2001-12-23-OA-FEA-~~Makoha~~ Okimoto Seawall

# FINAL ENVIRONMENTAL ASSESSMENT AND COASTAL ENGINEERING EVALUATION FOR SHORELINE SETBACK VARIANCE APPLICATION

Gary and Marcia Okimoto
84-119 Maka`u Street
Wai`anae, Hawai`i 96792
TMK 8-4-10:13, Lot 315

Sea Engineering, Inc.

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# AND
# COASTAL ENGINEERING EVALUATION
# FOR
# SHORELINE SETBACK VARIANCE APPLICATION

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Prepared by:
Sea Engineering, Inc.
Makai Research Pier
Waimanalo, Hawaii 96795

November 2001

## I. GENERAL INFORMATION

A. PROJECT LOCATION

84-119 Maka`u Street
Wai`anae, Hawai`I

B. APPLICANT AND RECORDED FEE OWNER

Gary and Marcia Okimoto
85-1330 Kaneilio Street
Waianae, HI 96792

C. AGENT

Sea Engineering, Inc.
Attn: Scott Sullivan
Makai Research Pier
Waimanalo, HI 96795
Phone (808) 259-7966
Fax (808) 259-8143

D. TAX MAP KEY: 8-4-10:13, Lot 315 Land Court Application 1052 (Map 7)

E. LOT AREA: Total Lot Area is 12,737 sq. ft.
Lot Area Landward of Certified Shoreline is 9,572 sq. ft.

F. ZONING: R-10 Residential District

## II. LOCATION AND GENERAL DESCRIPTION OF THE PROPOSED PROJECT

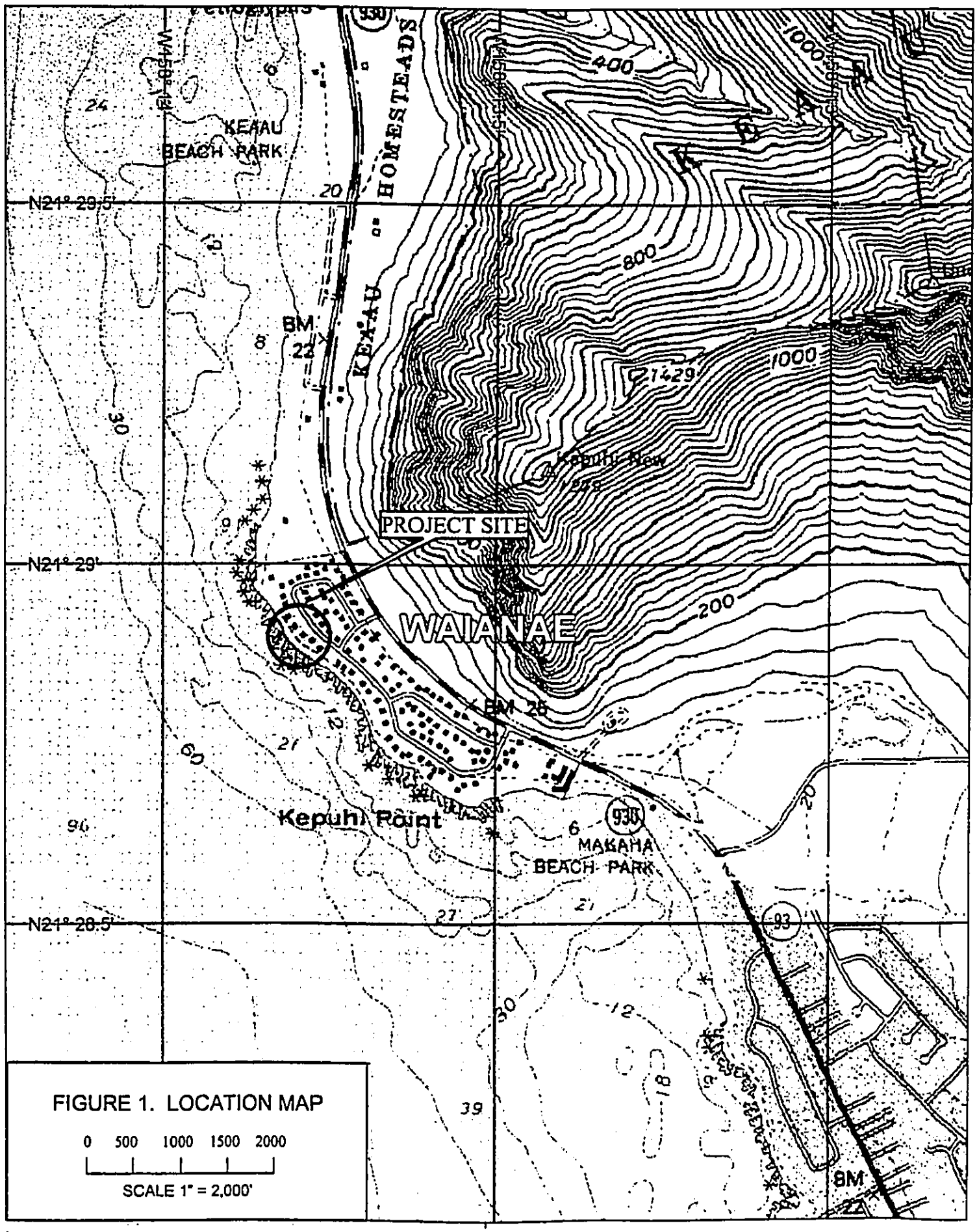
The project site (Lot 315) is located on the western shore of Oahu in a residential community between Makaha Beach Park and Keaau Beach Park, immediately north of Kepuhi Point. Location and vicinity maps are shown on Figures 1 and 2.

The shoreline in the project vicinity is divided into house lots, and the majority of the house lots are developed with homes. Lot 315 is bordered by one undeveloped lot on the north side (Lot 316), and two undeveloped lots to the south (Lots 314 and 313). Lot 315 is also currently vacant, except for an existing masonry boundary fence wall on the north side of the property. All developed properties in the vicinity of the project site have existing shore protection structures along their seaward side, and Lot 313 recently (1999) obtained a Shoreline Setback Variance and constructed a protective retaining wall along the seaward side of the property and a masonry fence along the north side. Shoreline access easements are located four lots to the south and three lots to the north of the project site (see Figure 2).

A shoreline survey for Lot 315 was completed on January 15, 2001, and the shoreline survey was certified by the Chairman, Board of Land and Natural Resources, on March 23, 2001. A copy of this shoreline certification is shown on Figure 3. As a result of the shoreline certification, 3,165 square feet of the total property area of 12, 737 square feet, or 25%, is now located seaward of the certified shoreline. This effectively makes 25% of the taxable property area unusable by the owner without State Conservation District Use approval.

During Hurricane Iniki in 1992, wave runup and inundation of the shoreline caused by high water levels (storm surge) and high waves eroded the unconsolidated sediments on the surface of the undeveloped and unprotected properties, and deposited a large quantity of coral rubble and boulders onto the portion of Makau Street fronted by the vacant lots, including Lot 315. The storm wave damage is illustrated by the photograph on Figure 4. The rest of the shoreline, which has existing shore protection structures, suffered no significant damage. The applicant proposes to build an owner occupancy residence on the property, and desires to construct a protective retaining wall landward of the certified shoreline, within the 40-foot shoreline setback zone. The wall would provide storm wave runup protection for the proposed residence, as well as allow for the placement of earth fill behind the wall to permit landscaping of the area. The seaward face of the wall would be located 1 foot and 7 feet landward of the certified shoreline on the south and north corners of the property, respectively, and would turn landward at the property line to from a side yard wall along the sides of the lot. The height of the retaining wall would be 6 feet above existing grade, with a base approximately 60 inches wide, battered front and back to a crest width of 18 inches. The footing would be buried two-feet below grade. Rock steps will be constructed on the seaward face of the wall to provide access to the shoreline. Earth fill to a depth of 5 ½ feet will be placed between the proposed shore protection wall at the certified shoreline and a second wall to be constructed immediately landward of the 40-foot shoreline setback line. This will create an elevated lawn area to be accessed by stairs from a covered deck on the second (main) floor of the home. Plan

and cross-section views of the proposed wall are shown on Figures 5 and 6. A site plan for the proposed home to be built on the lot is shown on Figure 7.



