

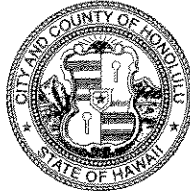
DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

JUN - 8 2007

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HENRY ENG, FAICP
DIRECTOR

DAVID K. TANQUE
DEPUTY DIRECTOR

2005/ED-10(ST)

June 21, 2007

Mr. Lawrence K. Lau, Deputy Director
Environmental Health
Office of Environmental Quality Control
State of Hawaii
State Office Tower, Room 702
235 South Beretania Street
Honolulu, Hawaii 96813-2437

Dear Mr. Lau:

Subject:	Chapter 343, Hawaii Revised Statutes (HRS) Environmental Assessment (EA) Determination Finding of No Significant Impact (FONSI)
Recorded Owner/ Applicant:	Ute Dagmar Uebel
Agent:	Wil Chee-Planning & Environmental, Inc.
Location:	53-723 Kamehameha Highway - Hauula
Tax Map Key:	5-3-9: 37
Request:	Shoreline Setback Variance (SV)
Proposal:	New concrete rubble masonry (CRM) seawall with concrete splash lip with backfill, and a CRM fence wall on top the new seawall along the east return within the 40-foot shoreline setback.

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Attached and incorporated by reference is the Final EA prepared by the applicant for the above project pursuant to Chapter 343, HRS. We have determined that the preparation of an Environmental Impact Statement (EIS) is not required. Enclosed are a 3-1/2" Floppy Disk with a "Summary" of the subject project, Publication Form, and four copies of the Final EA. We request publication of a notice in The Environmental Notice.

If you have any questions, please contact Steve Tagawa of our staff at 768-8024.

Very truly yours,

for Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:nt

Attachments

G:SteveT/FEAUebel.fon

42-750

FILE COPY

**Final
Environmental Assessment
for
Shoreline Setback Variance Application
for a Seawall**

**Kaluanui Beach Lots
Ko`olauloa, O`ahu, Hawai`i
TMK: 5-3-09:037**

**Prepared For:
Ute Dagmar Uebel
53-723 Kamehameha Highway
Hau`ula, Hawai`i 96717**

07 JUN 26 P1:11
C.E. 11

Prepared By:

Wil Chee - Planning & Environmental

March 2007

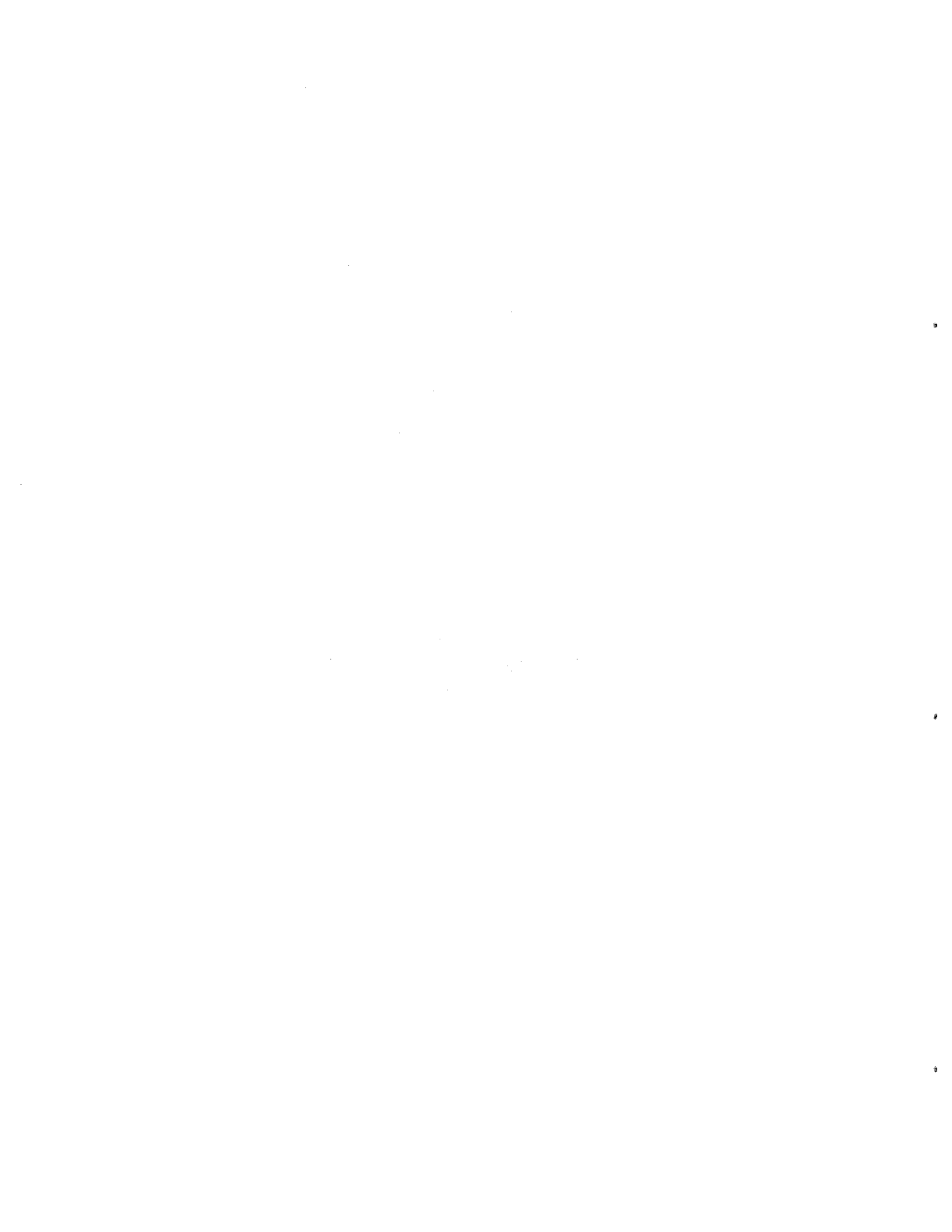


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List of Acronyms and Abbreviations

AAQS	Ambient Air Quality Standards
cfs	cubic feet per second
cm/sec	centimeters per second
CO	carbon monoxide
CZMA	Coastal Zone Management Area
DLNR	Department of Land and Natural Resources, State Of Hawai'i
DOH	Department of Health, State Of Hawai'i
EA	environmental assessment
HRS	Hawai'i Revised Statutes
HAR	Hawai'i Administrative Rules
msl	mean sea level
ROH	Revised Ordinances of Honolulu
SMA	Special Management Area
SSBN	Small Scale Beach Nourishment
SSV	Shoreline Setback Variance
TMK	tax map key

1.0 Introduction

This Environmental Assessment (EA) was prepared to fulfill the requirement of HRS 343 and will be included with an Application for a Shoreline Setback Variance (SSV) for TMK: 5-3-009:37 in accordance with ROH Chapter 23 Article 1. Shoreline Setbacks.

1.1 Background

The property has a small single family residence that was built in 1961, prior to the implementation of Hawai'i's Shoreline Setback regulations of 1970, the Federal Coastal Act of 1972 and the subsequent State of Hawai'i legislation in 1977 that provides for Hawai'i's Coastal Zone Management regulations.

The parcel was protected by a rock and cement rubble shoreline protective structure when the current owner purchased the property in May 2003. It is possible that the pre-existing unauthorized shoreline protective structure consisting of a rock and cement rubble wall was emplaced slowly since 1987. There is no evidence to indicate when it was completed, only that it existed in 2003 when the property was purchased by Ute Uebel (Figure 1).

Prior to purchasing the property the current owner hired a contractor to arrange for the removal of a wall along Kamehameha Highway. The contractor inadvertently removed the sidewall. Work replacing the sidewall and the front wall along Kamehameha Highway was completed by September 13, 2003.

During a large storm in November, 2003, parts of the pre-existing illegal rock and cement rubble shoreline protective structure were redistributed by wave action (Figure 1). The owner hired contractors and applied for a permit to repair the pre-existing illegal shoreline protective structure. The permit was not granted and the owner had the rocks from the seawall replaced to protect her property from further erosion. The owner received a Notice of Violation for "rubble stockpiled and sidewall constructed within the Shoreline Setback Area without a variance."

The owner also applied for shoreline certification with the Department of Land and Natural Resources (DLNR) in the summer of 2004. A shoreline map was prepared by certified surveyors, Sam O. Hirota, Inc. (Appendix F). The application was denied by DLNR "...for failure to submit documents supporting structure(s) was approved by government agencies or exemption as required pursuant to Hawaii Administrative Rules Chapter 13-222-7(b)(14)" (Appendix F). The owner was not able to obtain any written or photographic evidence that the seawall on her property was constructed before Hawai'i shoreline legislation took effect in 1970, nor was she able to find any documentation that the seawall was permitted by a government agency.

Due to these circumstances, on October 27, 2004, Wil Chee - Planning & Environmental, (WCP), agents for the applicant, submitted a written request to Department of Planning & Permitting (DPP) to waive the shoreline certification requirement. In a response to this letter dated November 29, 2004, DPP stated,

"Your letter explains that the property owner intends to seek a shoreline setback variance for the "illegal" seawall. The State, however, has rejected her request for a shoreline certification, which would normally be required with the shoreline variance application. Section 13-5(a)(6) of our Rules authorizes the Director to waive the shoreline certification requirement where the shoreline is affected by an illegal shoreline structure provided the applicant submits a shoreline survey as part of a shoreline variance application. Your client's circumstances meet these criteria. Accordingly, we will waive the certification requirement for the purpose of processing an after-the-fact variance for the "illegal seawall." In subsequent conversations with DPP personnel, it was agreed that for the purposes of this shoreline setback application and EA, the "shoreline" would be as shown in the shoreline map prepared by Sam O. Hirota, Inc. This line also coincides with the makai property line of TMK 5-3-009:037.

In order to obtain a Shoreline Setback Variance WCP prepared a Draft Environmental Assessment (EA) in compliance with instructions outlined in the Revised Ordinances of Honolulu (ROH) Chapter 23, Section 23-1.8 Criteria for Granting a Variance. When the review period for the Draft EA was over and during the preparation of the Final EA, WCP learned that the shoreline along the makai portion of TMK 5-3-09:37 had been certified on April 1, 1987 (Appendix F). A map attached to the request for a shoreline determination indicates a line that is 2 to 3 feet inland of the property line. Photographs included with the 1987 certified shoreline show some large lava rocks on the slope to the beach and flanking the embankment near the adjacent parcel TMK: 5-3-09:044.

Correspondence from the Department of Planning and Permitting in April, 2006 included a preliminary map for illustrative purposes that outlines the approximate locations of shoreline setback lines (Figure 4 & Appendix E). This provides a 30-foot minimum buildable lot depth and includes most of the existing single family residence and carport landward of the shoreline setback line.

On May 4, 2006 WCP, the property owner, a surveyor from Sam O. Hirota, Inc., Chris Conger from DLNR, Office of Conservation and Coastal Lands and a State Surveyor met at the site. The purpose of this meeting was to delineate points that would correctly locate the shoreline, by using geomorphic features that indicate the high wash of the waves and evidence of erosion caused by the waves. This newly located shoreline was surveyed, plotted and submitted for certification (See Appendix F). Certification was denied due to the presence of an "unauthorized" Shoreline structure. This surveyed shoreline is located correctly and will be used to resolve the issue of the illegal shoreline structure.

1.2 Scope and Authority

This EA is prepared pursuant to Chapter 343 Hawai'i Revised Statutes (HRS), associated Chapter 205 Coastal Zone Management, Hawai'i Administrative Rules (HAR) and ROH Chapter 23, Article 1. Shoreline Setbacks. The document follows the guidelines for an EA according to Administrative Rules of the Department of Health, Chapter 200, Title 11, "Environmental Impact Statement Rules," Sections 10, 11, and 12.

Figure 1 Photos of Shoreline in 2003



A

A. October 30, 2003 pre-existing
illegal Seawall view from house

B. C. & D November 2003 photos
of seawall from beach after the
storm that damaged the pre-existing
illegal seawall.



B



C



D

1.3 Project Information

THE APPLICANT: Ute Dagmar Uebel
53-723 Kamehameha Highway
Punalu'u, Hawai'i 96717
Phone (808) 220-6901

APPLICANTS REPRESENTATIVE Wil Chee - Planning & Environmental
1018 Palm Drive
Honolulu, Hawai'i 96814
Ph.: (808) 596-4688
Fax: (808) 597-1851

TMK AND OWNER: 5-09:0037
Ute Dagmar Uebel
53-723 Kamehameha Highway
Punalu'u, Hawai'i 96717
Phone (808) 220-6901

LAND AREA: 7,774 square feet

Zoning R-5

AGENCIES CONSULTED: Department of Planning and Permitting
City & County of Honolulu
650 South King Street
Honolulu, Hawai'i 96813

Department of Land and Natural Resources
Office of Conservation and Coastal Lands
1151 Punchbowl Street., Room 131
Honolulu, Hawai'i 96813

REQUIRED PERMITS AND APPROVALS: Shoreline Setback Variance
Minor Shoreline Structures Permit
Special Management Area Use Permit
401 Water Quality Certification, Department
of Health, State of Hawai'i
Department of the Army Permit
Shoreline Certification from DLNR Land and
Natural Resources, Land Division, State of
Hawai'i.

ACCEPTING AUTHORITY Department of Planning and Permitting
City & County of Honolulu
650 South King Street
Honolulu, Hawai'i 96813

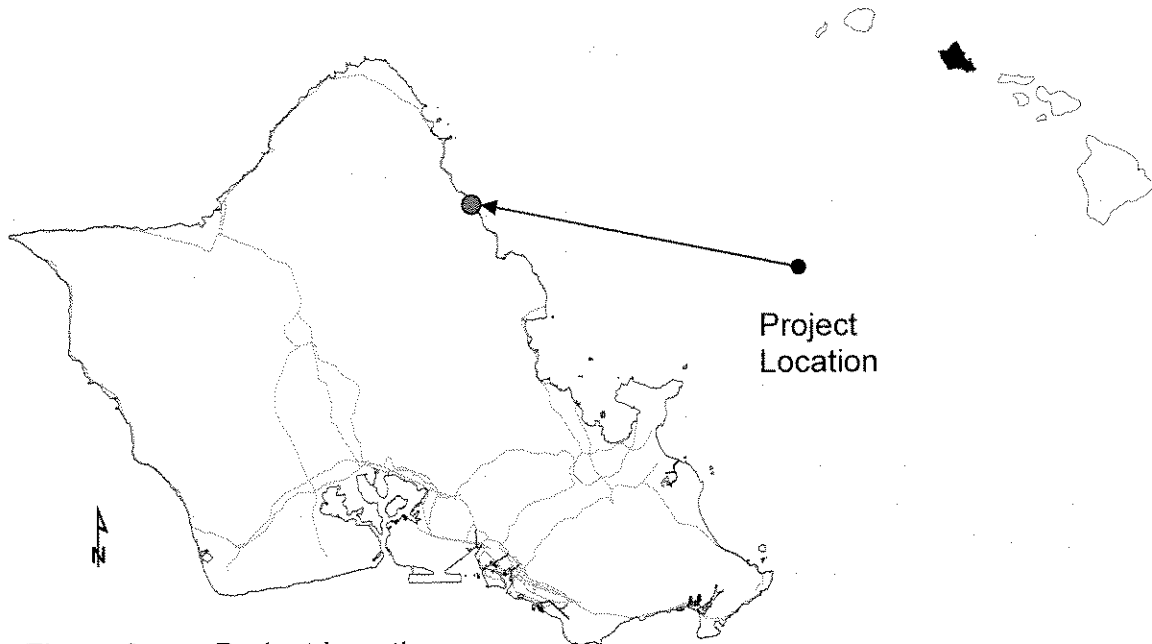


Figure 2 Project Location

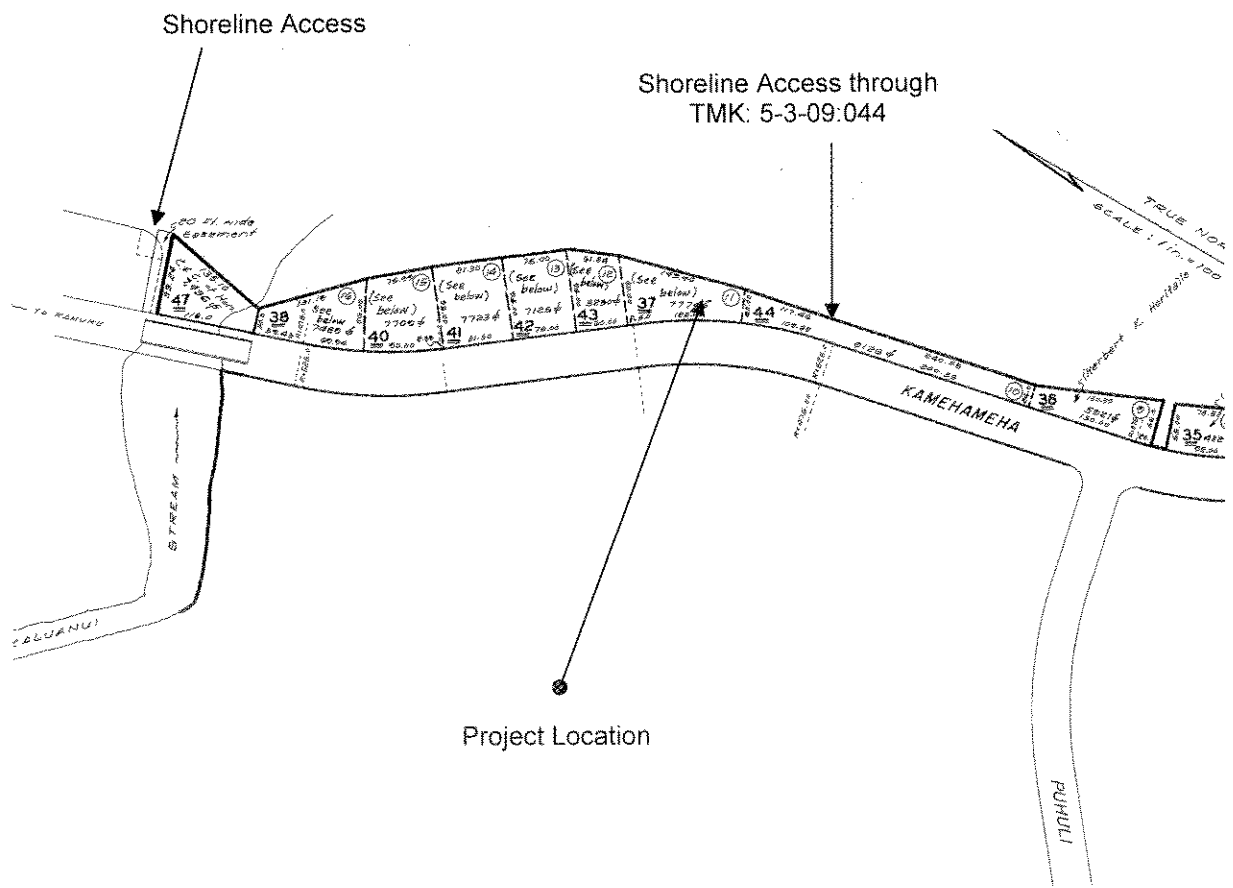


Figure 3 TMK Map

2.0 Description of the Proposed Action

2.1 Project Location

The site is located between the shoreline and Kamehameha Highway midway between Hauula Beach Park and Punalu`u Beach Park in Kaluanui Beach Lots, in the district of Ko`olau Loa, on the island of O`ahu, Hawai`i (Figures 2 & 3). It is located within a small established residential community with an approximate population of 11,000 – 12,000 people.

2.2 Existing Site Conditions

The property has an existing small single family residence that was built in 1961. This was 9 years prior to the implementation of Hawai`i's Shoreline Setback Regulations in 1970, 11 years prior to the Federal Coastal Act of 1972 and 16 years prior to State of Hawai`i legislation that provides for Hawai`i's Coastal Zone Management regulations in 1977.

The parcel is an irregularly shaped polygon, with the longest boundary running parallel to the shoreline (see Figure 3 & 4). On paper, one end of the parcel is 80-feet wide and at the other end, 40-feet wide. Approximately 10-feet of the narrow end has lost to shoreline erosion and the original parcel corner is now located on the beach. The house is sited on the northwestern corner of the property, which is the widest end of the parcel (See Figure 3 & 4). Figure 4 indicates the approximate locations of the shoreline setback combination 40 foot to 20 foot shoreline setbacks as illustrated by the Department of Planning and Permitting in April 2006. This combination of the 20-40 foot setback lines significantly diminishes the buildable area.

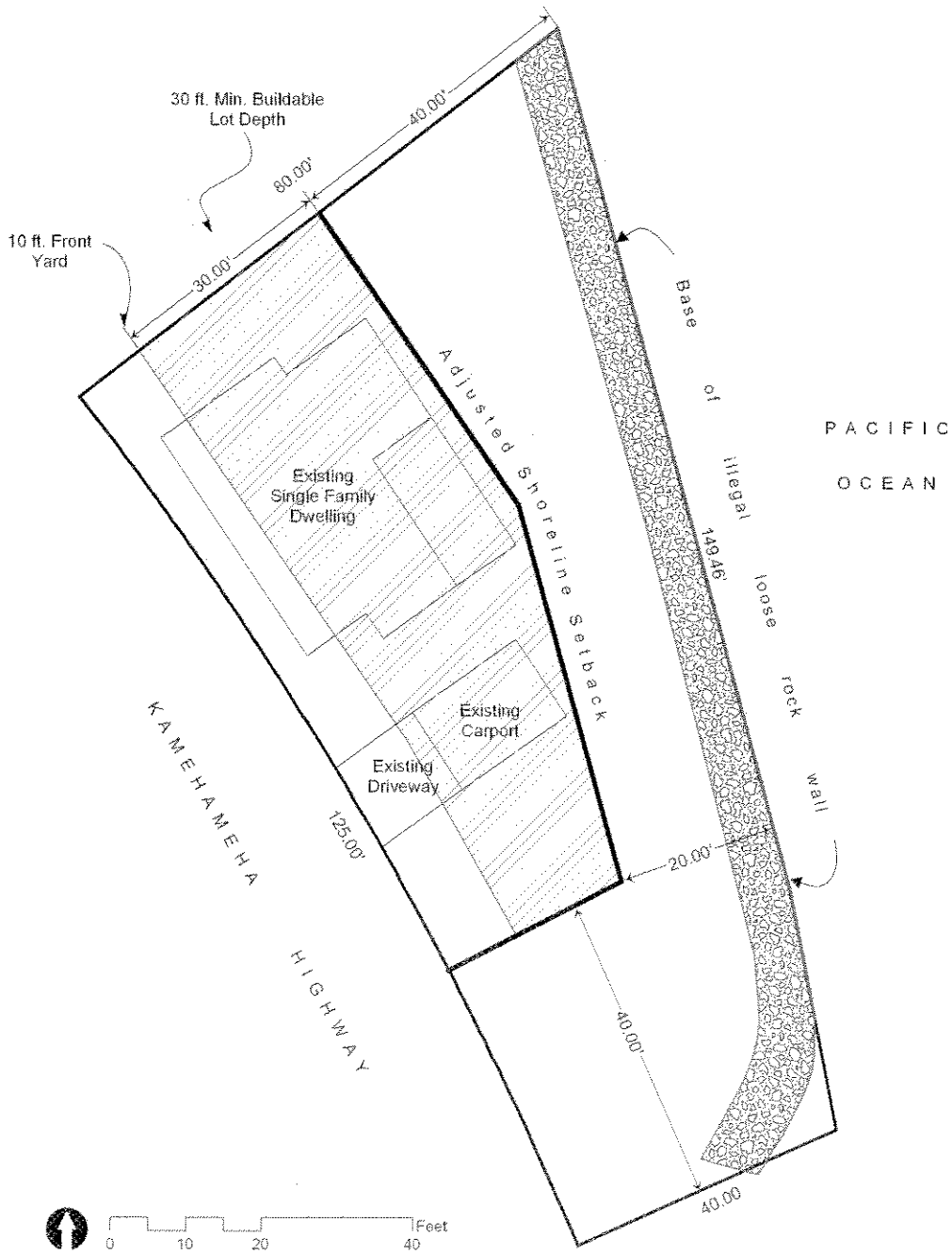


Figure 4 Plot Plan with Shoreline Setback Lines

The area covered with striping depicts the remaining buildable area. This figure is for illustrative purposes based upon information from the Department of Planning and Permitting, City and County of Honolulu, April 6, 2006

2.3 Project Features

The purpose of this EA is to allow the owner to obtain a Shoreline Setback Variance and the necessary permits to replace an existing but deficient "unauthorized" rock retaining wall with a permitted engineered seawall, to legalize the seawall and parts of existing side walls. In order to obtain government approval, the seawall must be properly designed by a licensed engineer. Although portions of the existing repaired unauthorized shoreline protective structure appear to be stable, the project engineer was unable to determine if the base of the wall was placed deep enough to prevent scouring and undermining from storm wave activity. It is also not known if the wall was designed to retain the 6 plus feet of shoreline embankment. The stacked rocks on the southern end of the property's shorefront are starting to unravel, and continuing erosion will ultimately undermine the sidewall.

2.3.1 Technical Characteristics

The proposed structure is designed by Tanimura & Associates, Inc. (Figures 5 & 6). The new engineered wall will be placed mauka of the shoreline identified by a representative from DLNR on May 4, 2006 (Appendix C). The base of the seawall will be excavated and placed at 4-feet below mean sea level (msl) (3-feet below mean low, low tide), or shallower if consolidated rock underlies the beach sand. The bottom width of the wall is approximately 6-feet and the top of the seawall will be at 6-feet above msl, equal to the grade of the property. The top cap of the wall is curved to deflect wave splash away from the wall.

In accordance with LUO Section 21-4.40 no portion will exceed six (6)-feet in height as measured from the 'existing or finish grade whichever is lower', as illustrated on the engineered plans. (See figure 6 Cross Section of the Proposed Seawall)

Boulders and rocks from the illegal seawall will be re-used in constructing the new wall. Boulders and rocks from the existing unauthorized seawall, including those that have fallen from the wall onto the beach, will be removed from their current locations and stockpiled on the parcel (TMK 5-3-09:037) until they are used in the engineered seawall. The existing sidewall adjacent to TMK 5-3-09:044 will be removed and the proposed seawall will be constructed with a flank wall to protect the property from continued erosion and damage to that end of the parcel.

As stipulated in the LUO under Sections 21-4.4(c) and (d) a safety railing may be erected on top of any retaining wall within a required yard. The LUO also states that it must be constructed of a material different from the material that makes up the retaining wall and be open so it does not contain any earth. Therefore a vinyl fence will be placed on the top of the seawall to provide privacy screening for the residence. No other safety railings are contemplated along other parts of the new seawall.

Removal of the deficient **unauthorized** seawall and excavation along the shoreline boundary will require removing approximately 4,782-cubic feet (174-cubic yards) of material. Removal of the side wall and excavation along the southern boundary (along TMK 5-3-09:044) will require the removal of approximately 1,280-cubic feet (47-cubic yards) of material. These calculations are based upon the dimensions of the engineered replacement wall. The actual amount of material to be removed depends upon the depth of the preexisting wall and whether consolidated sediment or bedrock is encountered at a higher elevation, it is anticipated that the final amount of material excavated will vary from the approximations given here.

Most of the material to be removed is the rock that makes up the non-engineered **unauthorized** wall. Until excavation begins, the volume of rock, sand and soil to be excavated can not be precisely calculated. Removed material will be stockpiled on TMK: 5-3-09:037. All beach sand that is excavated will be replaced on the makai site of the new wall. If the amount of sand removed is not equal to the amount of sand that is to be replaced the trench will be back filled with crushed coral sand from a local distributor on Oahu and topped with beach sand removed during construction.

Rock from the deficient **illegal** wall will be reused to construct the engineered wall and the remaining material will be used to back fill the trenches on the mauka side of the wall. Cut and fill will not be balanced. Wave action has removed sand and soil from areas behind the current "illegal" structure and more fill may be required to infill the area behind the new seawall. If additional material is required crushed rock and top soil will be used on the mauka side of the new wall. Materials for filling in the mauka side of the wall will be obtained from one of the topsoil and rock distributors on Oahu. All materials will be obtained by the licensed contractor that is hired to remove the **unauthorized** wall and rebuild the engineered wall.

Dewatering equipment and sheetpile will be installed on an as needed basis. All work will conform to the "Standard Specification for Public Works Construction" of the City and County of Honolulu. The contractor will phase the work or otherwise provide for protection of the property against erosion during the construction period. Existing beach access should not be affected during the construction phase.

2.3.2 Economic Characteristics

When Shoreline Setback Variance is granted and the seawall is built, it will maintain the value of TMK: 5-3-09:037 and provide short-term jobs during the removal of the **illegal** structure and construction of the engineered seawall. Overall, no jobs will be lost or gained.

2.3.3 Social Characteristics

Kaluanui Beach Lots is a small residential community along the coast that was developed in the early 1960's. All of the parcels are small and provide homes to the residents of the community including the project site.

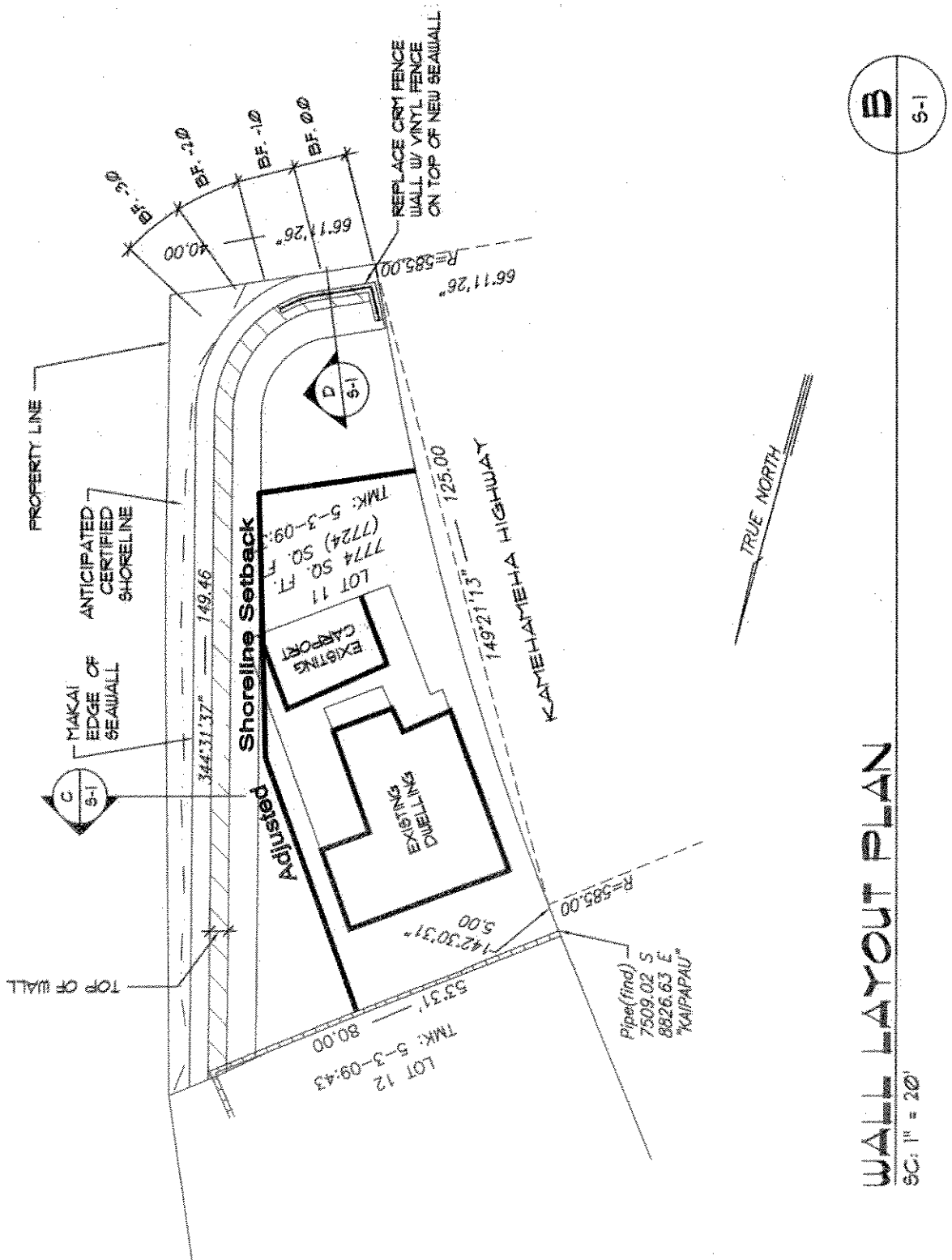


Figure 5 Wall Layout Plan

Shows the location of the house and carport with respect to the proposed seawall, the sidewall adjoining TMK: 5-4-09:044 that will be replaced and the adjusted shoreline setback.

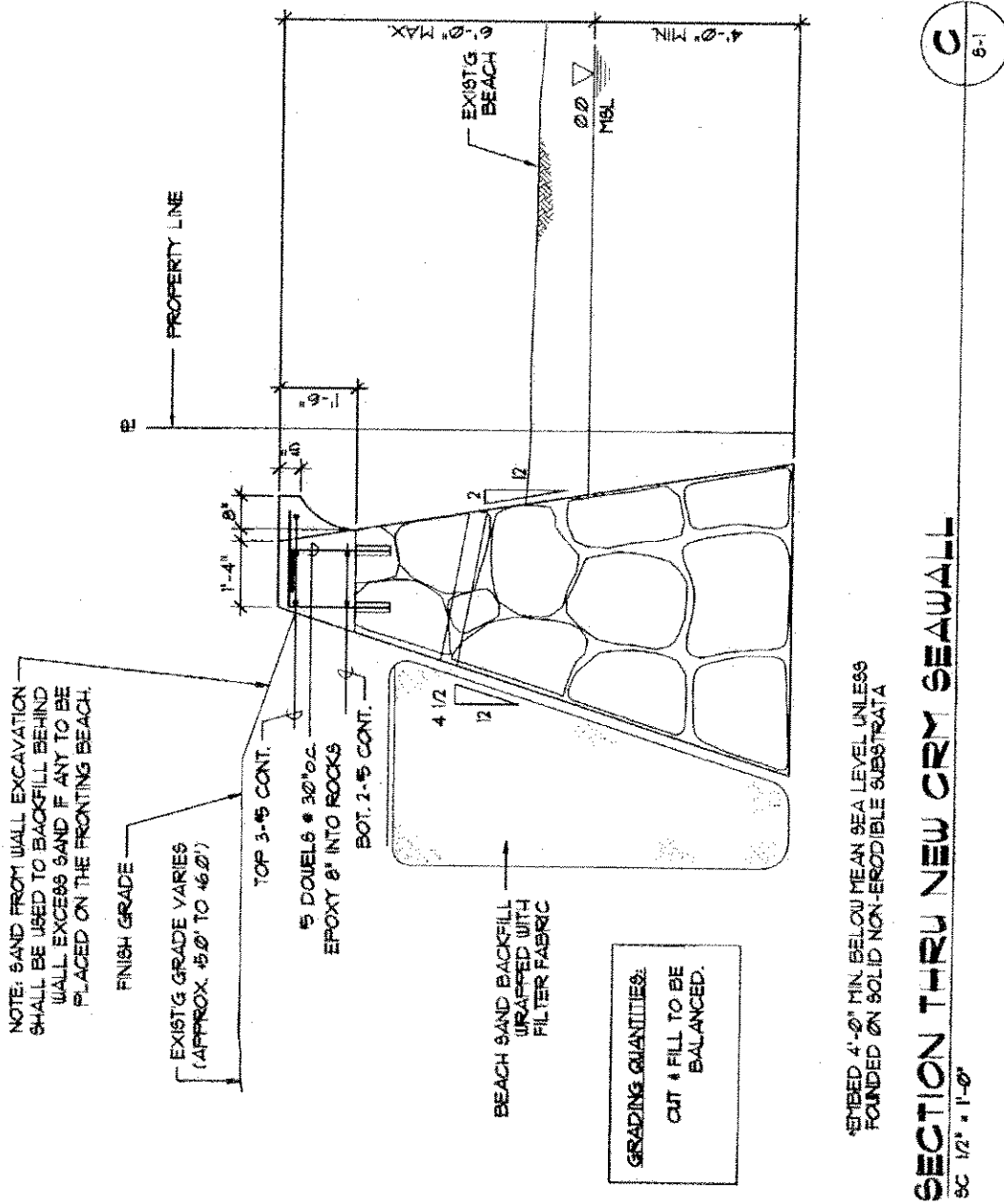


Figure 6 Cross Section of Proposed Seawall

3.0 Affected Environment

The site is located on a gently sloping, narrow wave cut platform that extends from the shoreline to the base of the Ko`olau Mountain Range. Much of the wave cut platform is subdivided for residential, agricultural and some small business use. Kamehameha Highway runs parallel to the Mountain Range and roughly follows the contours of the coastline.

