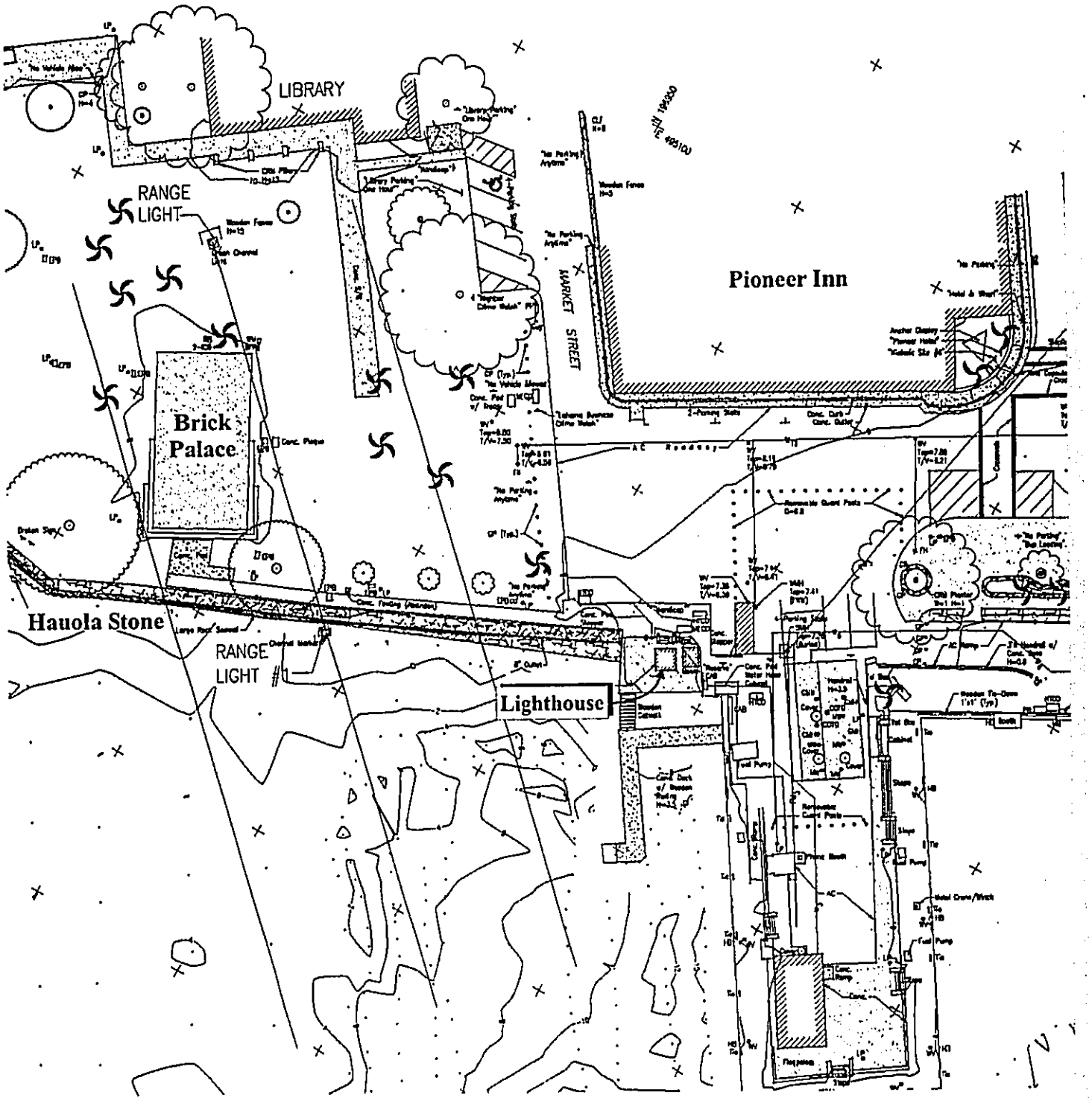

Source: Mitsunaga & Associates, Inc.

