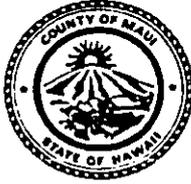


LINDA LINGLE  
Mayor

DAVID W. BLANE  
Director

LISA M. NUYEN  
Deputy Director



COUNTY OF MAUI  
DEPARTMENT OF PLANNING RECEIVED

January 29, 1998

Rasmussen Retaining  
Wall

CLAYTON I. YOSHIDA  
Planning Division

AARON H. SHINMOTO  
Zoning Administration and  
Enforcement Division

'98 FEB -6 A8:33

OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

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

Dear Mr. Gill:

**SUBJECT:** Final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the Rasmussen Retaining Wall Along Approximately 140 Feet of Shoreline Fronting Property at Loio Place, Paia, Island of Maui, Hawaii, Identified by Tax Map Key 2-6-004:019

The Maui Planning Department is transmitting the above-referenced Final Environmental Assessment for publication. The Maui Planning Commission has determined that this project will not have a significant environmental effect and has issued a negative declaration. Please publish this notice in the February 23, 1998 Office of Environmental Quality Control (OEQC) Bulletin.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the Final EA. The Summary of the proposed action has not changed, therefore, a computer disc is not being provided.

Thank you for your cooperation. If additional clarification is needed, please contact Mr. Don Schneider, Staff Planner, of this office at 243-7735.

Very truly yours,

*Lisa M. Nuyen*

*DW* DAVID W. BLANE  
Planning Director

DWB:DAS:cmh

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793  
PLANNING DIVISION (808) 243-7735; ZONING DIVISION (808) 243-7253; FACSIMILE (808) 243-7634

10

Mr. Gary Gill, Director  
January 29, 1998  
Page 2

**Enclosures**

c: Clayton Yoshida, AICP, Planning Program Administrator  
Lance Holter  
Don Schneider, Staff Planner  
Project File  
General File  
(S:oeqcras.fin)

1998-03-23-MA-FFA-  
Rasmussen Retaining Wall

**FILE COPY**

MAR 23 1998

FINAL ENVIRONMENTAL ASSESSMENT

for

**THE RASMUSSEN RETAINING WALL**

Paia, Hamakuapoko, Maui  
TMK 2-6-4:19

Richard and Lynn Rasmussen  
P.O. Box 89  
Paia, Hawaii 96779  
Telephone: 573-1995  
FAX: 572-3666

## CONTENTS

Letter from David Blane, Planning Department, County of Maui  
"Finding of No Significant Impact (FONSI)"

Notice of Application-Publication

Letters of Agency and Public Comment with Response

Maui Planning Departments Report-Rasmussen Retaining Wall  
Environmental Assessment Review, Docket No. EA970006

Special Management Area Permit-Rasmussen Retaining Wall

Revised Plans for the Rasmussen Retaining Wall Environmental  
Assessment  
(Includes project location map, certified shoreline map, site plan,  
photographs, etc.)

LINDA LINGLE  
Mayor

DAVID W. BLANE  
Director

LISA M. NUYEN  
Deputy Director



COUNTY OF MAUI  
DEPARTMENT OF PLANNING

January 29, 1998

CLAYTON I. YOSHIDA  
Planning Division

AARON H. SHINMOTO  
Zoning Administration and  
Enforcement Division

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

Dear Mr. Gill:

**SUBJECT: Final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for the Rasmussen Retaining Wall Along Approximately 140 Feet of Shoreline Fronting Property at Loio Place, Paia, Island of Maui, Hawaii, Identified by Tax Map Key 2-6-004:019**

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Thank you for your cooperation. If additional clarification is needed, please contact Mr. Don Schneider, Staff Planner, of this office at 243-7735.

Very truly yours,

*Lisa M. Nuyen*

A handwritten signature of David W. Blane, consisting of stylized initials and a surname.

DAVID W. BLANE  
Planning Director

DWB:DAS:cmh

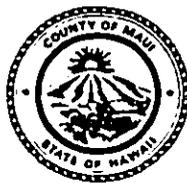
Mr. Gary Gill, Director  
January 29, 1998  
Page 2

**Enclosures**

c: Clayton Yoshida, AICP, Planning Program Administrator  
Lance Holter  
Don Schneider, Staff Planner  
Project File  
General File  
(S:eeqcrass.fin)

NOTICE OF APPLICATION-PUBLICATION

LINDA CROCKETT LINGLE  
Mayor



DAVID W. BLANE  
Director

LISA M. NUYEN  
Deputy Director

COUNTY OF MAUI  
DEPARTMENT OF PLANNING  
250 S. HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

August 25, 1997

Mr. Lance W. Holter  
P. O. Box 656  
Paia, Hawaii 96779

Dear Mr. Holter:

RE: Notice of Receipt of Application  
Project Name: RASMUSSEN RETAINING WALL  
TMK: 2-6-004:019  
I.D. Nos: EA970006, SSA970016, SM1970018

Please be advised that the above-referenced applications have been received by the Maui Planning Department. The applications have been transmitted to various government agencies for review and comment by October 3, 1997. Your applications will be deemed complete and ready for processing when comments from these agencies are received and do not require additional information or clarification. Upon completion of your applications we will schedule your requests for action with the appropriate Planning Commission.

Thank you for your cooperation. If additional clarification is required, please contact me at 243-7743.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Donald A. Schneider".

DONALD A. SCHNEIDER  
Staff Planner

For DAVID W. BLANE  
PLANNING DIRECTOR

DWB:DAS

c: Clayton Yoshida, AICP, Planning Program Administrator  
Project File  
General File  
(C:rasmus.rec)

LINDA CROCKETT LINGLE  
Mayor



DAVID W. BLANE  
Director  
GWEN OHASHI HIRAGA  
Deputy Director

COUNTY OF MAUI  
PLANNING DEPARTMENT  
250 S. HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

TRANSMITTAL:

TO: State Agencies

- Dept of Health, Maui
- Dept of Health, Honolulu
- Dept of Transportation,  
Statewide Plnng Off(3)copies
- DLNR (2 copies)
- DLNR-Historic Preservation Div.
- DLNR-Maui Office
- Dept of Agriculture, Honolulu
- Dept of Agriculture, Maui
- DAGS, Survey Division (SMA Only)
- DOE, Office of Business Services
- State Land Use Commission
- DBEDT
- DBEDT, Office of State Planning
- Dept of Hawaiian Homes Land
- Dept. of Labor
- Office of Hawaiian Affairs
- Dept. of Human Services-Maui
- Civil Defense (CPA/CI2 only)

Date: August 25, 1997

County Agencies

- DPWWM, LUCA (5 copies)
- Public Wrks & Wste Mgmt.
- Water Department
- Parks and Recreation
- Fire Dept
- Police Department
- Housing & Human Concerns
- Corporation Counsel
- County Clerk
- Mayor's Office
- Finance Dept
- Federal:
- Natural Resources  
Conservation Service- Maui
- Natural Resources Conserv.  
Service-Lanai, Molokai
- Molokai-Lanai Soil & Water  
Conservation District
- Fish & Wildlife Service
- Army Corps of Engineers
- Others:
- Maui Electric Company

SUBJECT: I.D.: EA970006, SSA970016, SM1970018  
TMK: 2-6-004:019  
Project Name: RASMUSSEN RETAINING WALL  
Applicant: LANCE W. HOLTER

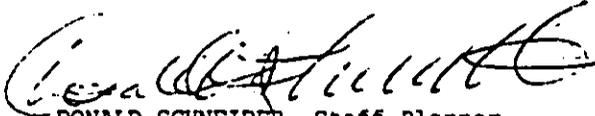
TRANSMITTED TO YOU ARE THE FOLLOWING:

- Application
- Project Plans
- Environmental Assessment
- Shoreline Map
- Traffic Report/Analysis
- Archaeological Report/Survey
- Infrastructure Report
- Drainage Report

THESE ARE TRANSMITTED AS CHECKED BELOW:

- For Your Comment/Recommendation
- For Your Approval/Signature
- As Requested

Please submit your comments/recommendations by <sup>October 3,</sup> ~~November 18,~~ 1996.  
If additional clarification is required please contact me at 243-7735.

  
DONALD SCHNEIDER, Staff Planner  
for DAVID W. BLANE, Planning Director

DWB:

c: Clayton Yoshida, AICP, Planning Program manager, Land Use Management  
DONALD SCHNEIDER, Staff Planner  
Project File  
General File  
(C:TRANAGE.RAS)

LINDA CROCKETT LINGLE  
Mayor



DAVID W. BLANE  
Director

GWEN OHASHI HIRAGA  
Deputy Director

**COUNTY OF MAUI  
PLANNING DEPARTMENT**  
250 S. HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

August 25, 1997

Mr. Lance W. Holter  
P.O. Box 656  
Paia, Hawaii 96779

Dear Mr. Holter :

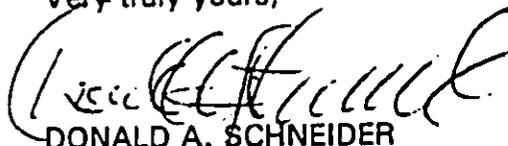
RE: NOTICE OF APPLICATION-PUBLICATION  
SPECIAL MANAGEMENT AREA USE PERMIT  
Project Name: RASMUSSEN RETAINING WALL  
TMK:2-6-004:019  
I.D. No.: EA970006, SSA970016, SM1970018

Please be advised that the Maui Planning Department has reviewed the Notice of Application, Special Management Area Use Permit, and hereby transmit said notice to the applicant for publication.

The subject notice, and a location map, is to be published by September 8, 1997 in a newspaper printed and issued at least twice weekly in Maui County, and which is generally circulated throughout Maui County. Please provide this office with an affidavit of publication from the newspaper, that notice, as required, has been completed within ten (10) days of said publication.

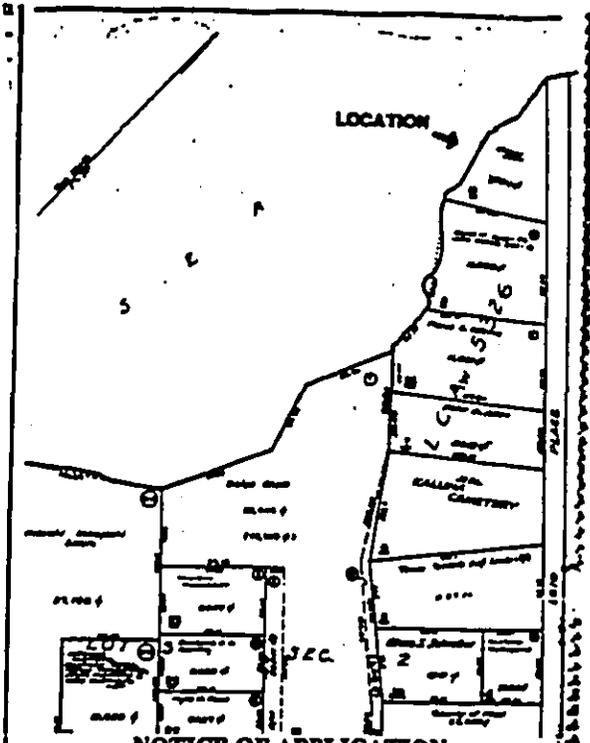
Thank you for your cooperation. If additional clarification is required, please contact me at 243-7735.

Very truly yours,

  
DONALD A. SCHNEIDER  
Staff Planner

DAS:DAS

xc: Clayton Yoshida, AICP, Planning Program Administrator  
Project File  
General File  
(C:\amepub.res)



**NOTICE OF APPLICATION  
SPECIAL MANAGEMENT AREA USE PERMIT**

Please be advised that the undersigned has filed an application for a Special Management Area Use Permit with the County of Maui Planning Department for the following parcel(s):

1. Tax Map Key: II-2-6-04; 19  
(See Attached Location Map)
2. Location: (Street Address) Loio Place, Paia, Maui, Hawaii
3. Existing Land Use Designations:
  - a. State Land Use District: Urban
  - b. Community Plan Designation: Single Family Residential
  - c. County Zoning: currently Urban Interim/Residential
4. Description of the Existing Uses on Property: Property is undeveloped single family residential vacant land.
5. Description of the Proposed Development on Property: Owner wishes to construct, within the property boundary, a retaining wall to eliminate top down erosion and to provide a fence for safety reasons.

BY:

<u>Richard A. Rasmussen</u> (Owner/Applicant)	<u>Lance W. Holter</u> (Agent)
<u>Richard A. Rasmussen</u> (Signature)	<u>Lance W. Holter</u> (Signature)
<u>P.O. Box 89</u> <u>Paia, Maui, Hawaii 96779</u> (Address)	<u>P.O. Box 656</u> <u>Paia, Maui, Hawaii 96779</u> (Address)
<u>1-808-573-1995</u> (Telephone)	<u>1-808-579-8558</u> (Telephone)

(MN: Aug. 29, 1997)

**CLASSIFIED  
ADVERTISING SELLS**

LETTERS OF AGENCY AND PUBLIC COMMENT WITH RESPONSE

Letter from Dean Y. Uchida, Administrator, State of Hawaii, Department of Land and Natural Resources, Land Division

Letter from Gary Gill, Director, State of Hawaii, Office of Environmental Quality Control

Letter from Barbara Guild, Member of Public, Sprecklesville, Maui

Letter from Charles Jencks, Director of Maui County Public Works

Letter from Colin Kippen, Officer, State of Hawaii, Office of Hawaiian Affairs, Land Division

Letter from Jacquelin N. Miller, Environmental Coordinator, University of Hawaii, Environmental Center

7066



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

97 SEP 25 12:56

SEP 24 1997

Ref.:LD-PEM

File No. PM-97-065

Honorable David W. Blane, Director  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

Dear Mr. Blane:

SUBJECT: Request for Comments - Special Management Area Permit, Rasmussen Retaining Wall, Paia, Hamakuapoko, Maui, Tax Map Key: 2-6-04:19

We have reviewed the Special Management Area Permit for the subject project, and would like to offer the following comments:

LAND DIVISION

The shoreline has been located and certified on July 30, 1997. Copies of the certified survey maps have been forwarded to property owner's surveying consultant, Edgardo Valera on September 5, 1997.

LAND DIVISION - PLANNING & TECHNICAL SERVICES

If erosion is only being influenced by mauka forces of nature, it seems that a vegetation program with some landscaping could address this problem adequately, rather than building a wall.

Thank you for the opportunity to review and provide comments for the subject special management area permit. Should you have any questions, please contact Patti Miyashiro of our Honolulu Land Division Office at (808) 587-0430.

HAWAII: Earth's Best!

Very truly yours,

Dean Y. Uchida  
Administrator

c: Maui Land Board Member  
Maui District Land Office

# LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

October 6, 1997

Dean Y. Uchida, Administrator  
State of Hawaii  
Department of Land and Natural Resources  
Land Division  
P.O. Box 621  
Honolulu, Hawaii 96809

Dear Mr. Uchida,

RE: Rasmussen Retaining Wall, Paia, Maui  
File Number. PM-97-065; Tax Map Key: 2-6-04:19

Thank you for your letter of September 24, 1997 in regards to the above referenced matter. Both landscaping and revegetation have been attempted since 1990 when the owner purchased the property. Unfortunately the natural forces of the point (drought, wind, sea spray and rain) coupled with the poor quality of soil in the soil embankment make it extremely difficult to promote vegetative processes in this area. The following are explanations to your questions and comments:

1) REVEGETATION: Revegetation of the soil bank is unreliable and ineffective in this situation. The vegetation is not an adequate solution to the stabilization of the top down erosion of the soil bank nor does it result in the accomplishment of our main goals which are:

A) Stabilization of the soil bank from top down erosion. The top down erosion contributes to the turbidity of Paia Bay during wintertime and encourages the flourishing of Hypnea algae blooms (seaweed) during the summer months. Sometimes the piles of seaweed reach two feet in depth along the shoreline of Paia Bay.

B) The ability to satisfy our safety concerns for the steep embankment and drop off into the rocky shorelines below.

The neighboring property has vegetation (Naupaka) firmly established as a result of the placement of enriched top soil behind the rock retaining wall. This soil is used to encourage the Naupaka to flourish, as it does quite successfully.

Further, enclosed are photographs of a fire which occurred around the first of September as the result of either a careless cigarette or cooking fire from shoreline

Mr. Dean Y. Uchida  
October 6, 1997  
Page Two

users. This fire completely destroyed the attempts at revegetation which had been undertaken using burlap cloth and sprinklers. It also, unfortunately reinforces the fact that revegetation is not reliable in erosion containment in this situation.