3.1 Geology & Soils

The coastline in the vicinity of Punalu`u skirts a steep mountain that follows the northwest rift of the Ko`olau Volcano. The steepness is due to the proximity of the rift zone and the Nu`uanu Slide that eliminated much of eastern O`ahu. This slide resulted from the collapse of the eastern half of the Ko`olau Volcano, which slid into the sea. Over time, streams eroded and dissected the slide face. Later during the last high stand of sea level, waves eroded it away to create a narrow wave cut platform and an abrupt precipitous coastal mountain front (McDonald, Abbott & Peterson, 1983).

The narrow wave cut platform is an area that begins just above sea level and gently slopes to the base of the eroded Ko`olau Range (Hazlett & Hyndman, 1996). The platform forms a narrow coastal plane that is covered by soils typical of alluvial fans and talus slopes at the base of the mountain ranges and wave cut platforms along the coast.

Soils close to the shoreline are Jaucas Sand (JaC), found on slopes ranging from 0 to 15 percent. It is pale brown, sandy and often more than 60 inches deep. It may also be dark brown depending upon the amount of organic material incorporated in the soils. Permeability is rapid and runoff is slow to non-existent. The grain type ranges from sand to fine sand to loamy sands. It is characteristic of well-drained calcareous soils that occur as narrow strips of coastal planes adjacent to the ocean. It is the product of wind and water deposited sand that is composed of coral, shell and rock fragments. Jaucas Sand (JaC) tends to be easily eroded and forms very unstable embankments due to the instability of the packing of rounded sand grains (U.S. Department of Agriculture Soil Conservation Service, 1972).

3.2 Beach & Offshore

In accordance with the guidelines for a Shoreline Setback Variance outlined by the Department of Planning and Permitting, City and County of Honolulu, a Coastal Engineering Assessment was prepared by EKNA Services, Inc for the proposed seawall (Appendix B). This report and other pertinent literature is referenced throughout this section.

The coastline is dominated by low, flat to gently sloping beaches with broad shallow fringing reefs extending offshore. The region is extensively developed and the beaches suffer from episodic erosion. Seawalls, revetments and groins have been constructed to protect coastal properties (Fletcher, Grossman, Richmond & Gibbs).

The beach is made of very fine-grained sand composed of calcium carbonate grains and lithic particles. The slope of the beach face is very flat to gently sloping and the water is very shallow over a well-developed fringing reef that ends around 5,000 feet offshore.

3.2.1 Affected Shoreline

The portion of the coast between Punalu`u and Hau`ula is eroding due to sea level rise and a low rate of biological activity that produces calcareous sand. The data from *Oahu Shoreline Study Part I Data on Beach Changes* indicates a net erosion of 16 feet at the location of the subject property for the period of 1949-1988, yielding an average annual rate of erosion of 0.41-feet/year. However, since large storms that cause significant amounts of erosion are episodic, erosion does not occur on a regular yearly schedule. If the area is hit by a large storm, many years worth of erosion can take place in a few hours or a few days during one storm event.

All of the private properties along this section of the coastline have been protected by structures to prevent the loss of property and dwellings. The adjacent unprotected stretch of highway is continuing to experience erosion and will soon need to be protected as well (EKNA, 2005). The average shoreline width fronting the highway is about 10 feet.

Much of this area is protected by a fringing reef that forms a carbonate platform that begins approximately 2,000 feet offshore. The shelf drops off to a depth of 60 feet approximately 5,000 to 6,000 feet (0.95 to 1.14 mi) offshore. The reef is bisected by a few natural channels that are near the mouths of freshwater streams.

The offshore fringing reef provides some protection for deepwater wave energy (EKNA, 2005). However, during large swell activity associated with winter storms from the north to northwest, large waves do reach the shoreline. Large waves breaking over the reef cause a rise in water level known as wave set up. Also, during large storms the low air pressure allows the water to bulge up and increase the storm surge height. When large storms coincide with high tide, the storm generated waves cause the most erosion and damage to coastal structures due to the rise in sea level by high tide, wave set up and storm surge (Komar, 1976; Garrison, 1998; Aguado & Burt, 1999). The tides are semidiurnal with a mean tide range of 0.6 m (2 ft).

While these storms produce high surf, the extensive fringing reef along this stretch of Oahu's coastline produces a depth-limited breaking wave condition that expends most of the wave energy before impacting the shoreline. However, numerous shore protection structures show signs of deterioration due to the pervasive wave action

3.2.2 Beach Profile

The beach is predominately made of fine grained carbonate sand with a few lithic fragments and it slopes gently toward the sea as seen in Figures 1 & 7. Coastal erosion over the years has removed enough of the sand so there is no back beach during the winter when the waves are large, however in the summer when the waves are smaller there is still a wide gently sloping dry beach.



Figure 7 Beach Profile May 4, 2006

This illustrates the dry portions of the beach on the typically wide summer beach profile.

3.2.3 Offshore Depths

Off shore depths are approximately 3 feet deepening to 6 feet around 500 feet from shore line. From there the depth begins at 6 feet and gradually changes to a depth of 30 feet just before the reef. The reef shelf is around 1,000-feet off shore. Over the reef the water is very shallow and slowly becomes deeper at the seaward wall of the coral reef until it abruptly drops off to a depth of 60-feet at the reef wall. This drop off is approximately 6,000 feet off-shore.

3.2.4 Foreshore

The foreshore extends from 56 feet to 60 feet from the backshore to the point where the waves begin to wash into the swash zone, just at the low tide point. It is made up of fine-grained sand with a gentle slope that is typical of a low energy beach.

3.2.5 Backshore

The backshore zone is occasionally non-existent based upon the time of the year and the number of storms. During the summer there is a fringe of the backshore region that can be identified by the inland reaches of the high tide. In the winter when there are larger waves and storms, the backshore narrows.

3.2.6 Littoral Transport

Inmann & Masters described the windward coastline as consisting of a series of littoral cells delineated by headlands (convex-shaped portions of coastline) and channels (*awa*) cut through the reef near mouths of major streams (concave-shaped portion of coastline). The subject property is located within a littoral cell that includes Kaluanui Stream. Sediment input to a littoral cell is primarily contributed by the streams and fringing coral reefs, while sediment losses are primarily due to the offshore transport of the sediment in the *awa* (EKNA, 2005).

The calcareous sand in the littoral cell is generated on the reef flat by biological activity (e.g., calcareous algae, foraminifera, skeletal parts of marine invertebrates). Coral that is broken and other calcareous material is tumbled and washed on shore by wave activity, and combined with a small amount of terrestrial sediment (lithic fragments) that is brought in by Kaluanui Stream. Wave energy then transports this sand along the beach in a longshore current to the *awa*. Reduced biological activities on the reefs, together with rising sea level, are probably the reasons for the decreased production of sand. The existing beach sand is lost when it is carried offshore by currents flowing out through the *awa*. Sand that flows off shore in the *awa* is carried out into deeper water where the incoming wave energy cannot reach it and transport it back to shore. Sand that is carried off shore is then lost to the longshore system. Longshore transport of sediment is strongest when waves are high and wave energy is strong enough to suspend and move sediments along the shoreline. (Komar, 1976).

Windward O'ahu's coastlines have a discrepancy between the sand supply and sand losses that result in long term erosion. This is because there is less sand being added to the shoreline by the natural processes discussed above. Numerous studies referenced in EKNA's report *Coastal Engineering Assessment of Seawall at Hau'ula, Oahu, Hawai'i* (Appendix B of the EA) document the fact that unprotected sections of shoreline on the windward coast have eroded to the point where they are no longer "buildable". Sections of coastline where dwellings exist seaward of the highway are still in existence because they are protected by structures.

3.3 Hydrology

Water is central to many planning problems involving both the natural and altered environments. In this case, the focus is on groundwater, surface water, and flood and tsunami potential.

3.3.1 Groundwater

The narrow coastal platform under the subject property is covered with highly permeable Jaucas sand (JaC). The permeability and porosity of this soil type results in very little or no retention of groundwater. Deposits of this type on a wave cut platform along a coastline do not retain enough water to contribute to the aquifers (U.S. Department of Agriculture Soil Conservation Service, 1972).

3.3.2 Surface Water

The only surface water on the subject property are puddles that form during periods of heavy precipitation. Soils in the vicinity are too permeable to collect surface water, and surface water is only a temporary result of heavy rains (U.S. Department of Agriculture Soil Conservation Service, 1972).

3.3.3 Flood & Tsunami Potential

Flood Insurance Rate Maps (FEMA Panel 15003C0155G City and County of Oahu, Hawaii, revised June 2, 2005) indicate that the parcel is designated as Zone VE (EL 10). The map legend states that Zone VE (EL 10) is a Coastal flood zone with velocity hazard (wave action): Base Flood Elevations determined to be 10 feet above msl.

Tsunami maps for the island of O'ahu indicate that the subject property is within the tsunami evacuation area. The *Atlas of Natural Hazards in the Hawaiian Coastal Zone*, states that historic records since 1819 indicate that the area has experienced 2 tsunamis with respective heights of 12 feet above msl in 1946 and 4 feet above msl in 1964 (Fletcher, Grossman, Richmond and Gibbs, 2002).

Factors that influence how a tsunami behaves include the distance that they travel; the topography, morphology and slope of the offshore region; and the geology and morphology of the shoreline they inundate. Predicting the specific form of a tsunami at the shoreline is difficult because of these many factors. The important difference between a tsunami and a wind-generated wave is the wavelength (distance between the crests) of a tsunami. This means that as a tsunami passes an island the water level can rise for several minutes. As a result, a tsunami can cause significantly greater flooding than ordinary wind-generated waves of the same height (Fletcher, Grossman, Richmond and Gibbs, 2002).

At this location there are fringing reefs a mile off shore and shallow water that extends 1,000 feet off shore. If a tsunami should approach this part of O'ahu's shoreline, flooding can be anticipated. However, some of the tsunami's energy may be dissipated on the reef and in the shallow water before it moves inland over the shoreline.

3.4 Climate

Hawai'i has two recognized seasons. *Kau*, (May to September), is the warm season when the sun is almost directly overhead and winds are from the northeast. *Ho'oulo* (October to April) is the season that brings cooler temperatures, lower sun, variable winds and extensive rains. Hawai'i's climate is a direct result of its geographic location, 19 to 22 degrees north latitude. This puts the islands at the margin of the tropics and in the belt of trade winds and down welling of upper air. In this region, both tropical and mid-latitude storms affect the climate (Juvik and Juvik, 1998).

Topography modifies the northeasterly trade winds so the area receives winds from the east. Precipitation is also modified by the topography and the windward side receives as much as 60-inches of precipitation per year along the coast.

Temperatures are typical of those throughout the state and range from 70 to 88 degrees Fahrenheit in the summer and 60 to 83 degrees Fahrenheit in the winter.

3.5 Air Quality

Air quality is determined by ambient air concentrations of specific pollutants and compared to State and Federal Ambient Air Quality Standards (AAQS). Due to the prevailing trade winds, Hawai'i has concentrations that are far less than the national average. However, when the trade winds are weak the gas and aerosol levels in the atmosphere approach the upper limits outlined in the air quality standards. Industrial areas and heavy vehicular traffic can result in pockets where carbon monoxide (CO) levels are higher than AAQS standards. Generally, the air quality is slightly better than the state average in low industrial or agricultural areas with little vehicular traffic.

In the vicinity of Punalu'u to Hauula, the air quality is expected to be good because the area is relatively undeveloped and there are few stationary and mobile sources.

3.6 Noise

Along the coast in the Punalu'u to Hau'ula area, the major sources of ambient noise are generated by traffic on Kamehameha Highway. The noise is predominately from large trucks, buses, modified vehicles equipped with loud mufflers and large audio speakers.

3.7 Flora & Fauna

When Kaluanui Beach Lots were developed in the early 1960's, the sites were graded and vegetation was removed. Since its initial development residential landscaping and maintenance has been ongoing. The subject property, TMK: 5-3-09:037, has been used for residential purposes since 1962 and it is unlikely that there are any rare or endangered species on the site.

3.8 Historic, Archaeological and Cultural Resources

When Kaluanui Beach Lots were developed in the early 1960's, the parcels were graded and vegetation was removed. Since its initial development residential landscaping, maintenance and reconstruction have been ongoing. The subject property, TMK: 5-3-09:037, has been used for residential purposes since 1962 and it is unlikely that there are any historic, archaeological or cultural resources on the site.

There are no documented archaeological or historic sites on the project site or in the Hau'ula area. There are four listed archaeological sites within the vicinity of the project site, according to the Hawai'i Register of Historic Places.

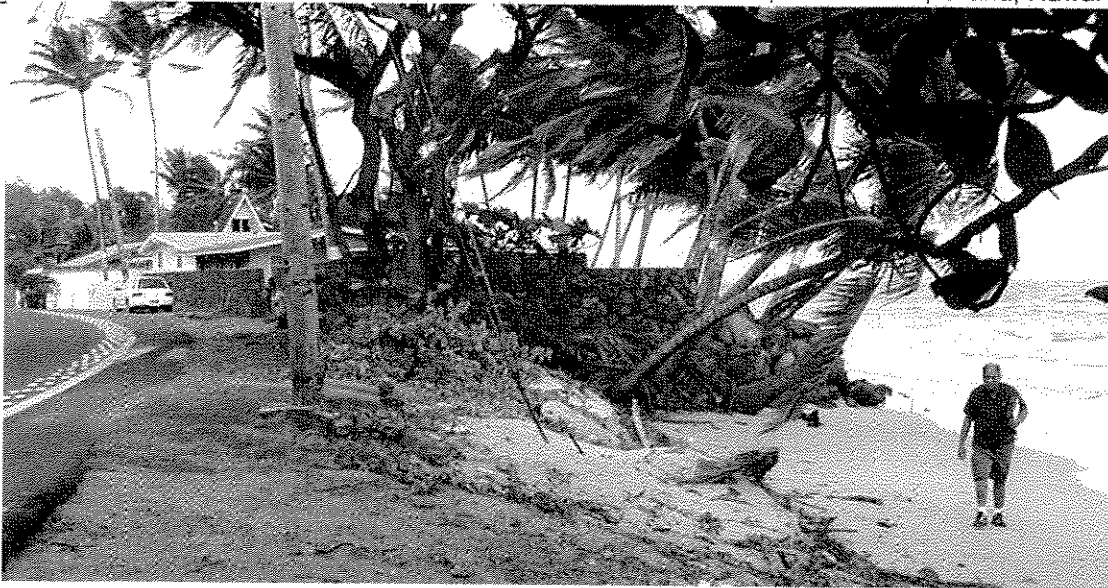
Table 1 Locations of Listed Archaeological Sites

Location	Site Number	Description
Kahana	80-06-302	Pu'u Makane Heiau (pre 1778): Possibly a small Heiau, badly deteriorated.
Punalu'u	80-06-293	Hanawao Heiau (period unknown): Remains of a large Heiau, now used as a large cemetery; deteriorated condition.
Kaipapa'u	50-051056	Upper Kaipapa'u Stream (period unknown): Area contained one platform; others reported but not surveyed due to thick vegetation.
Lā'ie	80-02-281	Nioi Heiau Complex (pre 1778): Heiau with unusual features; deteriorated condition; some research potential.

Source: State Department of Land and Natural Resources

The nearest site is the Upper Kaipapa'u Stream, which runs through the Kaipapa'u Forest Reserve and flows into the ocean 1 mile north of Hau'ula Beach Park. The remaining sites are situated more than 1 mile away in Kahana, Punalu'u and Lā'ie.

The subject property's owner, Ute Uebel, has observed people accessing the beach from the adjacent parcel TMK: 5-3-09: 044 to go fishing. Fishing techniques include fishing poles, metal spears and occasionally a throw net. Most activity on the beach is when neighbors go for a walk. These observations concur with those of her neighbor, Mr. Keawe. Mr. Keawe also has observed people walking on the beach and most of the fisherman using a "rod and reel" to fish. Mr. Keawe also stated that he doesn't know of any specifically cultural uses; however, once he did see some people scattering ashes from a small boat off shore.



A. View from Kamehameha Highway December 3, 2004 showing the badly eroded TMK: 5-3-09:044. The new engineered seawall with a new vinyl fence on top of it for privacy will provides views similar to this photograph.



B. December 3, 2004 the existing illegal temporary seawall that is beginning to come apart at the corner. The vertical pipe represents the corner of the parcel. At high tide

Figure 8 Beach Profile December 3, 2004

3.9 Land Use

The site is zoned R-5 residential according to the Land Use Ordinance of the City and County of Honolulu. The purpose of the R-5 district is to provide areas for urban residential development and these districts are found throughout the Island. R-5 zoning allows for a minimum of one single family residence on a lot no smaller than 5,000 sq. ft. The subject property has one single family residence and a one-automobile carport and is in compliance with the R-5 zoning.

The site is also within the Special Management Area (SMA) known as the Coastal Zone Management Area (CZMA). The SMA was set up after and based upon the Federal Coastal Act of 1972. HRS Chapter 205 A, sets the guidelines for shoreline management. Provisions for obtaining a Shoreline Setback Variance are provided in §205A-46 Variances. The chapters applicable in this case are ROH Chapter 23 Article 1 Shoreline Setbacks, Sec. 23-1.4 which defines a shoreline setback line, Sec.23-1.8 outlines the criteria for granting a variance and Sec. 23-1.9 provides the conditions on variances.

Another regulatory designation is that of Coastal High Hazard District which provides guidelines for building within this District. This applies to the design of new structures and the alteration of sand dunes and mangrove stands that would increase flood potential. These regulations are not applicable to the proposed action, replacing an **unauthorized** coastal protection structure with an engineered seawall and a sidewall for privacy.

In *The Ko'olau Loa Sustainable Communities Plan*, the Ko'olau Loa shoreline extends for over 20 miles between Ka'a'awa Valley and Kawela Bay. In the Plan, Section 3.1.3.2 Shoreline Areas lists guidelines for the region's shoreline. Included are the following two guidelines, which are applicable to the proposed action.

"Require additional minimum setbacks for structures near the shoreline and implement other management strategies to protect unstable sandy beach areas that impact Kamehameha Highway along the Ka'a'awa, Punalu'u and Hau'ula shorelines."

"Protect near shore coral reefs from damaging activities such as soil erosion, non-point source pollution, dredging, and alterations to near-shore water circulation."

The proposed action supports and advances the purposes of these two guidelines. First, the subject property is directly adjacent to a parcel that has eroded so far inland; that in places the shoreline is less than 10 feet from Kamehameha Highway. Granting a minimum shoreline setback variance for the applicant and allowing the construction of an engineered seawall would help in preserving the adjacent parcel and would result in a shorter segment of unstable beach along Kamehameha Highway that would need to be protected. Secondly, the construction of an engineered seawall would stop soil erosion from the parcel and thus protect the reef from additional fine grained sediment which smothers the coral polyps.

3.10 Circulation and Traffic

The site is located along Kamehameha Highway which is the main route around the western end of O'ahu. It is also the only route available to reach Honolulu or any other point on the island. Traffic on Kamehameha Highway can be heavy on weekends and during peak commuting hours.

3.11 Public Services and Facilities

Water & Wastewater

The residence is connected to municipal water and sewer lines. There will be no increase in water or sewage use.

Solid Waste

Solid waste generated at the residence is either recycled or picked up by the regular garbage pick-up in the neighborhood.

Drainage System

Soils in the vicinity have a very high percolation rate. This results in very little runoff and eliminates the need for a drainage system surrounding the site.

Electrical and Communications

The residence is connected to electrical and phone lines already in-place along Kamehameha Highway. There will be no change in usage.

3.12 Visual Resources

Presently there is a temporary **unauthorized** seawall protecting the parcel from erosion and a rock wall for privacy as shown in Figure 7 & 8. The proposed engineered seawall will be constructed of natural rock from the temporary **illegal** shore line protective structure. The applicant also intends to place a vinyl fence on top of the flanking seawall adjacent to TMK: 5-3-09:044 for privacy. The new engineered seawall and the new sidewall will have a similar appearance to the existing walls in Figure 7, 8 & 9. Currently the only views of the shoreline from Kamehameha Highway are available from the adjacent parcel, TMK 5-3-09:044. There are no shoreline views from Kamehameha Highway through the subject property, TMK: 5-3-09:037, because of the property's street-front wall that runs parallel to Kamehameha Highway. This is the case for all of the developed parcels along this segment of the highway. **Current views from the shoreline are illustrated in Figure 7.**

As proposed, the seawall and the reconstruction of the side wall is in agreement with the *Ko'olau Loa Sustainable Communities Plan*, Section 3.1.3.2 Shoreline Areas. It will also be in agreement with the condition outlined in Sec. 23-1.9 (d) that provides a condition on a variance to minimize adverse impacts on public views to, from and along the shoreline. **The project will not alter the views from the shoreline or Kamehameha Highway.**

3.13 Socio-Economic Resources

Kaluanui Beach Lots are used as single family residences. There are a few small businesses, a retirement home, and a small hotel in the Punalu'u - Hau'ula

area that provide some employment opportunities. Many residents commute to other areas for work.

The *Ko'olau Loa Sustainable Communities Plan* recommends that existing older housing stock should be rehabilitated and brought up to code, and that new housing is needed for Ko'olau Loa residents. The replacement of the existing **unauthorized** deficient seawall will allow a single family residence to continue to be used and protect it from coastal erosion.

The *Ko'olau Loa Sustainable Communities Plan* section on Shoreline Areas recommends maintaining the existing mauka-makai and lateral access ways, and protecting stretches of unstable sandy beach that can impact Kamehameha Highway. As proposed, the project will not change the existing access and may even help to protect Kamehameha Highway.

4.0 Environmental Consequences of the Proposed Action

4.1 Geology and Soils

It is anticipated that the construction of an engineered seawall and a shoreline setback variance will have no significant impact on the geology and topography of the area.

A shoreline setback variance will have no impact on the soils. However, during construction of the engineered seawall, some of the yard will have to be dug up and replaced. It is anticipated that there will be no significant impact on the soils.

4.2 Beach & Offshore

Beaches can often be profoundly changed or altered by the construction of a seawall. However, in this case the proposed action is to obtain a Shoreline Setback Variance to replace an existing, but deficient **unauthorized** seawall.

In accordance with the guidelines for a Shoreline Setback Variance outlined by the Department of Planning and Permitting, City and County of Honolulu, a Coastal Engineering Assessment was prepared by EKNA Services, Inc (Appendix B) for the proposed seawall. The EKNA report and other pertinent literature are referenced throughout this section.

4.2.1 Affected Shoreline

The existing illegal seawall and the proposed permitted engineered seawall will not alter the existing littoral processes affecting the site. The result of protecting the shoreline will be loss of the beach in front of the property as erosion progresses. This will continue to occur regardless of the type of shore protection used (EKNA, 2005).

4.2.2 Beach Profile

The beach is wide at low tide and slopes gently toward the sea as seen in Figures 7 & 8. The existing seawall and the proposed new seawall will not alter the existing littoral processes affecting the site. The result of protecting the shoreline will be the eventual loss of the beach in front of the property as erosion progresses. This will continue to occur regardless of the type of shore protection used (EKNA, 2005).

4.2.3 Offshore Depths

The proposed Shoreline Setback Variance and construction of an engineered seawall will not alter or change the depths offshore.

4.2.4 Foreshore

The foreshore extends 56 to 60 feet from the backshore to the point where the waves begin to wash up to the swash zone. The sand is fine-grained calcareous sand that is typical of the beaches in the area. The foreshore region is formed and affected by the same littoral processes that affect the beach and it is anticipated that the foreshore area will reflect beach profile changes.

4.2.5 Backshore

The backshore area will be temporarily affected during the demolition of the existing unauthorized deficient seawall and during the construction of a permitted engineered seawall. Since the backshore zone is very narrow to non-existent depending upon the time of year and the location, it can be anticipated that the backshore region will become entirely non-existent as long as erosion continues, regardless of the type of shore protection used.

4.2.6 Littoral Transport

The existing seawall and the proposed new engineered seawall will not alter the existing littoral processes affecting the site.

4.3 Hydrology

4.3.1 Groundwater

There are no sources of groundwater on the subject property; therefore, the Shoreline Setback Variance and the construction of an engineered seawall will have no significant impact on the groundwater.

4.3.2 Surface Water

Since the soils are porous and there is no ponding or flow of surface water on the subject property, it is anticipated that there will be no significant impact on surface water.

4.3.3 Flood Potential

Flood Insurance Rate Maps (FEMA Panel 15003C0155G City and County of Oahu, Hawaii, revised June 2, 2005) indicates that the parcel is designated as Zone VE (EL 10) as a Coastal flood zone with velocity hazard (wave action): Base Flood Elevations determined to be 10 feet above mean sea level.

According to the *Atlas of Natural Hazards in the Hawaiian Coastal Zone* historic records since 1819 indicate that the area has experienced 2 tsunami waves with heights of 12 feet above msl in 1946 and 4 feet above msl in 1964.

It is anticipated that the construction of an engineered seawall will not change the flood potential. If a tsunami or storm surge should approach this part of O'ahu's shoreline, flooding can be anticipated.

4.4 Climate

The scope of the project and area affected is so small that it is extremely unlikely that the proposed action could have any potential impact on climate.

4.5 Air Quality

Potential emissions from equipment used during the construction of the engineered seawall may temporarily affect the air quality. Once the engineered seawall is complete there will be no permanent impact or change in the air quality.

4.6 Noise

During the construction phase of the engineered seawall, there will be an increase in sound levels. Once construction is completed, ambient noise levels will be exactly the same as present conditions with most of the noise coming from the traffic on Kamehameha Highway.

4.7 Flora & Fauna

Since the parcel was developed and landscaped in the mid 1960's, it is unlikely that there are any rare or endangered species on the site. There will be no significant impact on the flora and fauna.

4.8 Historic, Archaeological and Cultural Resources

Since the parcel was developed and landscaped in the mid 1960's, it is unlikely that any historic, archaeological and cultural resources exist on the property or that any will be impacted by the proposed action. The State Historic Preservation Division, the Office of Hawaiian Affairs, neighbors, and a Ko'olau Loa Neighborhood Board member have been contacted regarding archaeological and cultural impacts of the proposed action. (See Section 9.0 Public and Agency Involvement, Review and Consultation).

Should significant archaeological features be uncovered, construction will be immediately halted, and archaeological consultation will be sought with the

Department of Land and Natural Resources Historic Preservation Division in accordance with applicable regulations.

4.9 Land Use

The proposed action will result in no significant changes to land use. The parcel will continue to be used for a single family residence. A delineated shoreline approved by DLNR and a Shoreline Setback Variance that allows the replacement of a deficient seawall will help to protect the residence and insure continued use of the parcel.

ROH chapter 23 Article 1 Shoreline Setbacks outlines the rules for setting a setback line and the criteria for obtaining a variance. In this case the landowner is eligible for applying and obtaining a variance as outlined in Section 23-1.8 (b) (3) Hardship Standard. Section 23-1.9 sets the conditions on variances and the applicant will comply with those conditions.

HRS Chapter 205 A on Coastal Management provides guidelines for granting a variance in §205A-46 Variances. Again the applicant meets the criteria for obtaining a variance .

This is also in agreement with the *Ko'olau Loa Sustainable Communities Plan* Section 3.1.2 Shoreline Areas that provides the guidelines for the coastline. This section states:

“Require additional minimum setbacks for structures near the shoreline and implement other management strategies to protect unstable sandy beach areas that impact Kamehameha Highway along the Ka'a`awa, Punalu`u and Hau`ula shorelines.”

4.10 Circulation and Traffic

There will be a slight increase in traffic to the subject property during construction of the seawall. Once construction is complete, there will be no significant increase in the traffic or changes in circulation.

4.11 Public Services and Facilities

4.11.1 Water and Wastewater

There will be no change in water use and there will be no impacts to the water supply in the area. The amount of wastewater generated is not likely to increase since the site will continue to be used for a single family residence. Therefore, there will be no impacts to wastewater systems.

4.11.2 Solid Waste

The site will continue to be used as a single family residence and there will be no change in the amount of waste generated.

4.11.3 Drainage System

Currently due to the porosity of the soils there is no runoff. Since the use of the parcel remains the same, there should be no increased runoff.

4.11.4 Electrical and Communications

The parcel will continue to be used as a single family residence and there will be no additional use of electricity or the need for additional communications systems.

4.12 Visual Resources

Private properties developed with residences lie between the coastal highway and shoreline in the area. It is not possible to see the shoreline through these developed parcels. There is a vacant lot, TMK: 5-3-09:044, adjacent to the subject property that provides viewshed and public access.

It is anticipated that there will be no significant changes in the visual resources. This is in agreement with Sec. 23-1.9 (d) Conditions on Variances and the *Ko'olau Loa Sustainable Communities Plan*, Section 3.1.3.2 Shoreline Areas. The project will not alter the views from the shoreline or from Kamehameha Highway. Current views are shown in figures 7 and 8, and figure 9 illustrates conceptual views of the proposed seawall.

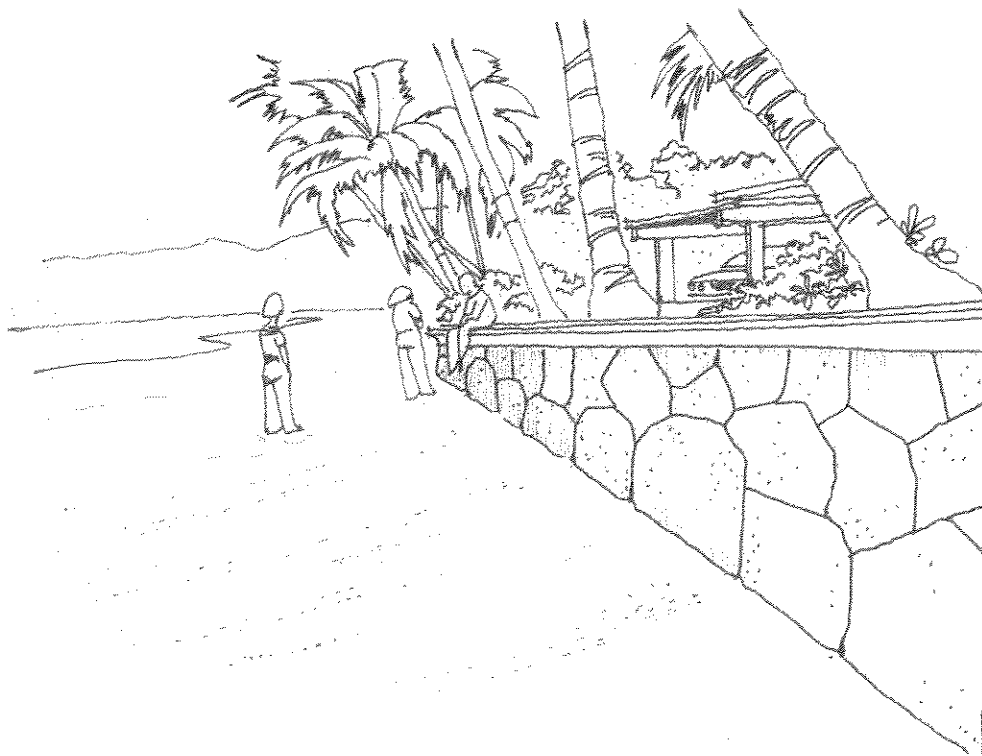


Figure 9 Rendering of Proposed Seawall

4.13 Socio-Economic Resources

The *Ko'olau Loa Sustainable Communities Plan* addresses housing and small communities by recommending that the existing older housing stock should be rehabilitated and brought up to code and that new housing is needed for Ko'olau Loa residents.

As proposed, the shoreline setback variance and the construction of an engineered seawall will preserve a small single family residence in Kaluanui Beach Lots and will not decrease the amount of housing in the Ko'olau Loa region.

The sustainable communities plan section on Shoreline Areas recommends maintaining the existing *mauka-makai* and lateral access ways. As proposed, the project will not change the existing access in compliance with Sec. 23-1.9 (a) Conditions on Variances.

There will be a few new jobs created during construction of the seawall; this will be a short-term, temporary effect. Overall, there will be no significant change in the socio-economic environment.

5.0 Evaluation of Alternatives

Provisions of Title 11 Chapter 200, Hawai'i Administrative Rules, Department of Health outline specific requirements for an EA. One of the objectives delineated in Title 11 Chapter 200 is to evaluate alternatives to the proposed project including the "no action " alternative.

5.1 No Action

This is not a viable alternative for many reasons. First, if the Shoreline Setback Variance is not obtained and the engineered seawall is not constructed, the property owner will not be able to pay for the continuous civil fees charged by the City and County for the shoreline setback violation and will ultimately lose her home. Second, the current shoreline protective structure is already beginning to fail. When it does fail, the unconsolidated soils will be removed rapidly by wave action until the house is undermined and collapses onto the beach causing distress to the owner as well as creating a public hazard on the beach. Third, erosion will continue until Kamehameha Highway is undermined and collapses on the beach.

5.2 Removal of the Existing Shoreline Protective Structure

This is not a viable alternative for two reasons. First, if the current shoreline protective structure is removed the unconsolidated soils will rapidly be removed by wave action until the house is undermined and collapses on to the beach causing distress to the owner as well as creating a public hazard on the beach. Second, erosion will continue until the entire parcel is gone and Kamehameha Highway is undercut by wave action and collapses on the beach, thus creating another public hazard.

5.3 Soft Shore Protection

Soft shore protection measures such as beach nourishment or constructing protective sand dunes are not feasible for a single homeowner. This is the most costly alternative due to the large quantities of sand required. Beach nourishment would be required for a long stretch of shoreline extending far beyond the subject parcel because wave energy would quickly redistribute the sand unless groins were emplaced to contain the sand. In Hawai'i, government agencies responsible for recreational beach resources can rarely afford to use beach nourishment for public beach parks or publicly accessible beaches. Also, beach nourishment would require the involvement of all property owners within the littoral cell and would require huge quantities of suitable beach sand. The cost would not be feasible for all of the homeowners combined and impossible for one homeowner.