Figure 8

Proposed Lahaina Small Boat Harb
Cultural Resc

Prepared for: State of Hawaii, Department of Land and Natural Resources

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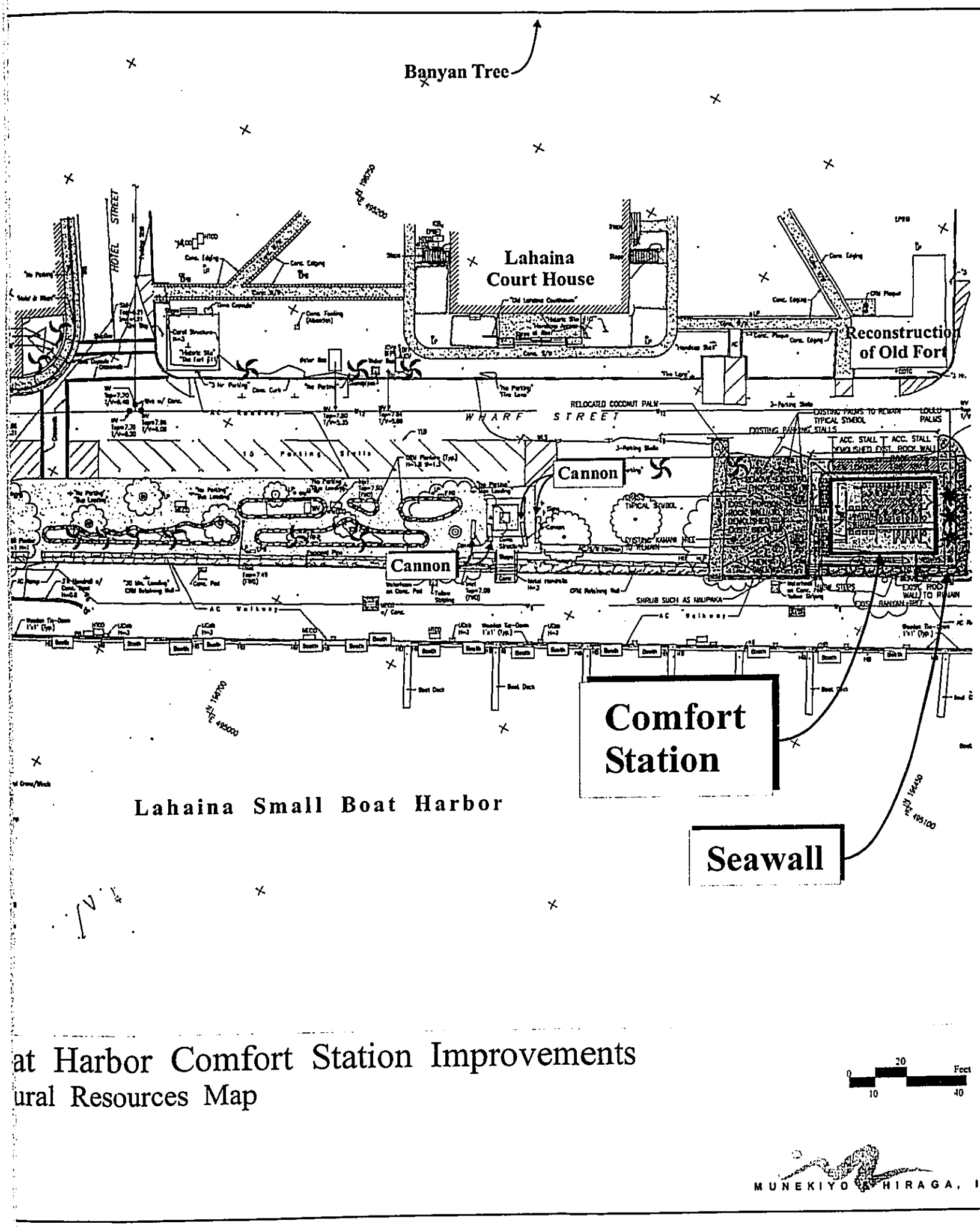

at Harbor Comfort Station Improvements

ural Resources Map

MUNEKIYO & HIRAGA, INC.

EXISTING CONDITIONS

Source: Mitsunaga & Associates, Inc.