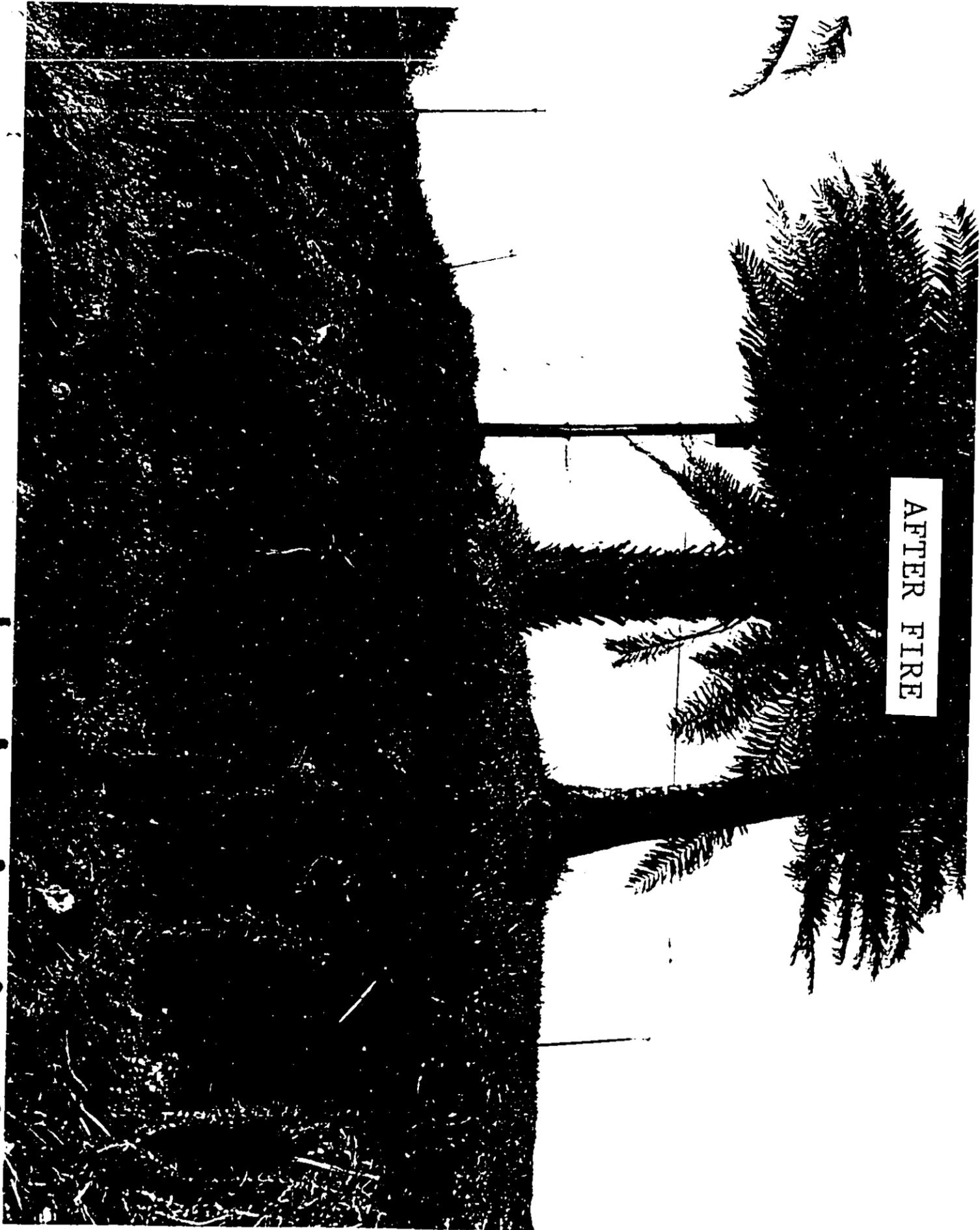
Sincerely yours,

Lance W. Holter

cc: David Blane  
Gary Gill



BEFORE FIRE



AFTER FIRE

BENJAMIN J. CAYETANO  
GOVERNOR



GARY GILL  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 588-4186  
FACSIMILE (808) 588-4188

September 26, 1997

David Blane, Director  
Maui Planning Department  
250 South High Street  
Wailuku, HI 96793

Attn: Don Schneider

Dear Mr. Blane:

Subject: Draft Environmental Assessment (EA) for Rasmussen Retaining Wall,  
Loio Place, Paia

We have the following comments to offer:

1. Revegetation: Please provide a fuller explanation of why revegetation of the bank to prevent erosion is not a viable option, especially in light of the fact that naupaka is firmly established on the wall on the neighboring property. A "soft" solution to erosion, such as a properly planted and irrigated vegetative cover, would likely be less expensive and have fewer impacts on the natural character of the coastline.
2. Boundaries: From the maps provided it is not clear where the shoreline, the property line and the setback line are in relation to one another and to the footprint of the proposed wall. It appears that, although the footing of the proposed wall is to be placed on private property, public property may be excavated to construct the wall. Please clarify these issues in the final EA.
3. Coastal processes: Please provide historical aerial photos to support your contention that this coastal area is unchanging and has always been rocky. In addition, discuss the coastal processes for Paia Bay and not just the section fronting the property. Locate the nearest pre-existing and existing sandy beaches and describe any erosion or other significant coastal processes taking place in Paia Bay.

David Blane  
September 26, 1997  
Page 2

4. Setback variance: Section 205A allows private improvements in the shoreline area by variance only where failure to develop would result in a hardship to the applicant. Since there is no house on the property that the retaining wall would protect, please clearly explain why not having a wall would constitute a hardship.

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

Sincerely,



GARY GILL  
Director

c: Lance Holter

## LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

---

Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

---

September 30, 1997

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

Dear Mr. Gill,

RE: Rasmussen Retaining Wall  
Loio Place, Paia

Thank you for your letter of September 26, 1997 in regards to the above referenced matter. The following are explanations to your questions and comments:

1) REVEGETATION: Revegetation of the soil bank is unreliable and ineffective in this situation. The vegetation is not a permanent solution to the stabilization of the top down erosion of the soil bank nor does it result in the accomplishment of our main goals which are:

A) Permanent stabilization of the Soil Bank from top down erosion. The top down erosion contributes to the turbidity in Paia Bay during wintertime and encourages the flourishing of Hypnea algae blooms (seaweed) during the summer months. Sometimes the piles of seaweed reach two feet in depth along the shoreline of Paia Bay.

B) The ability to satisfy our safety concerns for the steep embankment and drop off into the rocky shoreline below.

The neighboring property has Naupaka firmly established as a result of the placement of enriched top soil behind the rock retaining wall and using this soil to encourage the Naupaka to flourish, as it does quite successfully. The existing poor soil of the bank will not allow the Naupaka to establish itself. This is evident as none of the soil banks in the area east or southwest have any vegetation growing or established in the embankments.

Further, enclosed are photos of a fire which occurred around the first of September as the result of either a careless cigarette or cooking fire from shoreline users. This fire completely destroyed the attempts at revegetation which had been undertaken using burlap cloth and sprinklers. It also, unfortunately reinforces the statement that revegetation is not reliable or permanent in erosion containment in this situation.

Mr. Gary Gill  
September 30, 1997  
Page Two

2) **BOUNDARIES:** No excavation will take place on public property. All construction will be within the owner's boundary. The resubmitted Certified Shoreline Map and Construction Plan have the following color coded boundary lines for your reference

- A) Yellow is the Meets and Bounds boundary.
- B) Pink is the February 25, 1997 Certified Shoreline.
- C) Green is the top of the bank.
- D) Blue is the actual site of the retaining wall with the seaward edge of the retaining wall footing entirely mauka of the meets and bounds boundary.
- E) Orange line shows the 25' setback for the proposed house area building footprint.

3) **COASTAL PROCESSES:** 50 years of aerial photographs are on file with the Maui County Planning Department (please see Mr. Don Schneider). These photographs convincingly demonstrate the unchanging nature of the rocky shoreline at the project site. Existing sandy beaches are located 500 yards away along the shoreline to the southwest, and likewise 500 to 600 yards away to the east. In between these beaches are rocky shorelines similar to that occurring at the project site.

The project site itself is located on the leeward side of Loio point. Ocean currents and wind predominately run east to west and northeast to southwest. Wave action causes cycles of erosion and sand replenishment at the areas fronting the sandy beaches in Paia Bay 500 yards to the southwest along the shoreline from the project's location.

4) **SETBACK VARIANCE:** The owners ultimately hope to replace a preexisting home which was demolished in 1990 because of structural damage from termites. In order to build a home on such limited space, the construction sequence would begin with the retaining wall followed by the building of the house as it is most desirable to first secure the eroding embankment and establish a safety fence on top of the retaining wall. This way the house would not be a barrier in the construction of the wall.

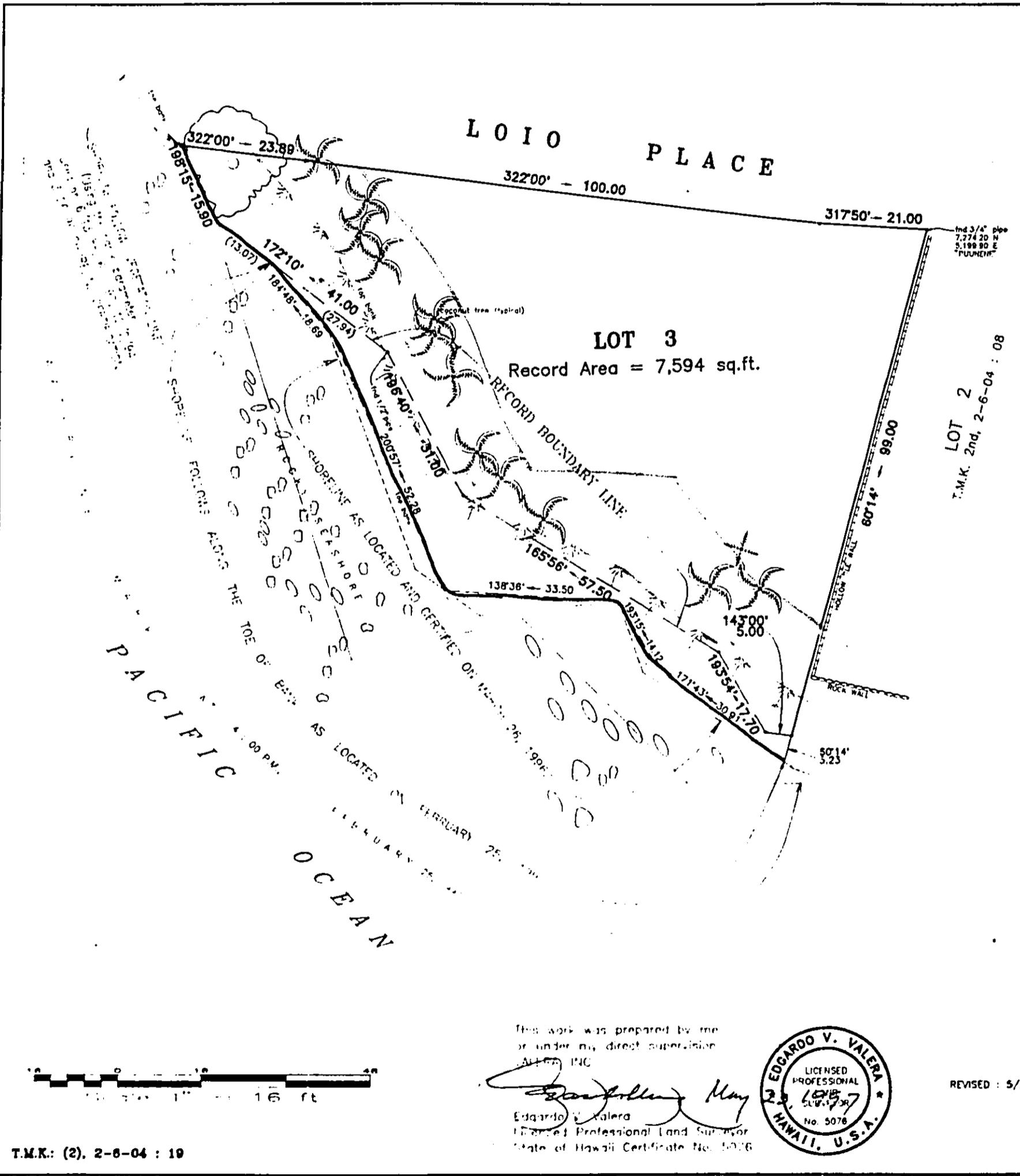
If you have any further questions please feel free to contact me anytime.

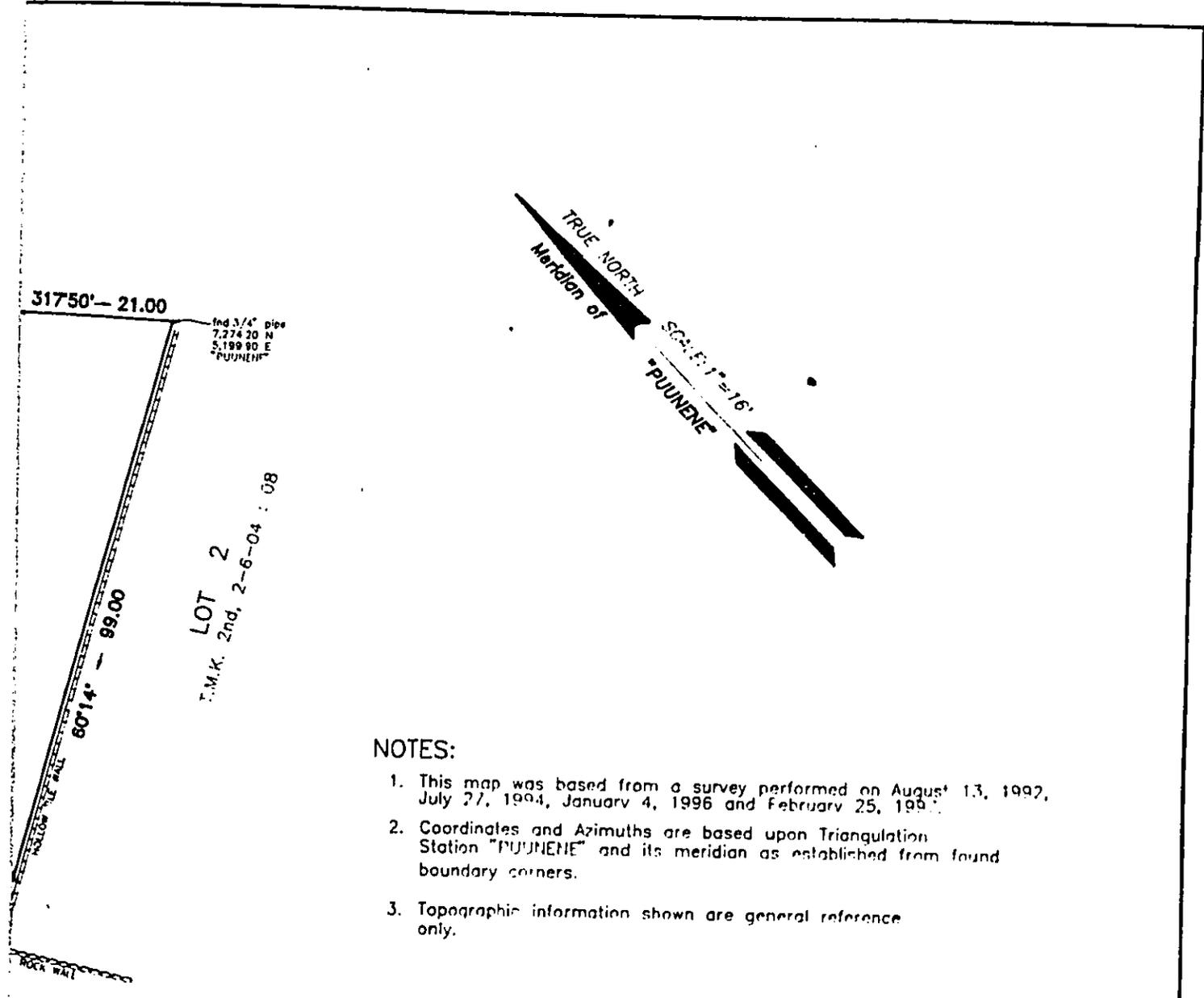
Sincerely yours,

Lance W. Holter

cc: David Blane  
Don Schneider

DOCUMENT CAPTURED AS RECEIVED





**NOTES:**

1. This map was based from a survey performed on August 13, 1992, July 27, 1994, January 4, 1996 and February 25, 1997.
2. Coordinates and Azimuths are based upon Triangulation Station "PUUNENE" and its meridian as established from found boundary corners.
3. Topographic information shown are general reference only.

The shoreline as located and certified and delineated in red is hereby confirmed as being the actual shoreline as of JUL 30 1997

*Richard A. Coleman*  
 Chairman, Board of Land and Natural Resources

**Shoreline Verification  
 (For Shoreline Setback Purposes)**

**LOT 3  
 HAMAKUAPOKO HUI PARTITION  
 SECTION 2**

**PAIA, MAUI, HAWAII**

Owner:  
 Richard and Lynn Rasmussen  
 P.O. Box #9  
 Paia, Maui, Hawaii

REVISED 5/22/97



Wednesday, October 1, 1997

Richard A. and Lynn M. Rasmussen  
c/o Lance Holter  
P.O. Box 656  
Paia, HI 96779

Dear Mr. and Mrs. Rasmussen,

I notice that you have applied for a Seawall Retaining Wall in The Environmental Notice of September 23, 1997.

I am concerned with shoreline erosion and have been for a number of years. We also live on the beach front on Maui, and I should like to share with you the three approaches we took (that failed) as well as the approach that led to success in curbing beach erosion.

We here at Sugar Cove sandbagged a part of our shoreline in 1988 and again in 1989. The bags broke up. We built a tire revetment in 1990. It also fell apart. In 1993 we built a boulder revetment that started to disintegrate during the next winter's storms. By 1995 the boulders had fallen seriously in three areas. (There is 500 feet of our shoreline and 100 feet of our adjoining neighbor's.)

We started in the fall of 1995 with minor sand feeding that helped us through the following winter. In June of 1996 we instigated a large sand feeding operation. This immediately moved the water (wave action) offshore and returned the beach to us. We are committed to ongoing sand feeding.

I know you are saying, "But sand feeding is so expensive." We spent over \$600,000 on the failed approaches (over \$300,000 on the boulders alone), and we have spent only \$95,000 to date on the sand feeding. Granted we have sand sources here on Maui, but you may have some on Oahu that haven't been discovered yet. More of that later.

**Beach erosion** happens for many reasons. In our case the culprit was mining sand from our shoreline for a hundred years. The sugar industry used sand to make lime to process sugar, and sand was also used to make roads and filter water. But that was done before we came, and we were faced with continuing erosion.

**Beach erosion occurs when there is no longer shallow water far**

**enough offshore to cause the waves to break away from the shoreline.**

Let's put it another way. Waves break when they hit shallow water, whether on a reef, a breakwater, or best and more naturally they break on a gradually tapering beach. A wall to protect one's property is no different than a breakwater out in the ocean, and a sudden breaking of a wave or waves has a lot of force. Breakwaters are notorious for requiring maintenance because of the huge forces that impinge on them during storms when waves are big.

**So how do you protect your property without the heavy duty rocks you are proposing to install?**

You put in sediment to move the shoreline farther from your door by creating shallow water farther offshore.

**How do you accomplish this?**

By added fill. The fill can be anything the ocean can move around, and this can be cobbles, broken concrete (as from building construction debris), coral rubble (if it were available), gravel, broken rocks, or of course sand. But the sand can veneer the fill after the filling of the offshore is completed.

**And why does this work?**

Because nature wants to hold back the sea, and it tries very hard to even when its beach or buffer zone is deprived of the movable sediment it needs to keep this natural system functioning properly.