5.4 Rock Revetment

Rock revetment shore protection is typically recommended for use on sandy shorelines where the sloping face and permeability reduce the wave energy reflection and impacts on littoral processes. A sloping rock revetment would have a considerably larger foot print and would occupy more horizontal space on the shore. This is not viable because of the limited land area between the house and the seaward property line.

5.5 Preferred Alternative

Obtaining a Shoreline Setback Variance, and constructing an engineered seawall to protect the property from further erosion is the **preferred alternative**. The action would clear a continuing violation and allow for the continued use of the parcel as a single family residence. Of all the alternatives considered, the preferred alternative will cause the least amount of damage to the existing residence, the least impact on the beach environment and is financially feasible for the owner. A Shoreline Setback Variance to allow the construction of an engineered seawall to protect the house, carport, yard and landscaping from erosion during winter storms is the best viable alternative that conforms to ROH Chapter 23.

6.0 Findings and Determinations

Based upon the information presented in this document, the proposed Shoreline Setback Variance and the construction of an engineered seawall will have no significant environmental impacts. This determination is based upon criteria outlined in Chapter 343, HRS, as amended, and Title 11 Chapter 200 HAR 1996.

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

The project does not involve a loss or destruction of any natural or cultural resources. There are no rare or endanger species and there are no cultural sites on the parcel.

(2) Curtail the range of beneficial uses of the environment.

The project does not restrict the range of beneficial uses of the environment. There will be no change in public access and public access to the shoreline will continue to be available on the adjacent parcel.

(3) Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 343, HRS; and any revisions thereof and amendments thereto, court decisions, or executive orders;

As proposed the project is in compliance with the State's long-term goals and guidelines as expressed in Chapter 343, HRS.

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

As proposed the project does not significantly impact the economic or social welfare of the community or state. The seawall will have some positive economic impact to the applicant and the neighbors by preventing further erosion and loss of land.

(5) Substantially affects public health;

As proposed the project does not impact public health.

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

As proposed the project does not have secondary effects such as changes in demographics and infrastructure. No new infrastructure will be required and the demand on the existing infrastructure will not change.

(7) Involves a substantial degradation of environmental quality;

The project as planned does not result in the significant degradation of environmental quality. It will not degrade water quality, nor impact marine or terrestrial flora and fauna. It will permit landscaping mauka of the wall, improving the visual and aesthetic nature of the shore, and it will remove existing rubble on the beach. The proposed wall will be consistent with all of the protected properties along that portion of the shoreline.

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

As proposed there are no cumulative adverse effects on the environment or the need for larger actions on the site.

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

As proposed the project does not impact any rare, threatened, or endangered species or its habitat. There are no rare or endangered species on the parcel.

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

As proposed the project does not have any adverse impacts on air, water quality or ambient noise levels. There may be a temporary rise in noise levels, therefore construction activities will be restricted to 7:30 am to 5:00 pm Monday through Friday. No material will be placed in the nearshore water. No debris, petroleum products, or other construction related substances or materials will be allowed to flow, fall, leach or otherwise enter the coastal waters. All construction material will be free of contaminants or pollutants. Best Management practices will be followed during construction to minimize environmental pollution and damage.

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

The beach slopes gently toward the sea as seen in Figure 7. The proposed new seawall will not alter the existing littoral processes affecting the site. The result of protecting the shoreline will be the eventual loss of the beach in front of the property as erosion progresses. This will continue to occur regardless of the type of shore protection used (EKNA, 2005).

Flood Insurance Rate Maps (Panel 15003C0155G City and County of Oahu, Hawaii, revised June 2, 2005) indicate that the parcel is designated as Zone VE (EL 10). Map legends state that Zone VE (EL 10) is a "Coastal flood zone with velocity hazard (wave action): Base Flood Elevations determined to be 10 feet above mean sea level." According to the *Atlas of Natural Hazards in the Hawaiian Coastal Zone*, historic records since 1819 indicate that the area has experienced 2 tsunami waves with respective heights of 12 feet above msl in 1946 and 4 feet above msl in 1964. It is anticipated that the construction of an engineered seawall will not change the flood potential. If a tsunami or storm surge should approach this part of O'ahu's shoreline flooding can be anticipated.

The wall will provide erosion and wave protection for a small single family residence.

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

The project as planned does not substantially impact scenic vistas and view planes because there will be no change in the view shed. Private property that is developed with homes lie between the coastal highway and shoreline in the area and it is not possible to see the shoreline through these developed parcels. There is a vacant lot TMK: 5-3-09:044, adjacent to the subject property, which provides viewshed and public access. Views from the beach (figure 7 & 9) and from Kamehameha Highway will not be changed.

(13) Requires substantial energy consumption.

As planned the proposed action does not require long-term additional consumption of energy.

7.0 Construction Mitigation Measures

The following best Management Practices will be adhered to during construction.

1. The contractor shall perform work in a manner which minimizes environmental pollution and damage as a result of construction operations. Environmental resources outside the limits of construction shall be protected during the construction period.
2. The Contractor shall confine all construction activity to areas defined by the construction plan. No construction material shall be placed or stockpiled outside of the immediate area of construction.
3. All construction materials shall be free of contaminants or pollutants.
4. No debris, petroleum products, or other construction-related substances or materials will be allowed to flow, fall, leach or otherwise enter the coastal waters.
5. All excavated material will be placed on the parcel behind the excavation and contained within soil or sandbag berms to prevent runoff back into coastal waters.
6. All of the material excavated for the construction of the engineered seawall will be used to backfill around the new seawall. It is not anticipated that there will be an excess of beach quality sand to provide for Small-Scale Beach Nourishment (SSBN) and a permit will not be required.

Should any bones or Native Hawaiian cultural or traditional deposits be found during construction activities work will stop and the State Historic Preservation Division will be notified.

Public access along the shoreline during construction activities will be maintained so far as practicable and within the limitations necessary to insure safety.

8.0 Shoreline Setback Variance Justification

The applicant would like to build a permitted engineered seawall to protect her property from destruction by erosion. The hardship under consideration in this application is the prohibition against constructing shoreline protection structures.

The shoreline at this project site is subject to erosion during storms as evidenced by the storm in November 2003 that damaged the pre-existing illegal rock and rubble shoreline structure. This storm was not a tropical cyclone with hurricane force winds and a large amount of storm surge. The November 2003 storm was a moderate sized winter storm that caused the pre-existing illegal shoreline protective structure to fail and erosion to take place.

All of the developed parcels along this segment of the coastline have shoreline protective structures to protect the land and improvements from erosion and wave damage. If they did not have shoreline protective structures the unconsolidated sandy soil would erode away and the houses would be undercut until they collapse onto the beach.

ROH Section 23-1.4 (a) states that "General Rule. Except as otherwise provided in this section the shoreline setback line shall be established 40 feet inland from the certified shoreline." Section (b) states that "Where the depth of the buildable area of a lot, as measured seaward from its inland edge, is reduced to less than 30 feet, the shoreline setback line shall be adjusted to allow a minimum depth of buildable area of 30 feet; provided that the adjusted shoreline setback shall be no less than 20 feet from the certified shoreline." The house (structure) was built in 1961 (DPP TMK Data) before coastal regulations governing shoreline setbacks took effect. Following the provisions of ROH Sect. 23-1.4, the shoreline setback line at 40 feet from the shoreline would run through the existing house and carport and the 20 foot setback line would lie 3 feet to 6 feet from the house and carport. This shows that strictly following the regulations would not allow for enough space to place a seawall within the shoreline setback. Therefore a Shoreline Setback Variance is warranted for the emplacement of an engineered legal seawall to protect the house, carport, yard and landscaping from erosion during winter storms.

Hawaii Revised Statutes Chapter 205A: COASTAL ZONE MANAGEMENT, §205A-46 Variances, states that "(a) A variance may be granted for a structure or activity otherwise prohibited in this part if the authority finds in writing, based on the record presented, that the proposed structure or activity is necessary for or ancillary to:...(9) Private facilities or improvements that may artificially fix the shoreline; provided that the authority also finds that **shoreline erosion is likely to cause hardship to the applicant if the facilities or improvements are not allowed within the shoreline area**, and the authority imposes conditions to prohibit any structure seaward of the existing shoreline unless it is clearly in the public interest." This provision is applicable to the action proposed in this EA.

The Hardship Standard as outlined in ROH Chapter 23, Article 1 Shoreline Setbacks, Section 23-1.8 Criteria for granting a variance. (b) (3) Hardship Standards:

(A) *"A structure or activity may be granted a variance upon grounds of Hardship if:*

- (i) The applicant would be deprived of reasonable use of the land if required to comply fully with the shoreline setback ordinance and the shoreline setback rules;***

The Kaluanui Beach Lots were developed in the in the early 1960's. The house on TMK: 5-3-09:037 was built in 1961, nine years prior to the Hawai'i Setback Regulations implemented in 1970, and eleven years prior to the Federal Coastal Act of 1972. **The current property owner lives in the single family residence on the parcel and she wants to continue to live there.** The owner intends to remove an unauthorized deficient seawall and replace it with a permitted engineered seawall to protect the lot from shoreline erosion. Shoreline erosion has already removed much of the parcel and if left unchecked it will continue. If the shoreline setback ordinance and shoreline

setback rules were complied with as discussed in the fourth paragraph of this section the owner would be deprived of a reasonable use of the land.

(ii) The applicant's proposal is due to unique circumstances and does not draw into question the reasonableness of this chapter and the shoreline setback rules;

The subject parcel is an irregular shaped polygon. It is unique compared to other house lots in the neighborhood in that it has a very wide ocean frontage 149.46 feet, and very shallow depth from Kamehameha Highway to the shoreline, 80 feet on the northern end and 40 feet on the southern end. The lot depth at the southern end is actually closer to 30 feet on the ground due to erosion. Other lots in the neighborhood have less ocean frontage and greater depth. Because of this configuration the location of the shoreline setback variance becomes more critical on the subject lot because the buildable depth is so small. This parcel does not have a sufficient depth to allow for the construction of a permitted engineered seawall behind the shoreline setback. (Figures 3, 4 & 5) and without a seawall coastal erosion will inevitably erode the entire parcel. The applicant's proposal does not draw into question the reasonableness of this chapter and the shoreline setback rules.

(iii) The proposal is the practicable alternative which best conforms to the purpose of this chapter and the shoreline setback rules;

In Section 5.0 of this EA several alternatives to the proposed project were considered:

- **No Action:** This is not a viable alternative for many reasons. First, if the Shoreline Setback Variance is not obtained and the engineered seawall is not constructed, the property owner will not be able to pay for the continuous civil fees charged by the City and County for the Shoreline Setback Violation and will ultimately lose her home. Second, the current shoreline protective structure is already beginning to fail and when it does, the unconsolidated soils will rapidly be removed by wave action until the house is undermined and collapses on to the beach causing distress to the owner as well as creating a public hazard on the beach. Third, erosion will continue until Kamehameha Highway is undermined and collapses on the beach.
- **Removal of the Existing Shoreline Protective Structure:** This is not a viable alternative since the improvements on the parcel would be susceptible to erosion and wave damage. All of the private properties along this stretch of the coast are protected by shoreline structures to prevent the loss of their dwellings. The adjacent unprotected parcel (TMK: 5-3-09: 044) is continuing to experience erosion and the shoreline fronting the highway is only 10 feet from the road. That parcel will soon need a protective structure to prevent waves from undercutting Kamehameha Highway. The house is located within 25 feet of the seaward property boundary. With no protective structure the sandy soils would quickly erode away and under cut the house until it falls on to the beach. Once

the shoreline erosion has undermined the house it will continue until it threatens Kamehameha Highway as it has on the adjacent parcel TMK: 5-3-09: 044.

- Soft Shore Protection: Soft shore protection measures such as beach nourishment or constructing protective sand dunes are not feasible for a single family residence. This is the most costly alternative due to the large quantities of sand required. Beach nourishment would be required for a long stretch of shoreline extending far beyond the subject parcel because wave energy would quickly redistribute the sand unless groins were emplaced to contain the sand. In Hawai'i, government agencies responsible for our recreational beach resources can rarely afford to use beach nourishment for public beach parks or publicly accessible beaches. Also, beach nourishment would require the involvement of all property owners within the littoral cell and would require great quantities of suitable beach sand. The cost would not be feasible for all of the homeowners combined and impossible for one homeowner.
- Rock Revetment: Rock revetment shore protection is typically recommended for use on sandy shorelines where the sloping face and permeability reduce the wave energy reflection and impacts on littoral processes. A sloping rock revetment would have a considerably larger foot print and would occupy more horizontal space on the shore. This is not viable because of the limited land area between the house and the seaward property line.
- Project as Proposed: The project as proposed is the **preferred alternative** to obtain a Shoreline Setback Variance, remove an **illegal** deficient seawall, construct an engineered seawall and replace a sidewall for privacy. The action would clear **the current** violation and allow for the continued use of the parcel as a single family residence. Of all the alternatives considered, the preferred alternative will cause the least amount of damage to the existing residence, the least impact on the beach environment and is financially viable for the owner. A Shoreline Setback Variance to allow the construction of an engineered seawall to protect the house, carport, yard and landscaping from erosion during winter storms is the best viable alternative that conforms to ROH Chapter 23.

(B) Before granting a hardship variance, the director must determine that the applicant's proposal is a reasonable use of the land. Because of the dynamic nature of the shoreline environment, inappropriate development may easily pose a risk to individuals or to the public health and safety. For this reason, the determination of the reasonableness of the use of land should properly consider factors such as shoreline conditions, erosion, surf and flood conditions and the geography of the lot.

Shoreline Conditions: With the current illegal seawall the beach is moderately stable and the beach returns to the summer profile every year indicating that the majority of the sand supply is not lost off shore and there is still a sufficient

supply to provide a beach. These conditions will remain the same with a permitted engineered seawall as proposed.

Erosion With the current illegal seawall erosion rates in the area are slight to moderate and many years may go by with no significant erosion. While storms produce high surf the extensive fringing reef dissipates and deflects the majority of the wave energy before it reaches the shoreline. The applicant needs the seawall because erosion events are episodic in nature and the property needs to be protected. Damage from episodic erosion events can be prevented by the emplacement of a permitted engineered seawall. A permitted engineered seawall will also alleviate potentially hazardous conditions when the illegal seawall fails and rocks and debris are scattered over the beach.

Surf and Flood Conditions: Flood and tsunami can occur in the area and Flood insurance maps indicate that the area is Zone VE (EL 10) a Coastal Zone with flood Zone velocity hazard (wave action) and a base flood level of 10 feet. However, since 1819 there have only been two events that produced significant waves that could cause flooding. One was 4 feet and the other was 12 feet. The risk of flooding on the site is not great. It is reasonable to conclude that with a permitted engineered seawall the risk or erosion caused by flooding will be greatly reduced and prevent loss of property, trees and possibly the single family residence. A permitted engineered seawall will prevent debris from falling onto the beach and creating hazardous conditions for the public.

Geography of the Lot: The parcel and single family residence are located in Kaluanui Beach Lots which were developed in the early 1960's on a coastal plain that gently slopes from the base of the Ko'olau range to the shore line. This plain is covered by Jaucas Sand which is a pail brown to dark brown sand. Jaucas Sand has some organic mater and it produces a highly permeable surface that produces little runoff and in not prone to flooding or collecting surface water in surface ponds. Jaucas Sand is friable and easily eroded by wave action and a permitted engineered seawall is the only reasonable method of mitigation to stop the erosion

(C) If the activity or structure may artificially fix the shoreline, a variance may be granted only if hardship is likely to be caused by shoreline erosion, provided that conditions are imposed prohibiting any such structure seaward of the existing shoreline unless it is clearly in the public interest.

This activity fixes the shoreline with a seawall to protect the parcel from erosion. A shoreline setback variance is required because of the configuration of the parcel which has very little depth between the shoreline and the roadway. Without a shoreline setback variance a permitted engineered seawall could not fit in the area between the house and the setback line.

If an engineered seawall is not permitted shoreline erosion will cause hardship because the dwelling will eventually be subject to undermining and collapse. This may also create a public hazard because of the dwelling's proximity to the shoreline.

(D) Hardship shall not be determined as a result of a zone change, plan review use approval, subdivision approval, cluster housing approval, planned development housing approval, conditional use permit, or any other discretionary land use permit granted after June 16, 1989.

The subject property is not affected by any government approved change or any discretionary land use permit.

The following passage from the *Hawaii Coastal Erosion Management Plan (COMAP)* aptly sums up the situation. "Along residential shorelines, as in many neighborhoods around the nation, the focus is on day-to-day activities of families and hard-working individuals from all walks of life. Coastal lands are all the more valuable in light of the limited buildable land area and restricted resources of our island home. Not only residences, but roadways, sewage lines and treatment plants, harbors, airports, commercial facilities and all manner of public infrastructure may be found along our shores. To simply let our coastal investments and human efforts wash into the sea would not be a rational management decision" (DLNR Coastal Lands Program, 2006).

9.0 Public and Agency Involvement, Review and Consultation

The following agencies were consulted during the preparation of the Draft Environmental Assessment

City and County of Honolulu Department of Planning and Permitting

State of Hawai'i, Department of Land and Natural Resources,
Historic Preservation Division

State of Hawai'i Department of Land and Natural Resources
Office of Conservation & Coastal Lands

State of Hawai'i, Department of Land and Natural Resources,
Land Division

State of Hawai'i, Office of Environmental Quality Control

U. S. Army Engineer District, Honolulu

The comment letters and responses to them are in Appendix A

The project will require the following permits:

Shoreline Setback Variance pursuant to Chapter 23,
Revised Ordinances of Honolulu.

Building permit, City and County of Honolulu.

401 Water Quality Certification, State of Hawaii DOH

Department of the Army Permit

Shoreline Certification, Department of Land and Natural Resources,
Land Division, State of Hawai'i.

The following individuals were contacted during the preparation of this environmental assessment for background information.

John Keawe	Neighbor
Creighton Mattoon	Ko'olau Loa Neighborhood Board No. 28
Kai Markell	Office of Hawaiian Affairs
Clyde Nāmu`o	Office of Hawaiian Affairs
Ute Dagmar Ubel	Property Owner
Mary Worrall	Real Estate Associate

10.0 List of Preparers

Preparers	Responsibilities	Affiliation
Wilbert C.F. Chee	Principal Senior Planner	Wil Chee – Planning & Environmental, Inc.
Richard McGerrow	Senior Planner	Wil Chee – Planning & Environmental, Inc.
Judy J. Mariant	Planner / Coastal-Marine Geologist	Wil Chee – Planning & Environmental, Inc.

11.0 References Cited

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- U.S. Army Engineer Waterways Experiment Station, Coastal Engineering Research Center, *Coastal Engineering Technical Notes, CETN III-46 (3/92), CETN III-57 (6/95)*, Coastal and Hydraulics Laboratory Vicksburg, Virginia.
- U.S. Department of Agriculture Soil Conservation service, 1972, *Soil Survey of the Island of Kauai, O'ahu, Maui, Molokai, and Lanai, State of Hawai'i*.

12.0 Appendices

Appendix A

Preliminary Consultation, Letters and Responses



STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96804-3378

CHRISTOPHER L. FURUKAWA, M.D.
DIRECTOR OF HEALTH

BY: *[Signature]*
SAB: CMB

060900CEC.05

June 28, 2005

Mr. Richard S. McGerrow
Project Manager
Will Chee-Planning and
Environmental, Inc.
1018 Palm Drive
Honolulu, Hawaii 96814

Dear Mr. McGerrow:

**Subject: Section 401 Water Quality Certification (WQC) Application
Requirement for a Department of the Army (DA) Permit
Remove and Replace Seawall Project Kulanui Beachlots
Punahoa, Oahu Island.
DA File No. POH-2005-211
TMK: 5-3-009-037**

Reference is made to the letter, dated June 20, 2005, from Mr. George P. Young, Chief of the Regulatory Branch, Honolulu Engineer District (HED); U.S. Army Corps of Engineers (COE), to you regarding the DA permitting requirements for the subject proposed project. Mr. Young has determined that the proposed activities and development at this location will likely result in the excavation of, and discharge of dredged or fill material into navigable waters of the U.S., namely the Pacific Ocean. Prior to undertaking this project, consultation should take place with the Regulatory Branch, HED/COE, to determine the information requirements for submitting a DA permit application.

Pursuant to Paragraph 401(a)(1) of the Federal Clean Water Act (CWA), a Section 401 WQC is required for "Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate . . ." The term "discharge" is defined in CWA, Section 502. A Section 401 WQC is required if the HED/COE determines that a DA permit is required under the authorization of CWA, Section 404.

Mr. Richard S. McGerrow
June 28, 2005
Page 2

Enclosed for your use is one (1) copy each of the Section 401 WQC Application Form and Section 401 WQC Application Guidelines. They are also available at Clean Water Branch (CWB) web site: <http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>.

Please be informed that Hawaii Revised Statutes, Subsection 342D-50(a), requires that, "No person, including any public body, shall discharge any water pollutants into state waters, or cause or allow any water pollutant to enter state waters except in compliance with this chapter, rules adopted pursuant to this chapter, or a permit or variance issued by the director." The Department of Health reserves the right to take enforcement actions authorized by law.

Should you have any questions, please contact Mr. Edward Chen of the Engineering Section, CWB, at 586-4309.

Sincerely,

[Signature]
DENIS R. LAU, P.E., CHIEF
Clean Water Branch

EC:mp

Enclosure: 1. Section 401 WQC Application Form
2. Guidelines for Section 401 WQC Application

c: Regulatory Branch, HED, COE (w/o encls.)
CZM Program, Office of Planning, DBEDI (w/o encls.)
OCEA, DLNR (w/o encls.)
Mr. Ute Dagmar Uebel (w/encls.)



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

700 SOUTH ROBERTSON STREET
HONOLULU, HAWAII 96813
TELEPHONE: (808) 586-4100
FACSIMILE: (808) 586-4106
E-MAIL: oeqc@dep.state.hi.us

GENEVEVE SALMONSON
DIRECTOR



WE CARE PLANNING AND ENVIRONMENTAL, INC.

January 25, 2006

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

Dear Ms. Salmonson:

Subject: Draft Environmental Assessment (DEA) for the Shoreline Setback Variance Application for a Seawall, Kalanui Beach Lots, Kō olaloa, O'ahu.

Thank you for your comments on the Draft Environmental Assessment for the Uebel Seawall, O'ahu. We have consulted the OEQC's Shoreline Hardening Policy and Environmental Guidelines, and will continue to take them into consideration and apply them to the final Environmental Assessment.

Thank you for reviewing the Environmental Assessment. If you have any questions or need more information on this project, please call me or Judy Mariant at (808) 596-4688.

Sincerely

Richard McGerrow
Senior Planner

July 7, 2005

Mr. Henry Eng, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Eng:

Subject: Draft Environmental Assessment for the Uebel Seawall,
O'ahu

Thank you for the opportunity to review and comment on the subject project. We have the following comment.

1. For assistance in completing the assessment, please review OEQC's shoreline hardening guidelines at <http://www.state.hi.us/health/oeqc/guidance/shoreline.htm>

Sincerely,

Genevieve Salmonson
Director

c: /W/1 Chiee
Uebel

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Appendix A

Draft EA Comments and Responses



WIL CHEE - PLANNING AND ENVIRONMENTAL, INC.

March 20, 2005

Melanie Chinen, Administrator
Department of Land and Natural Resources
State Historic Preservation Division (SHPD)
661 Kamehika Building, Room 555
Kapolei, Hawaii 96707

Dear Ms. Chinen:

Subject: Shoreline Setback Variance Application & Environmental Assessment
(EA) for a Seawall,
Kulunui Beach Lots, Ko'olaupua
Punahoa, Hawaii, TMK: 5-3-09-037

Wil Chee - Planning & Environmental, Inc., is preparing a Shoreline Setback Variance Application and an Environmental Assessment (EA) for a seawall in Punahoa. The project site is located between Hau'ula Beach Park and Punahoa Beach Park. The project is to replace an existing but structurally deficient rock retaining wall with an engineered seawall and to obtain the permitting to legalize the sea wall and part of an existing sidewalk.

In compliance with §11-200-9, Hawaii Administrative Rules Department of Health, Title 11 Chapter 200, *Environmental Impact Statement Rules*, this letter is intended to initiate early consultation with agencies or groups having jurisdiction or expertise related to the project. We have enclosed a project information sheet with maps and preliminary sketches describing the proposed project and would appreciate receiving any comments or concerns which might influence the subject EA.

If you have any questions or need more information on this project please call me or Judy Mariant at (808) 596-4688. Thank you for your time and interest.

Sincerely

Richard S. McGerrow

Attachments

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10-3 PINE DRIVE • BERKELEY, HAWAII 96709 • PHONE: (808) 596-4688 • FAX: (808) 597-1855 • E-MAIL: RICH@WILCHEE.COM



WIL CHEE - PLANNING AND ENVIRONMENTAL, INC.

March 20, 2005

Peter Young, Chairman
Department of Land and Natural Resources
State of Hawaii
1151 Punchbowl, Room 1151
Honolulu, Hawaii 96813

Dear Mr. Young:

Subject: Shoreline Setback Variance Application & Environmental Assessment
(EA) for a Seawall,
Kulunui Beach Lots, Ko'olaupua
Punahoa, Hawaii, TMK: 5-3-09-037

Wil Chee - Planning & Environmental, Inc., is preparing a Shoreline Setback Variance Application and an Environmental Assessment (EA) for a seawall in Punahoa. The project site is located between Hau'ula Beach Park and Punahoa Beach Park.

The project is to replace an existing but structurally deficient rock retaining wall with an engineered seawall and to obtain the permitting to legalize the sea wall and part of an existing sidewalk.

In compliance with §11-200-9, Hawaii Administrative Rules Department of Health, Title 11 Chapter 200, *Environmental Impact Statement Rules*, this letter is intended to initiate early consultation with agencies or groups having jurisdiction or expertise related to the project. We have enclosed a project information sheet with maps and preliminary sketches describing the proposed project and would appreciate receiving any comments or concerns which might influence the subject EA.

If you have any questions or need more information on this project please call me or Judy Mariant at (808) 596-4688. Thank you for your time and interest.

Sincerely

Richard S. McGerrow

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DEPARTMENT OF THE ARMY
ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96861-5440



DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96861-5440

June 20, 2005

REPLY TO
ATTENTION OF

Regulatory Branch

March 20, 2005

George Young, Chief
Regulatory Department
Army Corps of Engineers
Honolulu District, Building 230
Fort Shafter, Hawaii, 96858-5440

Mr. Richard S. McGerrow
Project Manager
Will Chee-Planning and Environmental, Inc.
1018 Palm Drive
Honolulu, Hawaii 96814

Dear Mr. McGerrow:

This responds to your request for comments to be included in a draft Environmental Assessment and Shoreline Setback Variance Application for a proposed remove and replace seawall project (TMK 5-3-09: 37), Kulunui Beachlots, Punahou, Oahu Island. Based on the information provided, I have determined that the proposed activities and development at this location will likely result in the excavation of, and discharge of dredged or fill material into navigable waters of the U.S., namely the Pacific Ocean. Prior to undertaking this project consultation should take place with our office to determine the information requirements for submitting a Department of Army (DA) permit application.

Subject: Shoreline Setback Variance Application & Environmental Assessment (EA) for a Seawall, Kulunui Beach Lots, Keolu Subdivision, Punahou, Hawaii, TMK: 5-3-09:037

Will Chee - Planning & Environmental, Inc., is preparing a Shoreline Setback Variance Application and an Environmental Assessment (EA) for a seawall in Punahou. The project site is located between Hau'ia Beach Park and Punahou Beach Park. The project is to replace an existing but structurally deficient rock retaining wall with an engineered seawall and to obtain the permitting to legalize the sea wall and part of an existing sidewalk.

In compliance with § 11-200-9, Hawaii Administrative Rules Department of Health, Title 11 Chapter 200, *Environmental Impact Statement Rules*, this letter is intended to initiate early consultation with agencies or groups having jurisdiction or expertise related to the project. We have enclosed a project information sheet with maps and preliminary sketches describing the proposed project and would appreciate receiving any comments or concerns which might influence the subject EA.

If you have any questions or need more information on this project please call me or Judy Mariani at (808) 596-4688. Thank you for your time and interest.

Sincerely,

Richard S. McGerrow

Attachments

File Number POH-2005-211 has been assigned to this project. Please feel free to contact Mr. Farley Watanabe of my staff at 438-7701, or by facsimile at 438-4060 or by email at Farley.K.Watanabe@poh.hawaii.army.mil if you have additional questions.

Sincerely,

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

Copy furnished:
Clean Water Branch, Environmental Management Division, Hawaii State Department of Health, P.O. Box 3378, Honolulu, HI 96801-3386
Office of State Planning, Coastal Zone Management Program, P.O. Box 2359, Honolulu, HI 96811-3540
State of Hawaii, Department of Land and Natural Resources, OCEA, P.O. Box 621, Honolulu, HI 96809
Mr. Ute Dagmar Uebel, 53-723 Kamehameha Highway, Punahou, Hawaii 96817

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Will Chee-Planning and Environmental, Inc.



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS

POST OFFICE BOX 621
HONOLULU, HAWAII 96808

PETER T. VOGANS
DIRECTOR OF LAND AND NATURAL RESOURCES
COMMISSIONER OF THE BUREAU OF CONSERVATION AND COASTAL LANDS MANAGEMENT

AGENCY: RESOURCES
BUREAU: BUREAU OF CONSERVATION AND COASTAL LANDS MANAGEMENT
DIVISION: DIVISION OF CONSERVATION AND COASTAL LANDS MANAGEMENT
SECTION: SECTION OF PERMITS, ENFORCEMENT AND COMPLIANCE
ASSOCIATE SECTION CHIEF

April 20, 2005

SSV and EA for Seawall- Punalu'u, Oahu

Page 2

Ref. OCCL: DE

Mr. Richard McGerrow
Will Chee Planning and Environmental
1018 Palm Dr.
Honolulu, Hawaii 96814

Corr: OA-05-209

April 20, 2005

Subject: Review and Comments of Proposed Shoreline Setback Variance (SSV) and Environmental Assessment (EA) for a Seawall. 53-723 Kamehameha Hwy, Punalu'u, Hawaii 96717. TMK (1) 5-3-09-037

Dear Mr. McGerrow:

The State of Hawaii, Department of Land and Natural Resources (DLNR) Office of Conservation and Coastal Lands (OCCL) has reviewed the March 20, 2005 early consultation for a Draft Environmental Assessment (DEA) for a SSV for the replacement of a failing seawall. The Department has the following comments on the proposed project:

1. It is our understanding that the City and County of Honolulu Department of Planning and Permitting requires a certified shoreline as part of the SSV process.
2. The State of Hawaii, Department of Accounting and General Services (DAGS) Survey office is not able to process an application for shoreline certification on this property since there is an unauthorized shoreline structure that defines the shoreline.
3. One alternative is to remove the unauthorized structure and survey the shoreline once the coast has reached equilibrium.

4. Our office understands this option may not be practical since the existing dwelling would immediately become threatened by erosion and warrant emergency protection.

5. Realizing the problematic nature with processing permits in these types of situations, the OCCL is willing to discuss options with the County Planning Departments to develop a solution to these problems.

If you should have any questions, please contact Dolan Eversole, Sea Grant Extension Agent at the Office of Conservation and Coastal Lands at 587-0321.

Thank You,


Sam Lemmo, Administrator
Office of Conservation and Coastal Lands

Cc: Oahu Board Member
Land Division
DAGS Survey
Chairperson's Office
Mr. Henry Ing- City and County of Honolulu Department of Planning and Permitting



Richard McGerrow
May 4, 2005
Page 2

likely has at least partially contributed to what is described as "6 plus feet of shoreline embankment." The applicant's home, however, is directly in the path of this encroaching shoreline, and we cannot in good conscience deny the property owners the ability to protect what is left of their property. We simply request that, as much as possible, lateral public access to this shoreline be preserved.

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Heidi Guth at 594-1962 or e-mail her at heidig@gha.org.

Sincerely,

Clyde W. Nāmu'o
Administrator

March 23, 2005

Sain Lemmo, Administrator
Office of Conservation and Coastal Lands
Department of Land and Natural Resources
State of Hawaii
1151 Punchbowl, Room 131
Honolulu, Hawaii 96813

Dear Mr. Lemmo,

Subject: Shoreline Setback Variance Application & Environmental Assessment (EA) for a Seawall, Kulumui Beach Lots, Kō'ōlauloa Punahū, Hawai'i, TMK: 5-3-09-037

Will Chee -- Planning & Environmental, Inc., is preparing a Shoreline Setback Variance Application and an Environmental Assessment (EA) for a seawall in Punahū. The project site is located between Hui'ula Beach Park and Punahū Beach Park.

The project is to replace an existing but structurally deficient rock retaining wall with an engineered seawall and to obtain the permitting to legalize the sea wall and part of an existing sidewalk.

In compliance with §11-200-9, Hawaii Administrative Rules Department of Health, Title 11 Chapter 200, *Environmental Impact Statement Rules*, this letter is intended to initiate early consultation with agencies or groups having jurisdiction or expertise related to the project. We have enclosed a project information sheet with maps and preliminary sketches describing the proposed project and would appreciate receiving any comments or concerns which might influence the subject EA.

If you have any questions or need more information on this project please call me or Judy Mariant at (808) 596-4688. Thank you for your time and interest.

Sincerely,

Richard S. McGerrow

Attachments

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WIL CHEE - PLANNING AND ENVIRONMENTAL AFFAIRS

PHONE (808) 594-1888

FAX (808) 594-1955



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPOLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

March 20, 2005

Clyde Nāmutu, Administrator
Office of Hawaiian Affairs
711 Kapiolani Blvd, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Nāmutu:

Subject: Shoreline Setback Variance Application & Environmental Assessment
(EA) for a Seawall,
Kulumu Beach Lots, Ko'olaupoko
Punalu'u, Hawaii'i, TMK: 5-3-09-037

Wil Chee - Planning & Environmental, Inc., is preparing a Shoreline Setback Variance Application and an Environmental Assessment (EA) for a seawall in Punalu'u. The project site is located between Hau'ula Beach Park and Punalu'u Beach Park.

The project is to replace an existing but structurally deficient rock retaining wall with an engineered seawall and to obtain the permitting to legalize the sea wall and part of an existing sidewalk.

In compliance with §11-200-9, Hawaii Administrative Rules Department of Health, Title 11 Chapter 200, *Environmental Impact Statement Rules*, this letter is intended to initiate early consultation with agencies or groups having jurisdiction or expertise related to the project. We have enclosed a project information sheet with maps and preliminary sketches describing the proposed project and would appreciate receiving any comments or concerns which might influence the subject EA.

If you have any questions or need more information on this project please call me or Judy Mariani at (808) 596-4688. Thank you for your time and interest.

Sincerely,

Richard S. McGerrow

Attachments

May 4, 2005

Richard S. McGerrow
Wil Chee - Planning and Environmental, Inc.
1018 Palm Drive
Honolulu, HI 96814

RE: Request for pre-consultation on a proposed Shoreline Setback Variance Application & Environmental Assessment for a Seawall; Kulumu Beach Lots, Punalu'u, O'ahu; TMK: 5-3-09-037

Dear Richard McGerrow,

The Office of Hawaiian Affairs (OHA) is in receipt of your March 20, 2005, request for comments on the above-referenced proposal, which would allow the Dagmar Uebel to obtain a variance to replace an existing, non-conforming rock retaining wall with an engineered seawall. OHA offers the following comments.