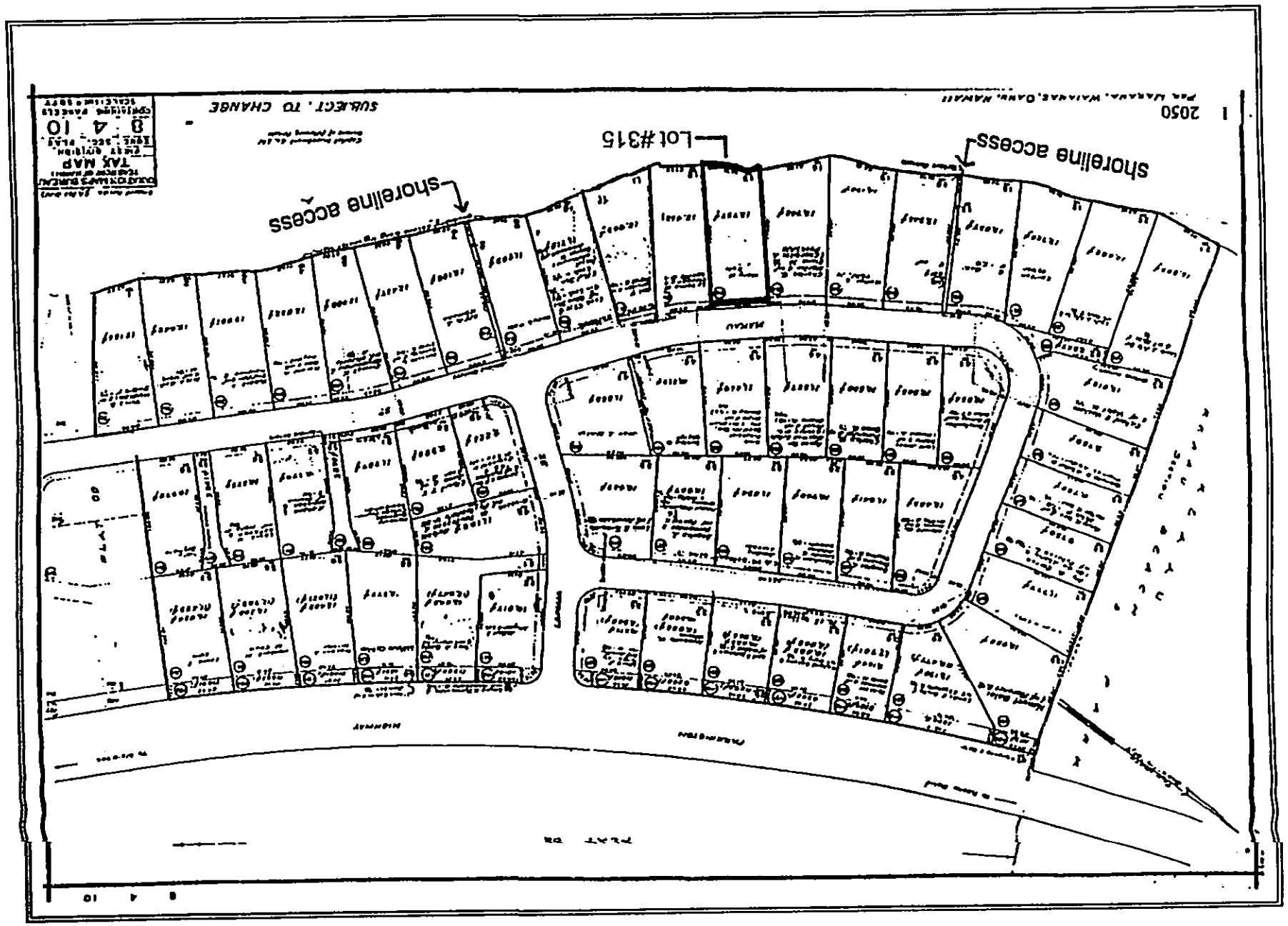



FIGURE 2. VICINITY MAP, LOT #315, TMK8-4-10:13

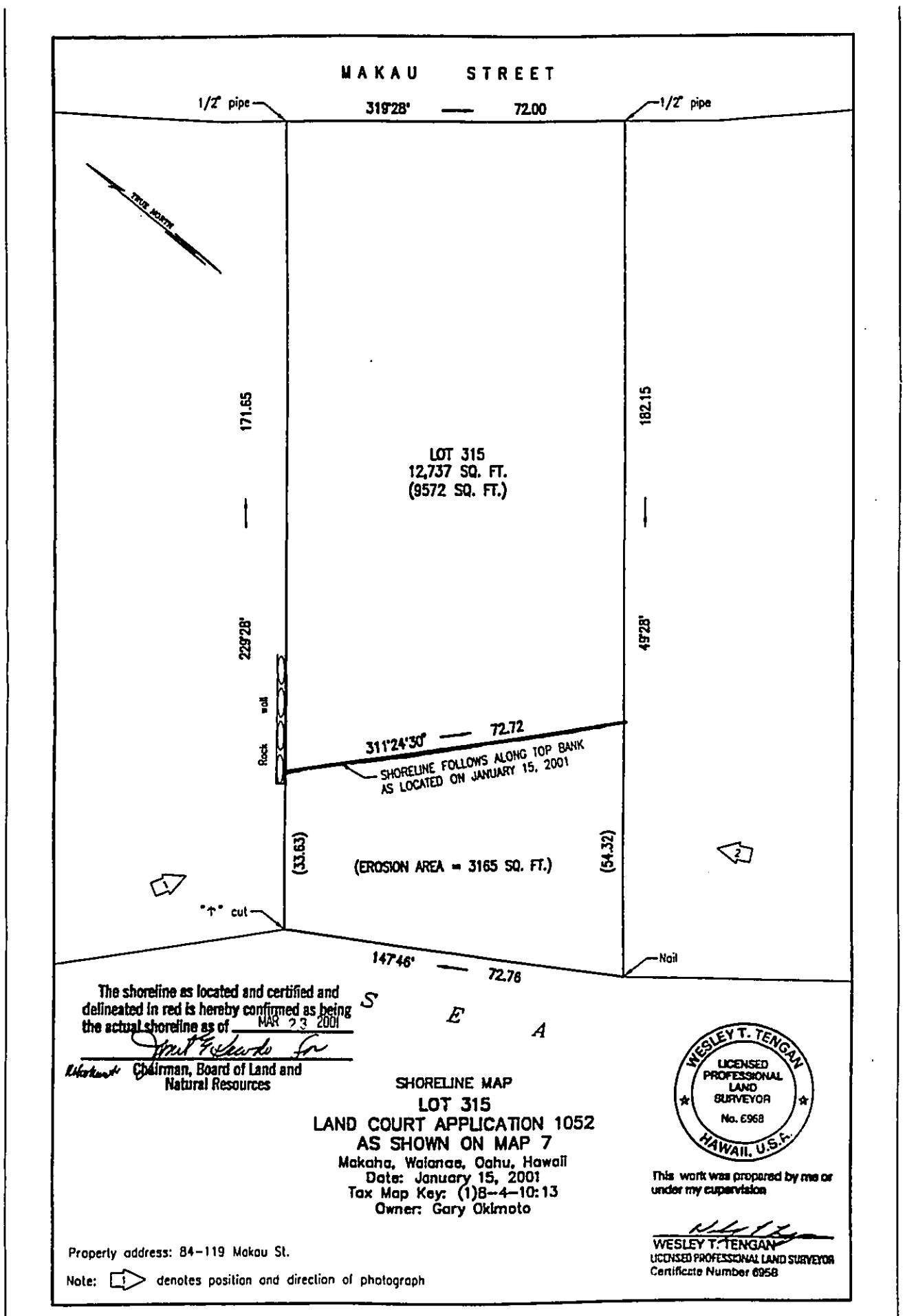



FIGURE 3. SHORELINE CERTIFICATION

HURRICANE INIKI: The Honolulu Advertiser

FIGURE 4. INUNDATION OF MAKAU STREET, DURING HURRICANE `INIKI, 1992.
(PHOTOGRAPH BY CARL VITI, THE HONOLULU ADVERTISER)