Figure 9

Proposed Lahaina
Comfort Statio
East View fr

Prepared for: State of Hawaii, Dept. Of Land and Natural Resources

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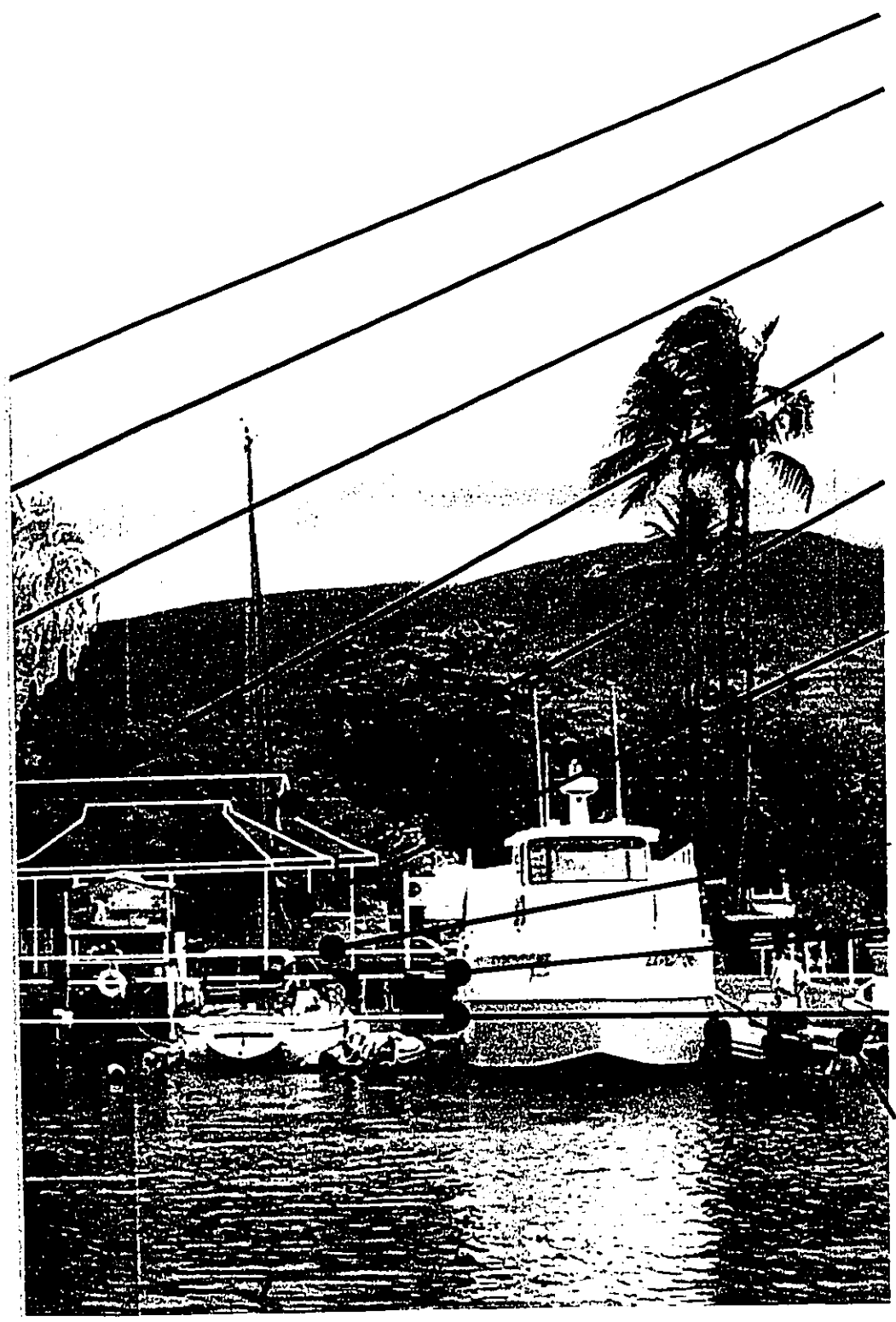

haina Small Boat Harbor
Station Improvements
iew from Breakwater

MUNEKIYO & HIRAGA, INC.