**What is this natural system or buffer zone that holds back the sea?**

It is comprised of three parts:

- (1) The offshore sediment that creates shallow water when necessary to move wave action away from the shore.
- (2) The swash zone where the waves run up and down or back and forth on the wet and dry sand.
- (3) The reservoir of sand or sand bank that forms a dune or dry sand on a healthy beach.

**Why are our beaches in Hawaii in trouble?**

The diminishing of Part (3) is most often the culprit. This reservoir is deprived of sand that needs to be in the bank for times of big surf, most often by people who want to protect their property. They build walls or fortification of some sort. These walls then cut off part of the reservoir, so that their neighbor's sand is called upon to supply the beach's natural system with what it needs. Nature doesn't know whose beach front is whose. It uses sand that is available.

The first person to recognize danger builds a wall without understanding that the whole beach needs sand. He saves his lawn (that was built on sand in the first place), but the other neighbors' yards will now be called upon to replenish the supply that is cut off when storm waves come along.

When storm waves come along, the beach knows that it needs to move sediment offshore so that the larger waves will break farther away from the land and run up the swash slowly rather than hitting the shore with great force.

#### **So what can you do about this?**

Gather your neighbors that are complaining about **your wall** and explain that they were in a large part responsible for the more recently deteriorated beach. Until now **you** were contributing **your sand** to maintain the natural beach system, but finally there is no money (sand) left in your bank account. Now it is time for everyone along your beach to contribute to the restoration of the protective beach system that nature intended for all these properties.

#### **How can this be accomplished?**

- (1) By everyone in your neighborhood cooperating.
- (2) By seeking sources of sediment to apply to the beach system.
- (3) By hauling or dredging or shoveling sediment that the ocean can (and will) move into the cavities that have developed offshore.

#### **Why is this of imminent importance?**

Because until the offshore slope on your shoreline is made gradual, the beach will continue to erode. Regardless of the size and strength of the wall you put up, you will be faced with continual maintenance of it until the beach is restored with sand or movable sediment.

My parting shot is this, and it is from the age old wisdom of Jeremiah 5:21,22

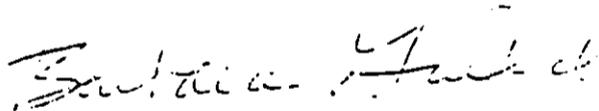
" Hear now this, O foolish people, and without understanding; which have eyes, and see not; which have ears, and hear not: Fear ye not me? saith the Lord: will ye not tremble at my presence, which have placed the sand for the bound of the sea by a perpetual decree, that it cannot pass it: and though the waves thereof toss themselves, yet can they not prevail; though they roar, yet can they not pass over it?"

This means that the sand binds the sea providing the protection needed. Man needs to understand that this binding cannot be broken and hold the sea in its place. The binding is the buffer zone of the beach system. The dune and the offshore are an integral part of this buffer zone, and to put up a wall without providing sediment in front of it is asking for trouble.

Call on your neighbors. Let them know that it is sediment in front of their walls that is needed. The whole area needs to cooperate with a greater sense of community.

I invite you to call or write to me. I am a private homeowner who is also interested in saving beach front property as well as saving the beach so everyone can enjoy it.

Yours sincerely,



Barbara Guild  
320 Paani Place 1A  
Paia, Maui, HI 96779  
808-877-3109  
808-877-3524 fax

cc:  
Don Schneider (243-7735)  
County of Maui, Planning Department  
250 High Street  
Wailuku, HI 96793

## LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

---

Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

October 27, 1997

Barbara Guild  
320 Paani Place, 1A  
Paia, Maui, Hawaii 96779

Dear Ms. Guild,

RE: Rasmussen Retaining Wall  
Loio Place, Paia, Maui

Thank you for your letter dated October 1, 1997 regarding the above-mentioned matter.

We are very familiar with the sand replenishment project at Sugar Cove, Spreckelsville and another such project at Hauoli Street, Maalaea. We also agree entirely with you regarding the effects of sea wall revetments on the shoreline, and beach erosion in particular.

Our project in Paia, Maui has problems which are not a result of wave-based erosion but from land-based top-down erosion of a soil bank which is located on a rocky shoreline. Further, the land-based erosion occurs 25 feet from the certified shoreline high water mark and doesn't involve sea processes at all. In fact, the closest sandy beach is 500-600 feet away. Fifty years of aerial photos show Loio Point has always been a rocky shoreline with no sandy beaches in the immediate area. The proposed retaining wall will be built entirely within the property boundaries, well away from the shoreline and wave processes of the sea.

The main goals of our project are safety (the soil bank as a 15-20 foot drop off) and the containment of soil erosion which contributes to the turbidity of Paia Bay which, in turn, nourishes Hypnea seaweed (sometimes reaching a depth of 2 feet) during the summer months.

Again, thank you for your concern with our coastline and for passing along your letter with the excellent information contained regarding sea walls and their impacts on sandy beach erosions.

Best regards and with aloha,

Lance W. Holter  
Agent for  
Richard and Lynn Rasmussen

LINDA CROCKETT LINGLE  
Mayor

CHARLES JENCKS  
Director

DAVID C. GOODE  
Deputy Director



'97 OCT 10 10:38

COUNTY OF MAUI  
DEPARTMENT OF PUBLIC WORKS  
AND WASTE MANAGEMENT  
200 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

RALPH NAGAMINE, L.S., P.E.  
Land Use and Codes Administration

EASSIE MILLER, P.E.  
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division

Solid Waste Division

October 9, 1997

MEMO TO: DAVID W. BLANE, DIRECTOR OF PLANNING  
F R O M: CHARLES JENCKS, DIRECTOR OF PUBLIC WORKS AND WASTE  
MANAGEMENT  
SUBJECT: SPECIAL MANAGEMENT AREA PERMIT/ENVIRONMENTAL  
ASSESSMENT/SHORELINE SETBACK APPLICATION  
RASMUSSEN, RICHARD/LYNN  
TMK (2) 2-6-004:019  
SM1 97/018, EA 97/006, SSA 97/016

We reviewed the subject application and have the following comments.

1. The submitted drainage report should be redone and stamped by a licensed professional civil engineer.
2. Temporary measures such as silt screening should be taken to prevent loose excavated and backfill materials from running off into the ocean waters should there be a rainstorm during the construction period.

If you have any questions, please call David Goode at 243-7845.

DG:co/mt  
S:\LUCAICZM\RASMUS.

## LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

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Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

October 27, 1997

David W. Blane  
David Goode  
200 South High Street  
Wailuku, Maui, Hawaii 96793

Dear Messrs. Blane and Goode,

RE: Rasmussen Retaining Wall  
SMI 97/018, ERA 97/006, SSA 97/016  
TMK II-2-6-4:19

We are in receipt of your letter dated October 9, 1997 regarding the above-mentioned application. The following are in answer to your comments:

1. We have retained Wayne Arakaki, P.E., to prepare the drainage report. His estimated completion date is November 15, 1997. I will forward same to Don Schneider upon completion.
2. The contractor has allocated funds (C. Contractors proposal SMA Plans and Proposal) for storage of excavated materials and mitigation of runoff into the ocean. In addition to sand bagging, silt screening will be used to prevent rainstorm run off impact to the ocean as per your request.

Your concerns for our ocean quality are likewise our concerns and they will be given the utmost attention during the construction of the project retaining wall.

Sincerely yours,

Lance W. Holter  
Agent for  
Richard and Lynn Rasmussen

**NOTE: For full Drainage Report by Wayne Arakaki, P.E., see enclosed  
Maui Planning Department's Report and Assessment Review, Exhibit 32.0**



**STATE OF HAWAII**

**OFFICE OF HAWAIIAN AFFAIRS**

711 KAPI'OLANI BOULEVARD, SUITE 500

HONOLULU, HAWAII 96813-5249

PHONE (808) 594-1888

FAX (808) 594-1885

October 21, 1997

Mr. Lance W. Holter  
General Building Contractor  
P.O. Box 656  
Paia, Maui HI 96779

**Subject:** Special Management Area Permit and Environmental Assessment (EA) for Rasmussen Retaining Wall, Paia, Island of Maui.

Dear Mr. Holter:

Thank you for the opportunity to review the Special Management Area Permit and Environmental Assessment (EA) for Rasmussen Retaining Wall, Paia, Island of Maui. The applicant proposes to construct an 5 to 15 feet retaining wall along the ocean frontage of the property to minimize top down erosion from wind, rain, animal, and human foot traffic.

The Office of Hawaiian Affairs (OHA) has no objections at this time to the proposed wall construction. Based on information contained in the EA, the wall apparently bears no significant impacts on the shoreline nor upon adjacent areas. No native vegetation exists and no archaeological remains have been reported in the area. Furthermore, the wall does not significantly alter the local scenery. OHA, however, wants to clearly emphasize that the proposed wall should not preclude public access to the shoreline.

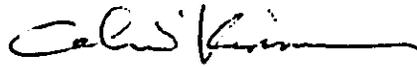
Letter to Mr. Holter  
Page two

Please contact Colin Kippen, Officer of the Land and Natural Resources Division, or Luis A. Manrique, should you have any questions on this matter.



Randall Ogata  
Administrator

Sincerely yours,



Colin Kippen  
Officer, Land and  
Natural Resources  
Division

LM:lm

## LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

---

Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

October 27, 1997

Colin Kippen  
Officer, Land and Natural Resources Division  
Office of Hawaiian Affairs  
711 Kapiolani Blvd., Suite 500  
Honolulu, Hawaii 96813-5249

RE: Special Management Area Permit  
Rasmussen Retaining Wall  
Loio Place, Paia, Maui

Dear Mr. Kippen,

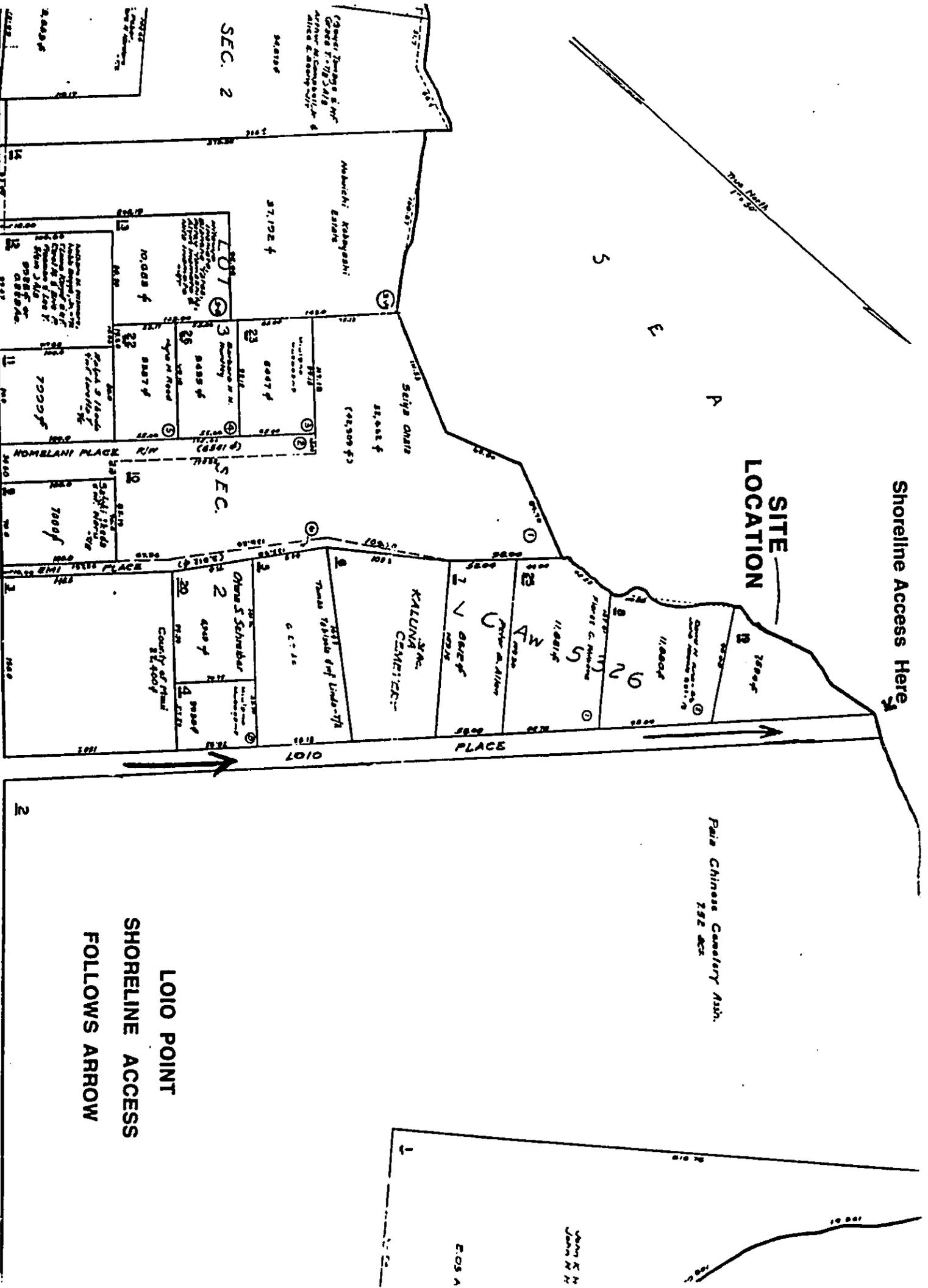
Thank you for your letter of October 21 regarding the Special Management Area Permit and Environmental Assessment for the Rasmussen Retaining Wall.

Enclosed please find a map of the present and traditional shoreline access route. Our project does not in any way or manner preclude public access to the shoreline. The owners of the project site have gone to great effort to improve the existing traditional access route by removing old abandoned cars, maintaining and fencing the existing trail, gravelling the parking area and providing trash receptacles (which the owner's maintain at their own expense) for public use.

Please understand we hold in deep respect the public use of our ocean resources. Thank you for your time and comments.

Sincerely,

Lance W. Holter



Shoreline Access Here ↘

**SITE LOCATION**

Pala Chinese Cemetery Assn.  
752 acs

**LOIO POINT  
SHORELINE ACCESS  
FOLLOWS ARROW**

H A N A

H I G H W A Y )

3

EOS A

John K. M. Jones & M.

1

2

SEC. 2

SEC. 3

LOT 1

KALLINA CEMETERY

Tama Village Inf. Under-7th

Ohno S. Schwab

County of Maui

7000sf

7000sf

10000sf

37,192 ±

Muhachi Kobayashi  
Gravel, Lumber & Mfr  
Armed & Ammunition &  
Aircraft & Assembly

Saiya Oniz  
Access ±

11,000sf



## University of Hawai'i at Mānoa

Environmental Center  
A Unit of Water Resources Research Center  
Crawford 317 • 2550 Campus Road • Honolulu, Hawai'i 96822  
Telephone: (808) 956-7361 • Facsimile: (808) 956-3980

October 23, 1997  
EA:0165

Mr. and Mrs. Richard Rasmussen  
c/o Lance Holter  
P.O. Box 656  
Paia, Hawaii 96766

Dear Mr. and Mrs. Rasmussen:

Draft Environmental Assessment  
Rasmussen Retaining Wall  
Paia, Maui

The applicant proposes to construct a 140-foot long grouted rock retaining wall along the seaward edge of their property on Loio Place in Paia. The proposed wall would stand 5 to 15 feet high and serve as both a safety feature and a barrier to land-based erosion. As the retaining wall would lie above the shoreline, it would not be subject to wave-based erosion. The applicant intends to protect a currently vacant parcel.

We reviewed this Environmental Assessment (EA) with the assistance of Rob Mullane, Sea Grant; Trae Menard, Geography; and Paul Berkowitz of the Environmental Center.

General Comments

In contrast to many protective structures along shorelines, the proposed retaining wall is not likely to adversely affect the adjacent shoreline, nearby beaches, or Paia Bay, located to the west of the proposed action. Although the project should not affect beaches, the motivation for the retaining wall remains somewhat unclear given that no structures exist on the property. Furthermore it appears that more environmentally amenable and less invasive strategies are available to alleviate the site's erosion problems.

Mr. and Mrs. Richard Rasmussen  
October 23, 1997  
Page 2

### Design Specifications

Relative to the two-tiered structure proposed in the original draft EA, the currently proposed structure seems unnecessarily large and obtrusive. Why was the original design discarded? Our reviewers find the original design superior since it (1) offers improved lateral access during high surf, (2) provides greater safety for beachgoers during high surf, (3) requires less backfill, and (4) is more consistent with the natural character of the coastline.

Additionally our reviewers noted that geotextile materials, in combination with native vegetation, could possibly eliminate the need for a retaining wall. Geotextile materials, imbedded in the soil surface, could minimize runoff velocities and reduce erosion while providing support for native plants. However, to allow the plants to survive and grow, grazing pressure from neighborhood goats must be eliminated.

### Backfill Characteristics and Water Quality

To complement the one-tier design, the engineer proposes to use a large amount of soil as backfill. In addition to violating the principles of the draft Beach Management Plan for Maui, soil backfill has the potential to leach through faulty filter cloth, create runoff, and degrade water quality. Sand backfill represents a more environmentally sensitive alternative and is consistent with the Beach Management Plan. Furthermore, many native species such as naupaka, milo, beach morning glory, and akulikuli, grow well in sand.

In order for the proposed wall to improve water quality, the filter cloth must work properly, i.e., allow water to drain out while retaining sediments. Our reviewers emphasize the importance of choosing the right cloth and installing it properly. If this process is not done correctly, then considerable potential exists to degrade water quality.

### Public Access

The EA needs to address the issue of public access more thoroughly. Will stairs be available for the public access to the shoreline? Will the access be marked clearly with a sign? The sign does not need to be placed along the Hana Highway, but should be visible locally. If the applicant does not provide a designated pathway for the public, then beachgoers may walk between properties to reach the shoreline. Such pedestrian traffic would have the potential to impact the area by contributing to scour at the back and side edges of the wall, possibly undermining the structure.

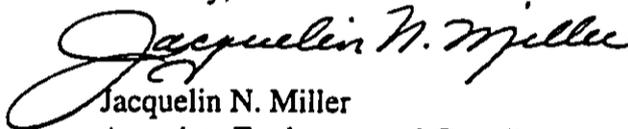
Mr. and Mrs. Richard Rasmussen  
October 23, 1997  
Page 3

Conclusion

In summary, our reviewers find the current design specifications in conflict with the principles of the Beach Management Plan for Maui and consequently less environmentally satisfactory than the previous two-tier design. We would urge the applicant to consider less obtrusive alternatives that are in keeping with the Beach Management Plan, sand backfill options, filter cloth quality, and public access.