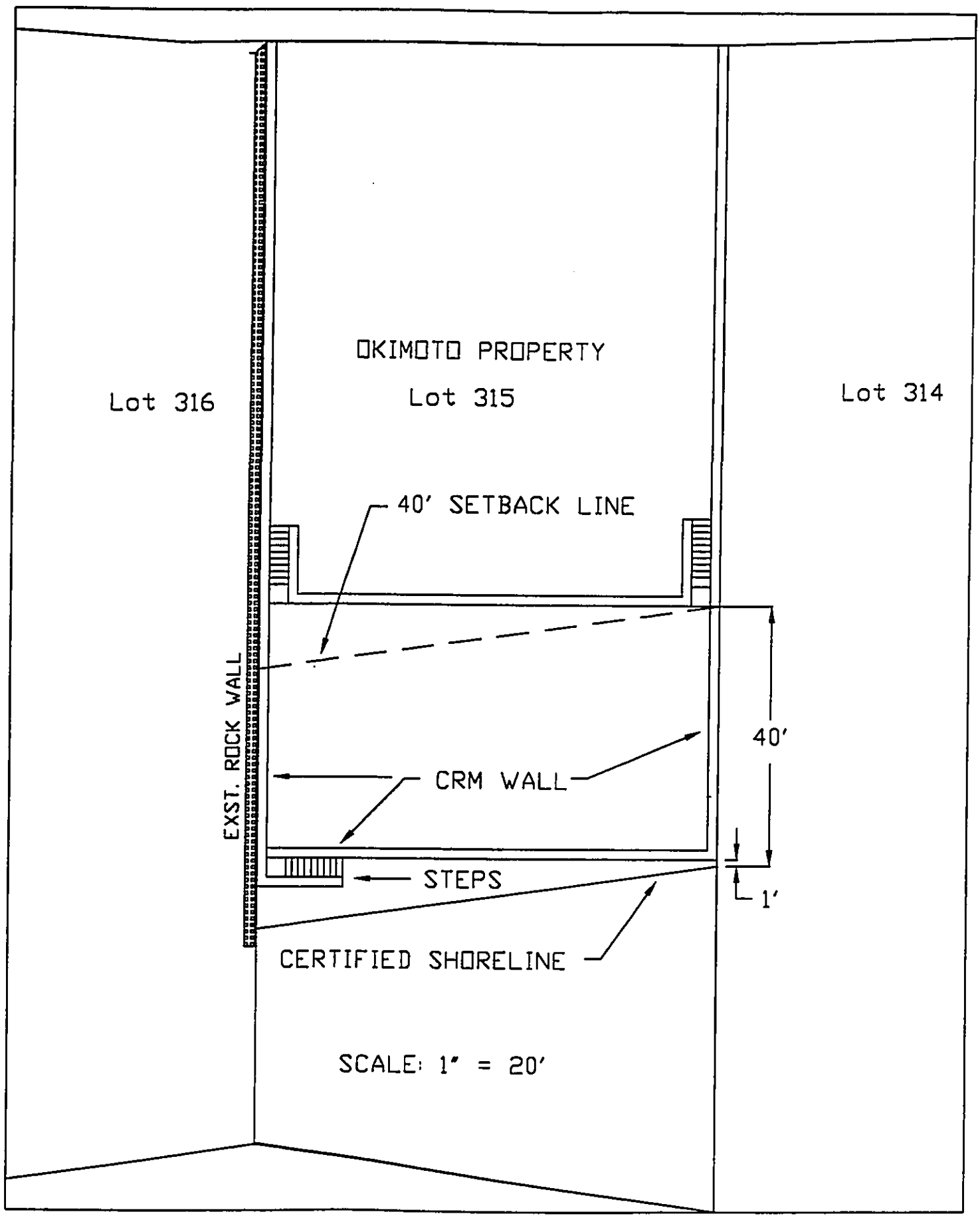



FIGURE 5. PROJECT PLAN VIEW

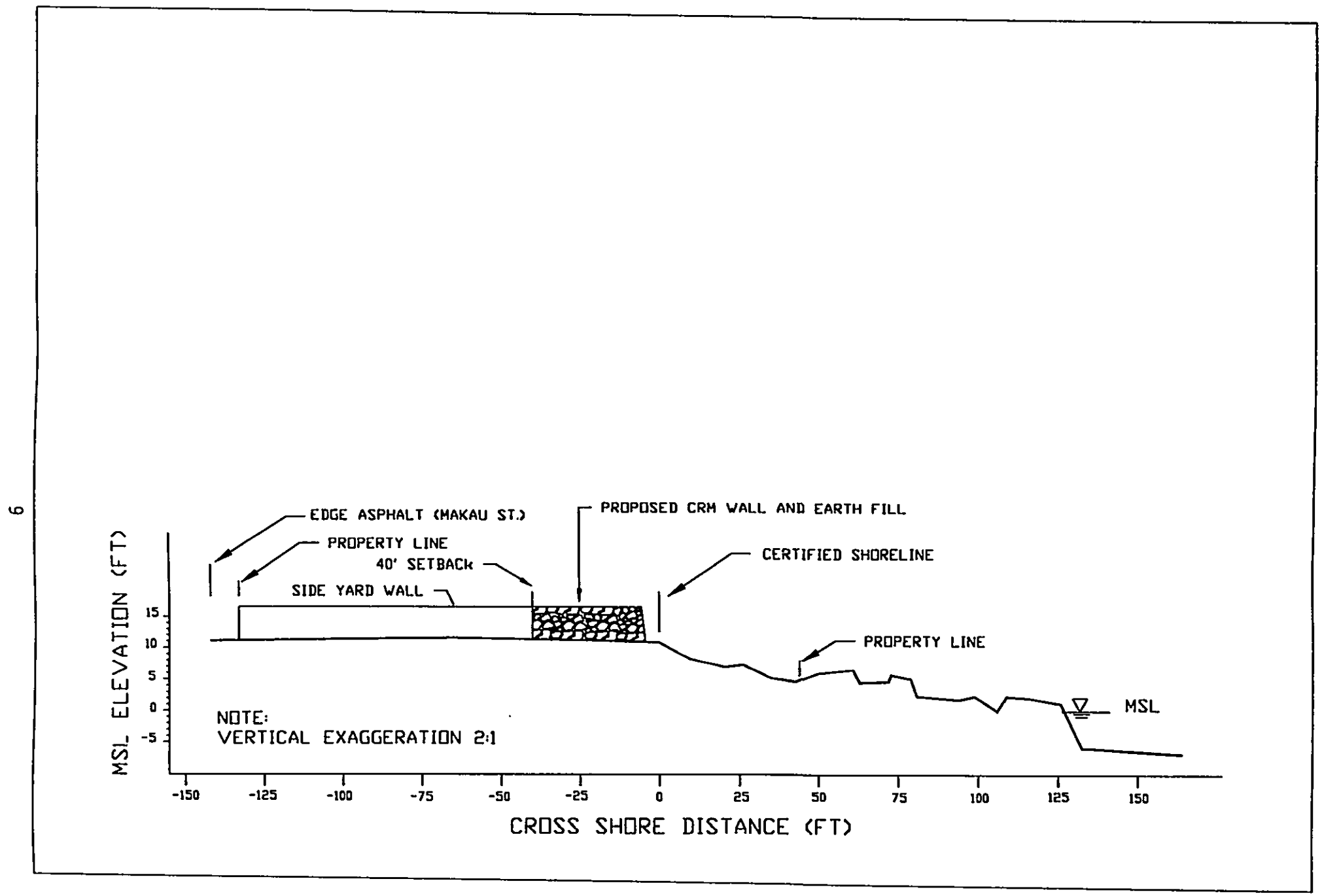
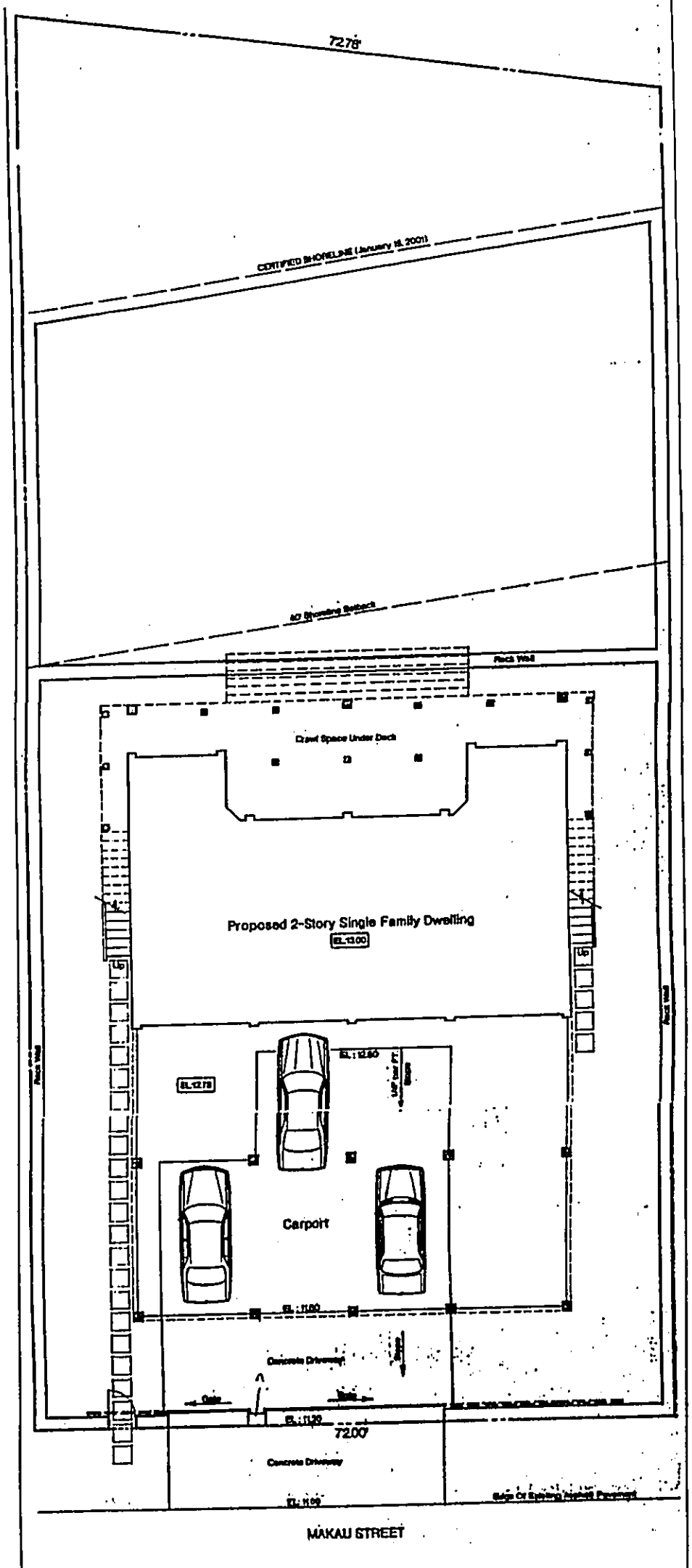



FIGURE 6. PROJECT CROSS-SECTION

LOKAHI
CONSULTANTS
PROPERTY DEVELOPMENT

MAKAHA
Residence

84-119 Makau Street
Waianae, Hawaii 96792




SCALE
1/16" = 1'-0"

FIGURE 7. SITE PLAN OF PROPOSED HOME

## III. COASTAL ENGINEERING EVALUATION

### A. Shoreline Type and Characteristics

The coastal sector in the project area is an entirely rocky shore consisting of coralline reef rock terraces formed during ancient higher sea levels. Figure 8 shows the typical profile and geologic features across the seaward portion of the property. General features include the Hurricane Iniki erosion scarp and vegetation line, behind which is earth, sand, and coral rubble overlaying hard reef rock, a coralline rock shelf with a seaside escarpment, and a lower elevation rock bench with tide pools. These features can be seen on the aerial photograph on Figure 9.

The lot is essentially flat with an elevation of +11.5 feet mean sea level (msl) from Makau Street to the top of the erosion scarp (bank) located along the certified shoreline. The bank is located about 125 feet landward of the mean sea level shoreline, and is fronted by a narrow band of wave tossed coral rubble and sand (see Figure 10a). This rubble and sand is well above and inland of the high water line, presumably deposited by storm waves, and is not a part of the littoral system during typically prevailing wave conditions. Seaward of the certified shoreline is a 50 to 60-foot wide emergent coralline reef rock shelf, with an average elevation of about + 6 feet msl (see Figure 10b). The rock shelf has a gentle slope, and an irregular surface with vertical relief of 1-foot or more. This shelf is well above high tide and does not contain tide pools, nor does typically prevailing wave action reach this elevation. No vegetation or marine life is observable on this hard rock surface. The shelf ends at a vertical escarpment, 3 to 4 feet in height, that drops to a lower intertidal reef rock bench. The seaward-most 5 to 10 feet of the shelf is highly eroded and solution pitted to a sharp and jagged relief. The edge of the shelf is located about 80 feet seaward of the certified shoreline.

Seaward of the rock shelf is an intertidal reef rock bench that is washed by wave action much of the time (see Figure 11a). The hard coralline rock surface is covered by seaweed and algae, and numerous tide pools make it an active part of the coastal ecosystem. The reef flat averages 40 feet in width, and ends at an irregular vertical escarpment that drops 4 to 6 feet and then slopes to the sea floor (see Figure 11b). Water depth in the vicinity of the reef flat edge is 6 to 8 feet.

### B. Existing Shoreline Structures

All of the developed properties in the vicinity of Lot 315 are fronted by protective seawalls. This can be clearly seen in the aerial photograph on Figure 9. The walls range in height from about 5 feet to one that is about 8 feet high just south of Lot 315. Thus the proposed 6-foot high wall would be about the same height or lower than the existing walls. In addition, the location of the proposed wall landward of the certified shoreline would place it at or landward of the typical location of the existing walls.