Seawalls, like any structure built in or too close to beach sand sources, have been shown to occasionally - temporarily - protect the structures behind them, but also to regularly cause erosion of the beaches in front of those structures by interrupting natural coastal processes of the ocean seasonally taking and returning sand. All of the above limits coastal and cultural access rights to public trust beaches - ceded lands - by shrinking the coast itself. Not only is the coast shrunk by property owners moving their control makai, but also by the ocean moving its control makai. This shrinking coast thus encroaches upon the private property owners as well, ultimately causing them to lose at least some of the property that they were trying to protect.

Hau'ula and Punalu'u beaches are actively eroding and are active beaches, regularly used for public access and gathering rights. OHA normally would not support the proposed seawall construction, particularly as the previously existing - and non-conforming - rock retaining wall

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Land Use Planning and Environmental Consultants

1011 21st Drive • Honolulu, Hawaii 96814 • Phone: 598-396-4253 • Fax: 598-397-1621 • E-Mail: wil@wilchee.com



WILL CHEE - PLANNING AND ENVIRONMENTAL, INC.

LINDA LINGOLE
GOVERNOR OF HAWAII

GENEVEVE SALMONSON
DIRECTOR



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

285 SOUTH MERITANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE: (808) 541-4186
FAX: (808) 541-4185
E-MAIL: oeqc@hawaii.gov

March 20, 2005

Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
236 South Beretania Street
Honolulu, HI 96822

Dear Ms. Salmonson:

Subject: Shoreline Setback Variance, Application & Environmental Assessment (EA) for a Seawall, Kulumui Beach Lots, Ko'olaupua Punahū'u, Hawai'i, TMK: 5-3-09-037

Will Chee - Planning & Environmental, Inc., is preparing a Shoreline Setback Variance Application and an Environmental Assessment (EA) for a seawall in Punahū'u. The project site is located between Hau'ula Beach Park and Punahū'u Beach Park.

The project is to replace an existing but structurally deficient rock retaining wall with an engineered seawall and to obtain the permitting to legalize the sea wall and part of an existing sidewalk.

In compliance with §11-200-9, Hawaii Administrative Rules Department of Health, Title 11 Chapter 200, *Environmental Impact Statement Rules*, this letter is intended to initiate early consultation with agencies or groups having jurisdiction or expertise related to the project. We have enclosed a project information sheet with maps and preliminary sketches describing the proposed project and would appreciate receiving any comments or concerns which might influence the subject EA.

If you have any questions or need more information on this project please call me or Judy Mariani at (808) 596-4688. Thank you for your time and interest.

Sincerely

Richard S. McGerrow

Attachments

April 4, 2005

Mr. Richard McGerrow
Will Chee - Planning & Environmental, Inc
1018 Palm Drive
Honolulu, HI 96814

Subject: Shoreline Setback Variance Application & Environmental Assessment For a Seawall, Kulumui Beach Lots, Palamui, HI

Dear Mr. McGerrow:

We have received the description of the subject project by your letter dated March 20, 2005.

Please review our guidelines for Shoreline Hardening Policy and Environmental Assessment. We have no other comments to offer at this time, but will reserve further comments when the documents are submitted. Thank you for the opportunity to review your request. Should you have any questions, please call our office at 586-4185.

Sincerely,

Genevieve Salmonson
Director

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1025 Park Drive • Scottsdale, Hawaii • 96814 • Phone: 808-596-4688 • Fax: 808-592-1851 • E-Mail: will@hawaii.net

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

600 SOUTH KING STREET, FLOOR 4 - HONOLULU, HAWAII 96819
DUPT INTERNET: www.honolulu.gov INTERNET: www.honolulu.gov



HENRY ENG, FAICP
DIRECTOR

DAVID K. CARPINE
2005/EJLOG-073 (SE)

April 27, 2005

Mr. Richard S. McGerrow
Will Chee - Planning and Environmental, Inc.
1016 Palm Drive
Honolulu, Hawaii 96814

Dear Mr. McGerrow:

Early Consultation for an Environmental Assessment
For a Seawall within the Shoreline Setback
53-723 Kamehameha Highway - Hauula
Tax Map Key S-3-009: 037

We have reviewed the preliminary information for the environmental assessment (EA) that you are preparing for the above-referenced property, and provide the following:

Shoreline Erosion History - We previously waived the certified shoreline survey requirement (letter dated November 29, 2004). However, because the previous seawall was also unauthorized, the coastal engineering assessment being prepared should be made a part of the draft EA and must provide a complete shoreline erosion history, including a description of the location of the shoreline before the unauthorized seawall was built. The erosion history of the area is part of the essential data used to evaluate a Shoreline Variance application against the "hardship" criteria specified in the shoreline setback ordinance.

Earthwork Estimates - The draft EA should include complete estimates of the earthwork necessary to complete the proposed construction. The EA should also describe construction details, including whether sheetpile installation, dewatering, or provisions for maintaining beach access are necessary.

Mr. Richard McGerrow
Page 2
April 27, 2005

Shoreline Regulations - The Draft EA should include a section that describes the shoreline setback regulations of Chapter 23, Revised Ordinances of Honolulu (ROH); a discussion of the goals, objectives, and decision-making criteria established by this regulation; and a discussion as to how the project is consistent with those objectives and meets the necessary decision-making criteria.

Lastly, we note that the construction plans for a shoreline protection structure must be stamped by a registered (structural) engineer.

Should you have any questions, please Steve Tagawa of our staff at 523-4817.

Sincerely yours,

for HENRY ENG, FAICP
Director of Planning
and Permitting

HE:cs

cc: Ute Habel

henry.eng@planning.permitting.honolulu.gov



STATE OF HAWAII, DEPARTMENT OF PLANNING AND PERMITTING

**Project Information for
Shoreline Setback Variance Application for a Seawall**
TMK: 5-3-09-037

Kaliuanui Beach Lots, Ko'olaupoko, O'ahu, Hawaii

Public Agency Involvement, review and Consultation:

The following agencies will be consulted during the preparation of the Draft Environmental Assessment (DEA):

- City & County of Honolulu, Department of Planning and Permitting
- U.S. Army Engineer District, Honolulu
- State Office of Environmental Quality Control
- State of Hawaii, Department of Land and Natural Resources, Historic Preservation Division.

Permits required for this project are:

- Shoreline Setback Variance pursuant to Chapter 23, Revised Ordinances of Honolulu.
- Building Permit from the City and County of Honolulu
- Department of the Army Permit
- Shoreline Certification from Department of Land and Natural Resources, Land Division, State of Hawaii. (Note: The applicant previously applied for shoreline certification which was denied "for failure to submit documents supporting structure(s) was approved by government agencies." If the shoreline setback variance is approved, applicant will then reapply for shoreline certification.)

References:

- EKNA Services, Inc. 2003. Draft Coastal Engineering Assessment of Seawall at Hautia TMK: 5-03-09-37.
- Hwang, Dennis. 1981. Beach Changes on O'ahu as Revealed by Aerial Photographs. Prepared for the State Department of Planning and Economic Development by the Urban and Regional Planning Program and the Hawai'i Institute of Geophysics, University of Hawaii.
- Komar, Paul, D. 1976. Beach Processes and Sedimentation, School of Oceanography, Oregon State University.
- Tanimura & Associates, Inc. Consulting Structural Engineers. 2005. Uebel Seawall Repair TMK: 5-3-09-37.

March 20, 2005

Eileen Mark, Branch Chief
Land Use Approval Branch
Department of Planning & Permitting
City & County of Honolulu
650 S. King Street 7th floor
Kapolei, Hawaii 96813

Dear Ms. Mark:

Subject: Shoreline Setback Variance Application & Environmental Assessment (EA) for a Seawall, Kaliuanui Beach Lots, Ko'olaupoko Punahoa, Hawaii, TMK: 5-3-09-037

Will Chee - Planning & Environmental, Inc., is preparing a Shoreline Setback Variance Application and an Environmental Assessment (EA) for a seawall in Punahoa. The project site is located between Hau'ia Beach Park and Punahoa Beach Park.

The project is to replace an existing but structurally deficient rock retaining wall with an engineered seawall and to obtain the permitting to legalize the sea wall and part of an existing sidewalk.

In compliance with §11-200-9, Hawaii Administrative Rules Department of Health, Title 11 Chapter 200, *Environmental Impact Statement Rules*, this letter is intended to initiate early consultation with agencies or groups having jurisdiction or expertise related to the project. We have enclosed a project information sheet with maps and preliminary sketches describing the proposed project and would appreciate receiving any comments or concerns which might influence the subject EA.

If you have any questions or need more information on this project please call me or Judy Mariant at (808) 596-4688. Thank you for your time and interest.

Sincerely,

Richard S. McGerrow

Attachments

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1012 P.O. Drive • Honolulu, Hawaii 96814 • Phone: 808-596-5613 • Fax: 808-597-1811 • E-Mail: wcd@hawaii.net

Project Information for Shoreline Setback Variance Application for a Seawall
 TMK: 5-3-09:037
 Kalaanui Beach Lots, Kō olauloa, O'ahu, Hawai'i

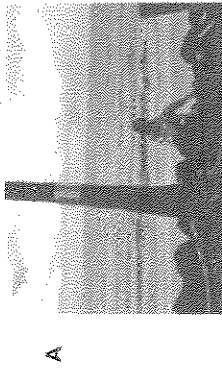


Figure 6. Photos of Shoreline in 2003

- A. October 30, 2003 Seawall View from the house.
- B, D, & D. November, 2003 photos of seawall from beach after the storm that damaged the pre-existing seawall.



Project Information for Shoreline Setback Variance Application for a Seawall
 TMK: 5-3-09:037
 Kalaanui Beach Lots, Kō olauloa, O'ahu, Hawai'i

Existing Site Description:

The property is located 1.5 miles south of Hauula Beach Park and 500 feet south of the Kalaanui Stream Bridge. A site visit was conducted on December 28, 2004. On that day there were moderate trade winds and a low tide (+0.4' MLLW). Photos in Figure 6 show the condition of the old seawall after the storm in November 2003 and photos in Figure 7 show the current conditions with the reconstructed seawall, and the adjacent parcel that has eroded back until the shoreline is 10 feet from Kamehameha Highway. As erosion continues this section of Kamehameha Highway will be subject to erosion damage and waves overtopping it if it is left unprotected. Parcels to the North of TMK: 503-09:044 are all protected by various types of shoreline protective structures.

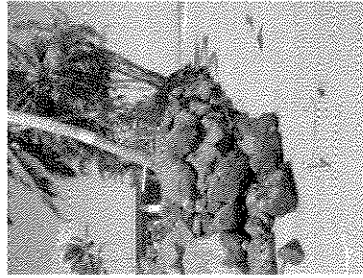
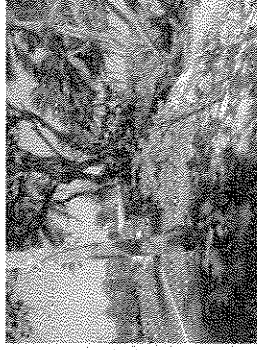


Figure 7.

- A. Shows the repaired seawall after the November 2003 storm.
- B. Shows the eroded parcel TMK: 5-3-09:044 and the side wall to be replaced.



The existing grade of the subject property is about 6 feet above mean sea level. The fronting beach at the base of the rock is estimated to be at 0.00 or mean sea level. There is no dry beach along this stretch of the coastline. The wet beach is wider at the mouth of Kalaanui Stream where sediment carried to the shoreline by the stream has formed a small delta. However the debris line indicates that wave action at high tide reaches the base of the protective rock structures on the parcel adjacent to the Kalaanui Stream Bridge.

**Project Information for
Shoreline Setback Variance Application for a Seawall**
TMK: 5-3-09-037
Kaliuanui Beach Lots, Ko'olaupā, O'ahu, Hawai'i

Land Area:

Approximately 7,774 square feet

Table 1 Shoreline Setback and Lot size

Shoreline Setback	Lot Size (Approximate Estimate)	R-5 One Single Family Dwelling Minimum lot size
Current lot Size	7774 sq.ft.	5000 sq.ft.
40 ft. Setback	2591 sq.ft.	5000 sq.ft.
20 ft. Setback	5208 sq.ft.	5000 sq.ft.
Combination of the 40 ft. & 20 ft. Setback	3887 sq.ft.	5000 sq.ft.

Project Location:

The project location is midway between Hauula and Punalu'u on the windward coast of O'ahu. (Figure 3)

Surrounding Land Use and Land Use Designations:

The residential properties makai of Kamehameha highway on this section of O'ahu's coastline are very narrow to non-existent. This is due to the coastal erosion that has been going on since the highway was constructed. The properties are fronted by a narrow fringe of beach that exhibits a seasonal variation of width. This segment of coastline is exposed to the predominant trade wind waves and the winter North Pacific swell that wraps around the island. In spite of the fact that fringing reefs protect the shoreline from moderate trade wind wave energy, chronic long-term erosion is occurring.

The majority of the beach front properties with residences along this portion of the windward coast are protected by some type of shore protection structure. Those properties that have not been protected have eroded so badly that they are no longer useable because of the loss of fast-lanes. Kamehameha highway is directly exposed to wave erosion and over topping damage along reaches where the shoreline has been eroded.

The communities of Hauula and Punalu'u are located on a narrow coastal plane located between the sea and the Koolau Range that rises to 2,000 feet above sea level.

History and Proposed Project:

The property has a residence that was built in 1962. This was prior to the Federal Coastal Act of 1972 and the subsequent State of Hawai'i legislation that provides for Hawai'i's Coastal Zone Management regulations.

**Project Information for
Shoreline Setback Variance Application for a Seawall**
TMK: 5-3-09-037
Kaliuanui Beach Lots, Ko'olaupā, O'ahu, Hawai'i

The parcel was protected by a rock shoreline protective structure when the current owner purchased the property in May 2003. It is possible that the pre-existing shoreline protective wall was constructed prior to the Federal Coastal Act of 1972. State Coastal legislation and the current City & County Shoreline Setback Rules and Regulations.

Later in November of 2003 a storm damaged the rock seawall resulting in exposing the property to wave erosion damage from the seasonal high wave activity. The owner had the wall rebuilt to protect her house from erosion and wave damage. A shoreline survey performed by Sam O. Hirota, Inc. on August 20, 2004 delineates the limits of the existing rock wall and the shoreline. The previous shore protection structure apparently was constructed without obtaining a Shoreline Setback Variance (SSV); therefore the current owner was issued a Notice of Violation.

To clear the violation a Coastal Engineering Assessment, and an Environmental Assessment are required as part of the application process in accordance with Shoreline Setback Rules and Regulations of the City and County of Honolulu. These are being prepared by EKNA Services, Inc. and Wil Chee - Planning & Environmental, Inc. Also to assure the client that she will have a sea wall that will withstand storm conditions final plans for an Engineered Seawall Repair and Construction are being prepared by Tamimura & Associates. Once the violation is cleared, a variance is granted and a permit is obtained the wall will be rebuilt. The rebuilt wall should be able to withstand winter storms, prevent any further erosion of the parcel and protect the house and carport from damage by wave action.

Project Information for Shoreline Setback Variance Application for a Seawall
 TMK: 5-3-09-037
 Kaliauui Beach Lots, Ko'olaupoa, O'ahu, Hawaii

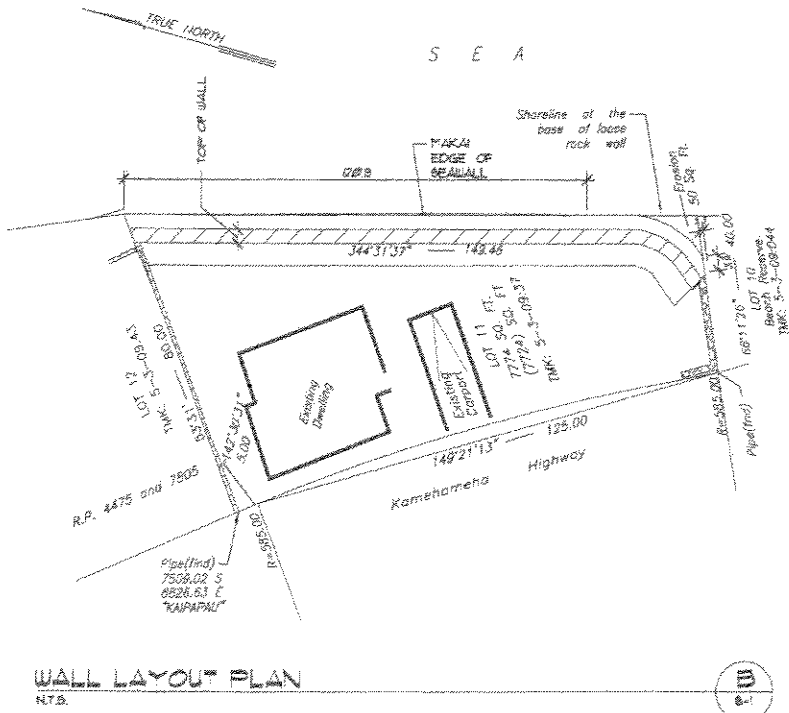


Figure 3. Plot Plan. Shows the location of the house and carport with respect to the proposed sea wall and the seawall adjoining TMK: 5-4-09-034 that will be replaced.

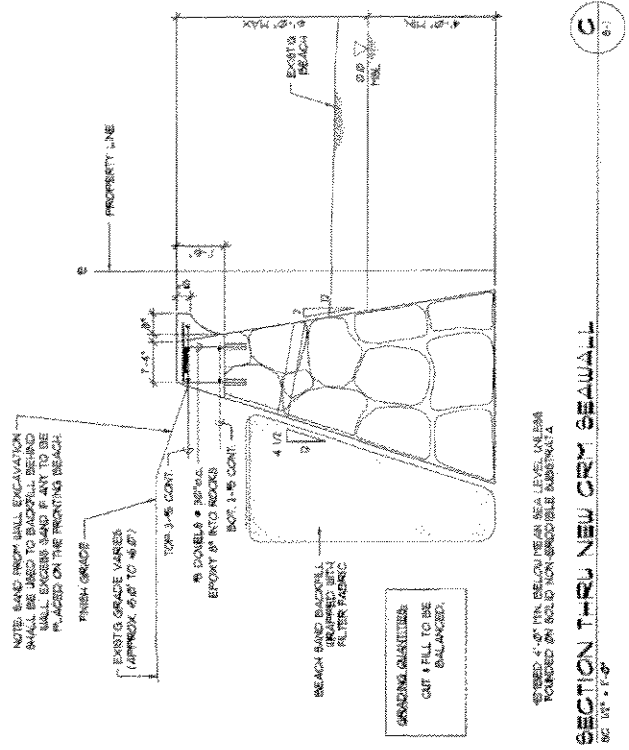


Figure 4. Cross Section of the Proposed Sea Wall

**Project Information for
Shoreline Setback Variance Application for a Seawall**
TMK: 5-3-09:037
Kaluuanui Beach Lots, Ko'olaupoa, O'ahu, Hawaii

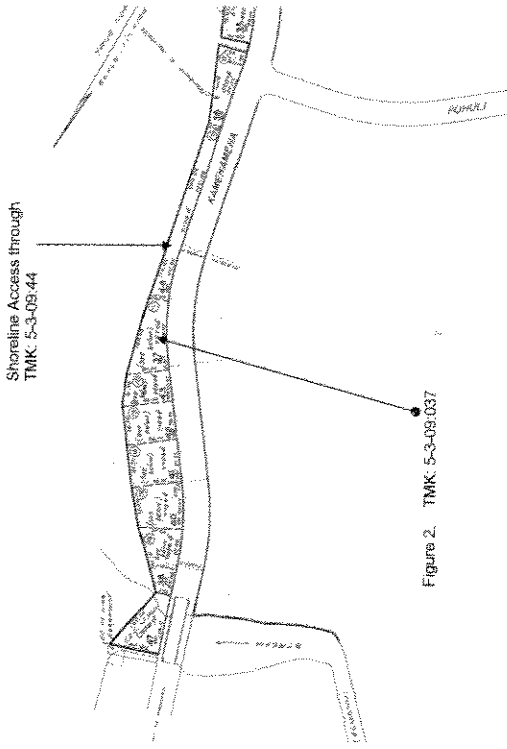


Figure 2. TMK: 5-3-09:037

Proposed Action:

The proposed project is to replace an existing but deficient rock retaining wall with an engineered seawall and to obtain the permits necessary needed to legalize the sea wall and part of an existing side wall. In order to obtain government approval, the seawall must be properly designed by a licensed engineer. Although portions of the existing repaired seawall appear to be stable, the project engineer was unable to determine if the base of the wall was placed deep enough to prevent scouring and undermining from storm wave activity. It is also not known if the wall was designed for retaining the 6 plus feet of shoreline embankment. The stacked rocks on the southern end of the property shorefront are starting to unravel, and continuing erosion will ultimately undermine the sidewalk.

The proposed structure that will replace the existing wall is a seawall that is designed by Tanimura & Associates, Inc. (Figure 3 & 4) The base of the seawall will be excavated and placed at 4 feet below mean sea level (3 feet below mean low, low tide), or shallower if consolidated rock underlies the beach sand. The bottom width of the wall is approximately 6' and the top of the seawall will be at 6' above mean sea level and equal to the grade of the property. Boulders from the preexisting sea wall will be re-used in the construction of the new wall. The existing sidewalk adjacent to TMK 5-3-09:44 will be removed and the seawall will be constructed with a flank wall to protect the property from continued erosion and damage at that end of the parcel. The existing rock side wall will be rebuilt on top of the seawall to provide privacy screening of the property.

**Project Information for
Shoreline Setback Variance Application
for a Seawall**
Kaluuanui Beach Lots
Ko'olaupoa, O'ahu, Hawaii

General project information:

THE APPLICANT:

Lite Dagmar Uebel
53-723 Kamehameha Highway
Punaluu, Hawaii 96717
Phone (808) 220-6901

APPLICANT'S REPRESENTATIVE

Will Chee - Planning & Environmental, Inc.
1018 Palm Drive
Honolulu, Hawaii 96814
Ph.: (808) 596-4688
Fax: (808) 597-1851

TMK AND OWNER:

5-3-09:0037
Lite Dagmar Uebel
53-723 Kamehameha Highway
Punaluu, Hawaii 96717
Phone (808) 220-6901

The project site is located between Hauula Beach Park and Punaluu Beach Park on the windward coast of O'ahu. It is located within a small established residential community with a population of around 11,500 people. (Figure 1)

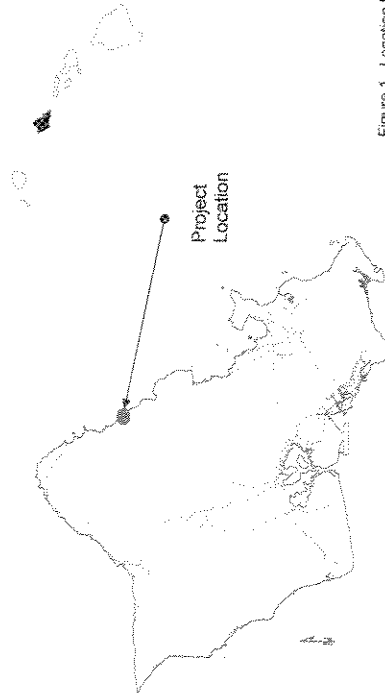


Figure 1. Location Map



WILCHEE PLANNING AND ENVIRONMENTAL, INC.



LESLIE H. WILCHEE
GOVERNOR OF HAWAII

CHARLELL FUNKHOFF, M.D.
DIRECTOR OF HEALTH

RECEIVED

January 25, 2006

Dennis R. Lau, P.E. Chief
Clean Water branch
Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Attention Mr. Edward Chen

Dear Mr. Lau:

Subject: Draft Environmental Assessment (DEA) for the Shoreline Setback Variance Application for a Seawall, Kalaheini Beach Lots, Kō olāloa, O'ahu.

We appreciate your comments regarding Section 401 Water Quality Certification (WQC) Application Requirement for a Department of Army (DA) Permit to remove and replace a seawall at Kalaheini Beach Lots Punahū'u, O'ahu, Hawaii.

Please refer to page 3 of the Draft Environmental Assessment under Required Permits and Approvals. We have listed a Department of the Army permit as one required and have initiated consultation with the Army Corps of Engineers, pursuant to Paragraph 401(a) (10) of the Federal Clean Water Act (CWA). Consultation with the Department of the Army has resulted in File Number POH-2005-211 assigned to the project and Mr. Farley Watanabe is the point of contact.

Thank you for reviewing the Environmental Assessment. If you have any questions or need more information on this project, please call me or Judy Mariani at (808) 596-4688.

Sincerely,

Richard McGerrow
Senior Planner

Providing Services Since 1976

1010 Main Drive • Honolulu, Hawaii 96813 • Phone: 808-527-4596 • Fax: 808-527-1651 • E-Mail: wpc@airnet.net

STATE OF HAWAII
DEPARTMENT OF HEALTH
1100 BLOOMINGDAVE
HONOLULU, HAWAII 96813

TO: JUN -6 P 3:53

DEPT. OF PLANNING
AND PERMITTING
CITY & COUNTY OF HONOLULU

June 2, 2005

Mr. Henry Eng, FAICP
Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Attention: Mr. Steve Tagawa
Dear Mr. Eng:

Subject: **Draft Environmental Assessment for 53-723 Kanehameha Highway**
2005/ED-10(ST)

The Department of Health (DOH), Clean Water Branch (CWB), has reviewed the subject application and offers the following comments:

1. The Army Corps of Engineers should be contacted at 438-9258 to identify whether a Federal license or permit (including a Department of Army permit) is required for this project. Pursuant to Section 401(a)(1) of the Federal Water Pollution Control Act (commonly known as the "Clean Water Act"), a Section 401 Water Quality Certification is required for "any applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters..."
2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for the following activities:
 - a. Storm water associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(1)(i) through 122.26(b)(1)(ix) and 122.26(b)(1)(x).
 - b. Construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. **An NPDES permit is required before the commencement of the construction activities.**
 - c. Discharges of treated effluent from leaking underground storage tank remedial activities.



WATER PLANNING AND ENVIRONMENTAL INC.

Mr. Henry Eng, FAICP
June 2, 2005
Page 2

- d. Discharges of once through cooling water less than one (1) million gallons per day.
- e. Discharges of hydrotesting water.
- f. Discharges of construction dewatering effluent.
- g. Discharges of treated effluent from petroleum bulk stations and terminals.
- h. Discharges of treated effluent from well drilling activities.
- i. Discharges of treated effluent from recycled water distribution systems.
- j. Discharges of storm water from a small municipal separate storm sewer system.
- k. Discharges of circulation water from decorative ponds or tanks.

The CWS requires that a Notice of Intent (NOI) to be covered by an NPDES general permit for any of the above activities be submitted at least 30 days before the commencement of the respective activities. The NOI forms may be picked up at our office or downloaded from our website at:
<http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>

3. The applicant may be required to apply for an individual NPDES permit if there is any type of activity in which there is a discharge from the project into State waters and/or coverage of the discharge(s) under the NPDES general permit(s) is not permissible (i.e. NPDES general permits do not cover discharges into Class 1 or Class AA State waters). An application for the NPDES permit is to be submitted at least 180 days before the commencement of the respective activities. The NPDES application forms may also be picked up at our office or downloaded from our website at:
<http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>

4. Hawaii Administrative Rules, Section 11-55-38, also requires the applicant to either submit a copy of the new NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD. Please submit a copy of the request for review by SHPD or SHPD's determination letter for the project.

If you have any questions, please contact Ms. Kris Poenits of the Engineering Section, C.W.B. at 586-4309.

Sincerely,

DENIS R. LAU, P.E., CHIEF
Clean Water Branch

KPmp

January 25, 2006

Denis R. Lau, P.E. Chief
Clean Water Branch, Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Attention: Ms. Kris Poenits

Dear Mr. Lau:


Subject: Draft Environmental Assessment (DEA) for the Shoreline Seaback Variance Application for a Seawall, Kalaanui Beach Lots, Ko'olaupoa, O'ahu.

We appreciate your comments regarding Section 401 Water Quality Certification (WQC) Application Requirement for a Department of Army (DA) Permit to remove and replace a seawall at Kulaanui Beach Lots Punahoa, O'ahu, Hawaii.

Please refer to page 3 of the Draft Environmental Assessment under Required Permits and Approvals. We have listed a Department of the Army permit as one of the required permits and have initiated consultation with the Army Corps of Engineers, pursuant to Paragraph 401(a) (10) of the Federal Clean Water Act (CWA). Consultation with the Department of the Army has resulted in File Number POH-2005-211 assigned to the project and Mr. Fertley Watanabe is the point of contact.

The project will not require a NPDES general permit coverage as long as the construction site is less than one acre and there will not be any construction dewatering effluent discharges.

Thank you for reviewing the Environmental Assessment. If you have any questions or need more information on this project, please call me or Judy Mariani at (808) 596-4688.

Sincerely,

Richard McGorow
Senior Planner

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1425 Kala Place, Honolulu, Hawaii 96813
Phone: 808-527-1331 Fax: 808-527-1331
401 E. Fern Drive • Honolulu, Hawaii 96813 • Phone: 808-527-1331 • Fax: 808-527-1331

SHIRO UJIKAGE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
P.O. Box 2389
Honolulu, Hawaii 96810-2389
Telephone: 808-587-3822
Fax: 808-587-3827

June 16, 2005

Mr. Henry Eng, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Eng:

Subject: Draft Environmental Assessment (DEA) for Shoreline Setback Variance Application for a Seawall
Kalanui Beach Lots, Koolaulou, Oahu, Hawaii
Tax Map Key: 5-3-09: 37

We are in receipt of the DEA for the subject project transmitted by your letter dated May 23, 2005. We understand that the subject project involves the replacement of an existing deficient rock retaining wall with a concrete rubble masonry (CRM) seawall. Boulders from the existing rock wall will be reused in the construction of the proposed CRM seawall. In addition, the existing sidewalk to the south of the parcel will be removed and the CRM seawall will be constructed with a flank wall. The existing rock sidewalk will be rebuilt on top of the CRM seawall.

For your information, the subject parcel was placed within the State Land Use (SLU) Urban District on August 23, 1964. The coastal portion of the subject parcel having an elevation below the highwater mark as it existed at that time was designated within the SLU Conservation District. Our review of the tax maps of that era indicates the subject parcel consisted of 7,510 square feet. Absent any evidence to the contrary, it appears that accretion and/or fill has contributed approximately 214 square feet to the current land area of the subject parcel despite the erosion identified on the shoreline map dated August 20, 2004. The pre-existing shoreline protective structure may have also affected the parcel's shoreline and necessarily the SLU Urban/Conservation District boundary location since 1964.

Date	6/21/05
By	Anthony J. Cheng
For	Mr. Henry Eng
Post-IT# Fax Note	7571

05 JUN 20 09 40

CITY OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

Mr. Henry Eng, Director
June 16, 2005
Page 2

Until such time that information is provided on the shoreline as it existed in 1964, we are unable to definitively determine the location of the SLU Urban/Conservation District boundary relative to the proposed CRM seawall. We suggest that a boundary interpretation request be submitted to our office with the above information to address this matter.

Thank you for the opportunity to comment on the subject DEA. Please feel free to contact Bert Saruwatari of my office at 587-3822, should you require clarification or any further assistance.

Sincerely,

Anthony J. Cheng
ANTHONY J. CHENG
Executive Officer

c: Office of Environmental Quality Control



WU CHEE - PLANNING AND ENVIRONMENTAL, INC.

DAPHNE L. PIPERIS, M.D.
DIRECTOR OF HEALTH

is reply please refer to:
EPC-05-047



RECEIVED
STATE OF HAWAII JUN 15 15 03

DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96813

DEPARTMENT OF PLANNING
AND PERMITTING
June 9, 2005 COUNTY OF HONOLULU

Mr. Henry Eng, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Dear Mr. Eng:

SUBJECT: Draft Environmental Assessment
Shoreline Setback Variance Application for a Seawall
Kalaheui Beach Lots, Koolauloa, Oahu, Hawaii
TMK: 5-3-09-037

Thank you for allowing us to review and comment on the subject document. We have no comment at this time and please refer to our website for the Standard Comments (<http://www.state.hawaii.gov/health/environmental/enp-planning/landuse.html>). If there are any questions about these standard comments please contact Jaicai Liu with the Environmental Planning Office at 586-4346.

Sincerely,

June F. Harrigan-Lum

JUNE F. HARRIGAN-LUM, MANAGER
Environmental Planning Office

C: EPO

January 25, 2006

June F. Harrigan-Lum, Manager
Environmental Planning Office
Department of Health, State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 96801

Attention: Jaicai Liu

Dear Ms. Harrigan-Lum:

Subject: Draft Environmental Assessment (DEA) for the Shoreline Setback Variance Application for a Seawall, Kalaheui Beach Lots, Koolauloa, Oahu.

Thank you for your comments on the Draft Environmental Assessment for the Uebel Seawall, Oahu. We have consulted the website for the Standard Comments and we will continue to take them into consideration and apply them to the final Environmental Assessment.

Thank you for reviewing the Environmental Assessment. If you have any questions or need more information on this project, please call me or Judy Mariani at (808) 596-4688.

Sincerely,

Richard McGerrow

Richard McGerrow
Senior Planner



REGULATORY PLANNING AND ENVIRONMENTAL, INC.

January 25, 2006

Anthony J. H. Ching, Executive Officer
Land Use Commission
Department of Business, Economic Development & Tourism
P.O. Box 2359
Honolulu, Hawaii 96804-3822

Attention: Mr. Bert Saruwatari

Dear Mr. Ching:

Subject: Draft Environmental Assessment (DEA) for the Shoreline Setback Variance Application for a Seawall, Kahaunui Beach Lots, Ko'olaupua, O'ahu.

Thank you for your comments on the Draft Environmental Assessment. We were not aware that TMK: 5-3-009:037 changed in size since 1964 and as stated in your letter, "this may have been due to coastal accretion which may have affected the SLU Urban/Conservation District boundary".

To address this information we used the current parcel information as a baseline and went to the State Archives to look at older TMK maps and were able to determine the following: The City and County of Honolulu Department of Permitting and Planning parcel information describes the parcel as 7774 square feet (dimensions: 149.46 ft., 80 ft., 40 ft., 125 ft.). This is also the square footage on the current TMK maps. Older TMK maps on record at the State Archives indicate that there was a change in a boundary that changed the parcel from 7510 square feet to 7774 square feet between 1963 and 1976. This change in parcel size was due to the boundary that runs parallel to the shoreline being extended from 144.80 feet to 149.46 feet.

Further research at the Bureau of Conveyances revealed that the extension of the property line running parallel to the shoreline was recorded on June 2, 1967. The parcel area was revised by the Bishop Estate (see attachments 1, 2 & 3).

If the parcel area was revised to take advantage of shoreline accretion, the boundaries that are perpendicular to the shoreline would have been extended and not the boundary that runs parallel to the shoreline. The boundary between the Uebel parcel, TMK: 5-3-09:037 and TMK: 5-3-09:044 is perpendicular to the shoreline and is shorter now due to coastal erosion. Please refer to Figure 5 and Figure 7 in the Environmental Assessment. Both of those figures indicate that the parcel corner is now part of the beach and that the parcel is now smaller than the 7774 square feet indicated on the TMK maps. A survey conducted by Sam O. Hirota, Inc. on August 20, 2004 indicates that the parcel is now

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Mr. Henry Eng, Director,
Land Use Commission, State of Hawaii

August 30, 2005

7724 square feet with a loss of 50 square feet (see Attachment 4). All of the information that we found indicates that if the SLU Urban/Conservation District boundary location has changed, it is not due to accretion, but due to coastal erosion, particularly on the adjacent parcel TMK: 5-3-09:044.