Thank you for the opportunity to comment.

Sincerely,



Jacquelin N. Miller

Jacquelin N. Miller  
Associate Environmental Coordinator

cc: OEQC  
Roger Fujioka  
Rob Mullane  
Trae Menard  
Don Schneider  
Paul Berkowitz

## LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

October 27, 1997

Jacquelin N. Miller  
Associate Environmental Coordinator  
University of Hawaii  
Environmental Center  
Crawford 317  
2550 Campus Road  
Honolulu, Hawaii 96822

Dear Ms. Miller,

RE: Environmental Assessment  
Rasmussen Retaining Wall  
Paia, Maui

Thank you for your letter of October 23 regarding the Environmental Assessment for the Rasmussen Retaining Wall. The following are replies to your questions and comments.

### GENERAL COMMENTS

1. The owners plan to build a home on the parcel to replace the termite damaged structure demolished in 1990. It is prudent to complete the site work and retaining wall before construction of the home so the home would not interfere with the construction sequence and equipment.
2. The other possible strategy is re-vegetation. However we feel this is unreliable in such a harsh environmental situation; i.e. sterile, bare, hard clay soil with salt spray, wind, drought and rain-caused erosion contributing to the turbidity of Paia Bay. Furthermore, re-vegetation does not satisfy our safety concerns for the steep drop off onto the rocky shoreline as it does not provide a stable foundation for a safety fence and subsequent erosion of the fence foundation.

### DESIGN SPECIFICATIONS

1. The previous original two-tiered structure was designed to be built up to the certified shoreline. After our first submittal it was recommended that the wall be built entirely mauka of the property boundary. Due to the small size of the lot (7,594 square feet) and as the area the two-tiered structure would use (from 7 feet to 10 feet in width) of the limited space available of the seaward property boundary (see enclosed plan highlighted in yellow) it was felt a two-tiered structure would cause a hardship in using more land than necessary (nearly 20%) to build an acceptable retaining wall.

Jacquelin N. Miller  
October 27, 1997  
Page Two

Further, the original two-tiered structure was designed as a Seawall and the present wall is designed as a retaining wall.

2. As the present retaining wall is designed to be built entirely within the owners' property boundary, which presently exists as a steep rocky soil bank, no lateral access is effected as none exists. The structure is well away from the high tide mark and from 16 feet to 4 feet (average 12 feet) away from the certified shoreline. There is NO BEACH in front of the property, only a rocky shoreline. Access to the area is via a shoreline access route along the eastern boundary of the subject parcel continuing on out to the end of Loio Point and down from there to the shoreline, not over or through the subject property.

3. Enclosed please find photographs of a fire caused by a careless cigarette or campfire of a shoreline user. It destroyed our previous attempts at using re-vegetation as a method of erosion control. Also enclosed are photographs of the existing retaining wall to the south which has successfully enabled naupaka to flourish from it's stable soil reserves, almost completely covering the entire wall surface. Geotextile materials will not permanently reduce soil erosion and prevent turbidity of Paia Bay where Hypnea seaweed flourishes (up to two feet deep in summer months) as a result of drought and rain-caused soil run off into the ocean there. Further, in drought periods we will be prevented by the Maui County Water Department from watering vegetation and thus, may watch helplessly as all our efforts at re-vegetation wither and die. Most importantly the sterile soil of the existing steep soil bank will not support re-vegetation without considerable soil disturbance contributing further to erosion and subsequent turbidity of Paia Bay. The owners have made a thorough investigation of Geotextile materials for this project and have found the use of those products helpful but not reliable nor permanent in this application.

#### BACKFILL CHARACTERISTICS AND WATER QUALITY

We are very concerned about the water quality of our Bay. The existing wall to the south is an example of the successful stabilization of the soil banks of this location. Great care will be taken to select the right material and we welcome your suggestions for the proper filter cloth. Furthermore, we agree sand will be the ideal backfill material in conjunction with gravel and rock material.

#### PUBLIC ACCESS

The retaining wall is to be built entirely on private property. ALL public access is through the official adjacent Public Access Route down Loio Place and out onto Loio Point, 200 feet to the north (see map). The Rasmussen's have improved the access,

Jacquelin N. Miller  
October 27, 1997  
Page Three

hauled out numerous abandoned vehicles, graveled a parking area and installed trash receptacles for public use, which the Rasmussen's maintain at their own expense. The path is fenced and maintained by the Rasmussen's for public benefit. There is an existing official Shoreline Access Sign located at the junction of Hana Highway and Loio Place.

#### CONCLUSION

It is the intention of this application to justify our proposal based upon hardship and the unique features of the project site. We wish to build the best and most environmentally convenient retaining wall possible and your input is most appreciated.

Thank you for your time.

Sincerely,

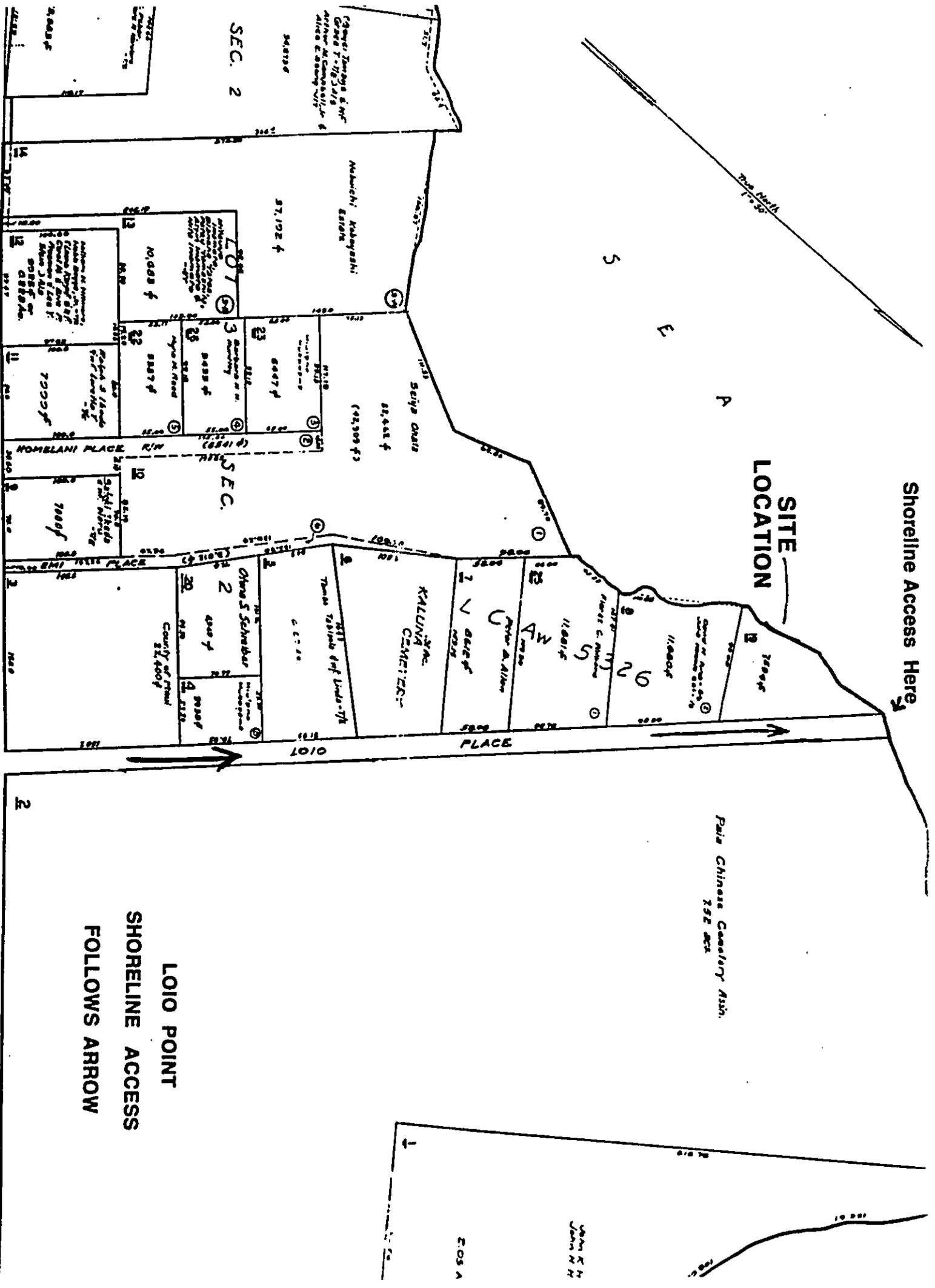
A handwritten signature in cursive script that reads "Lance W. Holter". The signature is written in black ink and is positioned above the typed name.

Lance W. Holter  
Agent for  
Richard and Lynn Rasmussen



Shoreline Access Here

SITE LOCATION



LOIO POINT  
SHORELINE ACCESS  
FOLLOWS ARROW

H I G H W A Y

H I G H W A Y

MAUI PLANNING DEPARTMENT'S REPORT-RASMUSSEN RETAINING WALL  
ENVIRONMENTAL ASSESSMENT REVIEW, DOCKET NO. EA970006

PURSUANT TO CHAPTER 92, HAWAII REVISED STATUTES AS AMENDED,  
NOTICE IS HEREBY GIVEN OF A REGULAR MEETING OF THE MAUI PLANNING  
COMMISSION

**AGENDA**

**DATE:** JANUARY 27, 1998  
**TIME:** 9:00 A.M.  
**PLACE:** Planning Department Hearing Room, 1st Floor, Kalana Pakui Building,  
250 S. High Street, Wailuku, Maui, Hawaii 96793

**A. OLD BUSINESS**

1. Report and Recommendation of the Maui Planning Commission's Special Committee regarding Special Counsel on the following matters:
  - a. MR. TENY TAKAHASHI on behalf of AMFAC MAUI and KAA NAPALI OWNERSHIP RESORTS, L.P. requesting a Special Management Area Permit for the Kaanapali Ocean Resort project, a vacation timeshare resort of up to 280 units as well as related improvements and amenities at TMK: 4-4-14: 3, Kaanapali, Lahaina, Island of Maui. (SM1 970006) (C. Yoshida)
  - b. MR. TENY TAKAHASHI, Vice-President of AMFAC MAUI on behalf of the KAA NAPALI NORTH BEACH JOINT VENTURE requesting clarification as to whether road widening improvements to Honoapiilani Highway between the Kaanapali Parkway and Honokowai Stream to four (4) lanes qualifies as "other mitigative measures" pursuant to Condition No. 7 of the 1988 Special Management Area Use Permit and Shoreline Setback Variance for the Kaanapali North Beach Subdivision at TMK: 4-4-14: 2, 3, 4, 5, 6, 7, 8, and 10 (formerly TMK: 4-4-01: portions of 2, 3, 6, 8, and 68; TMK: 4-4-02: 24; and TMK: 4-4-06: 5), Kaanapali, Lahaina, Island of Maui. (88/SM1-023) (88/SSV-002) (C. Yoshida)
  - c. MR. ISAAC HALL, attorney for ROBERT H. BUCHANAN, DAVID and ELIZABETH CHENOWETH, RANDY DRAPER, and JAMES and JOANNE JOHNSON filing a Petition to Intervene on both of the above mentioned public hearing items.
2. Scheduling of decision making meeting on the above mentioned matters.

**B. PUBLIC HEARINGS**

1. **MR. KENT SMITH of SMITH DEVELOPMENT on behalf of EDWARD and ANN DOLDER requesting a State Land Use Reclassification from State Agriculture District to State Rural District and a Change in Zoning from Interim District to RU 0.5 Rural District at 1257 Haiku Road, TMK: 2-7-07: 023, 076, and 077, Haiku, Island of Maui. (DBA 970007) (CIZ 970012) (D. Schneider)**

- a. **Public Hearing**
- b. **Action**

**C. CONTINUED PUBLIC HEARINGS (continued from January 13, 1998 meeting) (Reports previously circulated for January 13, 1998 meeting)**

1. **MR. EARL STONER, JR., on behalf of S & F LAND COMPANY, INC.; requesting a Community Plan Amendment from Agriculture to Light Industrial for 51.946 acres of land to operate a construction baseyard for storage of materials and equipment, household goods, and storage and limited fabrication at TMK: 3-8-05: 9, 22, and 38, and TMK 3-8-05: por. of 1, Puunene, Island of Maui. (95/CPA-005) (C. Yoshida)**

- a. **Public Hearing**
- b. **Action**

2. **MR. EARL STONER, JR. on behalf of S & F LAND COMPANY, INC. requesting a Change in Zoning to Establish M-1 Light Industrial District zoning on approximately forty (40) acres of land to operate a construction baseyard for storage of materials and equipment, household goods, and storage and limited fabrication at TMK:3-8-05:1 (por.), 19, and 22, Puunene, Island of Maui. (96/CIZ-008) (C. Yoshida)**

- a. **Public Hearing**
- b. **Action**

**D. COMMUNICATIONS**

1. **MS. CAROLYN J. MOORE on behalf of the DORIS TODD MEMORIAL CHRISTIAN SCHOOLS requesting a State Land Use Commission**

Maui Planning Commission  
Agenda - 1/27/97  
Page 3

Special Use Permit time extension to continue to operate a preschool within the State Rural District at the Haiku Bible Church, TMK: 2-7-21: 08, Haiku, Island of Maui. (89/SUP-001) (E. Anderson)

2. MR. LANCE W. HOLTER on behalf of RICHARD A. and LYNN M. RASMUSSEN requesting an Environmental Assessment (EA) determination pursuant to Chapter 343 Hawaii Revised Statutes for a Shoreline Setback Variance application in order to establish a retaining wall along approximately 140 feet of shoreline fronting property at Loio Place, TMK: 2-6-004: 019, Paia, Island of Maui. (EA 970006) (D. Schneider)

E. DIRECTOR'S REPORT

1. Special Meeting on January 29, 1998, 6:30 p.m., Kula Community Center - Makawao-Pukalani-Kula Interim Program Public Hearing

F. NEW BUSINESS

G. NEXT REGULAR MEETING DATE: February 10, 1998

H. ADJOURNMENT

EACH APPLICANT IS REQUESTED TO PROVIDE RESPONSIBLE REPRESENTATION AT THE MEETING.

ANY PETITION TO INTERVENE AS A FORMAL PARTY IN THE PROCEEDINGS BEFORE THE MAUI PLANNING COMMISSION MUST BE FILED WITH THE COMMISSION AND SERVED UPON THE APPLICANT NO LESS THAN TEN DAYS BEFORE THE FIRST PUBLIC HEARING DATE. (Note: The calculation of time for deadlines ten days or less excludes weekends and State recognized holidays.) THE ADDRESS OF THE COMMISSION IS C/O THE MAUI PLANNING DEPARTMENT, 250 S. HIGH STREET, WAILUKU, MAUI, HAWAII 96793.

THOSE PERSONS REQUESTING SPECIAL ACCOMMODATIONS, DUE TO DISABILITIES, PLEASE CALL THE MAUI PLANNING DEPARTMENT AT 243-7735 (Maui) OR 1-800-272-0117 (From Molokai) OR 1-800-272-0125 (From Lanai) OR NOTIFY THE MAUI PLANNING DEPARTMENT IN WRITING AT 250 S. HIGH STREET, WAILUKU, MAUI, HAWAII 96793 OR FAX NUMBER 243-7634; AT LEAST SIX (6) DAYS BEFORE THE SCHEDULED MEETING.

- An Executive Session may be called in order for the Commission to consult with their attorney on questions and issues pertaining to the Commission's powers, duties, privileges, immunities and liabilities.

PLEASE NOTE: If any member of the commission is unable to attend the scheduled meeting, please contact the Planning Department at least one day prior to the meeting date. Thank you for your cooperation.

Jacquelin N. Miller  
October 27, 1997  
Page Three

hauled out numerous abandoned vehicles, graveled a parking area and installed trash receptacles for public use, which the Rasmussen's maintain at their own expense. The path is fenced and maintained by the Rasmussen's for public benefit. There is an existing official Shoreline Access Sign located at the junction of Hana Highway and Loio Place.

#### CONCLUSION

It is the intention of this application to justify our proposal based upon hardship and the unique features of the project site. We wish to build the best and most environmentally convenient retaining wall possible and your input is most appreciated.

Thank you for your time.

Sincerely,



Lance W. Holter  
Agent for  
Richard and Lynn Rasmussen

**EXHIBIT 30.2**

Jacquelin N. Miller  
October 27, 1997  
Page Two

Further, the original two-tiered structure was designed as a Seawall and the present wall is designed as a retaining wall.

2. As the present retaining wall is designed to be built entirely within the owners' property boundary, which presently exists as a steep rocky soil bank, no lateral access is effected as none exists. The structure is well away from the high tide mark and from 16 feet to 4 feet (average 12 feet) away from the certified shoreline. There is NO BEACH in front of the property, only a rocky shoreline. Access to the area is via a shoreline access route along the eastern boundary of the subject parcel continuing on out to the end of Loio Point and down from there to the shoreline, not over or through the subject property.

3. Enclosed please find photographs of a fire caused by a careless cigarette or campfire of a shoreline user. It destroyed our previous attempts at using re-vegetation as a method of erosion control. Also enclosed are photographs of the existing retaining wall to the south which has successfully enabled naupaka to flourish from it's stable soil reserves, almost completely covering the entire wall surface. Geotextile materials will not permanently reduce soil erosion and prevent turbidity of Paia Bay where Hypnea seaweed flourishes (up to two feet deep in summer months) as a result of drought and rain-caused soil run off into the ocean there. Further, in drought periods we will be prevented by the Maui County Water Department from watering vegetation and thus, may watch helplessly as all our efforts at re-vegetation wither and die. Most importantly the sterile soil of the existing steep soil bank will not support re-vegetation without considerable soil disturbance contributing further to erosion and subsequent turbidity of Paia Bay. The owners have made a thorough investigation of Geotextile materials for this project and have found the use of those products helpful but not reliable nor permanent in this application.