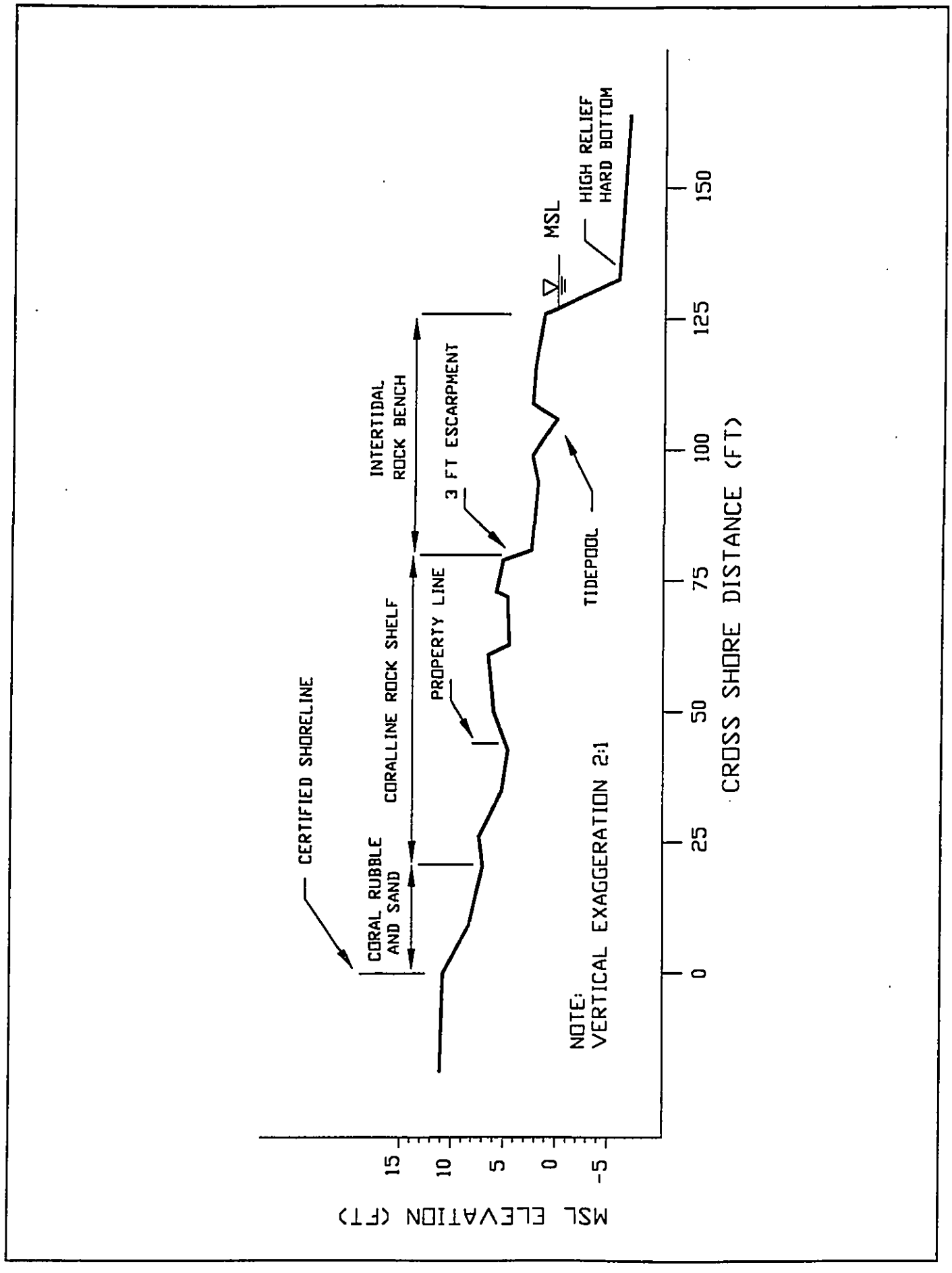



FIGURE 8. SHORELINE PROFILE AND GEOLOGIC FEATURES

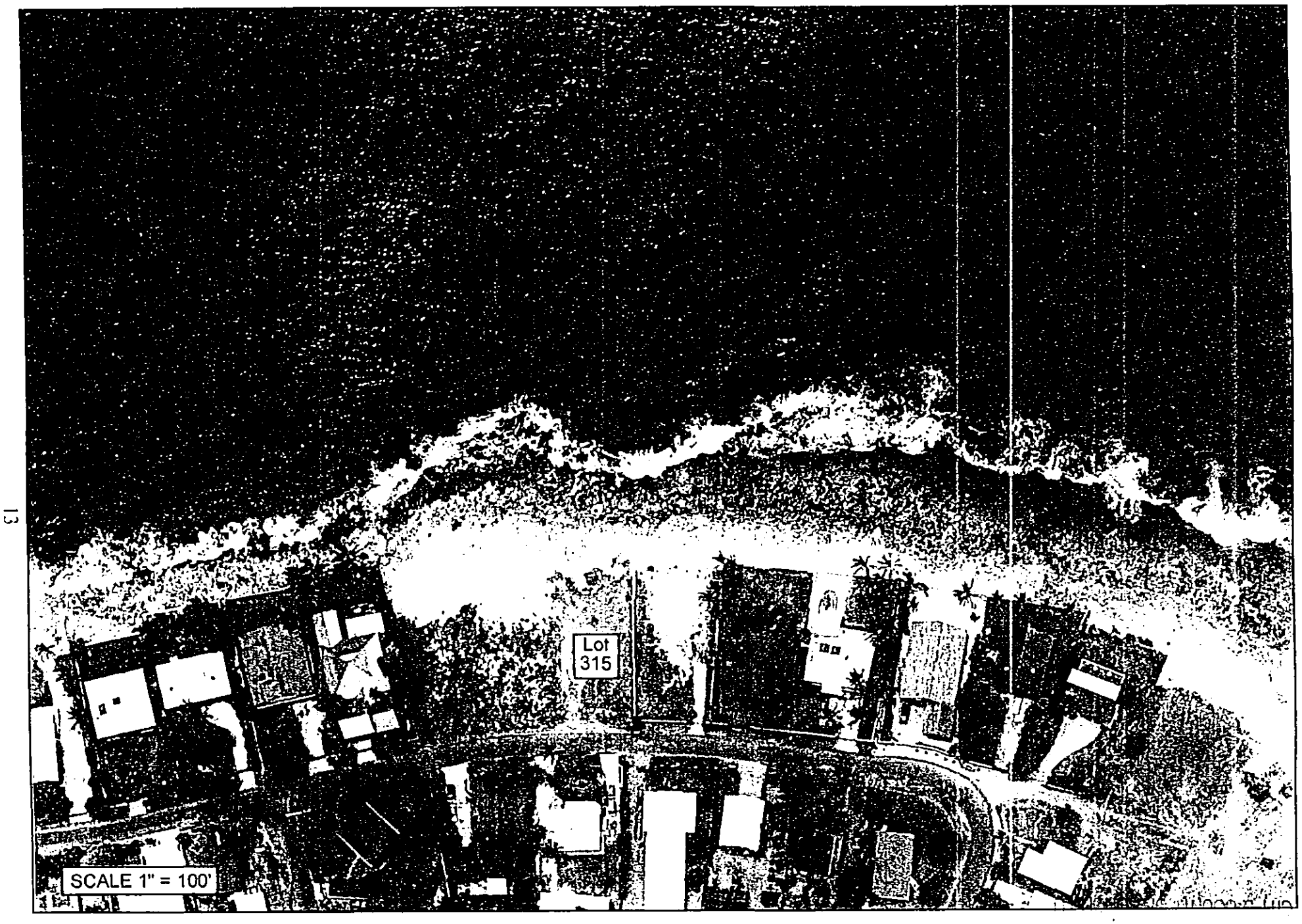



FIGURE 9. AERIAL PHOTOGRAPH OF THE PROJECT SITE
(Photo by Air Survey Hawaii, 5-24-00)

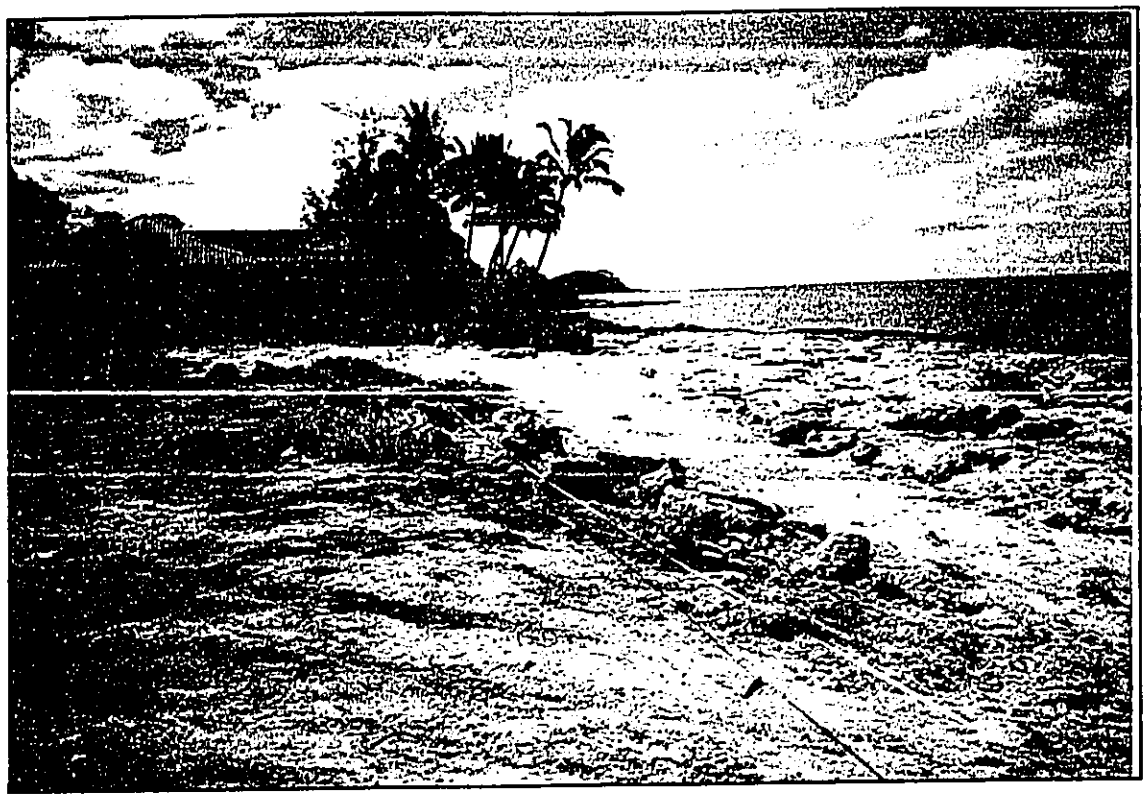


FIGURE 10a. LOOKING SOUTH ALONG THE CERTIFIED SHORELINE (YELLOW TAPE)