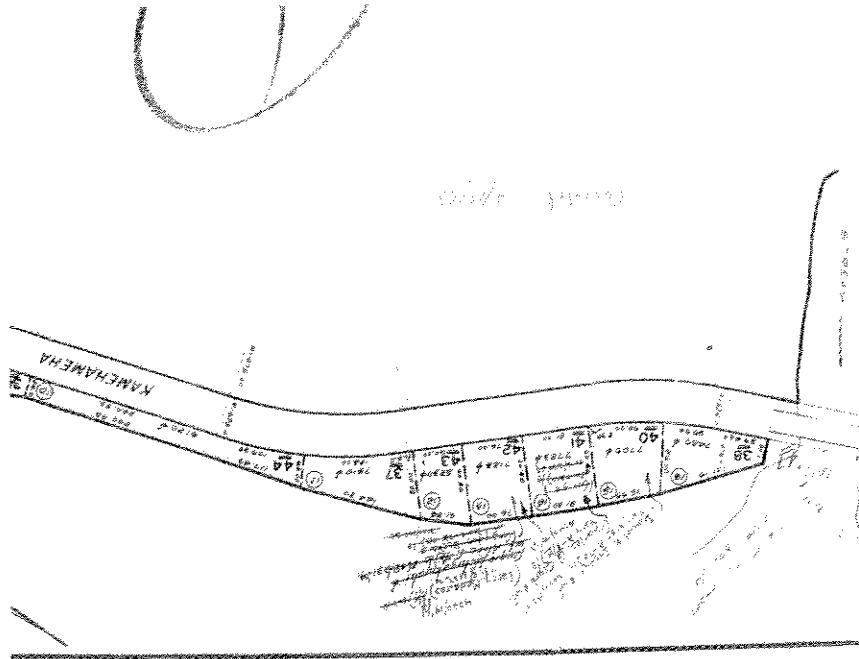
On September 16, 2005, Ms. Judy Mariant discussed our findings with Bert Saruwatari at the Land Use Commission office. At that time it was determined that a boundary interpretation for TMK: 5-3-009:037 is not required.

Thank you for reviewing the Environmental Assessment. We appreciate your comments and participation in the EA process. If you have any questions, please call me or Judy Mariant at (808) 596-4688.

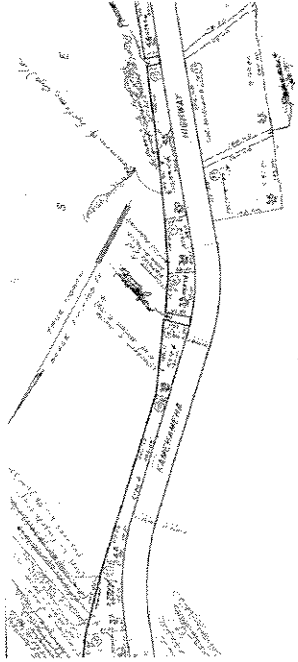
Sincerely

Richard McGerrow
Senior Planner

Attachment 1 TMK Map Canceled 2/15/63

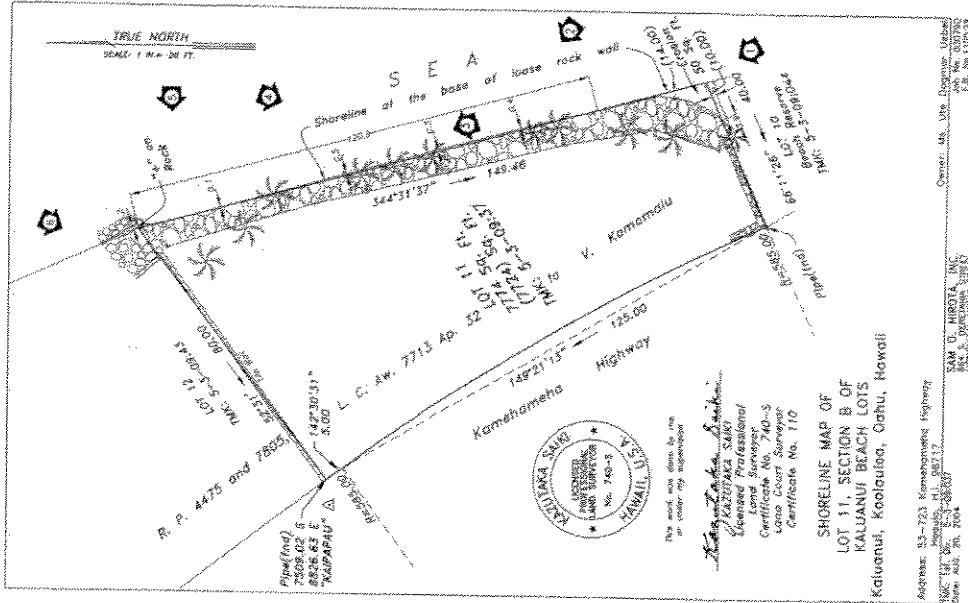


Attachment 2 TMK Map Canceled 8/23/76
Indicating a change in the length of the boundary on TMK: 5-3-09: 037



CAN

Attachment 4



Attachment 3 Record of Area Revised 6/2/67

NO.	DATE	DESCRIPTION	REMARKS
1	6/2/67
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Part 1 Data on Beach Changes (1988), prepared by Sea Engineering, Inc. The area under discussion is characterized (through shoreline analysis) as:

"The extensive shore protection along this sector might be masking the natural beach changes. The central part of Kalanui Beach is stable. Other unprotected areas are unstable and subject to both accretion and occasional severe erosion." Page 30

DEA Section 3.2.6 Though previous studies suggest erosion for the last 40 years, the OCCL questions whether this area has probably been eroding "since the last ice age over 20,000 years ago." Sea level during the last ice age was 120 m below present, only rising to modern levels within the last 5,000 years. Additionally, studies on regional beach systems, such as Hartney, *et al.*, "Age and composition of carbonate shoreface sediments, Kaula Bay, Oahu, HI," in 2000, suggest that modern beach sands are much more recent, on average between 1,000-2,000 years in age. It is recognized that the area has a long history of erosion but the OCCL suggests keeping the scope of the discussion to more recent historical (and documented) time frames.

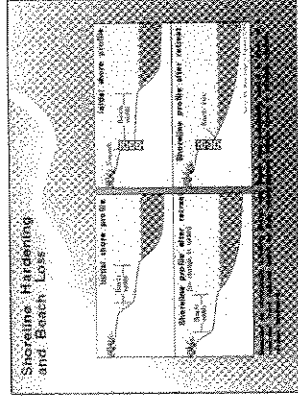
DEA Section 3.2.6 states that Windward Oahu's coastlines, specifically the unprotected ones, "have eroded to the point where they no longer exist as useable lots." The OCCL does not agree with this generalization and recommends that it be removed from the DEA.

DEA Section 3.3.3 The OCCL has questions about the DEA's representation of tsunami potential. Tsunami are significantly different from wind waves and swell in that tsunami amplitude is the depth of the ocean at the location of origin, and tsunami periods can exceed twenty minutes. We would recommend revision of the statement that a "tsunami may be dissipated on the reef and in the shallow water before it moves inland over the shoreline." Historical records of tsunami run-up and hazard potential can be obtained from the 2002 publication of "Atlas of Natural Hazards in the Hawaiian Coastal Zone."

DEA Section 4.2 The new seawall is designed to behave more effectively as a shoreline hardening structure than the current degraded and un-engineered rock structure. By its very nature it will have a different impact than the current rock pile. The OCCL questions whether there will be "no changes to the beach and off shore," and recommends revision of this statement. This extends to all sub-sections within **Section 4.2 Beach and Offshore.**

It has been well documented (note) that seawalls on eroding shorelines can lead to beach loss or narrowing by restricting the natural movement of the shoreline landward. The current un-engineered rock structure is not a seawall, but rather a pile of rocks placed on the beach. In theory, the purpose of the new structure is to more effectively protect the shoreline. Theory suggests that this would increase reflected wave energy, speeding beach loss and further impeding sand deposition seaward of the structure. With a hard structure in place the beach may not maintain the original width as it retreats landward and instead narrows, as has been documented in the DEA for this project. The OCCL feels the DEA fails in accurately describing the negative impacts of the rebuilt seawall, and suggests that this section be revised.

Note: *Beach Loss Along Armored Shorelines on Oahu, Hawaiian Islands*, 1997, Fletcher, Charles H., *et al.*, Journal of Coastal Research, Vol. 13, No. 1, Pg. 209-215.



PETER L. VONING
CHAIRMAN
BOARD OF LAND AND NATURAL RESOURCES
COMMISSIONER OF THE OFFICE OF LAND AND NATURAL RESOURCES



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Correspondence No. OA-06-90
OCT 31 2005

W/H Chee
Planning & Environmental, Inc.
1018 Palm Drive
Honolulu, Hawaii 96814

Dear Will Chee:

SUBJECT: Review of Draft Environmental Assessment for Shoreline Setback Variance for a Seawall, TMK: (1) 5-3-09-037, Koolauloa, Oahu, Hawaii

The State of Hawaii Department of Land and Natural Resources (DLNR), Office of Conservation and Coastal Lands (OCCL) has reviewed the April 2005 Draft Environmental Assessment (DEA) for Shoreline Setback Variance (SSV). The ultimate purpose of the SSV is to permit replacement of the seawall currently on the property.

The OCCL finds the general description of the environment and presentation of the DEA to be satisfactory. However, there are several important points within the DEA that the OCCL has comment on:

- **Section 3.1** characterizes the coastal plain as a wave cut platform extending back to the talus slopes at the base of the Koolau Mountain Range. It is important to note that wave cut platform is a marine feature, generally underwater at mean high water. The wave cut platform is actually a coastal plain. Coastal plains on Oahu are typically a mixture of reefal carbonates, carbonate sediments, terrigenous sediments, basalt outcrops, and soils, all emplaced through a combination of repetitive sea level fluctuations and volcanic activities.
- **DEA Section 3.2.1** Though large-scale erosion events are episodic, they are still on a time frame significantly shorter than that of available shoreline data (starting with T-sheets from the early 1900's). Almost a full century of shoreline data allows for the computation of an erosion trend (smoothing erosion data) through regression modeling. The result is an erosion rate that is the best fit for long-term (almost a century) shoreline change incorporating the effects of both chronic erosion and episodic erosion (both of which create persistent change within the natural system). In light of this discussion, the OCCL recommends a shoreline change review be completed as a necessary portion of a DEA dealing with shoreline structures. The OCCL recommends a review of *Oahu Shoreline Study*.
- **Section 4.2** The new seawall is designed to behave more effectively as a shoreline hardening structure than the current degraded and un-engineered rock structure. By its very nature it will have a different impact than the current rock pile. The OCCL questions whether there will be "no changes to the beach and off shore," and recommends revision of this statement. This extends to all sub-sections within **Section 4.2 Beach and Offshore.**
- It has been well documented (note) that seawalls on eroding shorelines can lead to beach loss or narrowing by restricting the natural movement of the shoreline landward. The current un-engineered rock structure is not a seawall, but rather a pile of rocks placed on the beach. In theory, the purpose of the new structure is to more effectively protect the shoreline. Theory suggests that this would increase reflected wave energy, speeding beach loss and further impeding sand deposition seaward of the structure. With a hard structure in place the beach may not maintain the original width as it retreats landward and instead narrows, as has been documented in the DEA for this project. The OCCL feels the DEA fails in accurately describing the negative impacts of the rebuilt seawall, and suggests that this section be revised.

- **DEA Section 4.2.2** Specifically, the OCCCL questions the statement that the "seawall will have no effect on the shoreline." We do not agree with the statement as a whole (see previous bullet) and its placement within **Beach Profile**. Beaches and shoreline are not the same. Shorelines may be maintained without preserving the beach. This section should be changed to address potential effects to the beach, which are assumed to be "more than, none" without a conclusive coastal engineering study.
- **DEA Section 5.4** The OCCCL finds the statement that erosion "will continue until it threatens Kanehameha Highway as it has on the adjacent parcel" is unqualified and not supported by the current data. Again, the OCCCL recommends a coastal engineering study be conducted before making this statement. This also applies to a similar statement in **DEA Section 5.5 No Action**, concerning loss of property and highway.
- **DEA Section 6.0** The OCCCL disagrees with the statement "an engineered seawall will have no significant environmental impacts." The OCCCL recommends this statement be revised until a qualified and conclusive coastal engineering study is conducted and can support this statement. As such, the OCCCL does not agree with the findings in **DEA Sections 6.0.1, 2, 3, 7, 8, and 11**, and requests that the statements of no effects be revised. The OCCCL recognizes the complexities in dealing with shoreline structures and the potential impact to the shoreline. A position on shoreline structures and variances is clearly identified in the County ordinances, Chapter 23.1.5 b.1. of the Revised Ordinances of Honolulu (ROH) states, "**Structures and activities are prohibited within the shoreline area, with the following exceptions:**

"Minor structures and activities permitted under rules adopted by the department which do not affect beach processes or artificially fix the shoreline and do not interfere with public access, public views or open space along the shoreline. If, due to beach erosion or other cause, the director determines that a minor structure permitted under this section may affect beach processes or public access or has become located seaward of the shoreline, the director or other governmental agency having jurisdiction may order its removal."

Section. 23-1.9 Conditions on Variances states;

- "No variance shall be granted unless appropriate conditions are imposed;*
- To maintain safe access to and along the shoreline or adequately compensate for its loss;*
- To minimize risk of adverse impacts on beach processes;*
- To minimize risk of existing legal or proposed structures falling and becoming loose rocks or rubble on public property; and*
- To minimize adverse impacts on public views to, from and along the shoreline. (Added by Ord 92-34)"*

The OCCCL suggests that these specific points in the ROH be addressed within the DEA, including adequate description of potential effects of the seawall. Since potential impacts of seawalls are not well understood, it is vital to mention this lack of understanding and both potential and documented effects of seawalls in similar environments.

The OCCCL questions the DEA finding that the seawall will have minimal long-term effect on the shoreline processes at the project site. The purpose and function of the structure is to prohibit the landward erosion of the shoreline, thus impacting the shoreline processes. If the structure did not impact the shoreline there would be no need to build one in the first place.

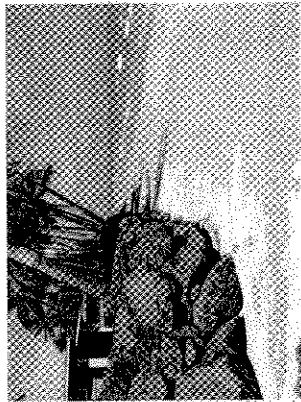
- **DEA Section 8.0** Another statement, to the effect of removing the seawall equating total loss of property is made. The OCCCL suggests revising this statement until a conclusive coastal engineering study is conducted. Though this might be true, it should be supported by adequate data.

In addition to these points on the content within the DEA, we have the following comments concerning the objectives and planned activities:

- The OCCCL recommends that, as part of the conditions for a SSV permit, the beach-quality material excavated for the new structure be returned to the beach system. Seawalls, by their very nature, prevent communication of sand from the active beach face to the coastal dune system, or sands underneath the current property. By placing the excavated material onto the beach, the property owner will provide the last natural nourishment of the natural beach system from its stored sands. The OCCCL believes that though this is not the ideal situation, nourishment with this sand will constitute a BMP. To facilitate this the OCCCL will help the property owners determine what portions of the excavated materials are suitable for nourishment, and assist in processing the Small-Scale Beach Nourishment (SSBN) Application. Information on this process and a copy of the application may be found at <http://www.hawaii.gov/dnr/occl/beachnourishment.php>.
- The OCCCL recommends that, as part of the conditions for a SSV permit, the structure provide lateral access to the coastline. Due to the loss or absence of lateral access resulting from seawall emplacement, the OCCCL feels this is a necessary consideration for any shoreline structure. With the chronic erosion of the beach on the southeastern side of the property, the OCCCL recommends an access point near the road and a public easement around the top of the wall ensuring access and precluding vegetation. This will allow access across the top of the wall and continued shoreline recreation in the event of future beach loss. Again, this is not the ideal choice, but closer to the best management practices recommended.
- The OCCCL recommends that, as part of the conditions for a SSV permit, long-term beach nourishment be suggested. The purpose of hardened structures on the coast is to fix shorelines. This process preserves private property at the expense of the beach, as discussed earlier. A long-term commitment to beach nourishment, via our SSBN process, would fulfill all agencies requirement to preserve and maintain the natural resources, while still accommodating the private land owner's need to protect their investment.
- The OCCCL believes granting a variance for the subject project without a condition to maintain the beach would be contrary to Chapter 23 Shoreline Setbacks of the Revised Ordinances of Honolulu. ROH, Chapter 23 states in part:
"Sec.23-1.2 Purpose.
(a) It is a primary policy of the city to protect and preserve the natural shoreline, especially sandy beaches; to protect and preserve public pedestrian access laterally along the shoreline and to the sea; and to protect and preserve open space along the shoreline. It is also a secondary policy of the city to reduce hazards to property from coastal floods.
(b) To carry out these policies and to comply with the mandate stated in HRS Chapter 205A, it is the specific purpose of this chapter to establish standards and to authorize the department of land utilization to adopt rules pursuant to HRS Chapter 91, which generally prohibit within the shoreline area any construction or activity which may adversely affect beach processes, public access along the shoreline, or shoreline open space."
- The OCCCL would like to open dialogue concerning Compensatory Mitigation. Compensatory Mitigation should be a requirement with the SSV, as the current, illegal, un-engineered rock structure is impacting the resource and the proposed seawall will further impact the resource. Mitigative

measures may include nourishing the beach. The OCCL and the C&C should discuss the terms of sufficient Compensatory Mitigation to be included in the SSV.

- The OCCL would like to inform you that the shoreline cannot be certified along an illegal, un-engineered rock structure such as the current wall, or if there are encroachments such as the fallen boulders. In this case, the OCCL believes the shoreline to be mauka of, and obstructed by, the un-engineered rock structure. Please contact the OCCL to discuss this matter and possible solutions.



Top left: foreground shows boulders fallen from the failing structure. Top right: image of property with a wide sandy beach in front and obvious lateral access. Both the State and the C&C are required to protect this resource and access across it.

It is incumbent upon all government agencies to consider the effect of their actions on our beaches and to consider long-term measures to protect coastal development and beaches simultaneously. The cost of remedial shore protection is a significant problem for shore owners and government in of itself, but the loss of beaches is an even greater concern.

When evaluating erosion control alternatives, it is important to identify the priorities and purpose of the structures. From a coastal management standpoint, it seems logical and appropriate to protect and preserve the beach system by moving and/or minimizing the impact of structures sometimes compromising a portion of the private property. It should be realized that for many homeowners, the loss of the sandy beach puts the property owner at increased risk to coastal hazards. Beach loss also causes a significant devaluation of property values (not just oceanfront) as well as a material loss of the primary attraction and original intent of living on the coast.

Thank you for the opportunity to comment on this project. The OCCL will work directly with the applicant to provide guidance and review the project as it proceeds. If you should have any questions, please contact Sam Lemmo at 587-0381 or Chris Coe at 587-0049.

Thank You


Sam Lemmo, Administrator
DLNR, Office of Conservation and Coastal Lands

cc: Chairperson
C&C Department of Planning & Permitting, Henry Eng
Koolauloa Neighborhood Board (via e-mail)



January 25, 2006

Sari Lemmo, Administrator
Office of Conservation and Coastal Lands
Department of Land and Natural Resources
State of Hawaii
1151 Punchbowl, Room 131
Honolulu, Hawaii 96813

Dear Mr. Lemmo,

Subject: Shoreline Setback Variance Application & Environmental Assessment (EA) for a
Seawall, Kalaupuni Beach Lots, Kō'olāloa
Punahoa, Hawaii 1, TMK: 5-3-09-037

Thank you for your lengthy list of comments on the Draft Environmental Assessment. We will address your comments in the order that they were written.

- The boulders that have fallen from the existing but inadequate rock structure that are in violation of the Conservation District Regulations will be removed and re-used in the proposed engineered structure. Please refer to 2.3.1 Technical Characteristics section of the EA that describes the proposed project. The boulders from the inadequate rock structure will be removed from the beach and stockpiled on the parcel for re-use in the engineered sea wall.
- The methods to be used for removing the rocks will be determined by the contractor at the time of removal and based upon the equipment available and conditions at that time.
- DEA Section 3.1: This section refers to the coastal plain as an ancient wave cut platform as described by Hazlett and Hyndman in *Roadside Geology of Hawaii*, 2002 and McDonald, Abbott and Peterson, *Volcanoes in the Sea*, 1983, pages 277-285, 420-424. Please recall that coastal planes are often located on ancient wave cut platforms that formed when sea level was much higher. Both global and regional sea level fluctuations over geologic time have had a profound effect on Oahu's coastlines.
- DEA Section 3.2.1: The data from *Oahu Shoreline Study, Part I, Data on Beach Changes*, indicates a net erosion of 16 feet at the location of the subject property for the period of 1949-1988, yielding an average annual rate of erosion of 0.41 feet/year. If the original seawall was constructed prior to 1988, then the erosion rate would be even higher. All of the private properties along this section of the coastline have been protected by structures to prevent the loss of their dwellings. The adjacent unprotected parcel is continuing to erode and will soon need to be protected before Kamehameha Highway is undercut and collapses onto the swash zone. The average width of TMK 5-3-09-044 fronting the highway is only about 8 to 10 feet, EKNA Services, Inc. (EKNA).

Providing Services Since 1976

Lead EA Engineer and Environmental Geoscientist
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- DEA Section 3.2.6: The source of sand is primarily the fringing reefs. The calcareous sand is generated on the reef by erosion and biological activity (e.g. calcareous algae, foraminifera, skeletal parts of marine invertebrate animals, and eroded corals that are broken and tumbled by high surf activity according to Macdonald et al, *Volcanoes in the Sea*). Wave energy transports these sands to the beach. Reduced biological activity on the reefs combined with rising sea level are probably the reasons why there is long-term erosion along this segment of the coastline (EKNA).
- DEA Section 3.2.6 states that windward Oahu's unprotected coastlines have eroded to the point where they no longer exist as useable lots based upon the numerous studies referenced in EKNA's report (*Coastal Engineering Assessment of Seawall at Hauula, Oahu, Hawaii*) in Appendix B of the DEA). This engineering report documents the fact that unprotected sections of shoreline on the windward coast have eroded to the point where they are no longer "buildable". Sections of coastline where dwellings exist seaward of the highway are still in existence because they are protected by structures (EKNA).
- Flood Insurance Rate Maps (FEMA Panel 15003C0155C: City and County of Honolulu, O'ahu, Hawaii, revised June 2, 2005) indicate that the parcel is designated as Zone VE (EL 10). Map legends state that Zone VE (EL 10) is a "Coastal flood zone with velocity hazard (wave action): Base Flood Elevations determined to be 10 feet above mean sea level". If a tsunami should approach this part of O'ahu's shoreline, flooding can be anticipated. However, some of the energy from the tsunami may be dissipated on the reef and in the shallow water before it moves inland over the shoreline.
- DEA Section 4.2: Although the prior seawalls and the proposed new seawall do not alter the existing littoral process affecting the site, the result will be the eventual loss of beach in front of the property as erosion progresses. This will continue to occur regardless of the type of shore protection structure. Therefore, the process of protecting the property will result in changes to the beach profile, assuming that erosion continues along this coastal reach.
- DEA Section 4.2.2: Please refer to the previous response.
- DEA Section 5.4 and Section 5.5: Please refer to page 5 of the *Coastal Engineering Assessment of Seawall at Hauula, Oahu, Hawaii* EKNA Services, Inc. in Appendix B of the DEA. "Parcels fronting the highway that have not been protected are presently very narrow in width or substantially eroded such that the highway has been subjected to frequent wave overtopping and erosion damage."
- DEA Section 6.0: This section is based upon current conditions and the fact that the entire coast in the area is armored by seawalls and coastal processes will continue with or without a new engineered seawall. However a new engineered seawall is required to protect the parcel. A qualified Coastal engineering study was conducted and is included in Appendix B of the Draft EA.
- DEA Section 8.0: Please refer to page 5 of the *Coastal Engineering Assessment of Seawall at Hauula, Oahu, Hawaii* in Appendix B of the DEA.
- OCCU's recommendation that Small-Scale Beach Nourishment take place using excess Beach Quality material removed during construction is not feasible. All of the material excavated for the emplacement of an engineered seawall will be used to backfill on both the mauka and makai sides of the wall and more sand may be required for additional backfill. It

is anticipated that there will not be an excess of beach quality sand to provide for Small-Scale Beach Nourishment (SSBN).

14. OCCL recommendation concerning the provision of lateral access along the top of the wall is impractical. The rest of the shoreline north of the property is protected by structures and the subject property's seawall will tie into the shore line protective structure on the adjacent property. Provision of access along the top of the subject seawall will serve no useful purpose. There are also health and safety concerns as well as owner liability associated with allowing public access on the private seawall. It should be noted that public access to the beach is available to the east of the subject property since it is unused land being too narrow to support structures.
15. OCCL recommendation concerning long-term beach nourishment is also impractical in this situation. Beach nourishment would require the participation of all property owners in the littoral cell, and to be successful it would require large quantities of suitable beach sand. There is no known source of that quantity of sand. The cost of this would be prohibitive and would cause undue hardship to the landowner. Please refer to the alternative 5.3 Soft Shore Protection in the Draft EA.
16. OCCL recommendation that granting a SSV permit without a condition to maintain the beach would be contrary to Chapter 23 Shoreline Setbacks of the revised ordinances of Honolulu. This recommendation is contrary to HRS Chapter 205 A Coastal Zone Management §205A-46 Variances:
- (a) A variance may be granted for a structure or activity otherwise prohibited in this part if the authority finds in writing, based on the record presented, that the proposed structure is necessary for or ancillary to:
- (9) Private facilities or improvements that may artificially fix the shoreline; provided that the authority also finds that shoreline erosion is likely to **cause hardship to the applicant if the facilities or improvements are not allowed within the shoreline area, and the authority imposes conditions to prohibit any structure seaward of the existing shoreline.**
- A condition requiring the applicant to maintain the beach would impose hardship on the applicant. The cost of supplying enough sand to maintain the beach would cause severe economic hardship to the applicant.
17. OCCL comment or recommendation concerning Compensatory Mitigation as a requirement with a SSV may not be a viable option based upon the Hawaii Revised Statutes Chapter 205A, Coastal Zone Management §205A-46 Variances:
- (a) A variance may be granted for a structure or activity otherwise prohibited in this part if the authority finds in writing, based on the record presented, that the proposed structure is necessary for or ancillary to:
- (9) Private facilities or improvements that may artificially fix the shoreline; provided that the authority also finds that shoreline erosion is likely to **cause hardship to the applicant if the facilities or improvements are not allowed within the shoreline area, and the authority imposes conditions to prohibit any structure seaward of the existing shoreline.**

Denying a Shoreline Setback Variance or requiring Compensatory mitigation if a SSV were granted would cause economic hardship for the owner of this small single family residence.

18. OCCL commented that the shoreline cannot be certified along an illegal, un-engineered rock structure. Normally a shoreline certification would be required with a shoreline setback variance. Section 13-5(a)(6) of the rules for the Department of Planning and Permitting allow the director to waive the shoreline certification requirement where the shoreline is affected by an illegal shoreline structure provided the applicant submits a shoreline survey as a part of a shoreline variance application. Our client's circumstances meet these criteria. Once a variance is obtained and the wall is permitted, then an application for certification will be prepared.

Again we thank you for reviewing the Draft Environmental Assessment. If you have any questions or need more information on this project please call me or Judy Mariani at (808) 596-4688.

Sincerely,



Richard McGerrow
Senior Planner

Appendix B
Coastal Engineering Report

.....



1. LOCATION AND PROBLEM IDENTIFICATION

The project site is located about midway between Hauula Beach Park and Punaluu Beach Park, on the windward coast of Oahu. Figure 1 shows the general site location and Figure 2 provides the Tax Map Key. The property shoreline was protected by a rock structure when the current owner purchased the property. The severe winter storm in November 2003 severely damaged the protective structure, resulting in exposure of the property shoreline to wave erosion damage from seasonal high wave activity. The owner rebuilt the protective structure to protect her dwelling from wave erosion damage. Figure 3 is a copy of the shoreline survey performed by Sam O. Hirota, Inc. that shows the limits of the existing rock shore protection. However, the previous shore protection structure was apparently constructed without obtaining a building permit and Shoreline Setback Variance (SSV), therefore, the current owner was issued a Notice of Violation. In accordance with the Shoreline Setback Rules and Regulations of the City and County of Honolulu, this coastal engineering assessment is prepared in support of an application for an SSV for reconstruction of the seawall.

The residential properties along this coastal reach on the seaward side of Kamehameha Highway are very narrow to non-existent due to the chronic erosion that has been occurring since the highway was constructed. There is a narrow beach that varies in width seasonally. This coastline is exposed to the predominant tradewind waves, and the winter North Pacific swell that wraps around the island. Although fringing reefs protect the shoreline from moderate tradewind wave energy, chronic long-term erosion is occurring. Nearly all beachfront properties with residential dwellings along this windward coast are protected by some type of shore protection structure. Those properties that have not been protected are no longer buildable because of the loss of fastlands. Kamehameha Highway is directly exposed to wave erosion and overtopping damage along those reaches where the fronting shorelines have been eroded. The property owner desires to protect the dwelling from erosion damage by reconstructing the shore protection structure.

Coastal Engineering Assessment
of Seawall at Hauula, Oahu, Hawaii

TMK: 5-3-09:037

Prepared for:

Ms. Ute Dagmar Uebel
53-723 Kamehameha Highway
Punaluu, Hawaii 96717

Prepared by:

EKNA Services, Inc.
615 Piikoi Street, Suite 300
Honolulu, Hawaii 96814
(EKNA Control No. 2490-00F#)

April 2005

2. SHORELINE CHARACTERISTICS AND COASTAL PROCESSES

The windward communities of Hauula and Punaluu are concentrated along the narrow coastal plain. To the west, the Koolau Mountain Range rises to more than 2,000 feet above sea level. A shallow and broad fringing reef fronts this coastal reach, extending about 1,500 to 2,000 feet offshore. This coastal reach is sheltered by the island mass from the direct approach of summer southern swell, local Kona storm waves from the southerly and westerly direction, and infrequent hurricanes traveling in a west-northwesterly direction passing south and west of the island chain. These waves undergo considerable diffraction and refraction effects prior to reaching this coastline, resulting in reduced wave energy. Predominant wave types affecting this coastal reach are the northeasterly tradewind-generated waves and the winter North Pacific swell.

The shallow offshore fringing reef provides considerable protection from deepwater wave energy. Waves initially break on the reef edge where most of their energy is spent. What energy remains propagates to shore as reformed waves which break on the shoreline. The maximum wave height that can reach the shore is limited by the water depths over the nearshore reef area and the channels through the reef. Deeper water depths over the reef allow greater transmission of wave energy. During large swell activity, waves breaking over the reefs can cause a rise in water level known as wave setup. The increased water levels during storms can allow higher than normal wave energy to reach the shore. Thus, wave activity at the shoreline is greatest during large swell or storm wave conditions and high tides.

The windward coastline consists of a series of littoral cells delineated by headlands (convex-shaped portion of coastline) and channels ("awa") cut through the reef at the mouths of major streams (concave-shaped portion of coastline). The project reach is located within a littoral cell defined by Kaluanui Stream. Sediment input to a littoral cell is primarily contributed by the streams and the fringing coral reefs, while sediment losses are primarily due to transport of the sediment into the awa. Sand is moved seaward through the awa into the deeper offshore areas where wave energy cannot transport the sediment back to shore. Figure 4 schematically shows the circulation within the littoral cell systems that are characteristic of the windward coastline in the vicinity of the project site.¹ Transport of sediment primarily occurs during high wave

¹Douglas L. Inman and Patricia M. Masters (1988). "Investigation of Windward Oahu Beach Erosion", prepared for Department of Parks and Recreation, City and County of Honolulu.

conditions, when wave energy is sufficient to suspend sediments in the nearshore and shoreline areas. Longshore currents subsequently transport these suspended sediments into the awa, where seaward return flows transport the sediments to deep water. Figure 5 depicts the probable longshore transport pattern in the vicinity of the subject property. There is little seasonal variability in the beach width because of the paucity of sand in the nearshore zone. Long period swell waves have the potential for moving sediment shoreward, however, there is insufficient sand in the nearshore zone to result in significant accretion on a seasonal basis or long-term.

The deficit between the supply and losses has resulted in net long-term erosion along much of this windward Oahu coastline, as documented by Hwang,² Sam O. Hirota, Inc.,³ and Sea Engineering, Inc.⁴ According to analysis of historical aerial photographs, long term erosion near the headlands has been occurring over 40 years. Seawalls and emergency shore protection measures have been constructed over those years to protect residential properties and the highway. Unprotected residential properties that may have formerly existed seaward of the highway have eroded and no longer exist as "buildable" lots.

The subject property is located about 1.5 miles south of Hauula Beach Park and about 1.5 miles north of Punaluu Beach Park. The bridge across the Kaluanui Stream is located about 500 feet north of the property. A site visit was conducted on December 28, 2004 during a low tide (+0.4' MLLW⁵) and moderate tradewinds. Photo page-1 shows the damaged condition of the shoreline protection structure after the November 2003 storm, and the present rock structure that was recently constructed. The existing shoreline protection structure appears to be constructed of large boulders that have been stacked to form a seawall-type structure.

²Dennis Hwang (1981). "Beach Changes on Oahu as Revealed by Aerial Photographs", prepared for the State Department of Planning and Economic Development by the Urban and Regional Planning Program and the Hawaii Institute of Geophysics, University of Hawaii.

³Sam O. Hirota, Inc. (1988). Beach Erosion Study, Various Parks - Windward Oahu", prepared for the City and County of Honolulu, Department of Parks and Recreation.

⁴Sea Engineering, Inc. (1988). "Oahu Shoreline Setback Study", prepared for the City and County of Honolulu, Department of Land Utilization.

⁵Honolulu high tide was at 5:20 am at +2.3' MLLW, and low tide was at 12:54 pm at +0.2' MLLW. Based on corrections for Late Bay, low tides was estimated to occur at about 11:09 am. The site visit was conducted 10:00 - 10:30 am.

Photo page-2 shows the eroded condition of the adjacent shoreline that is unprotected. This adjacent parcel on the south side of the subject property is very narrow (only about 10 feet from the edge of the highway pavement) to the shoreline escarpment). This section of Kamehameha Highway will be subject to erosion damage and wave overtopping if left unprotected. The properties to the north of the subject parcel are protected from wave erosion damage with various types of shore protection structures (Photo page-3).

The existing grade at the subject property is estimated to be about +6' MSL (+7' MLLW). The fronting beach elevation at the base of the existing rock structure is estimated to be 0.0 MSL (+1' MLLW). There is no "dry" beach along this coastal reach. It is obvious that during high tide, the wave uprush reaches the shore protection structures. The "wet" beach is much wider at the mouth of Kaluanui Stream, where a delta has formed. However, the debris line indicates that wave uprush at high tide reaches the base of the protective rock structure on parcel 38, located adjacent to the Kaluanui Stream bridge (Photo page-3).