#### BACKFILL CHARACTERISTICS AND WATER QUALITY

We are very concerned about the water quality of our Bay. The existing wall to the south is an example of the successful stabilization of the soil banks of this location. Great care will be taken to select the right material and we welcome your suggestions for the proper filter cloth. Furthermore, we agree sand will be the ideal backfill material in conjunction with gravel and rock material.

#### PUBLIC ACCESS

The retaining wall is to be built entirely on private property. ALL public access is through the official adjacent Public Access Route down Loio Place and out onto Loio Point, 200 feet to the north (see map). The Rasmussen's have improved the access,

**EXHIBIT 30.1**

## LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

October 27, 1997

Jacquelin N. Miller  
Associate Environmental Coordinator  
University of Hawaii  
Environmental Center  
Crawford 317  
2550 Campus Road  
Honolulu, Hawaii 96822

Dear Ms. Miller,

RE: Environmental Assessment  
Rasmussen Retaining Wall  
Paia, Maui

Thank you for your letter of October 23 regarding the Environmental Assessment for the Rasmussen Retaining Wall. The following are replies to your questions and comments.

### GENERAL COMMENTS

1. The owners plan to build a home on the parcel to replace the termite damaged structure demolished in 1990. It is prudent to complete the site work and retaining wall before construction of the home so the home would not interfere with the construction sequence and equipment.
2. The other possible strategy is re-vegetation. However we feel this is unreliable in such a harsh environmental situation; i.e. sterile, bare, hard clay soil with salt spray, wind, drought and rain-caused erosion contributing to the turbidity of Paia Bay. Furthermore, re-vegetation does not satisfy our safety concerns for the steep drop off onto the rocky shoreline as it does not provide a stable foundation for a safety fence and subsequent erosion of the fence foundation.

### DESIGN SPECIFICATIONS

1. The previous original two-tiered structure was designed to be built up to the certified shoreline. After our first submittal it was recommended that the wall be built entirely mauka of the property boundary. Due to the small size of the lot (7,594 square feet) and as the area the two-tiered structure would use (from 7 feet to 10 feet in width) of the limited space available of the seaward property boundary (see enclosed plan highlighted in yellow) it was felt a two-tiered structure would cause a hardship in using more land than necessary (nearly 20%) to build an acceptable retaining wall.

**EXHIBIT 30.0**



## LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

---

Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

October 27, 1997

Colin Kippen  
Officer, Land and Natural Resources Division  
Office of Hawaiian Affairs  
711 Kapiolani Blvd., Suite 500  
Honolulu, Hawaii 96813-5249

RE: Special Management Area Permit  
Rasmussen Retaining Wall  
Loio Place, Paia, Maui

Dear Mr. Kippen,

Thank you for your letter of October 21 regarding the Special Management Area Permit and Environmental Assessment for the Rasmussen Retaining Wall.

Enclosed please find a map of the present and traditional shoreline access route. Our project does not in any way or manner preclude public access to the shoreline. The owners of the project site have gone to great effort to improve the existing traditional access route by removing old abandoned cars, maintaining and fencing the existing trail, gravelling the parking area and providing trash receptacles (which the owner's maintain at their own expense) for public use.

Please understand we hold in deep respect the public use of our ocean resources. Thank you for your time and comments.

Sincerely,



Lance W. Holter

**EXHIBIT 29.0**

## LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

October 27, 1997

Barbara Guild  
320 Paani Place, 1A  
Paia, Maui, Hawaii 96779

Dear Ms. Guild,

RE: Rasmussen Retaining Wall  
Loio Place, Paia, Maui

Thank you for your letter dated October 1, 1997 regarding the above-mentioned matter.

We are very familiar with the sand replenishment project at Sugar Cove, Spreckelsville and another such project at Hauoli Street, Maalaea. We also agree entirely with you regarding the effects of sea wall revetments on the shoreline, and beach erosion in particular.

Our project in Paia, Maui has problems which are not a result of wave-based erosion but from land-based top-down erosion of a soil bank which is located on a rocky shoreline. Further, the land-based erosion occurs 25 feet from the certified shoreline high water mark and doesn't involve sea processes at all. In fact, the closest sandy beach is 500-600 feet away. Fifty years of aerial photos show Loio Point has always been a rocky shoreline with no sandy beaches in the immediate area. The proposed retaining wall will be built entirely within the property boundaries, well away from the shoreline and wave processes of the sea.

The main goals of our project are safety (the soil bank as a 15-20 foot drop off) and the containment of soil erosion which contributes to the turbidity of Paia Bay which, in turn, nourishes Hypnea seaweed (sometimes reaching a depth of 2 feet) during the summer months.

Again, thank you for your concern with our coastline and for passing along your letter with the excellent information contained regarding sea walls and their impacts on sandy beach erosions.

Best regards and with aloha,



Lance W. Holter  
Agent for  
Richard and Lynn Rasmussen

**EXHIBIT 28**

## LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

October 27, 1997

David W. Blane  
David Goode  
200 South High Street  
Wailuku, Maui, Hawaii 96793

Dear Messrs. Blane and Goode,

RE: Rasmussen Retaining Wall  
SMI 97/018, ERA 97/006, SSA 97/016  
TMK II-2-6-4:19

We are in receipt of your letter dated October 9, 1997 regarding the above-mentioned application. The following are in answer to your comments:

1. We have retained Wayne Arakaki, P.E., to prepare the drainage report. His estimated completion date is November 15, 1997. I will forward same to Don Schneider upon completion.
2. The contractor has allocated funds (C. Contractors proposal SMA Plans and Proposal) for storage of excavated materials and mitigation of runoff into the ocean. In addition to sand bagging, silt screening will be used to prevent rainstorm run off impact to the ocean as per your request.

Your concerns for our ocean quality are likewise our concerns and they will be given the utmost attention during the construction of the project retaining wall.

Sincerely yours,



Lance W. Holter  
Agent for  
Richard and Lynn Rasmussen

**EXHIBIT 27.0**

Mr. Dean Y. Uchida  
October 6, 1997  
Page Two

users. This fire completely destroyed the attempts at revegetation which had been undertaken using burlap cloth and sprinklers. It also, unfortunately reinforces the fact that revegetation is not reliable in erosion containment in this situation.

Sincerely yours,



Lance W. Holter

cc: David Blane

**EXHIBIT 26.1**

## LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

October 6, 1997

97 OCT 5 11 58

Dean Y. Uchida, Administrator  
State of Hawaii  
Department of Land and Natural Resources  
Land Division  
P.O. Box 621  
Honolulu, Hawaii 96809

Dear Mr. Uchida,

RE: Rasmussen Retaining Wall, Paia, Maui  
File Number. PM-97-065; Tax Map Key: 2-6-04:19

Thank you for your letter of September 24, 1997 in regards to the above referenced matter. Both landscaping and revegetation have been attempted since 1990 when the owner purchased the property. Unfortunately the natural forces of the point (drought, wind, sea spray and rain) coupled with the poor quality of soil in the soil embankment make it extremely difficult to promote vegetative processes in this area. The following are explanations to your questions and comments:

1) **REVEGETATION:** Revegetation of the soil bank is unreliable and ineffective in this situation. The vegetation is not an adequate solution to the stabilization of the top down erosion of the soil bank nor does it result in the accomplishment of our main goals which are:

A) Stabilization of the soil bank from top down erosion. The top down erosion contributes to the turbidity of Paia Bay during wintertime and encourages the flourishing of Hypnea algae blooms (seaweed) during the summer months. Sometimes the piles of seaweed reach two feet in depth along the shoreline of Paia Bay.

B) The ability to satisfy our safety concerns for the steep embankment and drop off into the rocky shorelines below.

The neighboring property has vegetation (Naupaka) firmly established as a result of the placement of enriched top soil behind the rock retaining wall. This soil is used to encourage the Naupaka to flourish, as it does quite successfully.

Further, enclosed are photographs of a fire which occurred around the first of September as the result of either a careless cigarette or cooking fire from shoreline

**EXHIBIT 26.0**

Mr. Gary Gill  
September 30, 1997  
Page Two

2) **BOUNDARIES:** No excavation will take place on public property. All construction will be within the owner's boundary. The resubmitted Certified Shoreline Map and Construction Plan have the following color coded boundary lines for your reference

- A) Yellow is the Meets and Bounds boundary.
- B) Pink is the February 25, 1997 Certified Shoreline.
- C) Green is the top of the bank.
- D) Blue is the actual site of the retaining wall with the seaward edge of the retaining wall footing entirely mauka of the meets and bounds boundary.
- E) Orange line shows the 25' setback for the proposed house area building footprint.

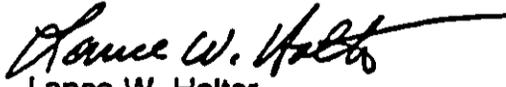
3) **COASTAL PROCESSES:** 50 years of aerial photographs are on file with the Maui County Planning Department (please see Mr. Don Schneider). These photographs convincingly demonstrate the unchanging nature of the rocky shoreline at the project site. Existing sandy beaches are located 500 yards away along the shoreline to the southwest, and likewise 500 to 600 yards away to the east. In between these beaches are rocky shorelines similar to that occurring at the project site.

The project site itself is located on the leeward side of Loio point. Ocean currents and wind predominately run east to west and northeast to southwest. Wave action causes cycles of erosion and sand replenishment at the areas fronting the sandy beaches in Paia Bay 500 yards to the southwest along the shoreline from the project's location.

4) **SETBACK VARIANCE:** The owners ultimately hope to replace a preexisting home which was demolished in 1990 because of structural damage from termites. In order to build a home on such limited space, the construction sequence would begin with the retaining wall followed by the building of the house as it is most desirable to first secure the eroding embankment and establish a safety fence on top of the retaining wall. This way the house would not be a barrier in the construction of the wall.

If you have any further questions please feel free to contact me anytime.

Sincerely yours,

  
Lance W. Holter

cc: David Blane  
Don Schneider

**EXHIBIT 25.1**

## LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

September 30, 1997

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

Dear Mr. Gill,

RE: Rasmussen Retaining Wall  
Loio Place, Paia

Thank you for your letter of September 26, 1997 in regards to the above referenced matter. The following are explanations to your questions and comments:

1) REVEGETATION: Revegetation of the soil bank is unreliable and ineffective in this situation. The vegetation is not a permanent solution to the stabilization of the top down erosion of the soil bank nor does it result in the accomplishment of our main goals which are:

A) Permanent stabilization of the Soil Bank from top down erosion. The top down erosion contributes to the turbidity in Paia Bay during wintertime and encourages the flourishing of Hypnea algae blooms (seaweed) during the summer months. Sometimes the piles of seaweed reach two feet in depth along the shoreline of Paia Bay.

B) The ability to satisfy our safety concerns for the steep embankment and drop off into the rocky shoreline below.

The neighboring property has Naupaka firmly established as a result of the placement of enriched top soil behind the rock retaining wall and using this soil to encourage the Naupaka to flourish, as it does quite successfully. The existing poor soil of the bank will not allow the Naupaka to establish itself. This is evident as none of the soil banks in the area east or southwest have any vegetation growing or established in the embankments.

Further, enclosed are photos of a fire which occurred around the first of September as the result of either a careless cigarette or cooking fire from shoreline users. This fire completely destroyed the attempts at revegetation which had been undertaken using burlap cloth and sprinklers. It also, unfortunately reinforces the statement that revegetation is not reliable or permanent in erosion containment in this situation.

**EXHIBIT 25.0**

107-22-97 THU 15:25

UE ENVIRONMENTAL CENTER

FAX NO. 6389563888

2.04

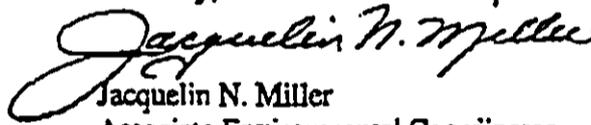
Mr. and Mrs. Richard Rasmussen  
October 23, 1997  
Page 3

Conclusion

In summary, our reviewers find the current design specifications in conflict with the principles of the Beach Management Plan for Maui and consequently less environmentally satisfactory than the previous two-tier design. We would urge the applicant to consider less obtrusive alternatives that are in keeping with the Beach Management Plan, sand backfill options, filter cloth quality, and public access.

Thank you for the opportunity to comment.

Sincerely,

  
Jacquelin N. Miller  
Associate Environmental Coordinator

cc: OEQC  
Roger Fujitoka  
Rob Mullane  
Trac Menard  
Don Schneider  
Paul Berkowitz

**EXHIBIT 24.2**

# CORRECTION

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

107-02-97 THU 15:25

UE ENVIRONMENTAL CENTER

FAX NO. 9089563961

3.04

Mr. and Mrs. Richard Rasmussen  
October 23, 1997  
Page 3

Conclusion

In summary, our reviewers find the current design specifications in conflict with the principles of the Beach Management Plan for Maui and consequently less environmentally satisfactory than the previous two-tier design. We would urge the applicant to consider less obtrusive alternatives that are in keeping with the Beach Management Plan, sand backfill options, filter cloth quality, and public access.

Thank you for the opportunity to comment.

Sincerely,

*Jacquelin N. Miller*

Jacquelin N. Miller  
Associate Environmental Coordinator

cc: OEQC  
Roger Fujloka  
Rob Mullane  
Trae Menard  
Don Schneider  
Paul Berkowitz

**EXHIBIT 24.2**

Mr. and Mrs. Richard Rasmussen  
October 23, 1997  
Page 2

#### Design Specifications

Relative to the two-tiered structure proposed in the original draft EA, the currently proposed structure seems unnecessarily large and obtrusive. Why was the original design discarded? Our reviewers find the original design superior since it (1) offers improved lateral access during high surf, (2) provides greater safety for beachgoers during high surf, (3) requires less backfill, and (4) is more consistent with the natural character of the coastline.

Additionally our reviewers noted that geotextile materials, in combination with native vegetation, could possibly eliminate the need for a retaining wall. Geotextile materials, imbedded in the soil surface, could minimize runoff velocities and reduce erosion while providing support for native plants. However, to allow the plants to survive and grow, grazing pressure from neighborhood goats must be eliminated.

#### Backfill Characteristics and Water Quality

To complement the one-tier design, the engineer proposes to use a large amount of soil as backfill. In addition to violating the principles of the draft Beach Management Plan for Maui, soil backfill has the potential to leach through faulty filter cloth, create runoff, and degrade water quality. Sand backfill represents a more environmentally sensitive alternative and is consistent with the Beach Management Plan. Furthermore, many native species such as naupaka, milo, beach morning glory, and akulikuli, grow well in sand.

In order for the proposed wall to improve water quality, the filter cloth must work properly, i.e., allow water to drain out while retaining sediments. Our reviewers emphasize the importance of choosing the right cloth and installing it properly. If this process is not done correctly, then considerable potential exists to degrade water quality.

#### Public Access

The EA needs to address the issue of public access more thoroughly. Will stairs be available for the public access to the shoreline? Will the access be marked clearly with a sign? The sign does not need to be placed along the Hana Highway, but should be visible locally. If the applicant does not provide a designated pathway for the public, then beachgoers may walk between properties to reach the shoreline. Such pedestrian traffic would have the potential to impact the area by contributing to scour at the back and side edges of the wall, possibly undermining the structure.

**EXHIBIT 24.1**

OCT-23-97 10:13

THE ENVIRONMENTAL CENTER

FAX NO. 6089563300

3.02



## University of Hawai'i at Mānoa

Environmental Center  
A Unit of Water Resources Research Center  
Crawford 317 • 2550 Campus Road • Honolulu, Hawaii 96822  
Telephone: (808) 956-7361 • Facsimile: (808) 956-3980

October 23, 1997  
EA:0165

Mr. and Mrs. Richard Rasmussen  
c/o Lance Holter  
P.O. Box 656  
Paia, Hawaii 96766

Dear Mr. and Mrs. Rasmussen:

### Draft Environmental Assessment Rasmussen Retaining Wall Paia, Maui

The applicant proposes to construct a 140-foot long grouted rock retaining wall along the seaward edge of their property on Loio Place in Paia. The proposed wall would stand 5 to 15 feet high and serve as both a safety feature and a barrier to land-based erosion. As the retaining wall would lie above the shoreline, it would not be subject to wave-based erosion. The applicant intends to protect a currently vacant parcel.

We reviewed this Environmental Assessment (EA) with the assistance of Rob Mullane, Sea Grant; Tracé Menard, Geography; and Paul Berkowitz of the Environmental Center.

#### General Comments

In contrast to many protective structures along shorelines, the proposed retaining wall is not likely to adversely affect the adjacent shoreline, nearby beaches, or Paia Bay, located to the west of the proposed action. Although the project should not affect beaches, the motivation for the retaining wall remains somewhat unclear given that no structures exist on the property. Furthermore it appears that more environmentally amenable and less invasive strategies are available to alleviate the site's erosion problems.



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

REPLY TO  
ATTENTION OF

October 1, 1997

'97

Planning and Operations Division

Mr. Don Schneider, Staff Planner  
County of Maui  
Planning Department  
250 South High Street  
Wailuku, Maui, Hawaii 96793

Dear Mr. Schneider:

Thank you for the opportunity to review and comment on the Special Management Application and Environmental Assessment (EA) for the Rasmussen Retaining Wall, Maui (TMK 2-6-4: 19). The following comments are provided in accordance with U.S. Army Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. Based on the information provided, the retaining wall will be constructed above the high tide line; therefore, a DA permit will not be required for the project. If any additional construction is anticipated for this project, please contact our Regulatory Section at (808) 438-9258 for further permit information and refer to file number 970000351.

b. The flood hazard information provided on pages 15-16 of the EA is correct.

Sincerely,

Paul Mizue, P.E.  
Acting Chief, Planning  
and Operations Division

**EXHIBIT 23**



United States  
Department of  
Agriculture

Natural  
Resources  
Conservation  
Service

210 Ima Kala St.  
Suite 209  
Wailuku, HI  
96793-2100

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*Our People...Our Islands...In Harmony'97* SEP 10 1997

September 9, 1997

Mr. David Blane, Planning Director  
County of Maui  
Planning Department  
250 S. High Street  
Wailuku, Hawaii 96793

Dear Mr. Blane,

Subject: Rasmussen Retaining Wall; TMK: 2-6-04: 19  
I.D. EA 970006, SSA 970016, SM1 970018

I have no comment on the subject application. Thank you for the opportunity to comment.