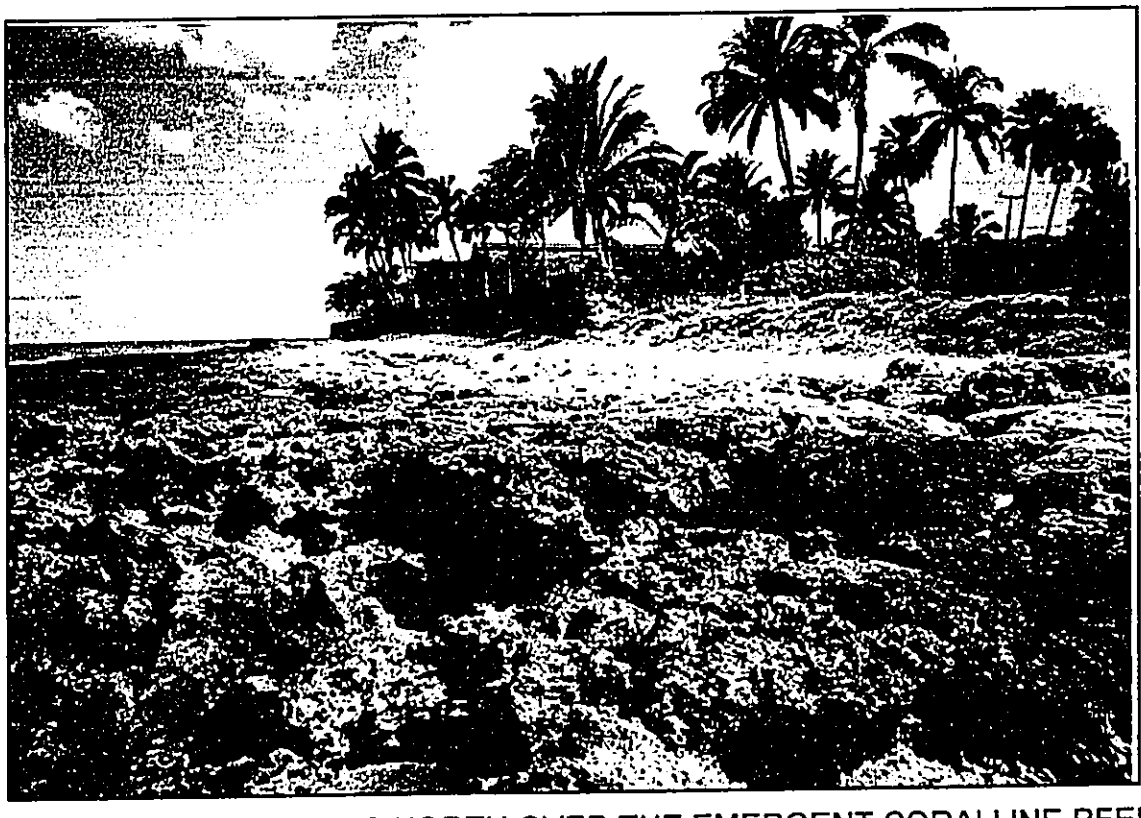


FIGURE 10b. LOOKING NORTH OVER THE EMERGENT CORALLINE REEF ROCK SHELF

FIGURE 11a. LOOKING NORTH OVER THE INTERTIDAL ROCK BENCH

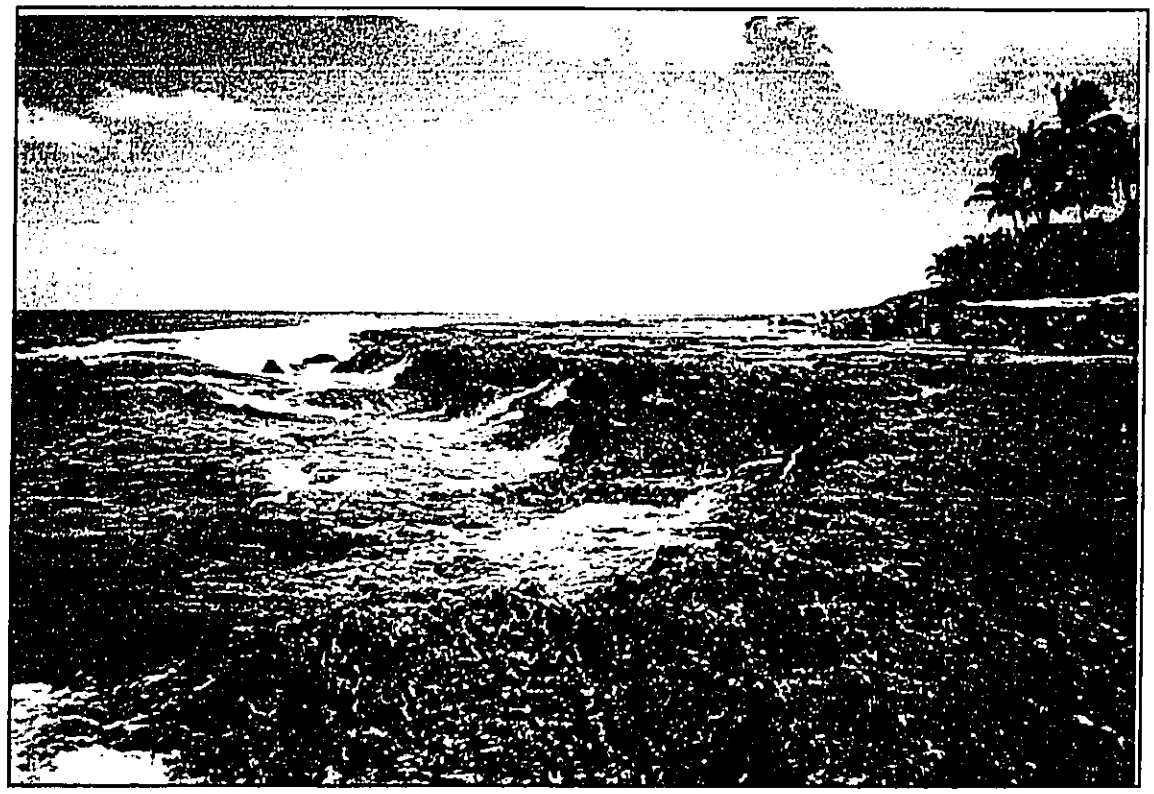


FIGURE 11b. THE SEA/LAND INTERFACE ESCARPMENT

C. Coastal Hazard Analysis

During typically prevailing wave conditions the wide, emergent coralline rock shoreline provides protection for the property. However, during periods of high water levels and large wave heights associated with tropical storms and hurricanes, the shoreline can be overtopped and the property subject to wave runup and inundation. Both Hurricane Iwa in 1982 and Hurricane Iniki in 1992, passing west of Oahu, generated high nearshore water levels and large surf which battered the Waianae coast. During hurricane Iniki wave runup on the shoreline stripped vegetation and sediment from Lot 315, as well as the adjoining unprotected properties, and pushed sediment, coral rubble and rocks across the lot and into Makau Street. The result is shown on the newspaper photo on Figure 4. Model (typical) hurricane wave inundation limits determined by Sea Engineering, Inc. (1993) show wave runup on undeveloped and unprotected properties extending 350 to 550 feet inland and to an elevation of about 12 feet msl at Kepuhi Point, accompanied by a stillwater rise at the shoreline of about 6.8 feet.

The Flood Insurance Rate Map (FIRM) indicates that Lot 315 is within the VE zone (coastal flood with velocity hazard (wave action)), with a base flood elevation of 12 to 13 feet above mean sea level.

A wave runup analysis using standard coastal engineering methodology indicates that during prevailing high surf conditions (e.g. winter northwest swell) the wave runup will reach an elevation about 6 feet above mean sea level, or the level of the rock shelf seaward of the certified shoreline. This analysis assumed a high tide of + 1-foot msl, breaking depth criteria wave height at the shoreline for the existing water depth and nearshore bottom slope, a composite shoreline slope, and a friction factor of 0.85 to account for the rough and irregular rock shoreline.

D. Coastal Processes and Sediment Movement

The project site is located on Kepuhi Point, an approximately 3,000-foot-long rock headland with no significant sand along the shore, either landward or seaward of the shoreline. Thus there are no littoral processes, sediment movement, or shoreline erosion concerns in the vicinity of the project site. The only erosion concern is to the thin veneer of sediment on top of the emergent reef rock substrate that forms the property, and this concern only exists during periods of severe storm wave attack. The closest sand beach is located at Makaha Beach Park, approximately one-half mile to the south.

## IV. ENVIRONMENTAL SETTING

### A. General Description

The project area is a well-developed residential neighborhood, with single-family homes along the shore. Land use designation by the State is Urban, and City & County of Honolulu zoning is R-10 Residential. The majority of land in the area is owned in fee by the residents. All of the developed house lots in the project vicinity have seawalls to provide protection from storm wave runup.

Public rights-of-way to the shore are located approximately 300 feet north and south of Lot 315. The closest public park is Keaau Beach Park, approximately 1,500 feet to the north. Almost the entire Keaau Park shoreline is fronted by emergent coralline reef rock, with some sandy shoreline located north of the improved park area. Makaha Beach Park is located about ½ mile to the south, and has a long, wide sand beach. The beach at Makaha is very dynamic, and is subject to considerable seasonal change in width. The rock headland comprising Kepuhi Point, the location of the project site, separates these two parks.

The coast in the project area is exposed to storm waves, and high surf along the coast is a regular occurrence during the winter season. The area is designated as a VE zone on the Flood Insurance Rate Map (FIRM), - coastal flood hazard with wave action, base flood elevation 12 to 13 feet.

The shoreline in the project area is an irregular rocky coast, with no onshore sand or significant sand deposits immediately offshore, and no fringing reef. The limestone reef rock shoreline drops steeply to nearshore depths of 6 to 8 feet, and then slopes gently to deeper depths. The hard rock bottom extends seaward as a ledge between 10 and 20 feet in depth, and approximately 1,500 feet offshore the bottom drops rapidly in an escarpment to deeper depths. Larger storm waves break in the deeper water offshore, and proceed shoreward as smaller reformed waves. The shoreline is afforded protection from smaller waves by the steep, rocky shore, which tends to reflect incident wave energy.

### B. Wind and Waves

The prevailing winds are the northeast tradewinds, which in the project area typically blow sideshore with an offshore component. The tradewinds are typically present 80 percent of the time during the summer season from April to November. During the winter months there is a general weakening of the tradewind system and the occurrence of southerly and westerly winds due to frontal systems passing through the islands and local low pressure systems.

The general Hawaiian wave climate can be described by four primary wave types: 1) northeast tradewind waves, 2) North Pacific swell, 3) South Pacific swell, and 4) westerly (kona) storm waves. The project area is well protected from the tradewind waves by the island of Oahu itself, and partially sheltered from south swell. The project site is exposed to north swell, produced by winter storms in the North Pacific, which typically approaches Hawaii from the northwest. North swell is largest and most frequent during

the winter months of October through March. North swell waves typically have periods of 12 to 16 seconds and deepwater heights of 5 to 15 feet, but on occasion can reach heights of 20 feet. Through refraction and diffraction, any north swell approaching Oahu from west of north will produce surf in the project area. Figure 12 shows a cumulative wave height distribution by Walker (1974) for Makaha Beach showing that offshore waves higher than 15 feet can be expected 3 percent of the time or about 11 days out of a typical year.

South swell is generated by southern hemisphere storms and is most prevalent during the months of April through October. These long, low waves approach from the southeast through southwest, with periods of 12 to 20 seconds and deepwater heights of 1 to 6 feet. South swell, particularly if it approached from the southwest, produces moderate surf in the project area.

Kona storm waves are generated by local fronts or low pressure systems, and occur primarily during the winter months. They typically have periods ranging from 7 to 10 seconds and deepwater heights up to 15 feet, and approach from the south to west. The more westerly of these waves directly impact the project area.

In addition to the primary wave types, infrequent tropical storms and hurricanes may generate large waves which affect the project area. Both Hurricanes Iwa (1982) and Iniki (1992) generated deepwater wave heights in excess of 25 feet which battered the west coast of Oahu.

C. Flora and Fauna

The following discussion of marine flora and fauna in the vicinity of Kepuhi Point is taken from the Hawaii Coral Reef Inventory, Island of Oahu (AECOS, 1981). "Coral cover is moderately high (ranging between 20 and 40%) off Kepuhi Point. *Porites lobata* and *Pocillopora meandrina* are the dominant species present. Algae present tends to be low growing and not abundant. Concentrations of fishes are noted along the margins of channels crossing the limestone bottom. Most abundant are *Naso lituratus, Lutjanus kasmira, Abudefduf abdominalis, Acanthurus triostegus, Chaetodon miliaris,* and other damselfishes. *Zanclus cornutus* and *Scarus* sp. are common."