3. PROPOSED SEAWALL

The existing rock protective structure was constructed without obtaining a building permit and SSV. The CRM sidewall was also constructed without permits. In order to obtain the required permits, the seawall must be properly designed and sealed by a licensed engineer. While portions of the rebuilt structure appear relatively stable, it is unknown whether the base of the wall was placed deep enough to prevent scouring and undermining from storm wave activity. It is also not known whether the wall was properly designed for retaining the 6 feet or so of shoreline embankment from the top-of-beach elevation to the top-of-bank elevation of the property's existing grade. The existing stacked rocks on the southern end of the property shoreline are starting to unravel, and continuing erosion will lead to undermining of the CRM sidewall.

The proposed replacement shore protection structure is a CRM seawall, in accordance with the Figure 6 design by Tanimura & Associates, Inc. The base of the seawall will be excavated and placed at -4' MSL (-3' MLLW), or at a shallower depth if solid non-erodible strata is encountered. The bottom width of the wall is approximately 6 feet. The top elevation of the seawall will be at +6' MSL, which is the approximate existing grade of the property. The existing boulders will be re-used in the seawall construction to the extent practicable.

The existing CRM sidewall will be removed, and the seawall will be constructed with a return wall (flank wall) to protect the property from continuing erosion and damage at the southern end. The base of the seawall will transition from -4' MSL to 0.0 MSL at the mauka corner. A replacement CRM sidewall will be constructed on top of the seawall to provide privacy screening of the property.

4. POTENTIAL LITTORAL IMPACTS

The existing structures along this coastline do not alter the existing littoral processes affecting this site, and neither will the proposed replacement seawall. This entire windward coastline has been experiencing net long-term erosion over the past 40-50 years. There is high risk of wave erosion and overtopping damage to unprotected properties. Parcels fronting the highway that have not been protected are presently very narrow in width or substantially eroded such that the highway has been subjected to frequent wave overtopping and erosion damage. A study for the State of Hawaii, Department of Transportation by Edward K. Noda and Associates, Inc. (now EKNA Services, Inc.) identified several problem areas along Kamehameha Highway on this windward coast that are recommended for shoreline protection.⁶ The unprotected parcel on the south side of the subject property is presently experiencing considerable erosion damage. Cable stays for a telephone guy pole located in the narrow highway shoulder area is now in the "beach" zone because of erosion of the shoreline.

While the seawall would not affect longshore sediment transport processes, there may be some concern that cross-shore transport may be affected because of wave reflection from the near-vertical impermeable face of the seawall. It has been a generally held presumption that the more reflective the structure, the greater the potential for adverse impacts by discouraging sand accumulation in front of the structure. However, given the fact that beach and shoreline erosion is continuing to occur along this entire windward coastline and elsewhere where there are no shore protection structures, it can be concluded that the long-term erosion trend is a natural process that will certainly not reverse simply by constructing shore protection structures with sloping porous surface. In fact, long-term field studies by the University of California at Santa Cruz,⁷ sponsored

⁶Edward K. Noda and Associates, Inc. (2003). "Statewide Highway Shoreline Protection Study", prepared for State of Hawaii, Department of Transportation, Highways Division.

⁷Because increased development in coastal areas has led to increased "hardening" of shorelines in response to net long-term shoreline erosion, there is an increased concern of coastal planners to the potential impacts of seawalls and/or revetments on beaches and shorelines. Even within the scientific and

5. CONSIDERATION OF ALTERNATIVES

Removal of the existing shore protection structure is not a viable alternative, since the improvements that are currently on the property would be susceptible to erosion and wave damage. The building structures are situated within about 20 feet of the property boundary on the seaward side. With the proposed seawall, the building structures would be situated within about 14 feet from the mauka edge of the base of the wall at their closest point. Replacing the seawall with a sloping revetment structure is also not a viable option because of the limited land area between the building improvements and the property boundary line.

Beach restoration and nourishment is commonly cited as a preferred alternative to protecting eroding shorelines and beaches. Unfortunately, this alternative is costly (due to lack of suitably large quantities of natural beach sand to serve as a commercial source of material) and not an economically viable alternative for individual residential property owners. Beach nourishment would be required for a long stretch of shoreline reach extending beyond the subject parcel shorefront, since wave energy will quickly redistribute small quantities of beach material unless beach containment structures (such as groins) are built to confine the beach fill fronting individual parcels or short stretches of shoreline. If no structural measures are built to stabilize the beach fill, periodic nourishment would likely be required. Beach restoration and nourishment, in general, is difficult to design and maintain as a "shore protection" alternative. For the beach to provide adequate protection during storm wave events, it must have adequate beach width, elevation, and length along the entire shoreline reach within the defined littoral cell. The large quantities of suitably coarse natural beach sand required for major beach restoration/nourishment projects are not readily available in Hawaii. As a matter of fact, the government agencies that have responsibility for our recreational beach resources can rarely afford to perform major beach nourishment for public beach parks or publicly accessible beach areas.

by the U.S. Army Corps of Engineers, found no significant difference in impact to the beach fronting a sloping rip-rap revetment and an adjacent vertical concrete seawall. Field studies conducted by Edward K. Noda and Associates, Inc. at Aliomanu, Kauai, also demonstrated that seasonal cross-shore transport is unaffected by an existing seawall. Monitoring of beach profiles over a four month period (July-October 1996) showed that seasonal beach accretion (increase in beach width) occurred in front of the near-vertical seawall as well as on the adjacent unprotected beach.

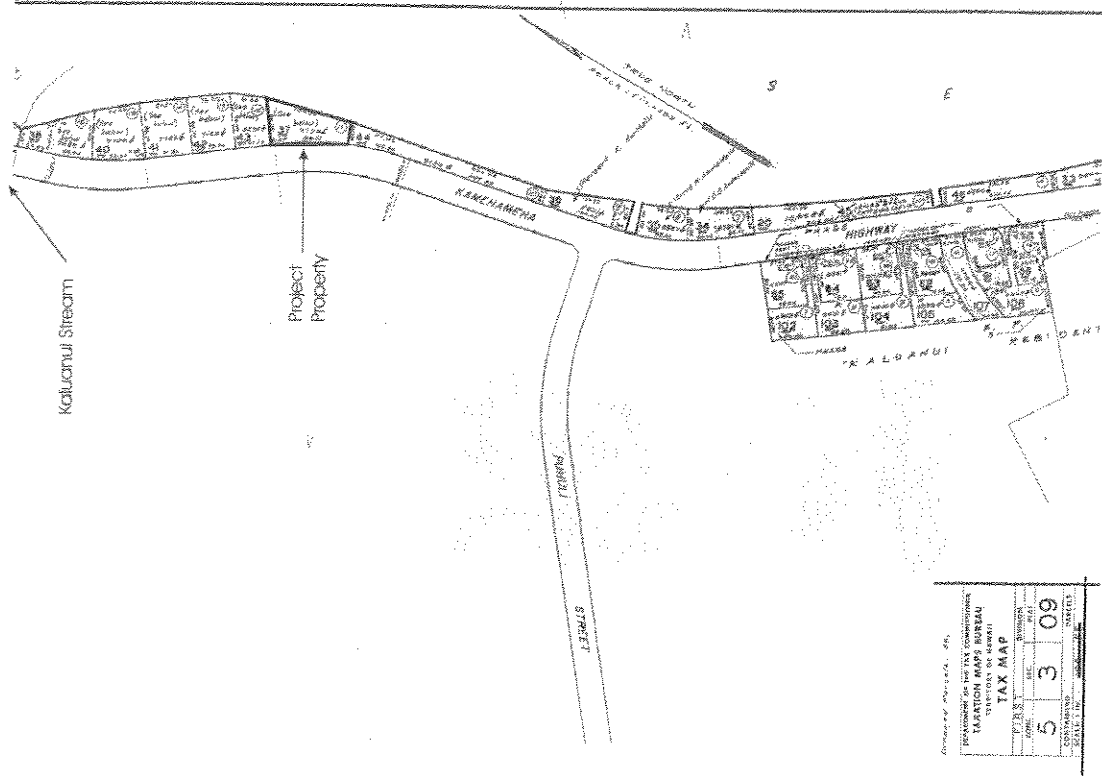
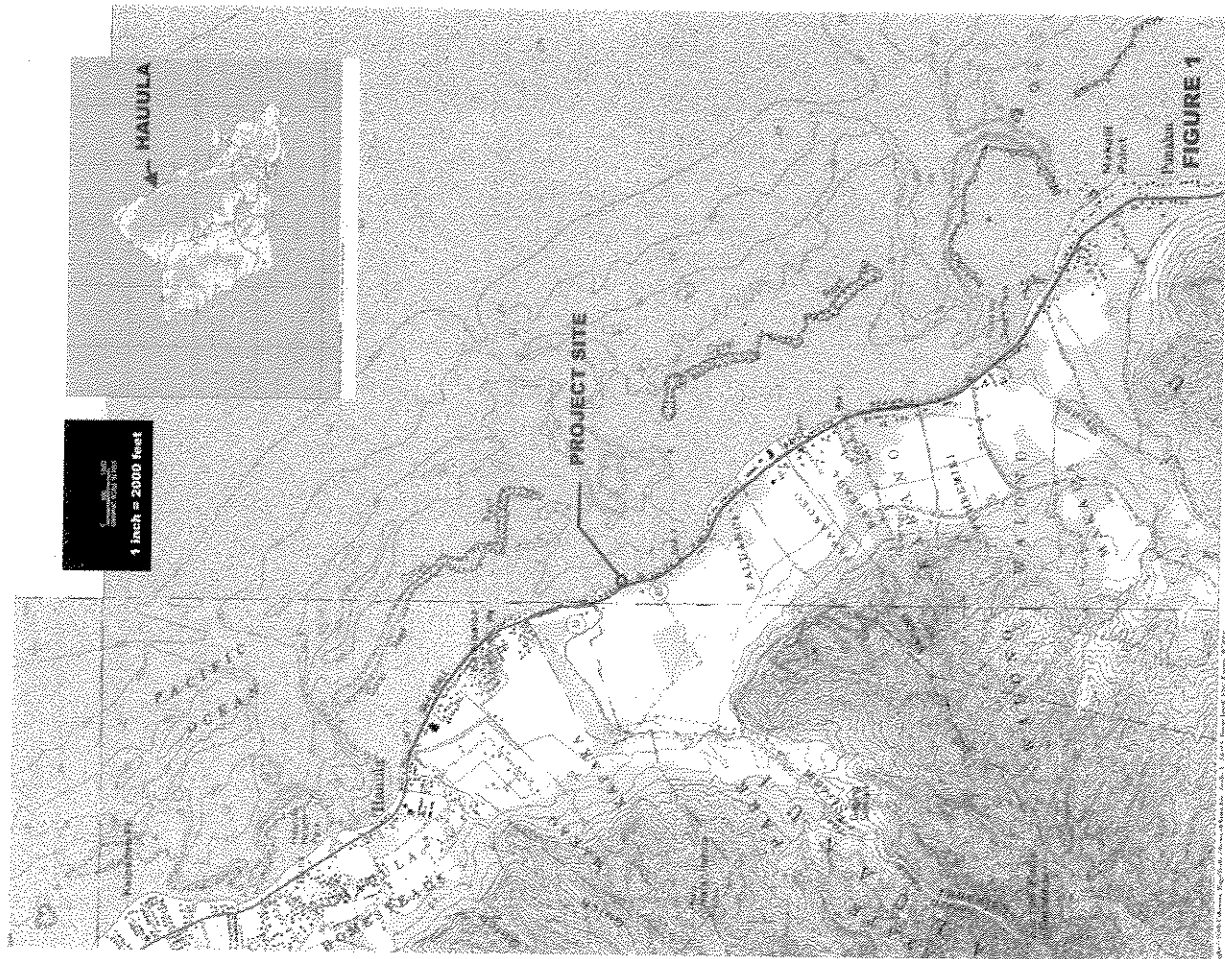
The erosion that is occurring along this coast can be described as "passive" erosion (in contrast to "active" erosion which is induced or accelerated by shore protection structures). When a protective structure is built along an eroding shoreline and erosion continues to occur, the unprotected shoreline adjacent to the structure will continue to erode and eventually migrate landward beyond the structure. The result will be loss of beach in front of the shore protection structure as the water deepens and the shoreline profile migrates landward. This process is designated as passive erosion and is the result of fixing the position of the shoreline on an otherwise eroding stretch of coast, and is independent of the type of shore protection constructed. This is the most common result of shoreline hardening in Hawaii, and is the probable long-term consequence of the proposed seawall at Hauula.

engineering community, controversy exists on whether seawalls and/or revetments are adverse and promote erosion. Because of the lack of sufficient field data to objectively resolve the controversy, the U.S. Army Corps of Engineers sponsored studies, beginning in the later 1980s, to monitor beach response to seawalls and revetments at several study sites. The following references describe the results of the monitoring:

U.S. Army Engineer Waterways Experiment Station, Coastal Engineering Research Center, Coastal Engineering Technical Note, CETN III-46 (3/92), CETN III-57 (6/95).

Griggs, G.B., J.F. Tait, K. Scott, N. Plant (1991), "The Interaction of Seawalls and Beaches: Four Years of Field Monitoring, Monterey Bay, California", Proceedings Coastal Sediments '91.

Griggs, G.B., J.F. Tait, W. Corona (1994), "The Interaction of Seawalls and Beaches: Seven Years of Monitoring, Monterey Bay, California", Shore and Beach 62:21-28.



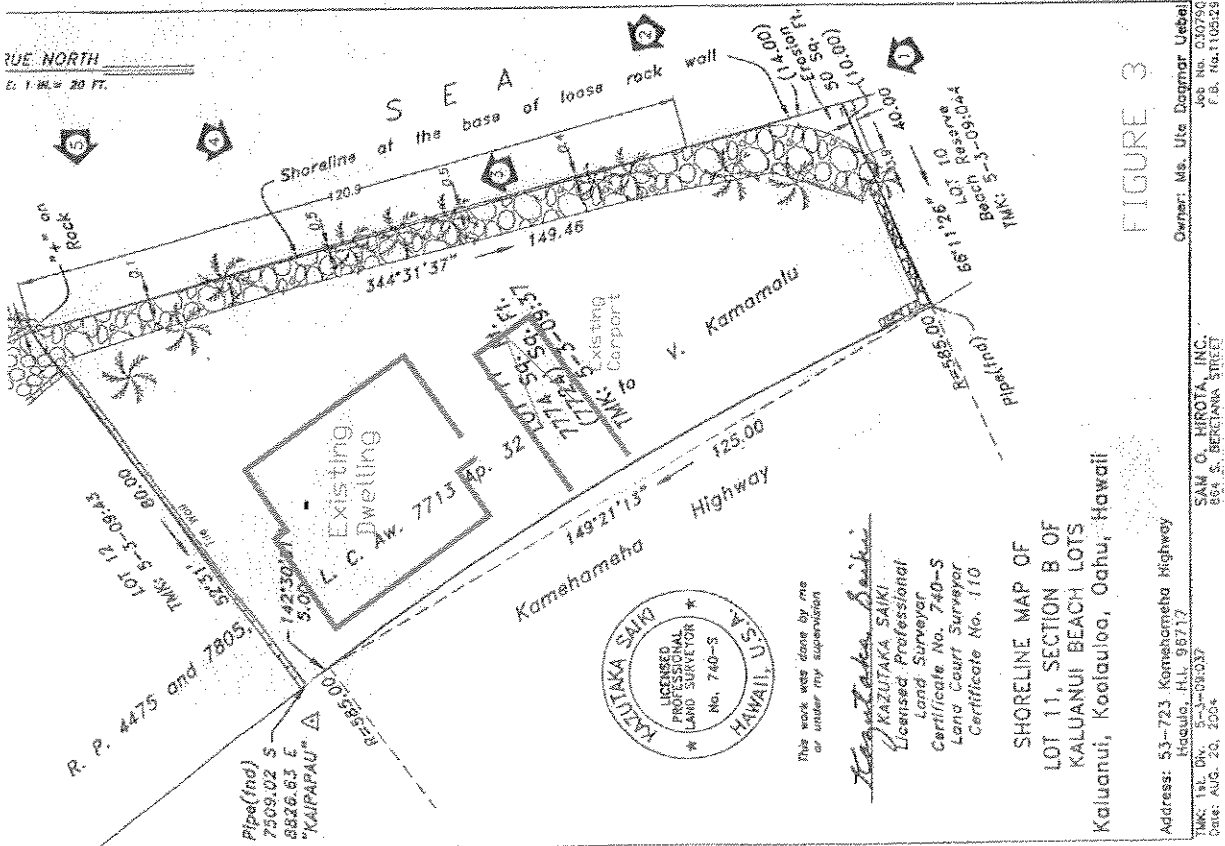


FIGURE 3

Owner: Ms. Uta Dagmar Uebel
 Job No. 030730
 F.B. No.110528

SAM O. HIROTA, INC.
 854 S. BERGIANA STREET

Address: 53-723 Kamehameha Highway
 Hialeah, H.I. 96717
 T.M.C. 141, Div. 5-3-59-037
 Date: AUG. 20, 2004

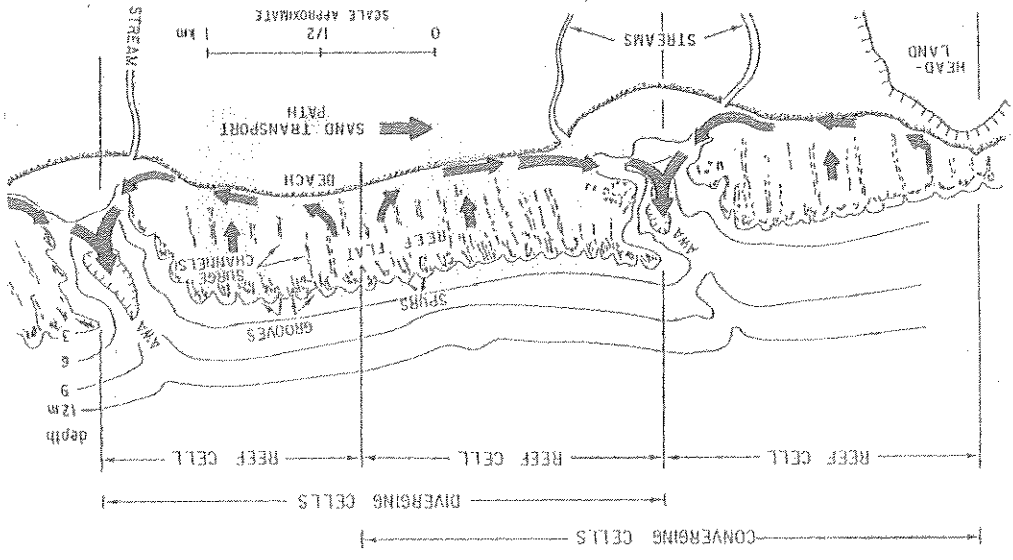
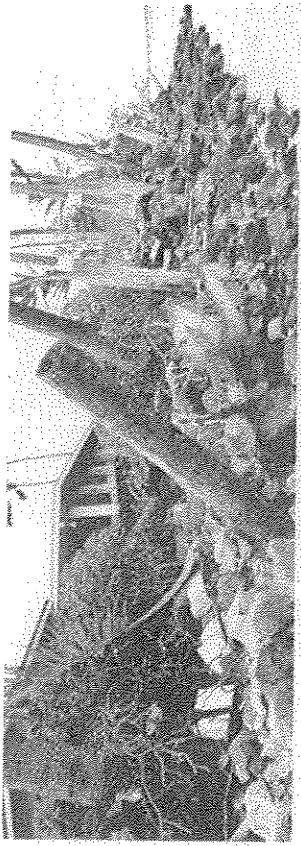


FIGURE 4

Schematic diagram of littoral cells along a fringing reef coast (after Kapaa Reef, Inman et al., 1963). Depth contours of 3, 6, 9 and 12 m equal approximately 10, 20, 30 and 40 ft respectively, while 1 km equals 1,094 yards.

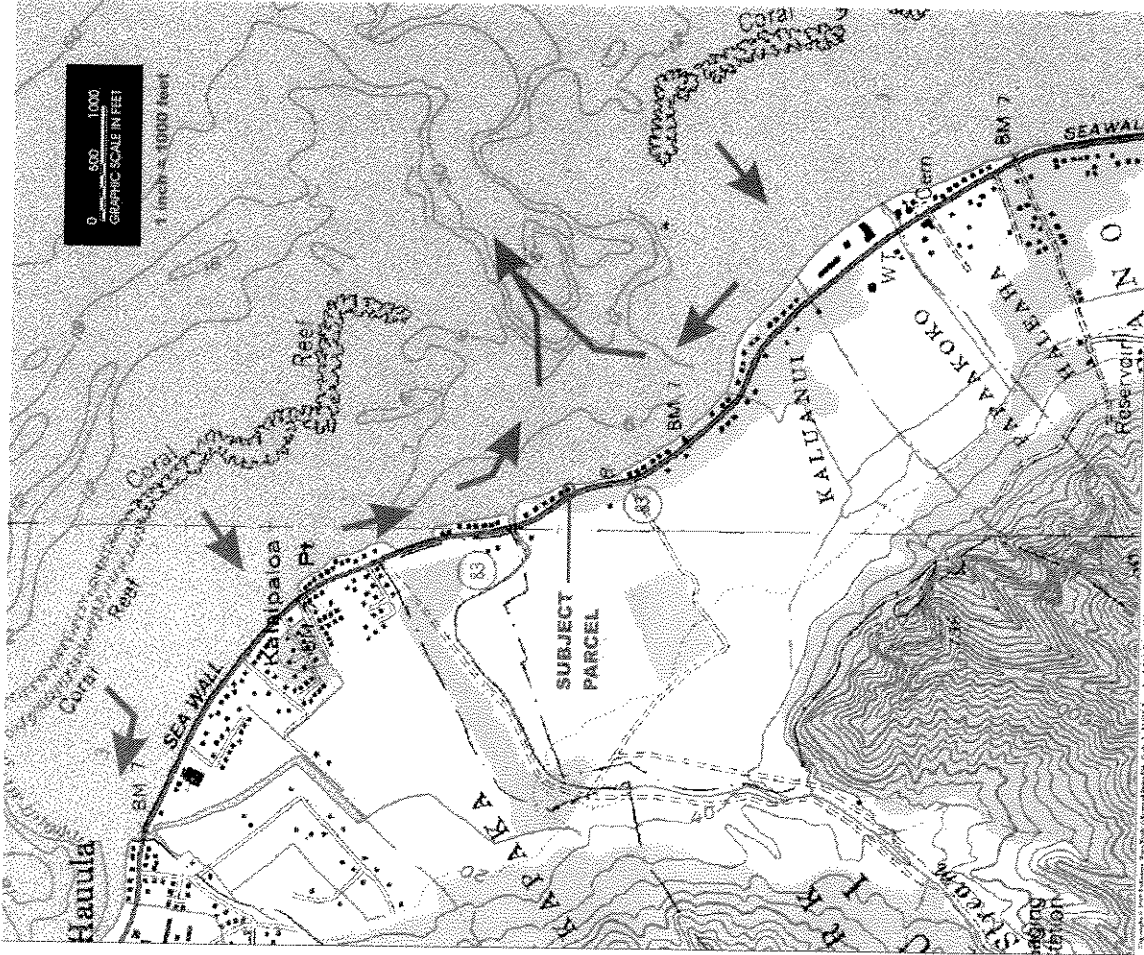


Eroded condition of property shoreline after November 2003 storm. Prior shore protection structure was completely damaged.



Existing condition of rebuilt shore protection structure. Photo date 12/28/04. Tide approx. +0.4 feet MLW.

Photo page-1



Probable Sand Transport Pattern in Vicinity of Project Site

FIGURE 5



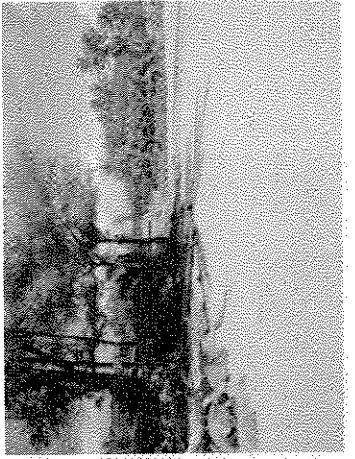
View northward toward subject parcel 37. CRM wall borders the southern boundary of the parcel.



View southward from parcel 37. This narrow beachfront property (parcel 44) is a beach reserve.



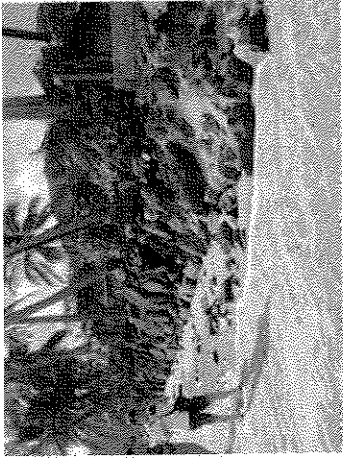
Shore protection fronting parcels 41 and 42 located north of subject parcel.



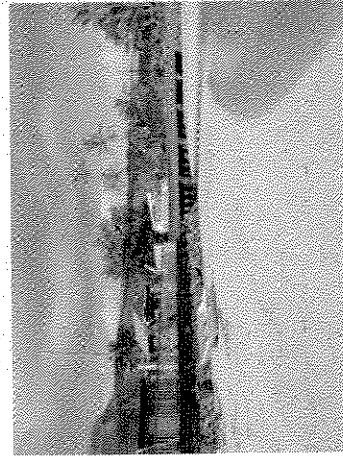
Shoreline of parcel 40.



Southern corner of subject parcel 37. Shoreline of adjacent parcel 44 is only about 10 feet from edge of highway pavement.



Northern corner of subject parcel 37. Cemented rocks front adjacent parcel 43.



Protected parcel 38 and adjacent Kahuonui Stream bridge.



Properties north of the stream mouth are also protected by structures.

HAULILA
PHOTO DATE 12/28/04
TIME 10:00 - 10:30 AM
TIDE APPROX. +0.4' MLW

Photo page-2

HAULILA
PHOTO DATE 12/28/04
TIME 10:00 - 10:30 AM
TIDE APPROX. +0.4' MLW

Photo page-3

Appendix C

Engineering Plans for the Seawall

Structural Calculations for Seawall

Site Plan and wall Section

STRUCTURAL CALCULATIONS FOR:

UEBEL SEAWALL

Hialeah, Hawaii

SEAWALL

JOB NAME: UEBEL
 DESCRIPTION: 7'-0" SEAWALL
 W/4' EMBEDMENT

SOIL DATA:

PH (DEGREES)	30	SIN(PH)	0.500
SOIL WEIGHT DRY (PCF)	113	SOIL WEIGHT WET (PCF)	80
Ka	0.333	Kc	3.00
ACTIVE PRESSURE DRY (PCF)	38	PASSIVE PRESS WET (PCF)	180
ACTIVE PRESSURE WET (PCF)	20	COEFF. OF FRICTION	0.50
Kv, VERT. COMPONENT	0	ALLOW. BEARING (KSF)	2.50

LOAD TYPE: 1000: H TO 1V

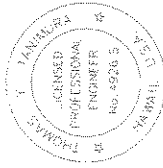
THICKNESS OF SOIL COVERING TOE (FT.) 4.00

DEPTH OF SOIL DISCOUNTED FOR PASSIVE PRESSURE (FT) 3.00

DEPTH OF WATER TOE SIDE (FT.) 4.00

DEPTH OF WATER HEEL SIDE (FT) 3.50

Expiration Date 04/30/05



Thomas Y. Tanimura

THIS WORK WAS PREPARED BY
 ME OR UNDER MY SUPERVISION

Tanimura and Associates, Inc.
 925 Bethel Street, Suite 309
 Honolulu, Hawaii 96813

April 2005

WALL PARAMETERS:

TOTAL STEM HEIGHT (FT)	11.00	BATTER, TOE SIDE (FT)	1.83
STEM THICKNESS AT TOP (FT)	1.33	BATTER, HEEL SIDE (FT)	4.13
WEIGHT OF WALL (PCF)	150	BASE WIDTH (FT)	7.25

LATERAL FORCES:

ACTIVE ABOVE WATER TABLE	0.567	MOM. ARM (FT)	7.333	MOM (FT-K)	4.169
ACTIVE BELOW WATER TABLE	1.134		2.750		3.120
WATER PRESSURE	0.289		1.633		0.547
WATER PRESSURE	0.070		4.500		0.316
WATER PRESSURE	0.375		2.000		0.750
SURCHARGE PRESSURE	0.002		5.500		0.009
PASSIVE PRESSURE	-0.075		0.333		-0.025
FRICTION FORCE	-3.749		0.000		0.000

VERTICAL FORCES:

STEM ABOVE WATER	1.250		2.500		3.124
HEEL BATTER ABOVE WATER	0.486		1.485		0.726
BACKFILL ABOVE WATER	1.099		3.648		4.337
BACKFILL ABOVE WATER	0.838		4.541		2.889
TOE BELOW WATER	1.276		6.260		7.989
TOE BELOW WATER	0.329		0.528		0.174
STEM BELOW WATER	0.236		1.312		0.310
HEEL BELOW WATER	0.954		2.500		1.385
HEEL BELOW WATER	0.974		4.338		4.226
BACKFILL BELOW WATER	0.370		6.104		2.259
BACKFILL BELOW WATER	6.284		6.604		1.673
VERTICAL FORCE DUE TO SLOPE	0.000		7.251		0.000

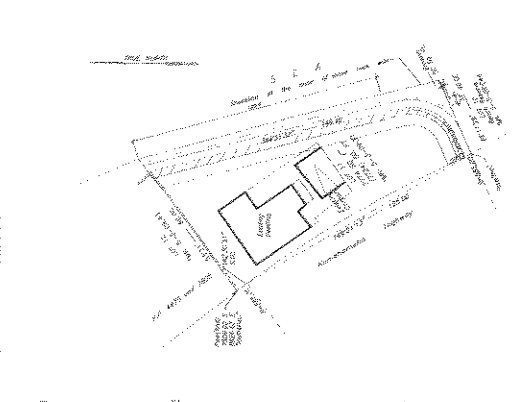
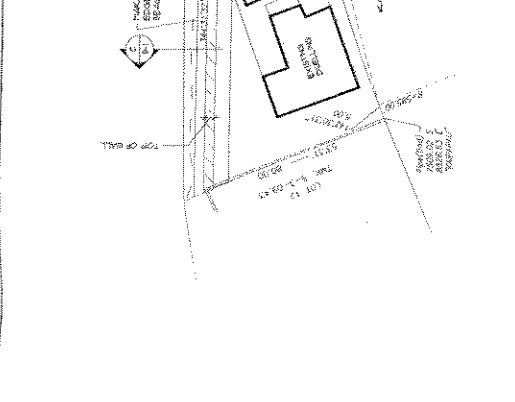
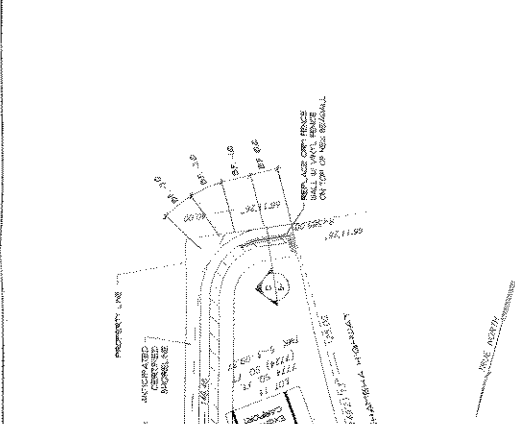
SUBTOTAL (VERT FORCES) 7.488 28.300

OUTPUT:

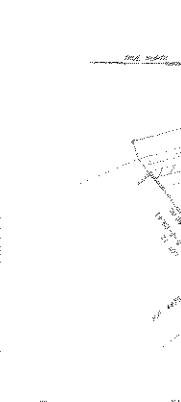
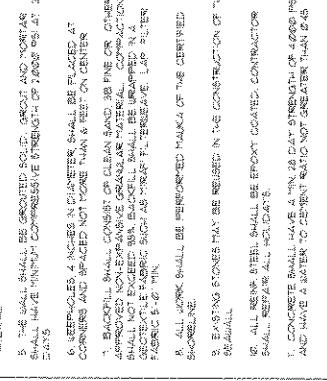
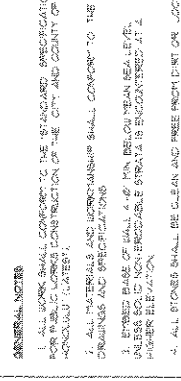
ACTING FORCES (KIPS)	2.447	RESISTING	3.824	S.F.	1.563
MOMENTS (FT-K)	8.902		29.300		3.291

BEARING (KSF) TOE 1.811 HEEL 0.245 ALLOWABLE 2.500

RESULTANT LOCATION (FT.) 2.720 RESULT. LOC./BASE WIDTH 0.373

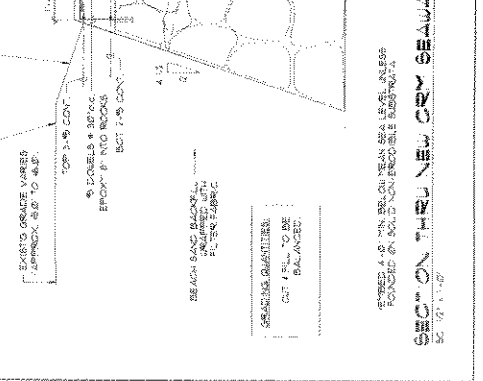
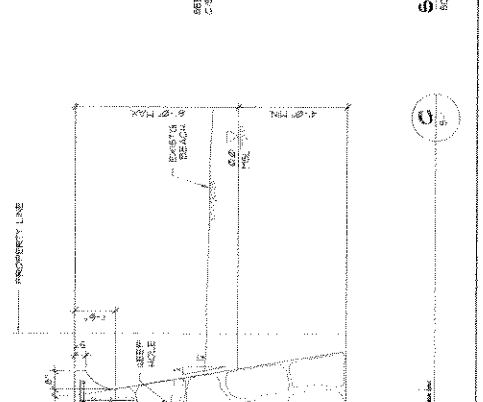
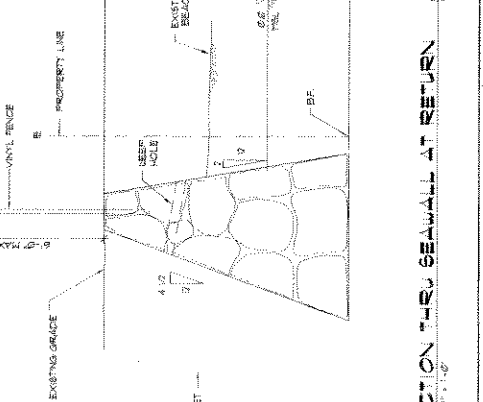


- GENERAL NOTES:**
1. ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATION FOR PUBLIC WORKS, CONSTRUCTION OF THE CITY AND COUNTY OF DENVER, LATEST EDITION.
 2. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE DRAWINGS AND SPECIFICATIONS.
 3. EXPOSED BASE OF WALL 4" MIN. BELOW MEAN SEA LEVEL. ALL EXPOSED SURFACES SHALL BE SMOOTH AND FINISHED TO A FINISH GRADE.
 4. ALL STONES SHALL BE CLEAN AND FREE FROM DIRT OR LOOSE MATERIAL.
 5. THE WALL SHALL BE GROUDED SOLID, GROUT AND MORTAR SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AT 28 DAYS.
 6. REEFHOLES 4 INCHES IN DIAMETER SHALL BE PLACED AT CORNERS AND BRACED NOT MORE THAN 8 FEET ON CENTER.
 7. BACKFILL SHALL CONSIST OF CLEAN SAND OR FINE OR OTHER APPROVED NON-EXPANSIVE GRANULAR MATERIAL. COMPACTED SHALL NOT EXCEED MAX. BANGORILL SHALL BE UNWRAPPED IN A SERRATED PLASTIC BAGS OR POLYETHYLENE BAGS. LAP SPACING SHALL BE 18" MIN.
 8. ALL WORK SHALL BE MONITORED THROUGHOUT THE CONSTRUCTION PERIOD.
 9. EXISTING STONES MAY BE REUSED IN THE CONSTRUCTION OF THE SEAWALL.
 10. ALL REBAR STEEL SHALL BE EPOXY COATED. CONTRACTOR SHALL SUBMIT ALL DETAILS.
 11. CONCRETE SHALL HAVE A MIN. 28 DAY STRENGTH OF 4,000 PSI AND HAVE A WATER TO CEMENT RATIO NOT GREATER THAN 0.45.
 12. THE CONTRACTOR SHALL PHASE THE WORK OR OTHERWISE PROVIDE FOR PROTECTION OF THE PROPERTY AGAINST EROSION DURING THE CONSTRUCTION PERIOD.
 13. REPAIRS TO THE EXISTING SEAWALL SHALL BE ALONG THE SOUTH PROPERTY LINE ON TOP OF THE NEW SEAWALL.
 14. DUE TO THE EXTENT OF EXCAVATION REQUIRED TO CONSTRUCT THE NEW SEAWALL, THE CONTRACTOR SHALL NEED TO SHORE THE EXISTING SEAWALL. A PRELIMINARY PLAN IN THE EXISTING CONTRACT.