*Neal S. Fujiwara*  
Neal S. Fujiwara  
District Conservationist

**EXHIBIT 22**

David Blane  
September 26, 1997  
Page 2

4. Setback variance: Section 205A allows private improvements in the shoreline area by variance only where failure to develop would result in a hardship to the applicant. Since there is no house on the property that the retaining wall would protect, please clearly explain why not having a wall would constitute a hardship.

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

Sincerely,



GARY GILL  
Director

c: Lance Holter

**EXHIBIT 21.1**

BENJAMIN J. CAYETANO  
GOVERNOR



GARY GILL  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

236 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 598-4186  
FACSIMILE (808) 598-4188

September 26, 1997

David Blane, Director  
Maui Planning Department  
250 South High Street  
Wailuku, HI 96793

Attn: Don Schneider

Dear Mr. Blane:

Subject: Draft Environmental Assessment (EA) for Rasmussen Retaining Wall,  
Loio Place, Paia

We have the following comments to offer:

1. Revegetation: Please provide a fuller explanation of why revegetation of the bank to prevent erosion is not a viable option, especially in light of the fact that naupaka is firmly established on the wall on the neighboring property. A "soft" solution to erosion, such as a properly planted and irrigated vegetative cover, would likely be less expensive and have fewer impacts on the natural character of the coastline.
2. Boundaries: From the maps provided it is not clear where the shoreline, the property line and the setback line are in relation to one another and to the footprint of the proposed wall. It appears that, although the footing of the proposed wall is to be placed on private property, public property may be excavated to construct the wall. Please clarify these issues in the final EA.
3. Coastal processes: Please provide historical aerial photos to support your contention that this coastal area is unchanging and has always been rocky. In addition, discuss the coastal processes for Paia Bay and not just the section fronting the property. Locate the nearest pre-existing and existing sandy beaches and describe any erosion or other significant coastal processes taking place in Paia Bay.

EXHIBIT 21.0

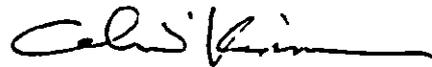
Letter to Mr. Holter  
Page two

Please contact Colin Kippen, Officer of the Land and Natural Resources Division, or Luis A. Manrique, should you have any questions on this matter.



Randall Ogata  
Administrator

Sincerely yours,



Colin Kippen  
Officer, Land and  
Natural Resources  
Division

LM:lm

**EXHIBIT 20.1**



STATE OF HAWAII  
OFFICE OF HAWAIIAN AFFAIRS  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813-5249  
PHONE (808) 594-1888  
FAX (808) 594-1865  
October 21, 1997

Mr. Lance W. Holter  
General Building Contractor  
P.O. Box 656  
Paia, Maui HI 96779

Subject: Special Management Area Permit and Environmental Assessment (EA) for Rasmussen Retaining Wall, Paia, Island of Maui.

Dear Mr. Holter:

Thank you for the opportunity to review the Special Management Area Permit and Environmental Assessment (EA) for Rasmussen Retaining Wall, Paia, Island of Maui. The applicant proposes to construct an 5 to 15 feet retaining wall along the ocean frontage of the property to minimize top down erosion from wind, rain, animal, and human foot traffic.

The Office of Hawaiian Affairs (OHA) has no objections at this time to the proposed wall construction. Based on information contained in the EA, the wall apparently bears no significant impacts on the shoreline nor upon adjacent areas. No native vegetation exists and no archaeological remains have been reported in the area. Furthermore, the wall does not significantly alter the local scenery. OHA, however, wants to clearly emphasize that the proposed wall should not preclude public access to the shoreline.

**EXHIBIT 20.0**



**DEPARTMENT OF BUSINESS,  
ECONOMIC DEVELOPMENT & TOURISM**

**OFFICE OF PLANNING**

235 South Beretania Street, 6th Flr., Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

BENJAMIN J. CAYETANC  
GOVERNOR  
SEIJI F. NAYA  
DIRECTOR  
BRADLEY J. MOSSMAN  
DEPUTY DIRECTOR  
RICK EGGED  
DIRECTOR, OFFICE OF PLANNING

Tel.: (808) 587-2846  
Fax: (808) 587-2824

Ref. No. P-6938

September 10, 1997

Mr. David W. Blane  
Planning Director  
County of Maui  
250 S. High Street  
Wailuku, Hawaii 96793

Dear Mr. Blane:

Subject: Special Management Area Permit Application and Environmental Assessment for  
Rasmussen Retaining Wall, Paia, Maui, TMK 2-6-4:19

This is in response to your letter of August 25, 1997, requesting comments and recommendations regarding the subject application and assessment. Based on information presented in the environmental assessment and supporting documents, it appears that the project is designed to minimize erosion and other impacts on shoreline processes. We consider important site-specific geomorphological features, such as the lack of sandy beach fronting the property and the apparent low rate of shoreline retreat as key considerations in our favorable assessment of the application.

If there are any questions or concerns, please contact Jeffrey Walters of our CZM Program at 587-2883.

Sincerely

Rick Egged  
Director  
Office of Planning

**EXHIBIT 19**

BENJAMIN J. CAYETANO  
GOVERNOR



SAM CALLEJO  
COMPTROLLER

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING  
AND GENERAL SERVICES  
SURVEY DIVISION  
P. O. BOX 119  
HONOLULU, HAWAII 96810

RESPONSE REFER TO:

FILE NO. \_\_\_\_\_

September 15, 1997

MEMORANDUM

TO: Mr. David W. Blane, Planning Director  
Maui County Planning Department

ATTN: Mr. Donald Schneider, Staff Planner

FROM: Randall M. Hashimoto, State Land Surveyor

SUBJECT: LD: EA970006, SSA970016, SM1970018  
TMK: 2-6-004:019  
Project Name: Rasmussen Retaining Wall  
Applicant: Lance W. Holter

The subject proposal has been reviewed and confirmed that no Government Survey Triangulation Stations and Benchmarks are affected. The Survey Division has no objections to the proposed project.

*Randall M. Hashimoto*  
RANDALL M. HASHIMOTO  
State Land Surveyor

**EXHIBIT 18**

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



MICHAEL D. WILSON, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

GILBERT COLOMA-AGARAN

AQUACULTURE DEVELOPMENT  
PROGRAM

AQUATIC RESOURCES  
CONSERVATION AND

RESOURCES ENFORCEMENT

CONVEYANCES  
FORESTRY AND WILDLIFE

HISTORIC PRESERVATION

DIVISION  
LAND DIVISION  
STATE PARKS  
WATER AND LAND DEVELOPMENT

97 NOV 26 P12:24

DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

STATE OF HAWAII

STATE HISTORIC PRESERVATION DIVISION  
33 SOUTH KING STREET, 6TH FLOOR  
HONOLULU, HAWAII 96813

November 17, 1997

Mr. David Blane, Director  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

LOG NO: 20505 ✓  
DOC NO: 9711BD26

Dear Mr. Blane:

**SUBJECT: Chapter 6E-42 Historic Preservation Review of an SMA Permit for the Proposed Construction of the Rasmussen Retaining Wall Hamakuapoko Ahupua'a, Makawao District, Island of Maui TMK 2-6-04: 19**

This letter is a Historic Preservation review of an SMA permit application for the construction of a retaining wall on the Rasmussen property located in Hamakuapoko Ahupua'a. Our review is based on reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field check was conducted of the subject property.

The Rasmussen property is located on the coast near Paia Bay, in close proximity to State Site 50-50-05-1253 which includes a pre-Contact house platform and grave. However, a SHPD field inspection of the shoreline in 1993 (SHPD DOC. NO: 9308AG45) found no evidence of historic sites in the project area. We therefore find the proposed seawall construction to have "no effect" on historic sites.

If you have any questions please contact Boyd Dixon at 243-5169.

Sincerely,

DON HIBBARD, Administrator  
State Historic Preservation Division

BD:jen

cc. Elizabeth Anderson, Maui County Planning Department (fax: 243-7634)  
Ralph Nagamine, Maui County Department of Public Works (fax: 243-7972)  
Dean Uchida, DLNR Land Division (fax: 587-0430)

EXHIBIT 17



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

SEP 25 1997

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

'97 11 20 11:10

Ref.:LD-PEM

File No. PM-97-065

Honorable David W. Blane, Director  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

Dear Mr. Blane:

SUBJECT: Request for Comments - Special Management Area Permit, Rasmussen Retaining Wall, Paia, Hamakuapoko, Maui, Tax Map Key: 2-6-04:19

We have reviewed the Special Management Area Permit for the subject project, and would like to offer the following additional comments:

DIVISION OF AQUATIC RESOURCES

Significant impact adverse to aquatic resource values is not expected from the proposed retaining wall since all activities would occur mauka of the applicant's certified shoreline.

We suggest that precautions be taken to prevent debris, construction materials, petroleum products and other potential contaminants from blowing, flowing or leaching into coastal waters during construction of the retaining wall.

Thank you for the opportunity to review and provide additional comments for the subject special management area permit. Should you have any questions, please contact Patti Miyashiro of our Honolulu Land Division Office at (808) 587-0430.

Very truly yours,

  
Dean Y. Uchida  
Administrator

c: Maui Land Board Member  
Maui District Land Office

**EXHIBIT 16**



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

SEP 24 1997

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

Ref.:LD-PEM

File No. PM-97-065

Honorable David W. Blane, Director  
Department of Planning  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

Dear Mr. Blane:

SUBJECT: Request for Comments - Special Management Area Permit, Rasmussen Retaining Wall, Paia, Hamakuapoko, Maui, Tax Map Key: 2-6-04:19

We have reviewed the Special Management Area Permit for the subject project, and would like to offer the following comments:

LAND DIVISION

The shoreline has been located and certified on July 30, 1997. Copies of the certified survey maps have been forwarded to property owner's surveying consultant, Edgardo Valera on September 5, 1997.

LAND DIVISION - PLANNING & TECHNICAL SERVICES

If erosion is only being influenced by mauka forces of nature, it seems that a vegetation program, with some landscaping could address this problem adequately, rather than building a wall.

Thank you for the opportunity to review and provide comments for the subject special management area permit. Should you have any questions, please contact Patti Miyashiro of our Honolulu Land Division Office at (808) 587-0430.

HAWAII: Earth's Best!

Very truly yours,

  
Dean Y. Uchida  
Administrator

c: Maui Land Board Member  
Maui District Land Office

**EXHIBIT 15**

BENJAMIN J. CAYETANO  
GOVERNOR



STATE OF HAWAII '97 SEP 10 10:41  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

September 8, 1997

KAZU HAYASHIDA  
DIRECTOR

DEPUTY DIRECTORS

GLENN M. OKIMOTO  
BRIAN K. MINAII

IN REPLY REFER TO:  
STP 8.8134

Mr. David W. Blane  
Director  
Planning Department  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

Dear Mr. Blane:

Subject: Rasmussen Retaining Wall  
Special Management Area Permit (SM1 970018)  
Environmental Assessment (EA 970006)  
Shoreline Setback Variance (SSA 97 0016)  
TMK: 2-6-004: 019

Thank you for your transmittal of August 25, 1997.

The subject project will not impact our State transportation facilities.

We appreciate the opportunity to provide comments.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Kazu Hayashida".

KAZU HAYASHIDA  
Director of Transportation

**EXHIBIT 14**

BENJAMIN J. CAYETANO  
GOVERNOR



LAWRENCE MIKE  
DIRECTOR OF HEALTH

LAWRENCE HART, M.D., M.P.H.  
DISTRICT HEALTH OFFICER

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

September 5, 1997

Mr. David W. Blane  
Director  
Planning Department  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

Dear Mr. Blane:

Subject: Rasmussen Retaining Wall, EA970006, SSA970016,  
SM!970018, TMK: (2) 2-6-004:019, Kuau

Thank you for the opportunity to comment on the application. We have the following comments to offer.

1. Any construction discharge into state waters will require a National Pollutant Discharge Elimination System (NPDES) permit.
2. Activities associated with the construction phase of the project must comply with the provisions of Hawaii Administrative Rules, Chapter 11-46, "Community Noise Control".

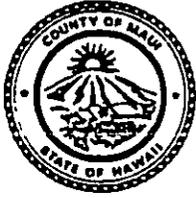
Should you have any questions, please call me at 984-8230.

Sincerely,

A handwritten signature in black ink, appearing to read "Herbert S. Matsubayashi".

HERBERT S. MATSUBAYASHI  
District Environmental Health Program Chief

EXHIBIT 13



DEPARTMENT OF  
**PARKS AND RECREATION**  
COUNTY OF MAUI

1580-C KAAHUMANU AVENUE WAILUKU, HAWAII 96793

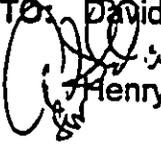
LINDA LINGL  
Ma

HENRY OLIVA  
Direct

ALLEN SHISHID  
Deputy Direct.

(808) 243-7  
FAX (808) 243-793

September 30, 1997

MEMO TO: David Blane, Director of Planning  
FROM:  Henry Oliva, Director of Parks & Recreation  
SUBJECT: Rasmussen Retaining Wall

---

We have reviewed the Special Management Area Permit for the above referenced project and have no comments.

Thank you for the opportunity to comment on this project. Should you have any questions, please feel free to contact Patrick Matsui, Chief of Parks Planning and Development, at extension 7387.

HO:PTM:am

s:\planning\am\raswall.wpd

**EXHIBIT 12**

LINDA CROCKETT LINGLE  
Mayor

CHARLES JENCKS  
Director

DAVID C. GODDE  
Deputy Director



RALPH NAGAMINE, L.S., P.E.  
Land Use and Codes Administration

EASSIE MILLER, P.E.  
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.  
Engineering Division

BRIAN HASHIRO, P.E.  
Highways Division

Solid Waste Division

'97 OCT 10 10:38

COUNTY OF MAUI  
DEPARTMENT OF PUBLIC WORKS  
AND WASTE MANAGEMENT

200 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

October 9, 1997

MEMO TO: DAVID W. BLANE, DIRECTOR OF PLANNING  
FROM: CHARLES JENCKS, DIRECTOR OF PUBLIC WORKS AND WASTE  
MANAGEMENT  
SUBJECT: SPECIAL MANAGEMENT AREA PERMIT/ENVIRONMENTAL  
ASSESSMENT/SHORELINE SETBACK APPLICATION  
RASMUSSEN, RICHARD/LYNN  
TMK (2) 2-6-004:019  
SM1 97/018, EA 97/006, SSA 97/016

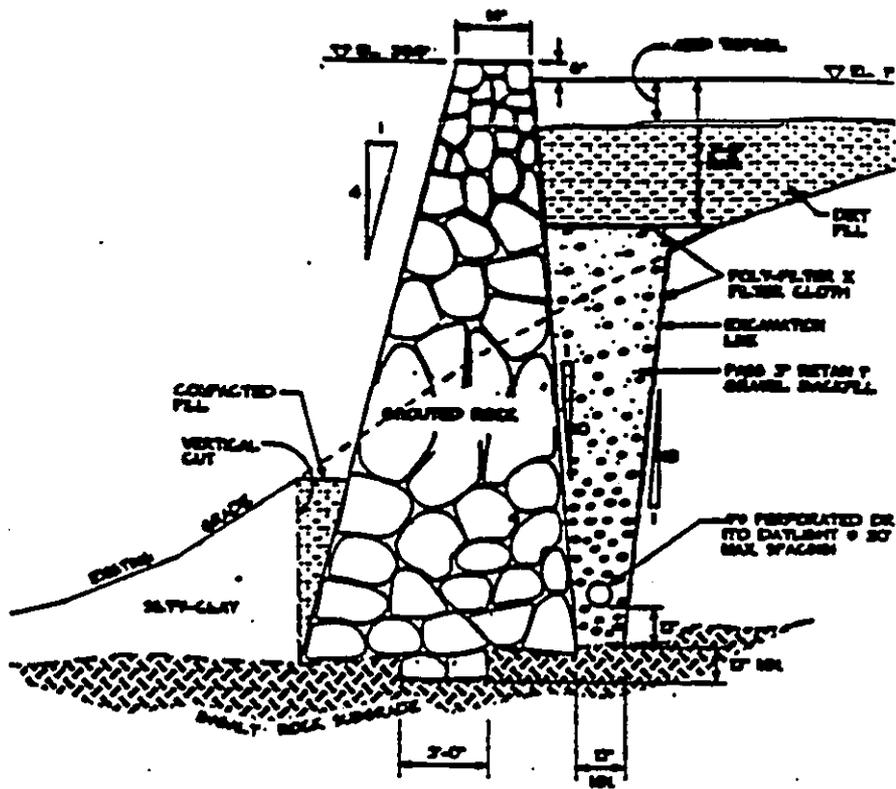
We reviewed the subject application and have the following comments.

1. The submitted drainage report should be redone and stamped by a licensed professional civil engineer.
2. Temporary measures such as silt screening should be taken to prevent loose excavated and backfill materials from running off into the ocean waters should there be a rainstorm during the construction period.