D. Coastal Use

Coastal use in the vicinity of the project site is primarily related to fishing. Pole fishing is done from shore, and the steep escarpment offshore and high bottom relief provides for good spearfishing and fish trapping. The major fishery in these waters is ornamental fish collecting (AECOS, 1981). Although there are surf sites in the vicinity of Makaha and Keaau beach parks, there are no surf sites along the shore near the project site. The rocky shoreline is hazardous for swimming, and ocean access is limited by the steep rocky shoreline.

## V. ALTERNATIVES CONSIDERED

Alternatives to the proposed seawall construction include no action , a sloping rock revetment, "soft" shoreline protection, and building the seawall landward of the shoreline setback zone.

No Action: The project site is subject to significant damage during severe storm wave attack. The potential for damage has been well documented during recent hurricane storms affecting the west coast of Oahu. Construction of a single family home on the property is proposed by the owner, and shore protection is required to protect the home the home from potential storm wave damage. Based on damage to the area during past hurricane events, it is not considered prudent to construct a home without protection. Thus no action is not a viable alternative for this site.

Rock Revetment: Rock revetment shore protection is typically recommended for use on sandy shorelines where its sloping face and permeability reduce wave energy reflection and adverse impacts on littoral processes (sand transport). A sloping rock revetment would have a considerably larger "footprint" and would thus occupy significantly more horizontal space on the shore. Because the project site is a rocky shore, and there are no sand beaches or nearshore sand deposits, use of a rock revetment is not necessary or justified. Furthermore, it is not consistent with the vertical seawalls used to protect all other homes along this shoreline.

Soft Shore Protection: Soft protection, such as beach nourishment or protective sand dunes, is not feasible because there is no beach or sand along the shoreline, and no reasonably feasible way to construct and retain a beach at this location.

Seawall Landward of the Shoreline Setback Zone: Building the seawall 40 feet inland of the certified shoreline is an alternative for the site. However, the owner has already essentially lost the use of 25% of his property area due to the shoreline certification process. Building the wall 40 feet inland of the certified shoreline would result in the effective loss of 30% of the useable lot area remaining landward of the certified shoreline. Proposed fill for landscaping of the shoreline setback area cannot be placed without the retaining effect and storm wave protection afforded by the seawall.

## VI. PROJECT IMPACTS

Impacts are addressed in terms of the following significance criteria as presented in A Guidebook for the Hawaii State Environmental Review Process, State Office of Environmental Quality control, 1997.

(1) "Irrevocable commitment to loss or destruction of any natural or cultural resource." The project site is primarily earth, sand and coral rubble, with almost no vegetation, and has no significant flora or fauna which would be lost due to construction. No threatened or endangered species would be impacted by the project. The project will permit development of a grass yard area and landscaping of the site to improve its appearance. No known cultural resources are located on the property.

(2) "Curtails the range of beneficial uses of the environment." There will be no impact on public access to the shoreline or lateral access along the shore.

(3) "Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS." The project will be constructed 4 to 14 feet landward of the certified shoreline, and thus will be entirely out of the State Conservation District area along the shore. There will be no environmental impact to State waters.

(4) "Substantially affects the economic or social welfare of the community or state." The project would have no adverse social or economic impact to the state. The seawall would have some positive economic impact by preventing damage to the public roadway.

(5) "Substantially affects public health." The project has no public health impacts.

(6) "Involves substantial secondary impacts." The project will have no impact on public services or facilities.

(7) "Involves a substantial degradation of environmental quality." The project will have no significant adverse environmental impacts nor will it degrade environmental quality. The project will permit landscaping of the relatively barren shoreline area, improving the visual and aesthetic nature of the shore.

(8) "Has cumulative impacts." The seawall would be a stand alone project, with no cumulative impacts or commitment for larger actions, with the exception of allowing safe construction of a single family home on the property.

(9) "Substantially affects a rare, threatened, or endangered species or its habitat." No plant or animal species listed as endangered, threatened, proposed or candidate species by the U.S. Fish and Wildlife service under the Endangered species Act of 1973, as amended, or by the State of Hawaii under it's endangered species program were detected during the site survey and none is anticipated to utilize the property.

(10) "Detrimentally affects air or water quality or ambient noise levels." The wall will be located entirely out of the water, at an existing ground elevation of about 11 feet above mean sea level, and approximately 125 landward of the mean sea level shoreline, thus there will be no impact to coastal water quality as a result of wall construction. Construction would be by hand labor, and there would be no significant equipment noise except for truck traffic carrying materials.

(11) "Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach or erosion prone area, or coastal waters." The shoreline in the project area is stable coralline rock, with no sand beaches or sand resources, thus there will be no impacts to beaches, littoral processes or erosion prone areas. The coast in the project area is exposed to storm waves, and high surf along the coast is a regular occurrence during the winter season. The Federal Flood Insurance Rate Map (FIRM) indicates that the entire property is within the VE flood zone, with a base flood elevation of 12 to 13 feet above mean sea level. The wall would be

constructed behind the certified shoreline, inland of the upper reaches of the wash of the waves under typically prevailing conditions, and will therefore be affected by waves only during severe storm wave events. The coastal conditions were considered in the design of the seawall, and a Flood Hazard District Certification has been provided with the Shoreline Setback Variance application. The wall will provide protection from severe storm wave attack for the home to be constructed on the property, and for the public roadway behind the property.

(12) "Substantially affects scenic vistas and viewplanes identified in county or state plans or studies." The 1987 Coastal View Study for the Waianae area does not identify any significant views of the ocean from Makau Street. It is currently possible to glimpse the coastline and the horizon from Makau Street fronting the undeveloped lot. Once the planned residence is constructed, neither the proposed improvements within the 40-foot setback nor the coastline will be visible from Makau Street. The shoreline fronting the project site offers a 180-degree view from southeast to northwest along the coast. The proposed wall would be located behind the certified shoreline, 125 landward of the mean sea level shoreline, and so would not diminish open space within the public shoreline area. With a maximum height of 6 feet, it will be lower than most of the existing seawalls in the neighborhood.

(13) "Requires substantial energy consumption." No significant energy would be expended by construction of the seawall.

## VII. MITIGATION MEASURES

The proposed wall will be constructed essentially by hand, with the only construction equipment being a truck to bring material (stone gravel, sand and cement) to the site, a cement mixer on site, and a jackhammer to excavate the coralline rock to place the wall foundation. All construction will be done on land, well landward of the water's edge. The following Best Management Practices will be adhered to during construction.

1. The Contractor shall perform the 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 plans. 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.

## VIII. SHORELINE SETBACK VARIANCE JUSTIFICATION

The shoreline at the project site is subject to wave runup and overtopping during severe storm wave events. This vulnerability to storm wave damage was evidenced during hurricanes Iwa (1982) and Iniki (1992), when storm tossed rubble and boulders were transported across the property and onto Makau Street. Adjacent properties with existing shore protection suffered no damage during these storms. All of the developed properties in the vicinity of the project site have protective seawalls. The property owner intends to construct a single family home behind the 40-foot shoreline setback line, and to place earth fill in the shoreline setback zone over the hard coralline rock in order to plant a grass yard and landscaping. Without the protective wall, the proposed home would be vulnerable to damage by severe storm wave transport of rock debris, and landscaping of the property would not be practical due to its storm wave erosion vulnerability. Construction of the proposed wall would prevent wave damage to the home and landscaping, as well as providing protection for the public roadway landward of the property.

## IX. PUBLIC AND AGENCY INVOLVEMENT, REVIEW AND CONSULTATION

The following agencies were consulted during preparation of the Draft Environmental Assessment (EA):

- City and County of Honolulu, Department of Planning and Permitting
- U.S. Army Engineer District, Honolulu

Notice of the availability of the Draft EA was published in The Environmental Notice, published by the State Office of Environmental Quality Control, in the September 23, 2001 issue. The Draft EA was also sent to concerned Federal, State and County agencies. Draft EA review comments were received from the following agencies:

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

The comment letters and responses to them are contained in **Appendix A.**

The project will require the following permits:

- Shoreline Setback Variance pursuant to Chapter 23, Revised Ordinances of Honolulu
- Building permit from the City and County of Honolulu

## REFERENCES


AECOS, Inc., 1981, O`ahu Coral Reef Inventory, prepared for the U.S. Army Corps of Engineers, Pacific Ocean Division, Fort Shafter, Hawaii.

Sea Engineering, Inc., 1993, Leeward O`ahu Hurricane Vulnerability Study, Determination of Coastal Inundation Limits, prepared for the State of Hawaii Department of Defense, The U.S. Army Corps of Engineers, Pacific Ocean Division, and the Federal Emergency Management Agency, Region IX.

Shore Protection Manual, 1984, U.S. Army Corps of Engineers, Coastal Engineering Research Center.

Walker, James R., 1974, Recreational Surf Parameters, University of Hawaii, Department of Ocean Engineering, Technical Report No. 30.

# APPENDIX A

# DRAFT ENVIRONMENTAL ASSESSMENT

# REVIEW COMMENT AND RESPONSE LETTERS

Sea Engineering, Inc.

Makai Research Pier, 41-202 Kalaniana'ole Hwy, Suite 8, Waimānalo, Hawai'i 96795-1820
(808) 259-7966/FAX (808) 259-8143 E-MAIL: seaeng@lava.net

November 16, 2001

Mr. Randall K. Fujiki, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, HI 96813

Dear Mr. Fujiki:

Subject: Shoreline Setback Variance Application for Proposed Shore Protection at 84-119 Maka`u Street, Waianae, Oahu, TMK 8-4-10:13

This is in response to your letter dated November 7, 2001 transmitting comments which you received during the 30-day period following publication of a notice of availability of the Draft Environmental Assessment (EA) for the subject project in The Environmental Notice on September 23, 2001. We have responded to the comments received, and copies of the respective comment and response letters are included in the Final EA.

We have the following responses to your review comments.

1. Earth fill to a depth of 51/2 feet will be placed between the proposed shore protection wall at the certified shoreline and a second wall to be constructed immediately landward of the 40-foot shoreline setback line. This will create an elevated lawn area to be accessed by stairs from a covered deck on the second (main) floor of the home. The Final EA has been revised to state this.

2. A Flood Hazard District Certification, signed and stamped by the project structural engineer, was submitted to the Department of Planning and Permitting with the Shoreline Setback Variance Application.

Enclosed please find six (6) copies of the Final EA for your use, and copies of our Draft EA review comment responses. Should you have any questions or need additional information please call Scott Sullivan at 259-7966.

Sincerely,

Scott P. Sullivan
Vice President

Enclosures

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET • HONOLULU, HAWAII 96813
TELEPHONE: (808) 523-4414 • FAX: (808) 527-6743 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI, AIA
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

2001/ED-18(ask)

November 7, 2001

Mr. Scott P. Sullivan
Sea Engineering, Inc.
Makai Research Pier
Waimanalo, HI 96795-1820

Dear Mr. Sullivan:

Draft Environmental Assessment (EA)
Proposed Shore Protection Structure
Tax Map Key 8-4-10: 13

We are forwarding copies of all comments we have thus far received related to the Draft Environmental Assessment (EA) for the above-referenced project.