WALL LAYOUT PLAN
SC: 10/11/10

SITE PLAN
SC: 10/11/10



SECTION THROUGH SEAWALL AT RETURN
SC: 10/11/10

SECTION THROUGH SEAWALL AT RETURN
SC: 10/11/10

SECTION THROUGH SEAWALL AT RETURN
SC: 10/11/10



SAM O. HIROTA, INC.



SHORELINE LOCATION



August 26, 2004
SOH #030790

State of Hawaii
Dept. of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Ms. Dierdre S. Mamiya
Land Division Administrator

Dear Ms. Mamiya:

SUBJECT: Shoreline Certification Application
TMK: (1) 5-3-009:037
53-723 Kamehameha Highway

On behalf of Ms. Ute Uebel, owner of the above referenced lot, we are submitting 10 copies of the map for certification. Included is the checklist of enclosures and all of the required attachments.

Should you have any questions, please call me at (808) 537-9971 ext. 225.

Very truly yours,

SAM O. HIROTA, INC.

Kazutake Saiki
Kazutake Saiki, LPLS

KS:dki

Enclosures

CC: Ute Dargmar Uebel

JOHN WAINIC
GOVERNOR



RUSSEL S. BAGAIA
COMPTROLLER

'87 APR 3 PM 1 17
DEPT. OF ACCOUNTING
AND GENERAL SERVICES
CITY & COUNTY OF HONOLULU

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING
AND GENERAL SERVICES
CITY & COUNTY OF HONOLULU

SURVEY DIVISION
P.O. BOX 119
HONOLULU, HAWAII 96734

FILE NO. C-100(87)

April 1, 1987

Shoreline Determination
TRK: 5-3-09:37
Kalaupuni, Koolauloa, Oahu, HI

Mr. Alan F. Muraki
Registered Professional Surveyor
A.F.M. Corporation
1193 Kika Place
Kailua, Hawaii 96734

Dear Mr. Muraki:

Your request dated March 31, 1987 for shoreline determination has been reviewed.

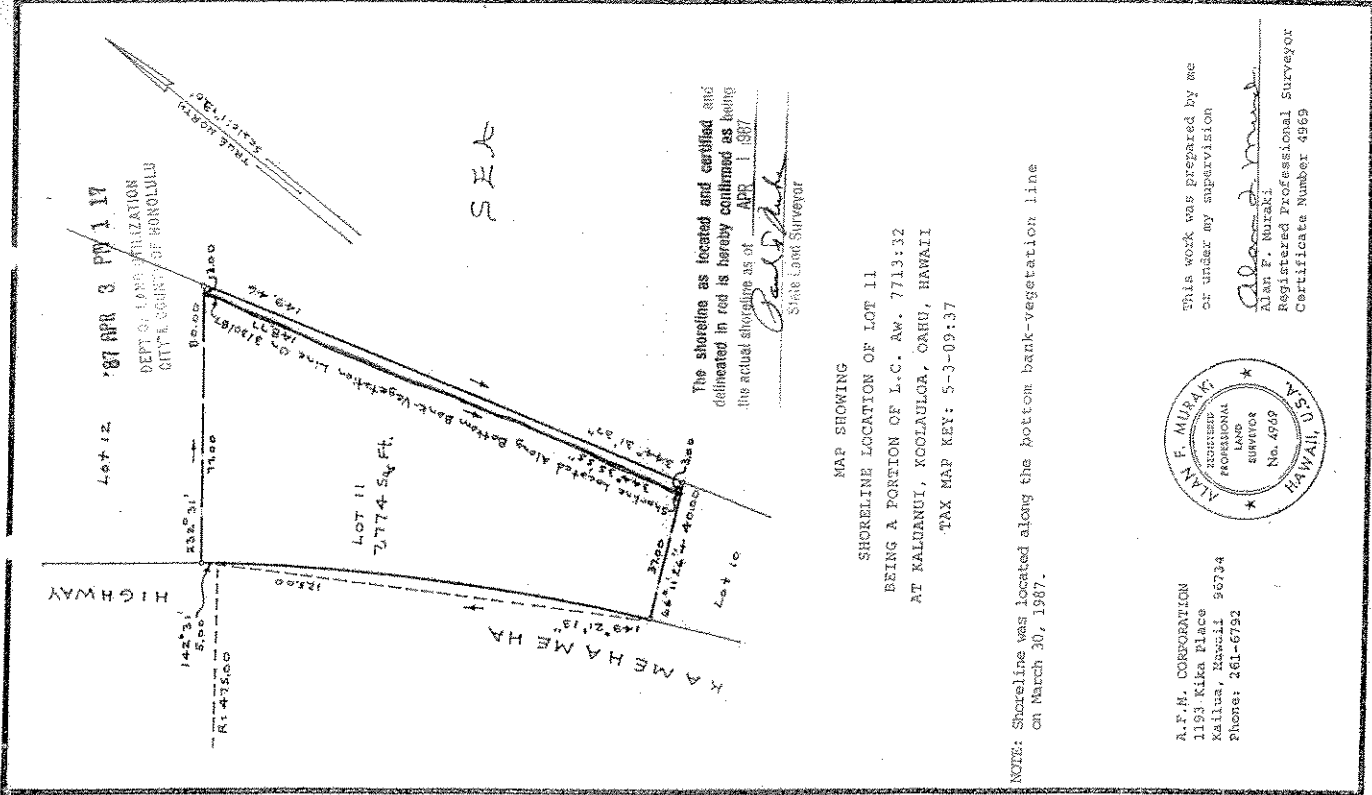
The State of Hawaii should have no objections to adopting the vegetation line along the bottom of bank as the shoreline as delineated on your map.

Four (4) copies of the approved map are enclosed for your information and use.

Very truly yours,

Paul T. Numa
PAUL T. NUMA
State Land Surveyor

Enclosures



MAP SHOWING

SHORELINE LOCATION OF LOT 11

BEING A PORTION OF L.C. &W. 7713:32
AT KALAUPUNI, KOOLAULOA, OAHU, HAWAII

TAX MAP KEY: 5-3-09:37

NOTE: Shoreline was located along the bottom bank-vegetation line on March 30, 1987.



A.F.M. CORPORATION
1193 Kika Place
Kailua, Hawaii 96734
Phone: 261-6792

This work was prepared by me or under my supervision

Alan F. Muraki
ALAN F. MURAKI
Registered Professional Surveyor
Certificate Number 4969

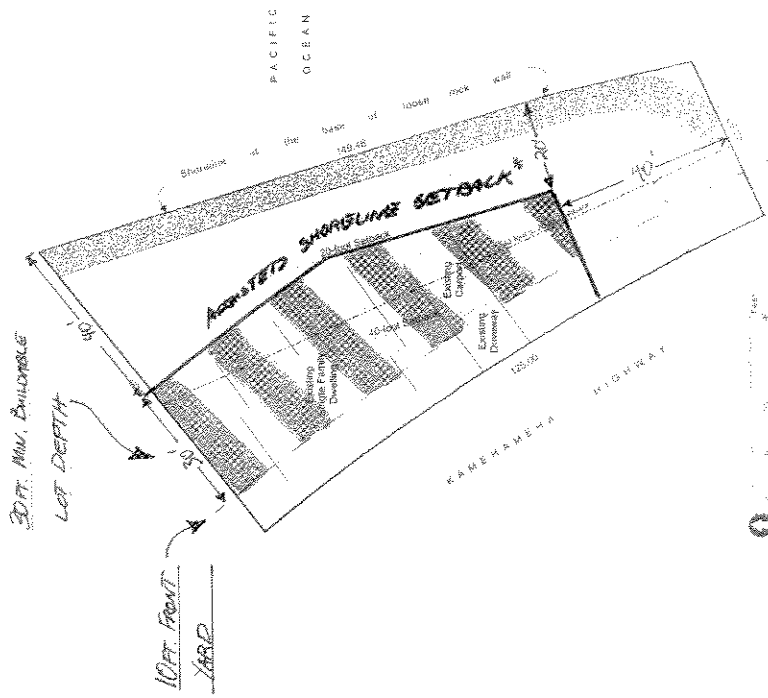
Appendix F

Shoreline Certification Surveys

1987 Certified Shoreline

2004 Application & Denial

2006 Application & Denial



* CERTIFIED SHORELINE
FOR ILLUSTRATIVE PURPOSES

Figure 4 Shoreline Setback Lines

Mr. Richard McGerrow
April 6, 2006
Page 2

Mr. Richard McGerrow
April 6, 2006
Page 3

- 2) **Historical reference** - The current structure is two (2) to three (3) feet makai (seaward) of the 1987 shoreline, and therefore encroaches into the State Conservation District. Some form of disposition by DLNR to address the encroachment is required (e.g., a non-exclusive easement, Conservation District Use Permit, etc.).

Application Requirement - A shoreline survey, prepared by a licensed surveyor, must be submitted in order for an SV application to be deemed complete (i.e., acceptable for processing).

Final Environmental Assessment - The Draft EA should be revised to address the following:

1. **Adjusted Shoreline Setback**
The contiguous 20-foot shoreline setback shown in Figure 4 is incorrect. Pursuant to Section 23-1.4, ROH, this setback is adjusted (from a certified shoreline) to provide a 30-foot minimum buildable depth. Therefore, the setback is 40 feet at the left (Kahuku) property line and quickly decreases to the 20-foot minimum about 46 feet from that left boundary (see the attached illustration). In addition, because the shoreline runs along the right (Kaneohe) property line, a 40-foot setback from that boundary applies, and therefore, the CKM wall along the right boundary must also be included in the SV application.
2. **Appendix A - Correspondence**
All written responses, including those to your early consultation letter (March 20, 2005), should be included in the Final EA. We note that our April 27, 2005 response (copy attached) was not included in the Draft EA. Also, any comment offered by the U.S. Army Corps of Engineers and the DLNR-OCCL in its letter dated October 31, 2005 (copy attached) are important to the evaluation of the proposed seawall reconstruction project, and should be included in the Final EA.
3. **Section 8.0 - Shoreline Setback Variance Justification**
We strongly advise that a more thorough justification statement under which a shoreline setback variance (SV) may be granted be incorporated into the Final EA. This section should specifically address the three (3) tests of the Hardship Standard, pursuant to Section 23-1.8(b)(3), ROH.

If you have any questions, please contact Steve Tagawa of our staff at 523-4817.

Very truly yours,



for Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:s
Encls.

cc: DLNR-OCCL
OFQC

G:\landuse\possework\eng\letter\SteveTSV\shdwtr.rtf

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR • HONOLULU, HAWAII 96813
 TELEPHONE: (808) 533-4633 • FAX: (808) 527-0743
 DEPT. INTERNET: www.honolulu.gov/planning • HOTSPRINT: www.honolulu.gov



MUST HANDELMAIER
 MAYOR

HEAVY ENG. PLACER
 DIVISION
 DAVID K. TRASKER
 PLANNING DIRECTOR

2006/ELOG-535(ST)
 2005/ED-10

April 6, 2006

Mr. Richard S. McGerrow
 WH Chee - Planning and Environmental, Inc.
 1018 Palm Drive
 Honolulu, Hawaii 96814

Dear Mr. McGerrow:

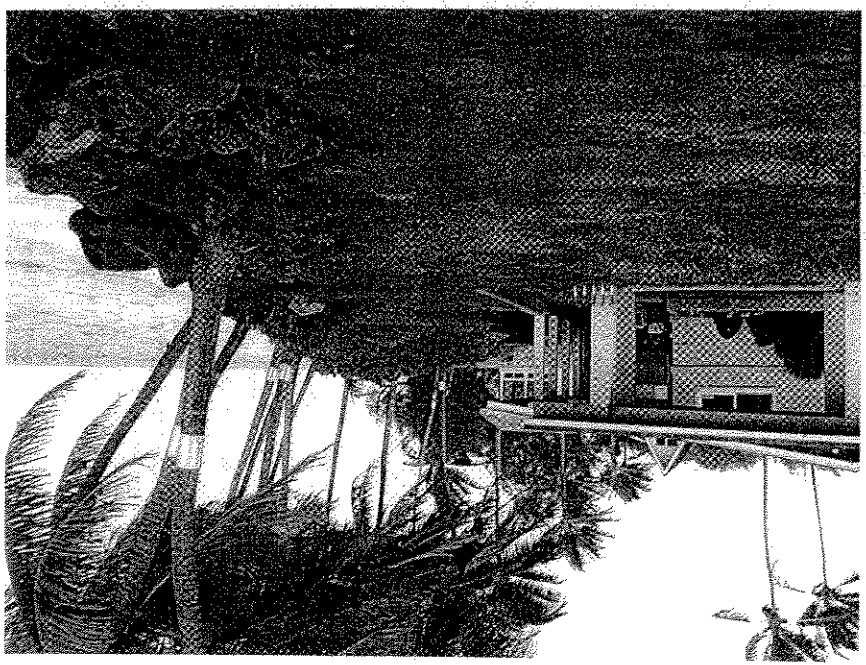
Re: Shoreline Setback Variance (SV) for
 A Seawall at 53-723 Kamehameha Highway - Hauula
Tax Map Key 5-3-9-37

This responds to your letter of March 10, 2006, requesting that the Department of Planning and Permitting (DPP) work with the Department of Land and Natural Resources (DLNR) to determine the location of the shoreline at the above-referenced site. Based on your letter and discussions with Judy Mariant of your staff, we provide the following clarification on the various issues.

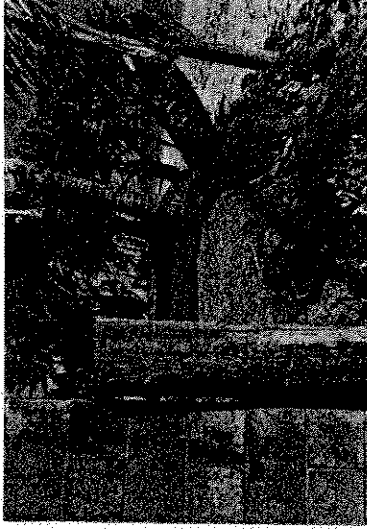
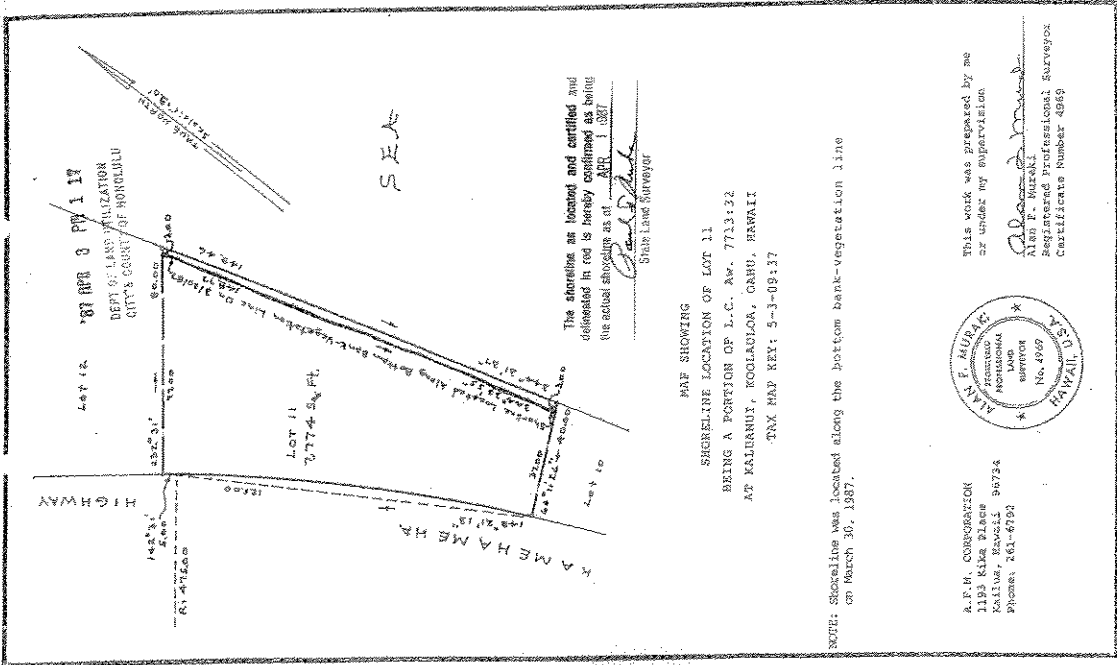
Shoreline Location - The authority to determine the "official" or certified shoreline rests solely with the DLNR. Under Title 13, Chapter 222, Hawaii Administrative Rules, the DLNR follows specific criteria to establish a shoreline's location. The DPP has no authority nor the appropriate personnel (e.g., licensed surveyors, or coastal geologists) to determine a shoreline's location. If a shoreline is defined by an artificial structure as it is here, the DPP is responsible for determining if the structure conforms to the shoreline setback rules, Chapter 23, Revised Ordinances of Honolulu (ROH), i.e., whether it is nonconforming or illegal.

Previous Certified Shoreline - We gave Ms. Mariant a copy of the last certified shoreline survey (dated April 1, 1987) for the following reasons:

- 1) No shoreline structure - The existing rubble seawall was not present in 1987; the shoreline was defined at the vegetation line along the bottom of a bank. Unless contrary evidence is provided, the environmental assessment (EA) for the proposed project must be revised to accurately describe the structure as illegal or unauthorized. The repeated reference in the Draft EA to the seawall possibly precluding the shoreline regulations and suggesting that it is nonconforming (e.g., "the existing but deficient retaining wall") should be corrected.



TMK: 5-3-09-037 looking northwest showing the location of house, carport, width of the back yard and existing wall. TMK: 5-3-09-043 with low roofline and satellite dish is in the background. (12/3/04)



SHORELINE LOCATION

Mr. Wilbert C.F. Chee
Page 2
November 29, 2004

Should you have any questions, please call our staff Ardis Shaw-Kim at 327-5349 or Steve Cheung at 327-6256.

Sincerely yours,



ERIC G. CRISPIN, AIA
Director of Planning and Permitting

EOC:cs

cc: Ute Uebel

uebel5.41e (Doc 336082 Rev 1)



JOHN WAIHIE
GOVERNOR

HONESTY S. MAGATA
COMPTROLLER

87 APR 3 PM 1 17

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING
AND GENERAL SERVICES

STATE OF HAWAII
SURVEY DIVISION
P. O. BOX 118
HONOLULU, HAWAII 96820

FILE NO. O-100 (87)

April 1, 1987

Shoreline Determination
TWA: 5-3-09:17
Kalaheou, Koolaulou, Oahu, HI

Mr. Alan P. Muraki
Registered Professional Surveyor
A.F.M. Corporation
1193 Kiika Place
Kaliua, Hawaii 96734

Dear Mr. Muraki:

Your request dated March 31, 1987 for shoreline determination has been reviewed.

The State of Hawaii should have no objections to adjusting the vegetation line along the bottom of bank as the shoreline as delineated on your map.

Four (4) copies of the approved map are enclosed for your information and use.

Very truly yours,



PAUL T. NIHA
State Land Surveyor

Enclosures



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 521
HONOLULU, HAWAII 96809

PETER'S TRAINING
CONSULTING SERVICES
CONSULTING AND TRAINING SERVICES

DEAN BARRETT, CAL
DEPUTY DIRECTOR, LAND

YVONNE L. ZU
DEPUTY DIRECTOR, WATER

ADULTS RESEARCH
RESEARCH AND CONSULTING

COMMISSION ON WATER RESOURCES MANAGEMENT
CONSULTING AND TRAINING SERVICES

FORNERT AND WELLS
CONSULTING AND TRAINING SERVICES

MANION LAND SURVEYING TECHNOLOGIES
STATE ENGINEER

AUGUST 31, 2004
HIROTA OAHU 53937-D
LD-NAV

Sam O. Hirota, Inc.
Kazutaka Saki, LP/LS
864 South Beretana Street
Honolulu, Hawaii 96813-5795

Dear Mr. Saki:

Subject: APPLICATION FOR SHORELINE CERTIFICATION DENIED

Address: 53-723 Kanehimeha Highway

Applicant: Sam O. Hirota, Inc./Ms. Ute Uebel

Island: Oahu - District: Kahuamoi

TMK: (1) 5-3-009; 037

RECEIVED
SEP 1 2004
SAM O. HIROTA, INC.

Please be informed that your application for certification of the shoreline for the subject properties is denied for failure to submit documents supporting structure(s) was approved by government agencies or exemption as required pursuant to Hawaii Administrative Rules Chapter 13-222-7(b)(14).

You should contact both the City and County of Honolulu, Department of Planning and Permitting located at 650 South King Street, Honolulu, Hawaii 96813 (808-533-4414) and the Office of Conservation and Coastal Lands located at 1151 Punchbowl Street, Room 131, Honolulu, Hawaii 96813 (808-587-4377), to determine whether the structure has been approved or is exempt.

Returned herewith is your shoreline application. We have retained one survey map and one set of photos for our record. If you have any questions, please contact Nicholas A. Vaccaro of the Land Division Support Services Branch at (808) 587-0384.

Very truly yours,

DIERDRE S. MAMIYA
Administrator

C: OCCL
ODLO

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 14TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 524-4433 • FAX: (808) 522-8143
DEPT. WEB SITE: WWW.DPPHON.HONOLULU.HI • CITY WEB SITE: WWW.HONOLULU.HI



JEREMY HARRIS
MAYOR

ERIC C. CRISPIN, M.A.
DIRECTOR

BARBARA ANN STANSON
DEPUTY DIRECTOR

2004/ELOC-2570(ASK)
2004/NOV-05-009 (SHC)

November 29, 2004

Mr. Wilbert C.F. Chee
Wai Chee - Planning and Environmental, Inc.
1018 Palm Drive
Honolulu, Hawaii 96814

Dear Mr. Chee:

Rubble and Sidewalk in Shoreline Setback
53-723 Kanehimeha Highway - Hauula
FAX MAP KEY 2-3-009-037

This is in reply to your letter dated October 27, 2004, regarding a request for waiver of a shoreline certification and an extension of time for the Notice of Violation. We have considered your request and grant your request to waive the survey certification pursuant to Section 13-5 (a)(6) of our Administrative Rules.

Your letter explains that the property owner intends to seek a shoreline setback variance for the illegal seawall. The State, however, has rejected her request for a shoreline certification, which would normally be required with the shoreline variance application. Section 13-5(a)(6) of our Rules authorizes the Director to waive the shoreline certification requirement where the shoreline is affected by an illegal shoreline structure provided the applicant submits a shoreline survey as part of a shoreline variance application. Your client's circumstances meet these criteria. Accordingly, we will waive the certification requirement for the purpose of processing an after-the-fact variance for the illegal seawall.

Based on the above circumstances, we approve another extension until **December 17, 2004** to allow time for Ms. Uebel to prepare a Shoreline Setback Variance application. She must submit a complete Shoreline Setback Variance application that is acceptable to our Department before that date. If we do not receive the application before **December 17, 2004**, a Notice of Order, which carries civil fines, will be issued. This will be the final extension granted.



March 10, 2006

Mr. Henry Eng, Director
Department of Planning and Permitting
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Project: Shoreline Setback Variance (SSV) Application for a
Seawall at Kahauna Beach Lots, Kō'ōlanālea
Punahoa, Hawaii, TMK: 5-3-09-037
(Ute Uebel Residence)

Subject: Shoreline Certification. Request for the Department of Planning and Permitting,
City & County of Honolulu, to accept a delineation for jurisdictional purposes,
and for the Department of Land and Natural Resources, State of Hawaii, to
provide a shoreline delineation for the subject project.

Dear Mr. Eng:

The applicant previously applied to the Department of Land and Natural Resources (DLNR) for Shoreline Certification using the services of Sam O. Hirota, Inc., licensed surveyors. The application was denied for "failure to submit documents supporting structure(s) was approved by government agencies or exemption as required pursuant to Hawaii Administrative Rules 13-222-7(b)(14)." (See letter from DLNR dated 8/31/04, attached.) Because of this situation Wil Chee - Planning & Environmental, Inc. (WCP), agent for the owner Ms. Ute Uebel, requested that the Shoreline Certification requirement be waived in this case so that the applicant could proceed with the Shoreline Setback Variance application. If the variance is granted the applicant would then reapply to DLNR for the Shoreline Certification. In a written response dated November 29, 2004, DPP did waive the certification requirement for the purpose of processing an after-the-fact variance for the illegal seawall based on Section 13-5(a)(6) of the department's rules (see letter attached).

As WCP has now received all comments on the Draft Environmental Assessment (DEA) we are preparing to submit the Final EA. It has occurred to us that if the shoreline can be officially delineated at this time, it would expedite the construction of the legal seawall in the correct location should the variance application be granted. Also, an official delineation at this time would allow WCP to show the correct location of the seawall in the Final EA.

We spoke to Mr. Steve Tagawa of your department on this matter and he suggested that we consult DLNR's Office of Conservation and Coastal Lands. Judy Mariani, WCP Coastal Geologist, then met with Ms. Dawn Hegger and Mr. Chris Conger at DLNR on February 28,

2006. Ms. Mariani showed them a Certified Shoreline that was discovered at the State Surveyor's Office after the Draft EA was submitted. This Certified Shoreline was completed in 1987 (see attached). Mr. Conger stated that DLNR has made a determination regarding the delineation of the shoreline at this site. Mr. Conger described the shoreline as bisecting the inland portions of the existing rock rubble just inland side of the row of palms (see photo attached). He said that he would prepare a letter to document the delineation.

On March 3, 2006, we received an email from Mr. Conger stating that it had come to his attention that the delineation should be a response to a request sent to both DPP and DLNR. He said that WCP needs to request DPP to accept a delineation for jurisdictional purposes, and request DLNR to provide one. He said that DLNR can then discuss the matter with DPP and move forward from there. This letter is in response to Mr. Conger's email.

To summarize we request that DPP work with DLNR to delineate the shoreline for the subject property and that this delineation be documented in writing so that the applicant can, if the variance is granted, have the legal seawall built in the correct and legal location. The question still remains, at what point can the official certification officially be made? Can it be done before or after the shoreline setback variance is granted? Whichever the case, it would be most advantageous to the applicant to have the official Shoreline Certification before the legal seawall is constructed so that it can be built in the correct and legal location.

Thank you for your assistance in this matter. If you have any questions please call Judy Mariani at 596-4688.

Sincerely yours,

Richard S. McGerrow
Project Manager

Attachments:

CC: Mr. Steve Tagawa, DPP
Mr. Sam Lemmo, DLNR
Mr. Chris Conger, DLNR

Appendix E
Request for Delineation

SOURCE	FILE	DATE	DEED ETC.	TMB NO.	DIV
	Kaluanui, Acquisition				5 3 7 1 3
		2/20/59			
1.	As shown on Tax Maps			0.26 Ac.	R P Bishop Estate
2.	TMB 11251 158 4/1 R/S: Parcels 5309-34, 36, 37 & 38 dropped into 5309-20; congs & resubd into Lots 4 to 7, 9 to 16 incl. Kaluanui Beach Lots. Lot 11 7510J assigned to 5309-37. P/D: 5309-37; area, des. & bdx; Lot 11: Kaluanui Beach Lots.	2/20/59		7,510 #	ditto
3.	TMB 2586'67 L: E P Bishop Est Bk 5605 p 447 Term: 30 yrs bg 11/1/59 \$160 ann lst 10 yrs 11/1/59 3/17/67 DES Reserv/Es for Rs-W	4/4/67		7,510 #	do To: (Han Sam Yee & wf Alice S- T/E) Le
4.	TMB 2587'67 A/S: Han Sam Yee & wf Bk 5605 p 455 Amt-\$21,000 7% int \$3,500 dn \$150 mo etc SCT-\$10.50 Inst-8694 3/13/67 3/17/67 Subj/Es for Rs-W DES	4/4/67		7,510 #	do With: (George K Tilley & wf Dorothy I-T/E) A/S) Le
5.	TMB 1-288'67 R/S: Par 5309-37 area revised per map by E P Bishop Est on par Kaluanui Beach Lots, Sec. B (revised). P/D: area revised	6/2/67		7,772 #	do

CONTINUED

NOTE LAST AREA & GR/

Ute Uebel
53-723 Kamehameha Hwy.
Punahoa, HI 96717



Tax Map Key Info

Details |

TMK: **5-3-009-037**
 Historical TMK Sequence:
 Area (sq ft): **7774**
 Area (acres): **0.178**
 Lot Number:
 Chain:

LAND CONTROL CODES

Code Type	Code Description
FLOOD ZONE	FIRM ZONE VE
HEIGHT LIMIT	25 FEET
HISTORIC SITE REGISTER NO	
LOT RESTRICTIONS	NONE
SMASHORELINE	SHORELINE SETBACK
SMAASHORELINE	SPECIAL MANAGEMENT AREA
SPECIAL DISTRICT	NOT IN SPECIAL DISTRICT
STATE LAND USE	URBAN DISTRICT
STREET SETBACK	NONE
ZONING (LUD)	R-5 RESIDENTIAL DISTRICT

FACILITIES

Facility Code: **01 - Detached Dwelling (Up to 2 units, detached from property line on all sides) 1861**
 Year Built: **1**
 No. of Floors: **1**

TMK SEPARATIONS

Activity Code: **1 - HOUSEHOLD DWELLING 102.01**
 Census Tract: **903**
 Census Block: **903**

Address List:
723 - KAM HWY

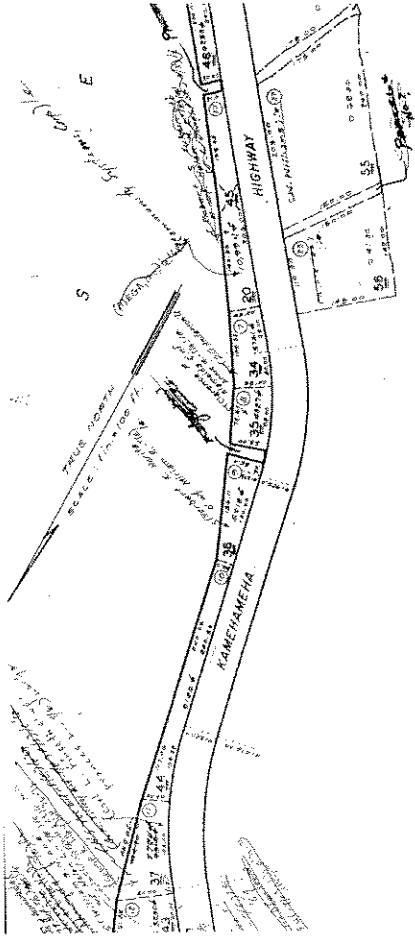
Close

City and County of Honolulu
 Department of Planning & Permitting
 650 So. King St, Honolulu, HI 96813
 Fax: (808) 527-6743
 E-mail: PERMITS@DPP.HONOLULU.HI.GOV

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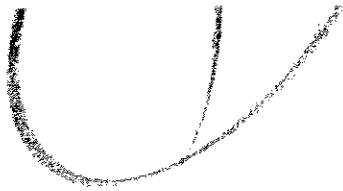
TIMELINE:

- May 8, 2003: Met with K. T. Mataele about removing Kamehameha wall because it was infringing on State property. K. T. Mataele made a mistake by also removing right side wall.
- May 30, 2003: I purchased the house with the assistance of Mary Worrall Realty
- Aug. 5, 2003: Finally started work on building Kamehameha wall and right side wall
- Sept. 13, 2003: Final payment for Kam & r. side wall to K. T. Mataele
- Nov. 25, 2003 (?): Storm damaged rock seawall
- Nov. 27, 2003 (?): Called K. T. Mataele from Boston (vacationing) & asked him to apply for permit to fix seawall
- Dec. 10, 2003: K. T. Mataele finally requested permit
- Feb. 23, 2004: K. T. Mataele wrote me a letter stating he was too busy to pursue permit/erosion problems of my seawall
- Apr. 7, 2004: Signed new contract for seawall with Tim Fotu of Pacific Experts Masonry
- Apr. 26, 2004: Applied for new seawall permit with the help of Tim Fotu, my new contractor. He said I should put the application under my name (permit would be less expensive). Tim Fotu also reneged on his word (I lost some money on it)
- May 4, 2004: Received violation from Dept of Planning & Permitting
- May 7, 2004: Tim Fotu/Pacific contractor reneged on contract
- July 12, 2004: Signed new contract with Budget Masonry, Koaneti Lanaki, to put rocks in proper place inside my property boundary & remove "rubble"/cement rocks & remains of cement wall - ALL
- July 12, 2004: Cement was removed
- July 30, 2004: Kazu Sasaki of Sam Hirota, Inc. did shoreline survey
- Aug. 31, 2004: Shoreline certification was denied. Kazu Sasaki stated that no permit was on file for right side wall & there was no completed permit for seawall
- Sept. 27, 2004: Meeting with WJ Chee Planning, Inc. about environmental impact & obtaining shoreline waiver & permit for right side wall

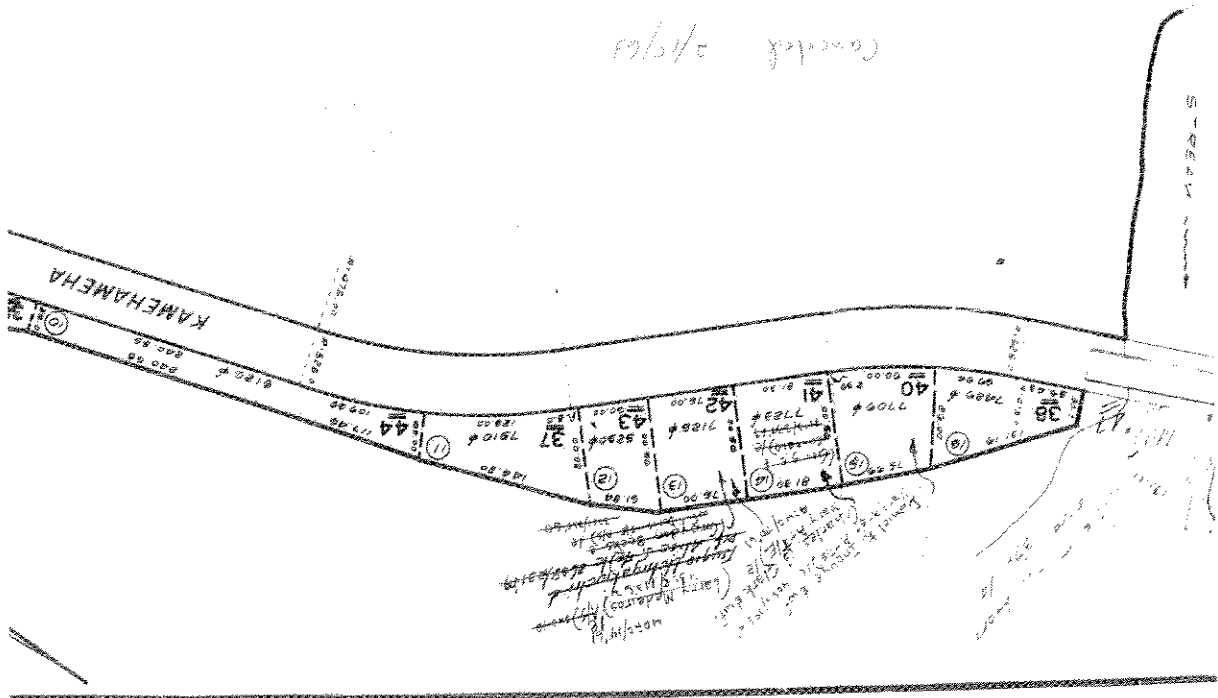


CAN 8

Date: 4/11/68



Cont'd 2/19/68



Appendix D
Parcel Information

LENA LENCEL
ADMINISTRATIVE SERVICES



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

PRINTED IN HAWAII
BY THE HAWAIIAN PRINTING AND PUBLISHING COMPANY
1001 KALANOA'OLE DRIVE, SUITE 100
HONOLULU, HAWAII 96813
OFFICE MARKING
AT THE OFFICE OF THE DIRECTOR
STATE OF HAWAII
ADMINISTRATIVE SERVICES
LENA LENCEL
1001 KALANOA'OLE DRIVE, SUITE 100
HONOLULU, HAWAII 96813
OFFICE MARKING
AT THE OFFICE OF THE DIRECTOR
STATE OF HAWAII
ADMINISTRATIVE SERVICES
LENA LENCEL
1001 KALANOA'OLE DRIVE, SUITE 100
HONOLULU, HAWAII 96813

DLNR.OCC.L.CC

Correspondence: OA-06-90

JUL 28 2006

Mr. Kazutaka Saiki
San O. Hirota, Inc.
#64 South Beretania Street
Honolulu, Hawaii 96813

Mr. Saiki,

SUBJECT: Shoreline and Wall Fronting TMK: (1) 5-3-009-037, 53-723 Kamehameha Hwy,
Hanalei, Hawaii 96717, Ute Uebel, owner.