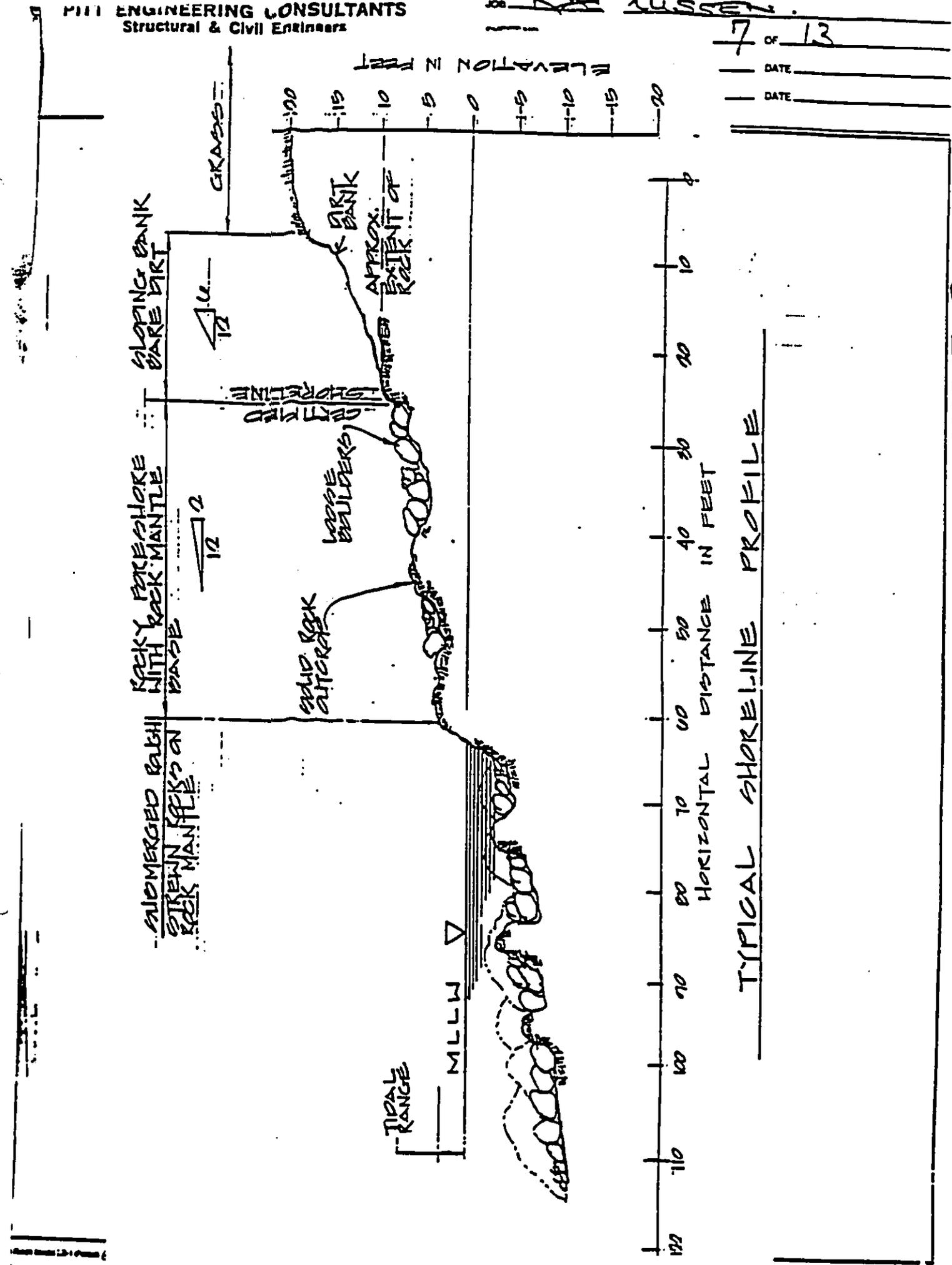
If you have any questions, please call David Goode at 243-7845.

DG:co/mt  
S:LUCAICZMRASMUS.

EXHIBIT 11



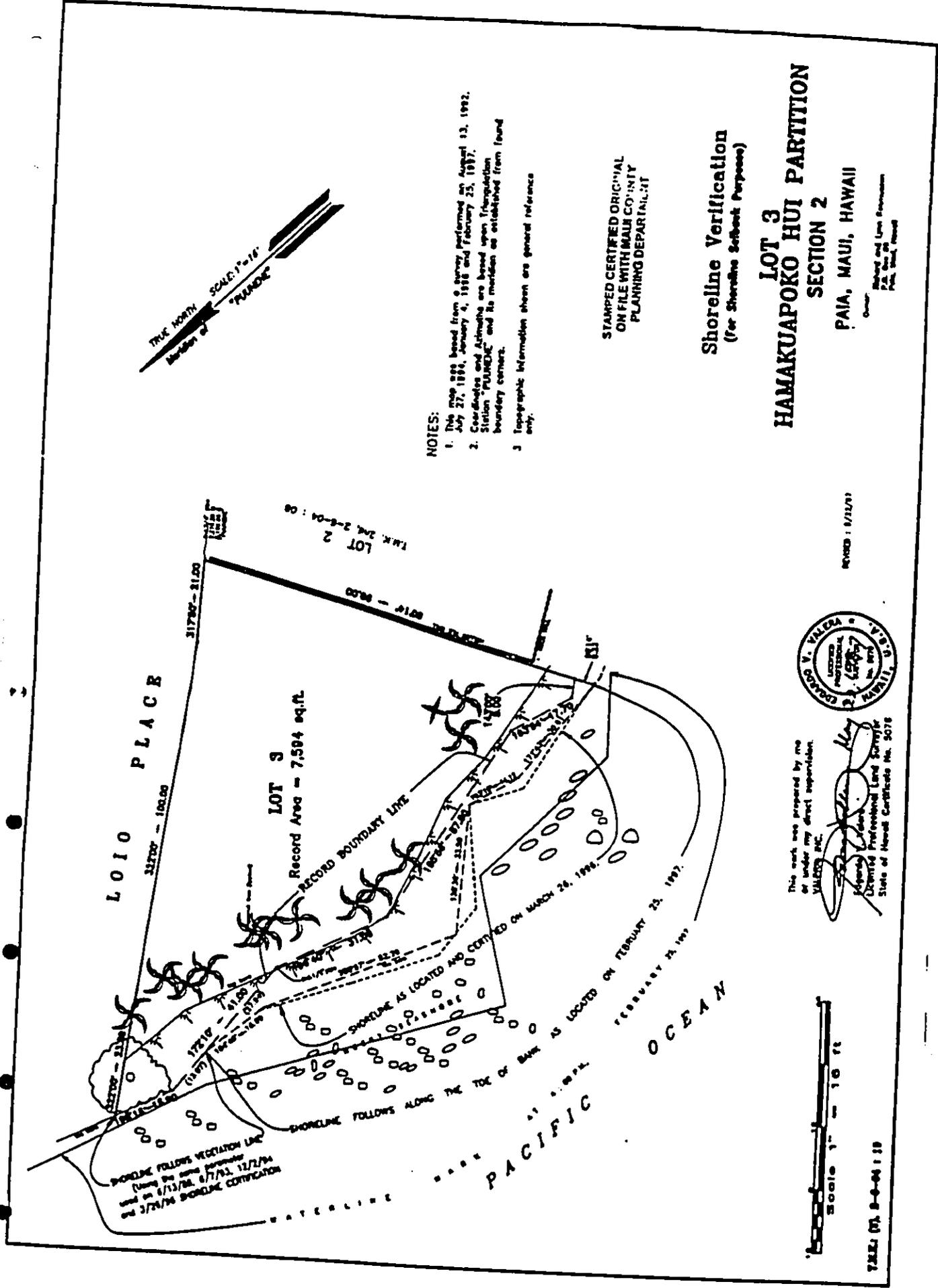
TYPICAL RETAINING WALL SECTION



TYPICAL SHORELINE PROFILE

EXHIBIT 9





NOTES:

1. This map was based from a survey performed on August 13, 1992, July 27, 1994, January 4, 1998 and February 23, 1997.
2. Coordinates and distances are based upon Triangulation Station "PUNDC" and its meridian as established from found boundary corners.
3. Topographic information shown are general reference only.

STAMPED CERTIFIED ORIGINAL  
ON FILE WITH MAUI COUNTY  
PLANNING DEPARTMENT

Shoreline Verification  
(For Shoreline Setback Purposes)

**LOT 3  
HAMAKUAPOKO HUI PARTITION  
SECTION 2  
PAIA, MAUI, HAWAII**

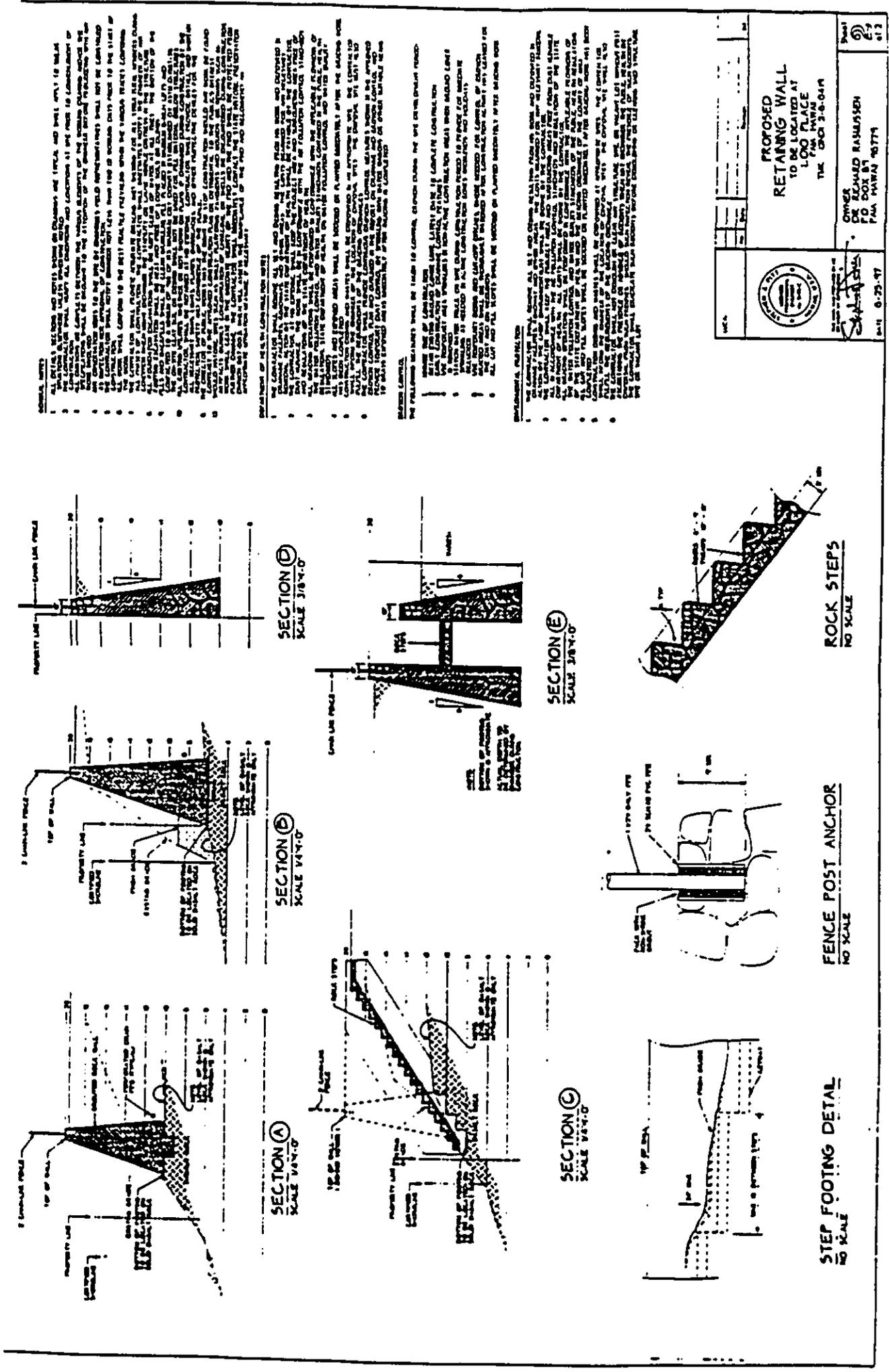
Owner: [Name] and [Name]  
[Address]  
[City, State, ZIP]



This work was prepared by me or under my direct supervision.  
VALERA INC.  
[Signature]  
Gregory V. Valera  
Registered Professional Land Surveyor  
State of Hawaii Certificate No. 5078



TABLE (A) B-0-04 1 19



**PROPOSED RETAINING WALL TO BE LOCATED AT 1000 PLACE, P.M. HWY 1, THE DISTRICT OF COLUMBIA**

OWNER: DE. EDWARD RAMUSSEN  
 P.O. BOX 87  
 P.M. HWY 1, DISTRICT OF COLUMBIA

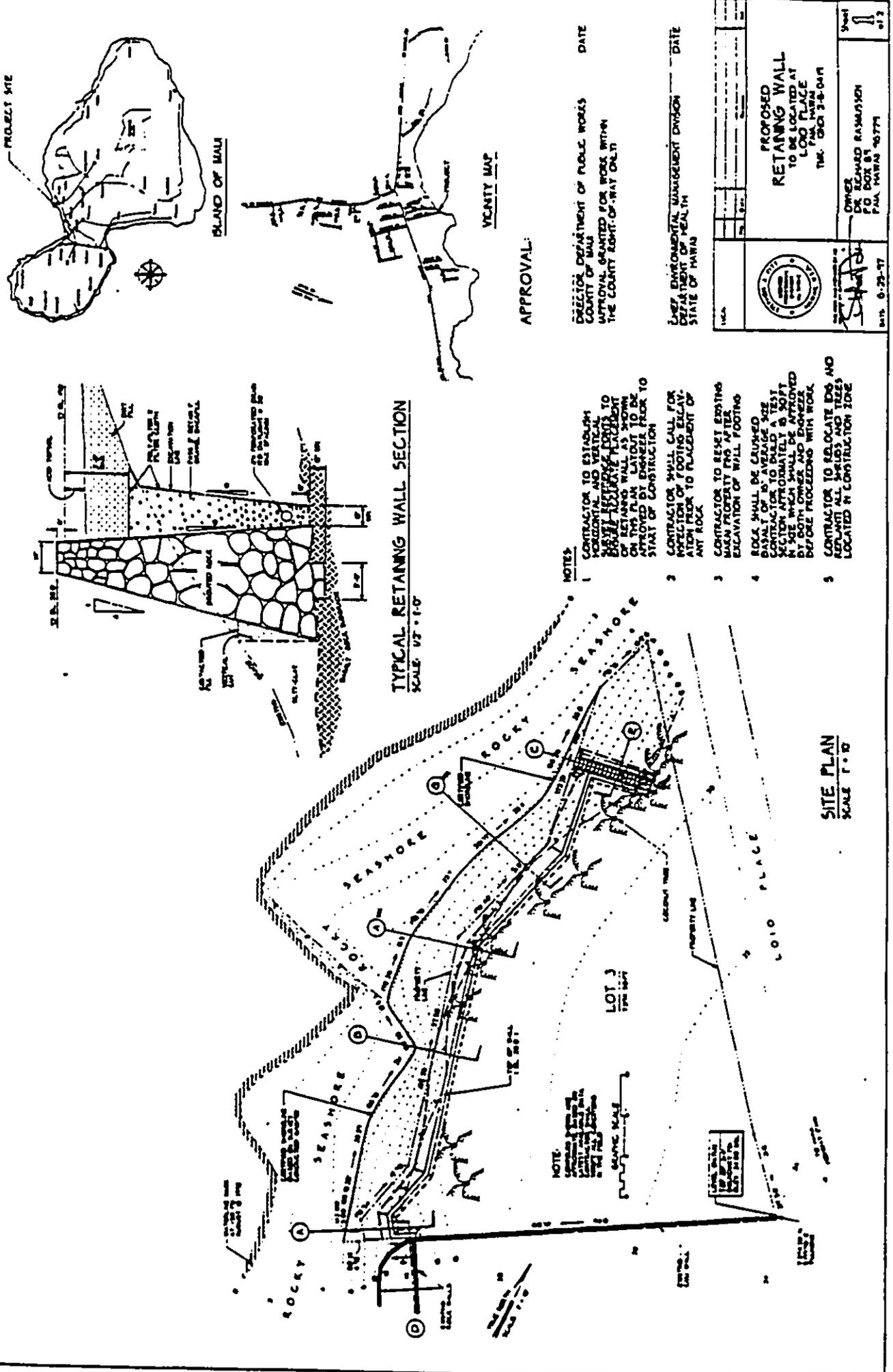
DATE: 8-25-47

Scale: 1/4" = 1'-0"

Sheet: 6 of 12

**GENERAL NOTES:**

1. THE WALL SHALL BE CONSTRUCTED OF MASSIVE GRAVELLITE CONCRETE.
2. THE WALL SHALL BE BATTERED AT THE RATE OF 12.5%.
3. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
4. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
5. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
6. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
7. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
8. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
9. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
10. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
11. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
12. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
13. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
14. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
15. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
16. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
17. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
18. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
19. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.
20. THE WALL SHALL BE FINISHED WITH A SMOOTH SURFACE.



**APPROVAL:**

DIRECTOR, DEPARTMENT OF PUBLIC WORKS  
 COUNTY OF MAUI  
 APPROVAL GRANTED FOR WORK WITHIN  
 THE COUNTY RIGHT-OF-WAY ONLY

DATE \_\_\_\_\_

CHIEF, ENVIRONMENTAL MANAGEMENT DIVISION  
 DEPARTMENT OF HEALTH  
 STATE OF HAWAII

DATE \_\_\_\_\_

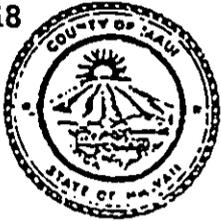
**PROPOSED RETAINING WALL**  
 TO BE LOCATED AT  
 LOT 3, MAUI PLACE  
 T.M. 1983 3-3-04-11

OWNER:  
 DR. EDWARD RAMUSON  
 U.S. BOX 87  
 P.O. MAUI HI 96771

Sheet 1 of 1

- NOTES:**
1. CONTRACTOR TO ESTABLISH HORIZONTAL AND VERTICAL POSITION OF RETAINING WALL AS SHOWN ON THIS PLAN LAYOUT TO BE APPROVED BY ENGINEER PRIOR TO START OF CONSTRUCTION.
  2. CONTRACTOR SHALL CALL FOR POSITION OF FOOTING TO BE SET ON BEDROCK.
  3. CONTRACTOR TO RESET EXISTING MAUI PROPERTY PINS AFTER ELEVATION OF WALL FOOTING.
  4. ROCK SHALL BE CRUSHED BASED ON AN AVERAGE SIZE SECTION APPROXIMATELY 8" SOFT IN SIZE WHICH SHALL BE APPROVED BEFORE PROCEEDING WITH WORK.
  5. CONTRACTOR TO RELOCATE DGS AND REPLANT ALL TREES AND TREES LOCATED IN CONSTRUCTION ZONE.

**EXHIBIT 5**



COUNTY OF MAUI  
PLANNING DEPARTMENT  
250 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

MAUI PLANNING COMMISSION

APPLICATION TYPE: SPECIAL MANAGEMENT AREA PERMIT APPLICATION

DATE: July 28, 1997

PERMIT TYPE: SMA 1

PROJECT NAME: RASMUSSEN RETAINING WALL

NOTE: 95/SSV-0002, 95/EA-0006 and 95/SMA-0012

PROPOSED DEVELOPMENT: To construct within the owners property boundary a retaining wall to eliminate top down erosion of an existing soil bank and to provide a fence for safety purposes.