In accordance with the provisions of Chapter 343, Hawaii Revised Statutes (HRS), you must respond in writing to these and any other comments which were received during the 30-day comment period which began with publication of a notice of availability of the Draft EA in The Environmental Notice on September 23, 2001. The Final EA must include these comments and responses, as well as revised text, where needed.

We have reviewed the above document and offer the following comments:

1. Page 3 of the Draft EA states that 5 ½ feet of earth fill will be placed immediately landward of the proposed wall. Page 11, Shoreline Type and Characteristics, states that the "lot is essentially flat with an elevation of +11 ½ m feet mean sea level (msl)". That being the case, placing 5 ½ feet of fill near the shoreline will tend to alter the topography on the lot. The Final EA should clarify whether or not this is the intent of the proposal.

2. Page 16 of the Draft EA, Coastal Hazard Analysis, correctly states that the lot is within the VE zone. Accordingly, a Flood Hazard District Certification will be required for construction of the proposed wall on this zone. A copy of this form is enclosed for your reference.

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

Sincerely yours,

for RANDALL K. FUJIKI, AIA
Director of Planning
and Permitting

RKF:cs
Enclosures

doc125243

Sea Engineering, Inc.
Makai Research Pier, 41-202 Kalaniana'ole Hwy, Suite 8, Waimānalo, Hawai'i 96795-1820
(808) 259-7966/FAX (808) 259-8143 E-MAIL: seaeng@lava.net

November 16, 2001

Mr. John Harrison
Environmental Review Coordinator
Environmental Center
University of Hawai`i at Manoa
2500 Dole Street, Krauss Annex 19
Honolulu, HI 96822

Dear Mr. Harrison:

Subject: Draft Environmental Assessment (EA) for Proposed Shore Protection at 84-119 Maka`u Street, Waianae, Oahu, TMK 8-4-10:13

This is in response to your letter of October 23, 2001, regarding the subject project. Thank you for your review and comments on the Coastal Engineering Evaluation and Draft EA accompanying the Shoreline Setback Variance Application for construction of shore protection within the 40-foot shoreline setback zone at 84-119 Maka`u Street, Waianae, Oahu. The following response is provided to your comment regarding storm damage and house location.

The proposed home to be built on the property will be located approximately 160 feet landward of the mean higher high water tide line, and well inland of wave runup resulting from typical occurring (non-storm) high wave action. The house will be situated on the landward half of the property, set back approximately 90 feet from the seaward property line. In order to move the house any further landward it would have to be reduced significantly in size, which would not meet the needs of the family. The primary purpose of the wall is to prevent wave runup during extreme storm events, such as occurred during hurricanes Iwa and Iniki, from pushing rocks and other debris into the house. The effectiveness of the proposed wall, which is similar in design to walls protecting all of the already developed house lots in the vicinity, was illustrated during hurricane Iniki. During Iniki, high storm water levels and wave runup inundated the vacant, unprotected lots, and pushed coral rubble and rocks across the lots and onto Maka`u Street. The rest of the shoreline, which has existing shore protection structures similar to the proposed CRM wall, suffered no significant damage.

Sincerely,

Scott P. Sullivan
Vice President

Cc: City and County of Honolulu, Department of Planning and Permitting

**University of Hawai'i at Mānoa**

**Environmental Center**
A Unit of Water Resources Research Center
Krauss Annex 19• 2500 Dole Street • Honolulu, Hawai'i 96822
Telephone: (808) 956-7361 • Facsimile: (808) 956-3980

October 23, 2001
EA: 0275

Mr. Gary Okimoto
85-1330 Kane'ilio Street
Waianae, HI 96792

Dear Mr. Okimoto:

Draft Environmental Assessment
Makaha Seawall
Waianae, Hawaii

The applicant proposes to construct a seawall within the 40-foot shoreline setback area. The site is on the western shore of Oahu between Makaha Beach Park and Kea'au Beach Park. The wall may be built as much as 39 feet within the 40-foot shoreline setback, and could reach a maximum height of 6 feet. The seawall is meant to provide protection from severe storm events, similar to that of hurricanes Iwa and Iniki, when coral and rubble were transported across the property. The seawall is intended to prevent this kind of rubble from damaging the proposed house on the project site.

This review was prepared with the assistance of John Rooney, Department of Geology and Geophysics, and Niyati Ni and Renee Thompson, Environmental Center.

**General Comments**

The proposed wall seems like a necessary precaution to protect the property from occasional large storms that can be expected to occur over the lifetime of a typical house that would be built on this lot. The proposed wall is in keeping with other properties nearby, although that is not sufficient reason to necessarily grant the variance.

**Coastal Erosion**

The extensive coralline rock shelf fronting the property precludes significant coastal erosion. The standard 40-foot setback is often insufficient to protect coastal development and beach and coastal resources. However, in this case, from a coastal and beach erosion

perspective, the normal setback is appropriate. The proposed wall will not harm the beach, as one really doesn't exist here, and the wall will not affect public shoreline access.

**Storm Damage**

Another issue to consider is that building a house too close to the shoreline at this location may subject it to storm damage even with the proposed wall in place, resulting in liability issues for the permitting agency. Damage from Hurricane Iniki is the best indicator of these types of concerns and should be examined more closely to determine the extent of destruction possible for a residential dwelling in such close proximity to the ocean. We would like to see evidence that the seawall will, in fact, protect the structure from this type of storm damage. In addition, we would suggest that the applicant consider some alternatives in the building design and layout of the home. It would be prudent to set the house even further back from the shoreline.

According to figure 7 in the draft EA the house will be located as little as 10.5 feet behind the 40-foot setback, with the deck as little as 5.5-feet being the setback. We are not convinced that this is far enough back to prevent damage to the structure. We suggest designing the house to allow access to a parking area on the oceanside of the structure, thus allowing a greater distance between the house and the ocean.

We thank you for the opportunity to review this Draft Environmental Assessment.

Sincerely,

John Harrison
Environmental Review Coordinator

cc: OEQC
James Monour, WRRC
Scott Sullivan, Sea Engineering, Inc.
John Rooney
Niyati Ni
Renee Thompson

Sea Engineering, Inc.

Makai Research Pier, 41-202 Kalaniana'ole Hwy, Suite 8, Waimānalo, Hawai'i 96795-1820
(808) 259-7966/FAX (808) 259-8143 E-MAIL: seaeng@lava.net

November 16, 2001

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

Dear Ms. Salmonson:

Subject: Draft Environmental Assessment (EA) for Proposed Shore Protection at 84-119 Maka`u Street, Waianae, Oahu, TMK 8-4-10:13

This is in response to your letter of October 22, 2001 regarding the subject project. Thank you for your review and comment on the Coastal Engineering Evaluation and Draft EA accompanying the Shoreline Setback Variance Application for construction of shore protection within the 40-foot shoreline setback zone at 84-119 Maka`u Street, Waianae, Oahu. The following responses are provided to your review comments.

1. A list of public and agency coordination has been included in the Final EA. The Draft EA was provided to the Waianae Neighborhood Board No. 24 for their review and comment. The Draft EA was also provided to the Waianae Public Library for accessibility by the public.

2. The only permit required for this project is a Shoreline Setback Variance from the City and County of Honolulu pursuant to Chapter 23, Revised Ordinances of Honolulu, and a building permit to construct the CRM wall.

3. The proposed wall will be located 120 feet landward of the mean higher high water line, at an elevation of +11 feet MSL. A +5 to +10-foot elevation, 75-foot wide, coralline rock shelf is located seaward of the wall, which provides lateral access along the shore even during periods of typically occurring (non-storm) high waves. The proposed wall would also be located even with or landward of the existing walls on either side. Thus, the proposed wall will not impede lateral access along the shore.

4. The Coastal Engineering Evaluation portion of the Draft EA was written to address the pertinent questions asked by the *Shoreline Hardening Policy and Environmental Assessment Guidelines*. The *Guidelines*, however, are written with their primary focus on sandy shorelines, thus not all of the questions are applicable to this project

which is located on a solid rock, non-eroding shore. We believe that the Coastal Engineering Evaluation and Draft EA address all of the *Guideline* questions which are applicable to this project site (shoreline type, site maps, shoreline profile, existing walls, description of improvements, coastal hazards, waves and currents, sediment movement, photographs, and alternatives).

Sincerely,

Scott P. Sullivan
Vice President

Cc: City and County of Honolulu, Department of Planning and Permitting

BENJAMIN J. CAYETANO
GOVERNOR

GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

October 22, 2001

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

Dear Mr. Fujiki:

Subject: Draft Environmental Assessment for Makaha (Okimoto) Seawall, Oahu

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

1. Please identify all agencies, citizen groups and individuals who were consulted during the assessment process. Please also consult the adjacent homeowners and the neighborhood board.

2. Please provide a list of permits required for this project.

3. Please describe how the project will impact lateral access along the shoreline? What mitigations measures will be proposed to minimize any impacts?

4. Please review the attached *Shoreline Hardening Policy and Environmental Assessment Guidelines* and respond to the applicable questions.

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

Sincerely,

Genevieve Salmonson
Director

c: Sea Engineering

Sea Engineering, Inc.
Makai Research Pier, 41-202 Kalaniana'ole Hwy, Suite 8, Waimānalo, Hawai'i 96795-1820
(808) 259-7966/FAX (808) 259-8143 E-MAIL: seaeng@lava.net

November 16, 2001

Mr. Harry M. Yada
Acting Administrator
Land Division
Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96809

Dear Mr. Yada:

Subject: Shoreline Setback Variance Application for Proposed Shore Protection at 84-119 Maka`u Street, Waianae, Oahu, TMK 8-4-10:13

This is in response to your letter of October 18, 2001 regarding the subject property. Thank you for your review and comment on the Coastal Engineering Evaluation and Draft Environmental Assessment accompanying the Shoreline Setback Variance Application for construction of shore protection within the 40-foot shoreline setback zone at 84-119 Maka`u Street, Waianae, Oahu.

We understand that the proposed improvements to the property must comply with rules and regulations of the National Flood Insurance Program and all applicable County Flood Ordinances. With regard to flood hazards at the site, we offer the following discussion. The proposed shore protection wall will be located 120 feet landward of the mean higher high water line, at an elevation of +11 feet MSL. The wall would be well landward and above wave runup during typically occurring (non-storm) high waves. The need for shore protection for homes at this location during extreme storm events, however, was well illustrated during hurricane Iniki in 1992. During Iniki, high storm water levels and wave runup inundated the vacant, unprotected lots, and pushed coral rubble and rocks across the lots and onto Maka`u Street. The majority of the shoreline, which is developed and has seawalls similar to what is being proposed by the applicant, suffered no significant damage. Given the potential for extreme storm wave damage, and the existing seawalls on both sides of the subject property, it would not be prudent from a coastal engineering standpoint to build a home on any of the three remaining unprotected lots in the project vicinity without also constructing shore protection.