The Department of Land and Natural Resources (DLNR) Office of Conservation and Coastal Lands (OCC.L) has reviewed the proposed shoreline location for TMK (1) 5-3-009-037. The shoreline certification application cannot be accepted because of the unauthorized status of the shoreline structure.

The location of the shoreline, as proposed in the shoreline certification application, was determined in a site visit by OCC.L and Survey Office staff, and mapped by Sam O. Hirota, Inc. The shoreline is located correctly, according to the requirements of HAR § 13-222, as its placement coincides with the high wash of the waves and the erosional features they create within the coastal landscape.

The OCC.L is willing to cooperate with the City and County Planning Department and the owners in resolving the issue of the illegal shoreline structure. Should you have any questions, please call Chris Cooney, Sea Grant College Extension Agent, at 587-5009.

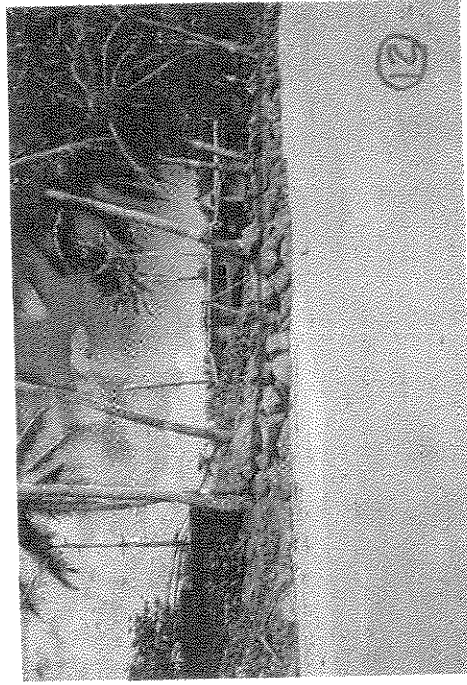
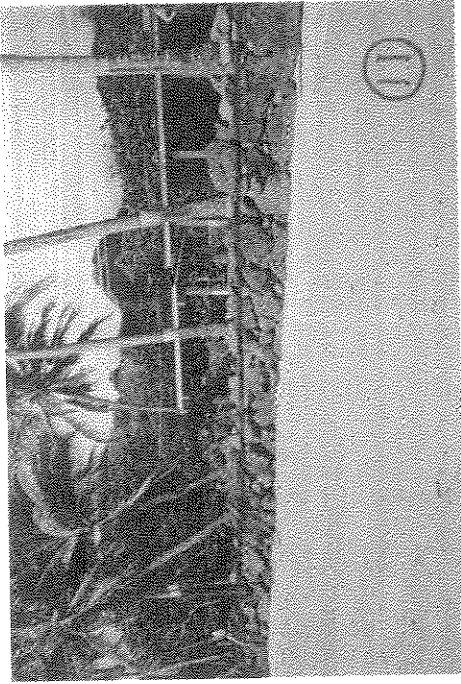
Sincerely,

Samuel J. Lemusa, ADMINISTRATOR
Office of Conservation and Coastal Lands

cc: Chairman,
Art Chalacombe, DPP
Judy Mariano, Will Cline Planning and Environmental, Inc.
1018 Palm Drive
Honolulu, HI 96814

PHOTOS TAKEN
June 1, 2006, at 9:15 am
SCH# 060700

SHORELINE FOR UTE UEBEL, 53-723 KAMEHAMEHA HWY



PHOTOS TAKEN
June 1, 2006, at 9:15 am
SCH# 060700

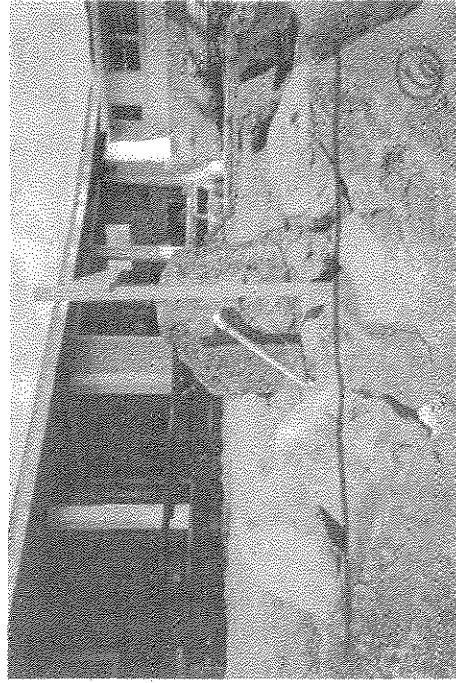
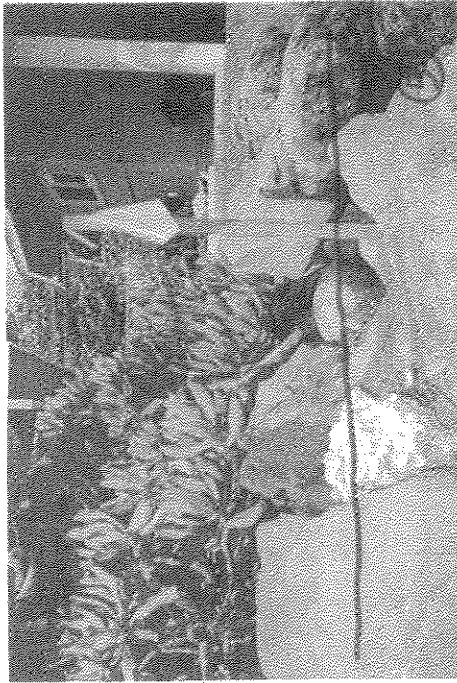
SHORELINE FOR UTE UEBEL, 53-723 KAMEHAMEHA HWY



PHOTOS TAKEN
June 1, 2006, at 9:15 am

SOH# 060700

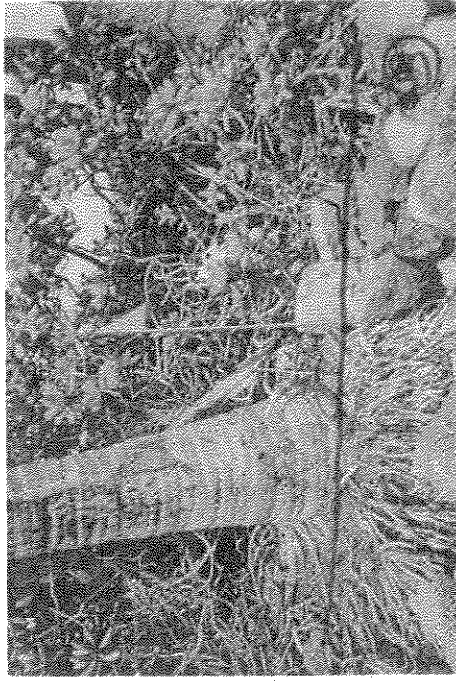
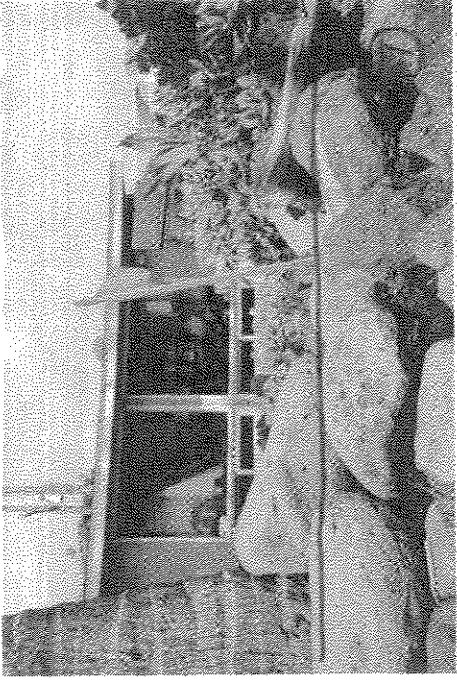
SHORELINE FOR UTE UEHEL, 53-723 KAMEHAMEHA HWY



PHOTOS TAKEN
June 1, 2006, at 9:15 am

SOH# 060700

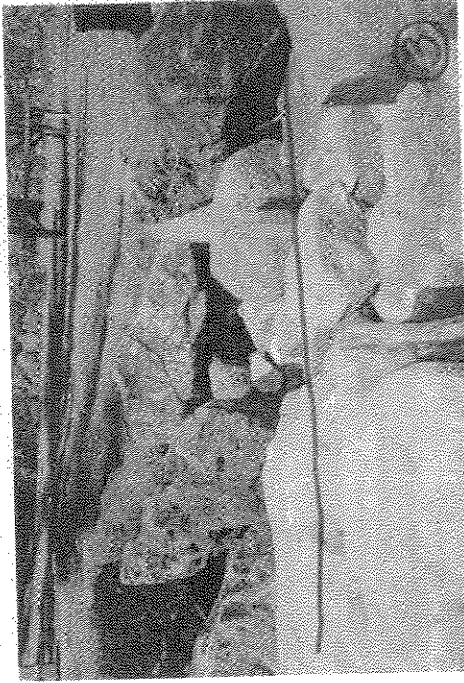
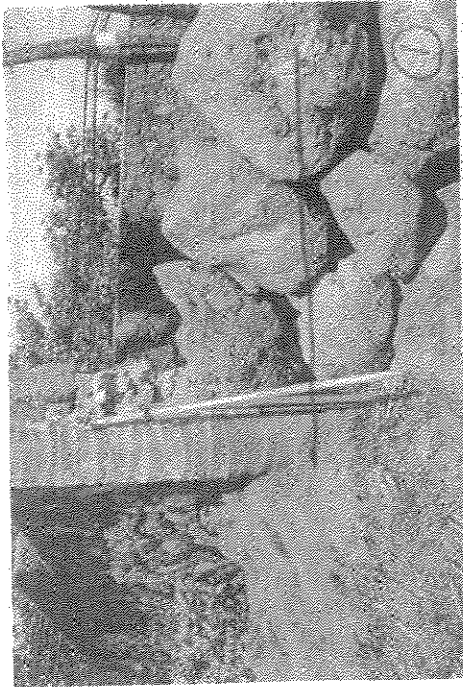
SHORELINE FOR UTE UEHEL, 53-723 KAMEHAMEHA HWY



PHOTOS TAKEN
June 1, 2006, at 9:15 am

SOH# 060700

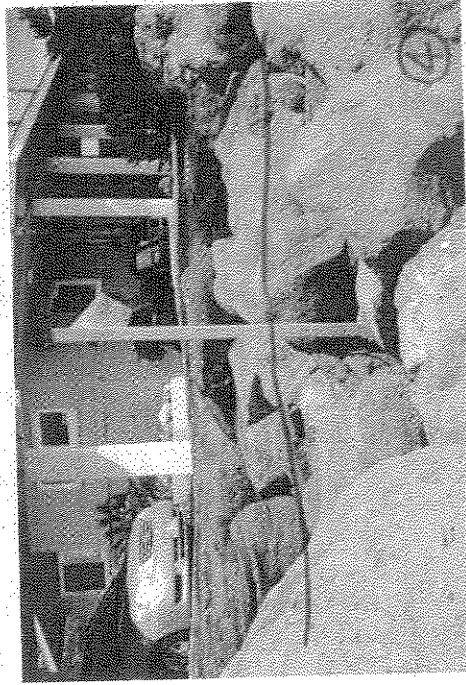
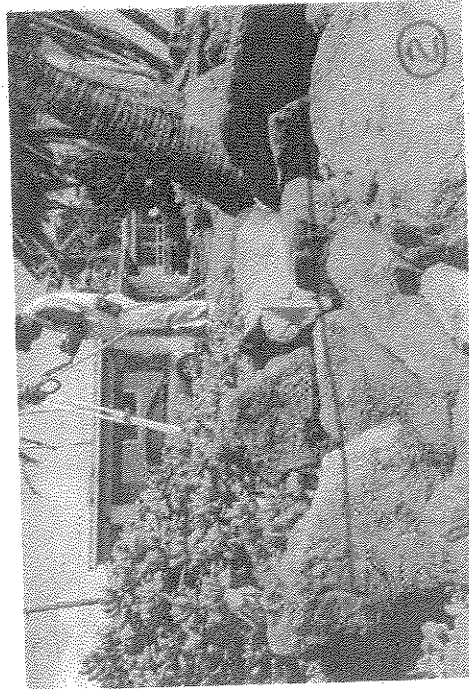
SHORELINE FOR UTE UEBEL, 53-723 KAMEHAMEHA HWY.



PHOTOS TAKEN
June 1, 2006, at 9:15 am

SOH# 080700

SHORELINE FOR UTE UEBEL, 53-723 KAMEHAMEHA HWY.



June 28, 2006
060700

Office of the Chairperson
State of Hawaii
Dept. of Land and Natural Resources
Kaianimoku Building, First Floor
1151 Punchbowl Street
Honolulu, Hawaii 96813

Gentlemen:

SUBJECT: Shoreline Certification
ADDRESS: 53-723 Kamehameha Highway
Haaula, Hawaii 96717

TMK: (1) 5-3-08-037

PURPOSE: To resolve unauthorized placement of rocks along oceanfront

OWNERS: Ms. Ute Dagmar Uebel

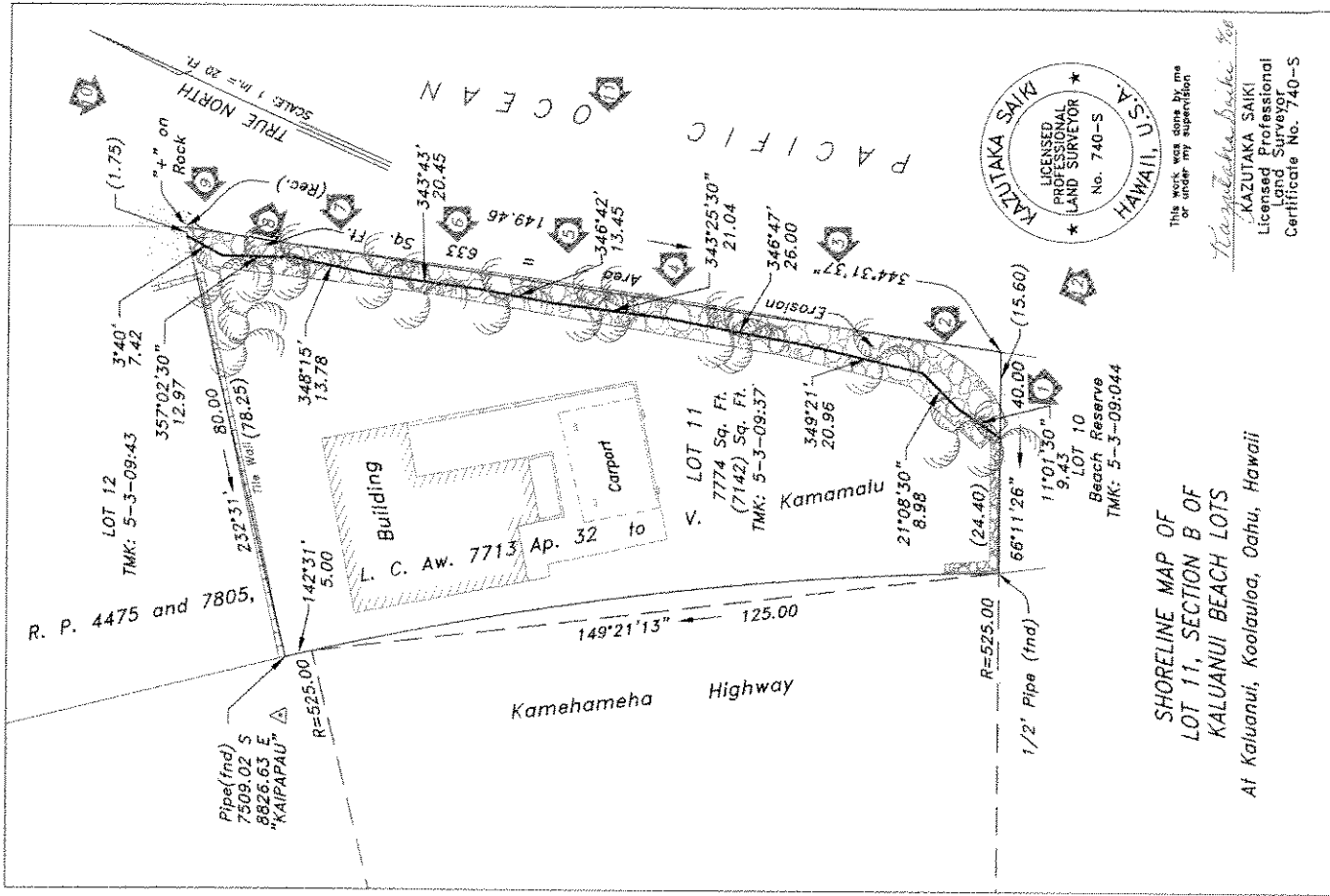
AGENT: Sam O. Hirota, Inc.

This letter is to serve as authorization of Sam O. Hirota, Inc. to act as our agent for the request for the shoreline certification of the subject property. I also authorize representatives of the State of Hawaii, including the State Surveyor, the right to enter the property at reasonable business hours for site inspection and verification of the shoreline.

If there are any questions, please contact me by phone at (808) 220-8901 (Thurs & Fri)

Sincerely,

Ute Dagmar Uebel



SHORELINE MAP OF
LOT 11, SECTION B OF
KALUANUI BEACH LOTS
At Kaluanui, Koolauloa, Oahu, Hawaii

V. CHECKLIST OF ENCLOSURES

- At least three (3) sets of color photographs of the shoreline, in accordance with § 13-222-8, HAR;
- Shoreline, as delineated on the map, is indicated on each photograph.
- Permanent markings on the ground or flaggings are indicated on the photographs.
- Each photograph is labeled by number or alphabet to coincide with the map showing the location the photograph was taken.
- Photographs provide accurate perspectives of the shoreline in relation to permanent markings or other land features.
- Each photograph is marked with the date and time taken.
- At least seven (7) maps of the shoreline, in accordance with § 13-222-9, HAR:
 - Maps are on whiteprints and are one of the following sizes (in inches): 8.5 x 13, 10 x 15, 13 x 23, 15 x 21, 21 x 32, 22 x 36, 24 x 36, 30 x 36, 36 x 42, 42 x 42-72.
 - Maps are drawn using an engineer or architect scale, in units of feet. Scale is clearly noted on the map. No reduced or enlarged maps allowed.
 - Maps are based on an actual field survey conducted within the prior 90 days.
 - Maps have the licensed surveyor's seal and testament indicating the work was done by the surveyor or under the surveyor's supervision.
 - Maps indicate true north pointing towards the top.
 - Map title and reference to location include the original source of title and name of awardee, patentee, or grantee and the ii, ahupuaa, and the TMK and the property owner's name and address.
 - Maps show all permanent identification marks established on the ground and all pertinent azimuths and distances.
 - Maps indicate the type of shoreline being determined (i.e., vegetation line, debris line, upper reaches of the wash, face of artificial structure, or combination).
 - At least two (2) of the maps show the direction the photographs were taken and the point or shoreline depicted in the photographs.
- Field survey was conducted on June 1, 2006 by Mr. Gil Villanueva
(date of field survey) (name of person who conducted field survey)
- The licensed land surveyor who made or supervised the field survey was:
 - Name Kazutaka Saiiki
 - Address 864 South Beretania Street, Honolulu, Hawaii 96813
 - Phone no. (808) 537-9971 ext: 225
- Application fee of \$75 is enclosed.
- Statement signed by property owner granting the State of Hawaii the right to enter the property.
- Statement(s) signed by applicable owners granting the State of Hawaii the right to enter land not owned by the property owner necessary for access.

Copy of any federal, State or county enforcement or other legal action involving the subject shoreline.

If shoreline is being located at the base of a manmade structure, copy of all documents supporting the structure has been approved by the appropriate government agencies or is exempt from such approval.

VI. CERTIFICATION

I hereby certify that the statements and information contained in this application, including all attachments, are true and accurate to the best of my knowledge and understand that if any statements are shown to be false or misrepresented, this application may be rejected. Further, I understand that the Department may review any shoreline certification during its 12-month validity period and may rescind the certification where there is substantial misrepresentation or material fact in the application, whether intentional or unintentional, as determined by the State Land Surveyor or the Department.

Kazutaka Saiiki
Printed Name

June 24, 2006
Date


Kazutaka Saiiki
Signature

Mr. Wilbert C.F. Chee
Page 2
November 29, 2004

Should you have any questions, please call our staff Ardis Shaw-Kim at 527-5349 or Steve Cheung at 527-6256.

Sincerely yours,




ERIC G. CRISPIN, AIA
Director of Planning and Permitting

EGC:es

cc: Ute Uebel

ushef@lsdnc (Doc: 336082 Rev 1)

For DLNR use only:

Case file no.: _____
Date application recvd: _____
Date applic. Complete: _____
Completion date (+90): _____
1st OECC notice: _____
2nd OECC notice: _____
Date appeals due (+20): _____
Date briefs due: _____
Date of decision (+60): _____

**STATE OF HAWAII
DEPARTMENT OF LAND & NATURAL RESOURCES
SHORELINE CERTIFICATION
APPLICATION FORM**

I. APPLICANT/AGENT

Applicant means the person submitting an application for shoreline certification.

Applicant name: Sam O. Hirota, Inc. Attn: Kazutaka Saiki
Applicant address: 864 South Beretania Street
Honolulu, Hawaii 96813
Phone numbers: (808) 537-9971 ext: 225 (808) 524-6313 chirota@aoloha.net
Phone Fax E-mail

II. PROPERTY OWNER

Property owner means the equitable or legal holder of interest in, or the lessee holding under a recorded lease for the property for which a shoreline certification is requested, or the authorized agent.

Owner name: Ms. Ute Dagmar Uebel
Owner address: 53-723 Kamehameha Highway
Haaula, Hawaii 96717

Signature: _____ Date: _____

III. LOCATION AND ADDRESS

Island: Oahu Kauai Molokai
 Hawaii Maui Lanai

Town District: Haaula, Oahu Tax Map Key: (1) 5-3-09-037
Address: 53-723 Kamehameha Highway
Haaula, Hawaii 96717

IV. PURPOSE

State the purpose for which the certification is being applied:

A compromised shoreline to be used to remove unauthorized rocks placed seaward of Said line. Mr. Chris Conger selected the line to be adopted. Mr. Reid Starot, State Land Surveyor also present.



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 651
HONOLULU, HAWAII 96809

PETER L. YOUNG
BOARD OF LAND AND NATURAL RESOURCES
COMMISSIONER OF WATER RESOURCE MANAGEMENT
DEPUTY DIRECTOR - LAND
DEPUTY DIRECTOR - WATER
DEPUTY DIRECTOR - FOREST AND WILDLIFE
HAWAIIAN ISLANDS WATER RESOURCES COMMISSION
STATE PLANS

August 31, 2004
HIKOTAOAHU53937-D
LD-NAV

Sam O. Hirota, Inc.
Kazutaka Sakai, LPLS
864 South Beretania Street
Honolulu, Hawaii 96813-5795

Dear Mr. Sakai:

Subject: APPLICATION FOR SHORELINE CERTIFICATION DENIED

Address: 53-723 Kamehameha Highway
Applicant: Sam O. Hirota, Inc./Ms. Ute Uebel
Island: Oahu - District: Kaitiaki
TMK: (1) 5-3-009; 037



By SAM O. HIROTA, INC.

Please be informed that your application for certification of the shoreline for the subject properties is denied for failure to submit documents supporting structure(s) was approved by government agencies or exemption as required pursuant to Hawaii Administrative Rules Chapter 13-222-7(b)(14).

You should contact both the City and County of Honolulu, Department of Planning and Permitting located at 650 South King Street, Honolulu, Hawaii 96813 (808-523-4414) and the Office of Conservation and Coastal Lands located at 1151 Punchbowl Street, Room 131, Honolulu, Hawaii 86813 (808-587-0377), to determine whether the structure has been approved or is exempt.

Returned herewith is your shoreline application. We have retained one survey map and one set of photos for our record. If you have any questions, please contact Nicholas A. Vaccaro of the Land Division Support Services Branch at (808) 587-0384.

Very truly yours,

DIERDRE S. MAMIYA
Administrator

C: OCCL
ODLO

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4414 • FAX: (808) 527-6343
DEPT. WEB SITE: WWW.HONOLULU.GOV • CITY WEB SITE: WWW.HONOLULU.HI.GOV



JEREMY HARRIS
MAYOR

ERIC G. CRISPIN, AIA
DIRECTOR
BARBARA KIM STANTON
DEPUTY DIRECTOR

2004/TELOG-2570(ASK)
2004/NOV-05-009 (SHC)

November 29, 2004

Mr. Wilbert C.F. Chee
Will Chee - Planning and Environmental, Inc.
1018 Palm Drive
Honolulu, Hawaii 96814

Dear Mr. Chee:

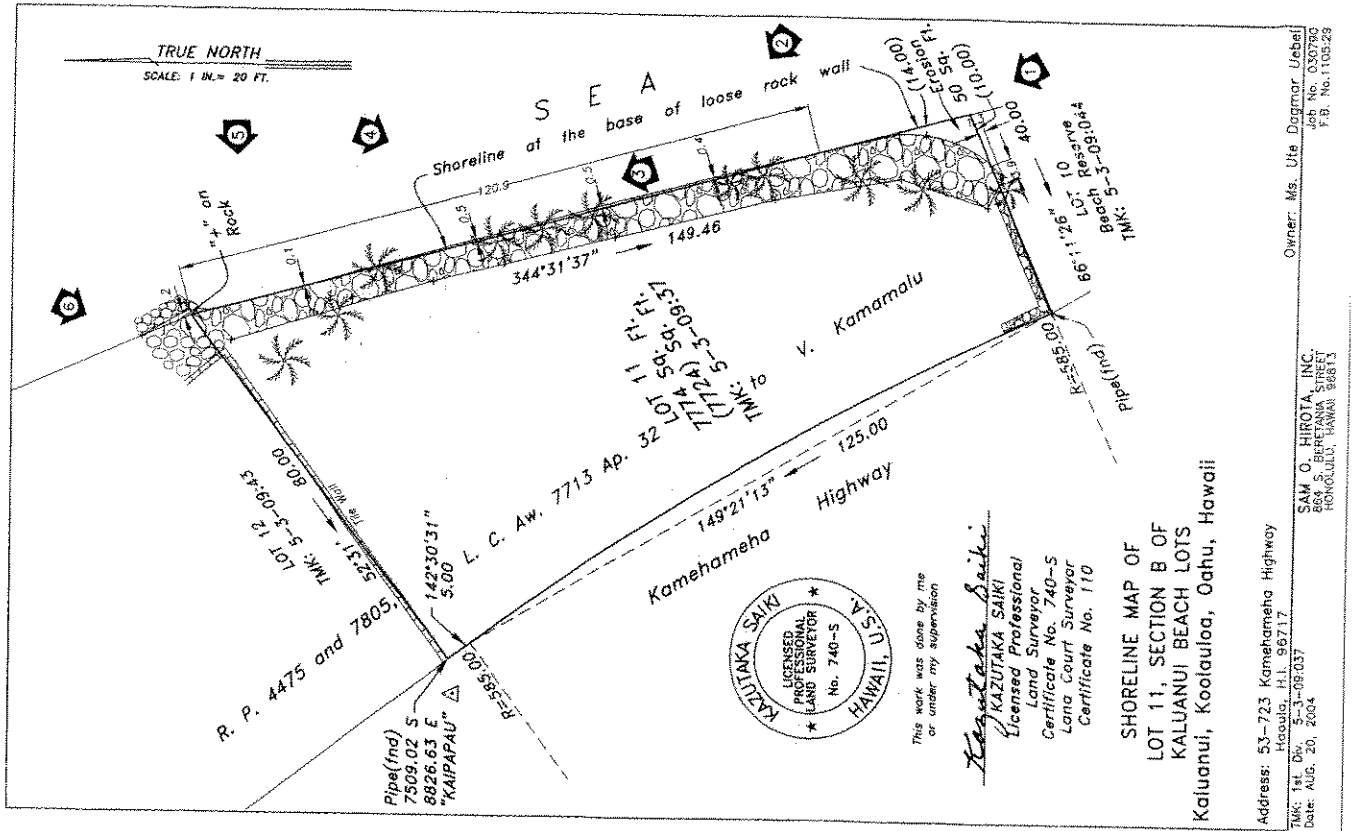
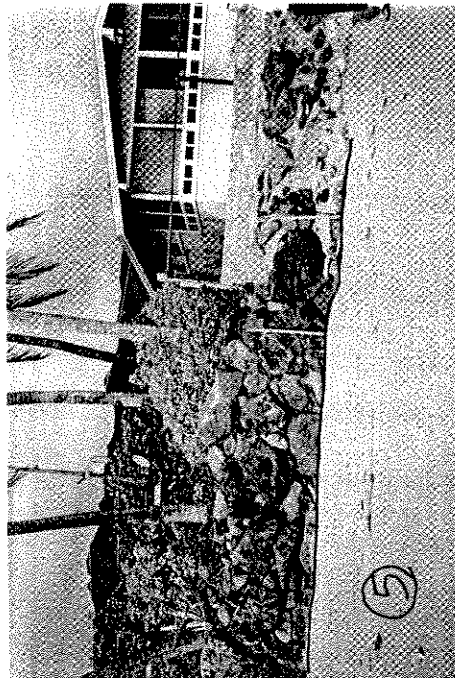
Rubble and Sidewalk in Shoreline Setback
53-723 Kamehameha Highway - Hauula
Tax Map Key 5-3-009; 037

This is in reply to your letter dated October 27, 2004, regarding a request for waiver of a shoreline certification and an extension of time for the Notice of Violation. We have considered your request and grant your request to waive the survey certification pursuant to Section 13-5 (a)(6) of our Administrative Rules.

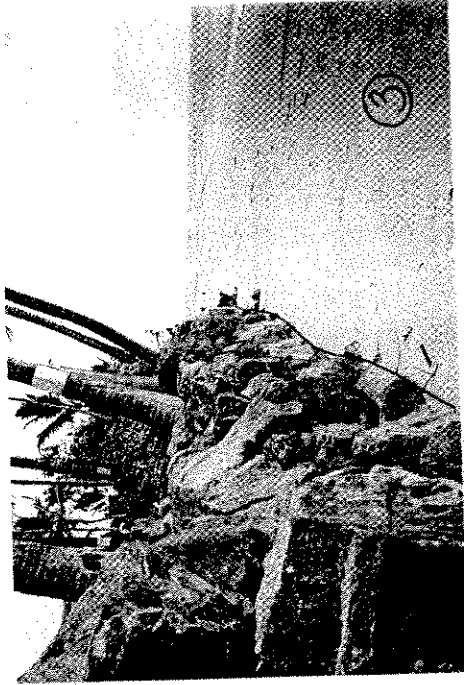
Your letter explains that the property owner intends to seek a shoreline setback variance for the illegal seawall. The State, however, has rejected her request for a shoreline certification, which would normally be required with the shoreline variance application. Section 13-5(a)(6) of our Rules authorizes the Director to waive the shoreline certification requirement where the shoreline is affected by an illegal shoreline structure provided the applicant submits a shoreline survey as part of a shoreline variance application. Your client's circumstances meet these criteria. Accordingly, we will waive the certification requirement for the purpose of processing an after-the-fact variance for the illegal seawall.

Based on the above circumstances, we approve another extension until **December 17, 2004** to allow time for Ms. Uebel to prepare a Shoreline Setback Variance application. She must submit a complete Shoreline Setback Variance application that is acceptable to our Department before that date. If we do not receive the application before **December 17, 2004**, a Notice of Order, which carries civil fines, will be issued. This will be the final extension granted.

SHORELINE OF TMK: (1) 5-3-08: 037
 Photos taken July 30, 2004 @ 9:00 a.m.



SHORELINE OF TMK: (1) 5-3-09: 037
Photos taken July 30, 2004 @ 9:00 a.m.



SHORELINE OF TMK: (1) 5-3-09: 037
Photos taken July 30, 2004 @ 9:00 a.m.