The proposed residence would not be constructed on fill, however earth fill would be placed between the proposed CRM seawall and a retaining wall to be constructed landward of the 40-foot shoreline setback to create a raised area for landscaping.

As part of the Shoreline Setback Variance process the City and County of Honolulu, Department of Planning and Permitting, will conduct a public hearing to solicit input from agencies and the community. Notice of the hearing and proposed action will be given to individual property owners within 300 feet on either side of the subject property. This notice would include all of the unimproved and unprotected properties in the vicinity.

Sincerely,

Scott P. Sullivan
Vice President

Cc: City and County of Honolulu, Department of Planning and Permitting

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DEPT OF PLANNING & PERMITTING
CITY & COUNTY OF HONOLULU

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

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

October 18, 2001

LD-NAV
Ref: 2001-SV-10.RCN

Honorable Randall K Fujiki, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

SUBJECT: Application: Shoreline Variance
File No.: 2001-SV-10
Applicant: Gary and Marcia Okimoto
Purpose: Construct Seawall Within 40-foot Setback
Location: 84-119 Makau Street, Waianae, Oahu, Hawaii
TMK: 1st/ 8-04-10: 13 Lot 315

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

Copies of the document covering the subject matter were distributed to the Department of Land and Natural Resources' Division of Aquatic Resources, Commission on Water Resource Management, Land Division Oahu District Land Office, Land Division Engineering Branch and Land Division Planning and Technical Services for their review and comment.

Attached herewith is a copy of our Land Division Engineering Branch Comments.

The Department has no other comment to offer on the subject matter at this time. Should you have any questions, please free to contact Nicholas A. Vaccaro of our Land Division Support Services Branch at 808-587-0438.

Very truly yours,

HARRY M.YADA
Acting Administrator

C: Oahu District Land Office

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Land Division
Honolulu, Hawaii

September 18, 2001

LD/NAV
Ref.: 2001-SV-10.COM

Suspense Date: 9/28/01



MEMORANDUM:

TO:
XXX Division of Aquatic Resources
Division of Forestry & Wildlife
Division of State Parks
Division of Boating and Ocean Recreation
Historic Preservation Division
XXX Commission on Water Resource Management
**Land Division Branches of:**
XXX Planning and Technical Services
XXX Engineering Branch
XXX Oahu District Land Office
XXX Shoreline Processing Services

FROM: Harry M. Yada, Acting Administrator
Land Division

SUBJECT: Shoreline Variance
Applicant: Gary and Marcia Okimoto
Purpose: Construct Seawall within 40-foot setback
Location: 84-119 Makau Street, Waianae, Oahu, Hawaii
TMK: 1st/ 8-4-10: 13 Lot 315

Please review the attached document and submit your comments (if any) to us on division letterhead signed and dated on or before the suspense date. If we do not receive a response by the suspense date, we will assume there are no comments.

Should you need more time to review this matter, please contact Nicholas A. Vaccaro at 587-0438

**(X) Comments Attached**

**Signed:** _____
**ANDREW M. MONDEN, Chief Engineer**

**Date:** 10/10/01

**DLNR-LAND DIVISION**
**ENGINEERING BRANCH**

LD/NAV
Ref.: 2001-SV-10.COM

**COMMENTS**

The proposed construction of a 2-story single family home and protective seawall do not affect our current projects.

We confirm that the project site, according to FEMA Panel Numbers 15001 0180 E, is located in Zone VE, with a base flood elevation of 13 feet above mean sea level. Zone VE is an area of coastal flood with velocity hazard (wave action); base flood elevations are determined.

The project must comply with rules and regulations of the National Flood Insurance Program (NFIP) and all applicable County Flood Ordinances. If there are questions regarding the NFIP, please contact the State Coordinator, Sterling Yong, of the Department of Land and Natural Resources at 587-0248. If there are questions regarding flood ordinances, please contact applicable County representative.

For you information, the following guidelines are excerpts from the Federal Code of Regulations (CFR):

> 44CFR Ch.1, § 60.3 e (7):"*Prohibit man-made alteration of sand dunes and mangrove stands with in Zones V1-30, VE, V on the community's FIRM which would increases potential flood damage.*"
>
> The proposed CRM wall construction and backfill along the shoreline has the potential to increase flood damages for Lots 314 and 316, by redirecting storm generated coastal flooding into the adjoining lots. This type of increase hazard in coastal storm flooding is documented in FEMA's Coastal Construction Manual (FEMA Publication 55) and is supported by Figure 4 in the subject application. According to post-storm studies conducted by FEMA, perpendicular obstructions, such as seawalls, have demonstrated the ability to redirect storm floodwaters into adjoining unprotected areas and thereby causing more extensive flooding and scoring then would be expected had such an obstruction not been there.
>
> 44CFR Ch.1, § 60.3 e (4): "*Provide that all new construction within Zones V1-30, VE, and also V if base flood elevation data is available, on the community's FIRM, are elevated on pilings and columns so that (i) the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level.*"

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44CFR Ch.1, § 60.3 e (6): *"Prohibit the use of fill for structural support of buildings within Zones V1-30, VE, and V on the community's FIRM"*

It is unclear from the application, whether or not the proposed residence will be constructed on fill, and also what the elevation of the proposed building will be. Though unrelated to the application, it would be prudent of the applicant to investigate this prior to proceeding with the project.

It is recommended that the applicant not be given a variance to construct the proposed CRM wall, unless the adjoining lot owners are notified of the potential increase in flood hazard to their lots, and given ample time to respond and comment on the proposed improvements. The notification letter to the adjoining lot owners shall state that the subject notification is to be disclosed to any potential future buyer of the adjoining lots. Should the adjoining lot owners be opposed to the construction of the proposed wall, the variance should not be awarded.

Should there be no unfavorable comments received, the wall could be constructed provided the applicant also obtains approval with the City and County of Honolulu, Department of Planning and Permitting. They are responsible for administering the NFIP within the City and County of Honolulu.

Sea Engineering, Inc.
Makai Research Pier, 41-202 Kalaniana'ole Hwy, Suite 8, Waimānalo, Hawai'i 96795-1820
(808) 259-7966/FAX (808) 259-8143 E-MAIL: seaeng@lava.net

November 16, 2001

Mr. Don Hibbard, Administrator
Historic Preservation Division
Department of Land and Natural Resources
Kakuhihewa Bldg., Room 555
601 Kamokila Boulevard
Kapolei, HI 96707

Dear Mr. Hibbard:

Subject: Historic Preservation Review for Proposed Shore Protection at 84-119 Maka'u Street, Waianae, Oahu, TMK 8-4-10:13

This is in response to your letter of September 19, 2001, regarding the subject project. Thank you for reviewing the Coastal Engineering Evaluation and Draft Environmental Assessment accompanying the Shoreline Setback Variance Application for construction of shore protection, backfill and landscaping within the 40-foot shoreline setback zone at 84-119 Maka'u Street, Waianae, Oahu. We understand that your review indicates that the proposed project will have no effect on significant historic sites.

Sincerely,

Scott P. Sullivan
Vice President

Cc: City and County of Honolulu, Department of Planning and Permitting

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

GILBERT S. COLOMA-AGARAN, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DEPUTIES
JANET E. KAWELO
LINNEL NISHIOKA

01 SEP 28 PM 4 07

DEPT OF PLANNING
AND PERMITTING
CITY & COUNTY OF HONOLULU

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS

September 19, 2001

Randall K. Fujiki, Director
Department of Planning and Permitting
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

LOG NO: 28224
DOC NO: 0109EJ17

Dear Mr. Fujiki:

SUBJECT: Chapter 6E- Historic Preservation Review – Shoreline Setback Variance: 84-119 Makau Street: Construction of a CRM Seawall, Backfill and Landscaping within the 40-foot Shoreline Setback
Makaha, Wai`anae, O`ahu
TMK: 8-4-010:013

Thank you for the opportunity to comment on the proposed shoreline setback variance for construction of a seawall, backfilling and landscaping at 84-119 Makau Street, Makaha. A Coastal Engineering Evaluation and a Draft Environmental Assessment for the Shoreline Setback Variance Application was submitted for review. Our review is based on historic reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspection was made of the project areas.

A review of our records shows that there are no known historic sites at this parcel. This parcel is underlain by coral outcrop or cemented calcareous sand making it unlikely that subsurface historic sites would be found. Historic sites including human remains have been found 2000' south of this parcel, but were found in beach sand deposits which do not exist at this location. Therefore, we believe that this variance will have "no effect" on significant historic sites.

Should you have any questions, please feel free to call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

EJ:jk

Sea Engineering, Inc.
Makai Research Pier, 41-202 Kalaniana'ole Hwy, Suite 8, Waimānalo, Hawai'i 96795-1820
(808) 259-7966/FAX (808) 259-8143 E-MAIL: seaeng@lava.net

November 16, 2001

Mr. James Pennaz, P.E.
Chief, Civil Works Technical Branch
U.S. Army Engineer District, Honolulu
Fort Shafter, HI 96858-5440

Dear Mr. Pennaz:

Subject: Draft Environmental Assessment (EA) for Proposed Shore Protection at 84-119 Maka`u Street, Waianae, Oahu, TMK 8-4-10:13

This is in response to your letter of September 20, 2001, regarding the subject project. Thank you for your review and comment on the Coastal Engineering Evaluation and Draft EA accompanying the Shoreline Setback Variance Application for construction of shore protection within the 40-foot shoreline setback zone at 84-119 Maka`u Street, Waianae, Oahu. We understand that the flood hazard information as presented in the EA is correct.

Sincerely,

Scott P. Sullivan
Vice President

Cc: City and County of Honolulu, Department of Planning and Permitting

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

REPLY TO
ATTENTION OF

September 20, 2001

'01 SEP 25 PM 3 48

DEPT. OF PLANNING
AND PERMITTING
CITY & COUNTY OF HONOLULU

Civil Works Technical Branch

Mr. Randall K. Fujiki
Director of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

Thank you for the opportunity to review and comment on the Environmental Assessment (EA) for the Chapter 343 Shoreline Setback Variance for Construction of a CRM Seawall, Waianae, Oahu (TMK 8-4-10: 13). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

The flood hazard information on page 9 of the EA is correct. Our Regulatory Branch is currently reviewing the document for DA permit requirements and will provide their response to you under separate cover.

Should you require additional information, please contact Ms. Jessie Dobinchick of my staff at (808) 438-8876.

Sincerely,

for James Pennaz, P.E.
Chief, Civil Works
Technical Branch