TAX MAP KEY #: II-2-6-04; 19

HPR # \_\_\_\_\_

PROPERTY ADDRESS: Loio Place, Paia, Maui, Hawaii

OWNER: Richard A. and Lynn M. Rasmussen

Phone: 573-1995

Address: P.O. Box 89

City / State: Paia, Maui, Hawaii Zip: 96779

Signature: \_\_\_\_\_

APPLICANT: Lance W. Holter

Phone (res): 579-9442

Address: P.O. Box 656

Phone (work): 579-8558

City / State: Paia, Maui, Hawaii Zip: 96779

Signature: \_\_\_\_\_

CONTACT: Lance W. Holter

Phone (res): 579-9442

Address Line 1: P.O. Box 656

Phone (work): 579-8558

City / State: Paia, Maui, Hawaii Zip: 96779

EXISTING USE OF PROPERTY: Single Family Residential

CURRENT STATE LAND USE DISTRICT BOUNDARY DESIGNATION: Urban

COMMUNITY PLAN DESIGNATION: Single Family Residential

MAUI COUNTY ZONING DESIGNATION: currently Urban Interim/Residential

OTHER SPECIAL DESIGNATIONS: Special Management Area

**EXHIBIT 4**

Dr. and Mrs. Richard Rasmussen  
October 7, 1985  
Page 2

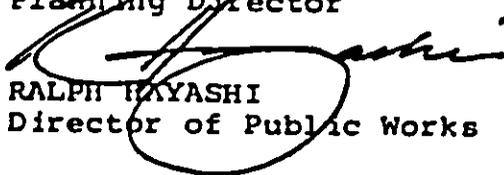
4. That no construction, storage of materials, or operation of equipment shall occur seaward of the certified shoreline without approval from the State Department of Land and Natural Resources.
5. That a building permit from the Land Use and Codes Administration shall be obtained prior to construction.
6. That full compliance with all other applicable Federal, State and County requirements shall be rendered.
7. That a "Hold Harmless" agreement shall be executed with the Department of Public Works insuring the County of Maui is relieved of all liabilities arising out of the issuance of required permits for the construction of the subject retaining walls, prior to the start of construction.
8. That after a period of two (2) years from the issuance of this permit, the retaining walls' design and impact shall be reviewed by a structural engineer, hired by the applicant. In the event it is found that said walls' has adversely affected or significantly altered the shoreline, the walls shall be modified per the recommendation of the engineer and subsequent approval by the Director of Public Works.

The subject review shall be submitted within two months from the two year period. Furthermore, a periodic review of the wall shall be conducted by the applicant's engineer, upon request by the Director of Public Works.

Thank you for your cooperation. Should you have any questions, please contact Mr. Kal Kobayashi of the Planning Department.

Very truly yours,

  
TOSH ISHIKAWA  
Planning Director

  
RALPH KOBAYASHI  
Director of Public Works

KK:wc  
cc: DLNR - E. Ansai  
F. Cerizo w/encl.  
J. Dela Cruz  
K. Kobayashi

EXHIBIT 3.2

MAUI PLANNING COMMISSION

Zadoc Brown, Chairman  
Victoria Chung, Vice-Chairman  
Tadui Anai

Joseph Felton  
Joseph J. Franco  
Shiro Fukuda

Planning

Ventura

Washi, Ex-Officio

Waiyoy, Jr., Ex-Officio



COUNTY OF MAUI  
PLANNING DEPARTMENT

200 S. HIGH STREET

WAILUKU, MAUI, HAWAII 96793

October 7, 1985

HANNIBAL TAVARES  
Mayor

TOSH ISHIKAWA  
Planning Director

RALPH N. MASUDA  
Deputy Planning Director

Dr. and Mrs. Richard Rasmussen  
4 Loio Place  
P.O. Box 89  
Paia, HI 96779

Dear Dr. and Mrs. Rasmussen:

Re: Shoreline Setback Application for two (2) proposed retaining walls at TMK 2-6-04:8, Paia, Maui.

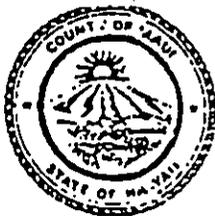
This office has reviewed the above referenced matter and finds that the proposed retaining walls are within the forty foot shoreline setback area. Therefore, the proposed work is subject to the requirements of the Shoreline Setback Rules and Regulations of the County of Maui.

Pursuant to Article III, Section 13 Facilities Permitted within the Shoreline Setback of the above-mentioned Shoreline Setback Rules and Regulations, the proposed retaining walls are a permitted use upon certification by a qualified engineer that, 1) the structure is needed for safety reasons or to protect the property from erosion or wave damages; 2) the proposed construction is the best alternative of several investigated; and 3) the proposed construction will not cause any adverse effect or significant changes to the shoreline. Furthermore, no construction of a structure, within the shoreline setback, can occur without the approvals of the Directors of Planning and Public Works.

Based on the review of the proposed retaining walls, and Article III, Section 13 of the afore-mentioned Shoreline Setback Rules and Regulations, the proposed project is hereby approved, subject to the following conditions:

1. That the retaining walls shall be constructed in accordance with revised project plans dated September 19, 1985 or as may be amended by the Land Use and Codes Administration.
2. That landscape planting shall be established in the terraced sections and along the top portion of the landward wall.
3. That the CRM wall shall be setback from the certified shoreline (certified on April 30, 1985).

EXHIBIT 3.1



COUNTY OF MAUI  
PLANNING DEPARTMENT  
250 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

APPLICATION TYPE: SHORELINE SETBACK VARIANCE

(Rev. 8/95)

DATE: July 28, 1997

PERMIT TYPE: SMA 1

PROJECT NAME: RASMUSSEN RETAINING WALL

NOTE: 95/SSV-0002, 95/EA-0006 and 95/SML-0012

PROPOSED DEVELOPMENT: To construct within the owners property a retaining wall to eliminate top down erosion of an existing soil bank and to provide a fence for safety purposes.

TAX MAP KEY #: II-2-6-04; 19 HPR # \_\_\_\_\_

PROPERTY ADDRESS: Loio Place, Paia, Maui, Hawaii

OWNER: Richard A. and Lynn M. Rasmussen Phone: 573-1995

Address: P.O. Box 89

City / State: Paia, Maui, Hawaii Zip: 96779

Signature: *Richard A. Rasmussen*

APPLICANT: Lance W. Holter Phone (res): 579-9442

Address: P.O. Box 656 Phone (work): 579-8558

City / State: Paia, Maui, Hawaii Zip: 96779

Signature: *Lance W. Holter*

CONTACT: Lance W. Holter Phone (res): 579-9442

Address Line 1: P.O. Box 656 Phone (work): 579-8558

City / State: Paia, Maui, Hawaii Zip: 96779

EXISTING USE OF PROPERTY: Single Family Residential

CURRENT STATE LAND USE DISTRICT BOUNDARY DESIGNATION: Urban

COMMUNITY PLAN DESIGNATION: Single Family Residential

MAUI COUNTY ZONING DESIGNATION: currently Urban Interim/Residential

OTHER SPECIAL DESIGNATIONS: Special Management Area

**EXHIBIT 3.0**



DOCUMENT CAPTURED AS RECEIVED

LOCATION MAP

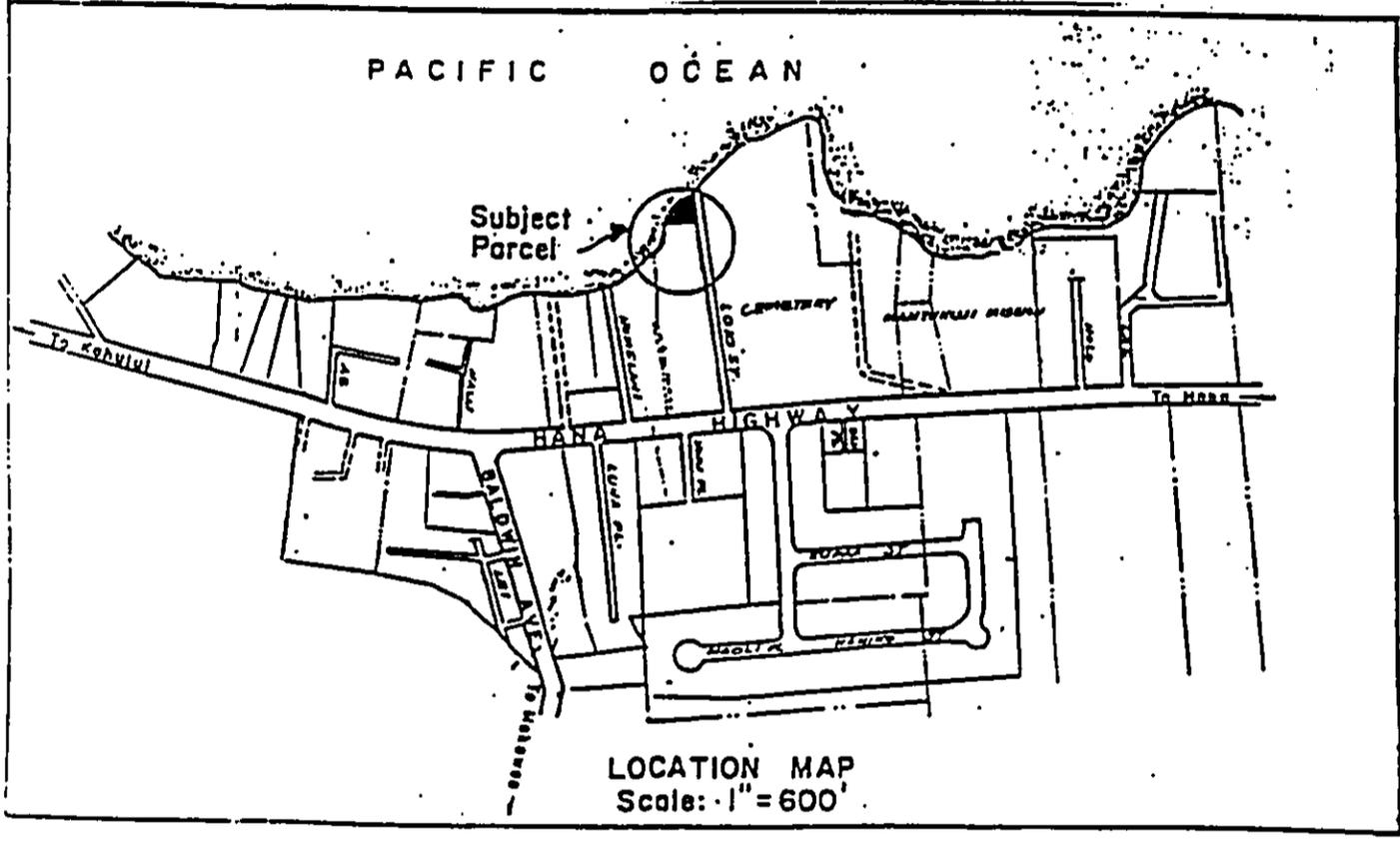


EXHIBIT 1

area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters." The proposed improvements are not likely to suffer future damage from storm wave action due to the ongoing recession of our shorelines in the area, and it is not an imminent treat that would justify the added expense and time necessary for the preparation of an E.I.S. The E.I.S. process should not be used as a means to try and delay or deny a project especially when there are other avenues available such as the shoreline setback variance and special management area process which require comprehensive review and compliance to stringent criteria for approval.

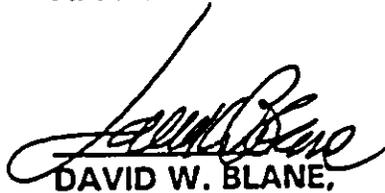
#### CONCLUSION OF LAW

In light of the foregoing, it is hereby determined that with the incorporation of necessary mitigation measures the proposed project will not have a significant adverse impact on the environmental as defined by Chapter 343, Hawaii Revised Statutes, and the Environment Impact Statement Rules of the Department of Health, State of Hawaii; and that an environmental impact statement is not required for the proposed project.

#### DETERMINATION

Pursuant to SS 11-200-11(C) of the Environmental Impact Statement Rules, the Planning Department's Report is hereby adopted as a Negative Declaration, Findings of No Significant Impact (FONSI), for the referenced project.

APPROVED:



DAVID W. BLANE,

Planning Director

(P: rasea.976)

muffled.

Air quality of the proposed project area is good due to low emissions levels and the almost continual presence of trade winds or on-shore breezes. The major factor affecting air quality in the area will be from the operation of construction equipment for excavation. No long term adverse impacts are anticipated.

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, fresh water, or coastal waters;

No negative impacts are anticipated as a result of the proposed retaining wall. During the construction phase, appropriate mitigation measures will be implemented to minimize disturbance of marine habitats. These include installing silt curtains to contain sediments and turbidity, limiting the amount and time of exposed surfaces, backfilling as soon as construction is completed. In addition, all grading work will be in accordance with applicable provisions of the Water Pollution Control and Water Quality Standards of the State Department of Health and Chapter 20.08 of the Maui County Code.

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

No adverse impacts are anticipated in the area since the proposed wall will be located entirely below the visible horizon.

13) Requires substantial energy consumption.

No adverse impacts are anticipated from energy consumption due to this installation.

#### MITIGATION MEASURES

Appropriate mitigation measures to limit the impacts of the project on the environment have been proposed by the applicant and reviewing agencies. These can be more specifically documented in greater detail during the subsequent Special Management Area Use Permit and Shoreline Setback Variance review.

#### SIGNIFICANT EFFECT ON THE ENVIRONMENT

Pursuant to Section 11-200-12 Significance Criteria, in most instances, and action shall be determined to have a significant effect on the environment if it: "Affects or is likely to suffer damage by being located in an environmentally sensitive

**4) Substantially affects the economic or social welfare of the community or State:**

The proposed project is consistent with the State's goals for the economy (Section 226-10.5).

**5) Substantially affects public health:**

There are no identifiable short-term or long term impacts to public health.

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

The proposed project will not result in substantial secondary impacts to population, existing public facilities, streets, drainage, sewage and water systems, and pedestrian walkways.

**7) Involves a substantial degradation of environmental quality:**

No short-term exploitation of resources resulting from development of the project site will have long-term adverse consequences.

Long-term gains resulting from development of the proposed project include provision of more effective erosion control.

**8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions:**

There are no long-term adverse impacts that can be associated with the proposed action. No cumulative effect has been identified.

**9) Substantially affects a rare, threatened or endangered species, or its habitat:**

The site is not anticipated to contain any rare plants or animals. If any rare or endangered flora or fauna are discovered at the site, work in the immediate area will cease and the appropriate government agencies will be contacted.

**10) Detrimentially affects air or water quality or ambient noise levels:**

During the construction phase of the project, noise is anticipated from heavy equipment for excavation, and backfilling excavated areas. Noise generated from machinery can be mitigated to some degree by requiring contractors to adhere to State and County noise regulations. This includes ensuring that machinery are properly

3. Department of Health, Honolulu

**PUBLIC COMMENTS**

No public comments have been received as of December 5, 1997. The applicant responded to a letter dated October 1, 1997, from Barbara Guild, of Paia, Maui, Hawaii, (Exhibit 28).

**ALTERNATIVES TO THE PROPOSED USE**

No action

**ANALYSIS**

Pursuant to Chapter 200 of the Department of Health Rules and Regulations, the following criteria have been established in order to determine where an action will have a significant effect on the environment. In most instances, an action shall be determined to have a significant effect on the environment if it:

**1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resource:**

The proposed project will not require the irrevocable loss or destruction of Hawaii's natural or cultural resources. Concerns relating to this item are adequately addressed in the subject Environmental Assessment.

**2) Curtails the range of beneficial uses of the environment**

The proposed project will not affect the range of beneficial uses of the environment.

**3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 344, Hawaii Revised Statutes, and any revisions thereof and amendments thereto, court decision or executive orders:**

The purpose of this chapter is to establish a state policy which will encourage productive and enjoyable harmony between man and his environment, promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man, and enrich the understanding of the ecological systems and natural resources important to the people of Hawaii.

The proposed project is consistent with the State's long-term environmental policies and goals for protection and conservation of Hawaii's resources.

watch helplessly as all our efforts at re-vegetation wither and die. Most importantly the sterile soil of the existing steep soil bank will not support re-vegetation without considerable soil disturbance contributing further to erosion and subsequent turbidity of Paia Bay. The owners have made a thorough investigation of Geotextile materials for this project and have found the use of those products helpful by not reliable nor permanent in this application.

#### **BACKFILL CHARACTERISTICS AND WATER QUALITY**

We are very concerned about the water quality of our Bay. The existing wall to the south is an example of the successful stabilization of the soil banks of this location. Great care will be taken to select the right material and we welcome your suggestions for the proper filter cloth. Furthermore, er agree sand will be the ideal backfill material in conjunction with gravel and rock material.

#### **PUBLIC ACCESS**

The retaining wall is to be built entirely on private property. All public access is through the official adjacent Public Access Route down Loio Place and out onto Loio Point, 200 feet to the north (See map). The Rasmussen's have improved the access, hauled out numerous abandoned vehicles, graveled a parking area and installed trash receptacles for public use, which the Rasmussen's maintain at their own expense. The path is fenced and maintained by the Rasmussen's for public benefit. There is an existing official Shoreline Access Sign located a the junction of Hana Highway and Loio Place.

#### **CONCLUSION**

It is the intention of this application to justify our proposal based upon hardship and the unique features of the project site. We wish to build the best and most environmentally convenient retaining wall possible and your input is most appreciated."

**16. Agencies contacted that did not respond:**

1. Department of Parks and Recreation
2. Fish and Wildlife Service

to replace the termite damaged structure demolished in 1990. It is prudent to complete the site work and retaining wall before construction of the home so the home would not interfere with the construction sequence and equipment. 2. The other possible strategy is re-vegetation. However we feel this is unreliable in such a harsh environmental situation, i.e. sterile, bare, hard clay soil with salt spray, wind, drought and rain-caused erosion contribution to the turbidity of Paia Bay. Furthermore, re-vegetation does not satisfy our safety concerns for the steep drop off onto the rocky shoreline as it does not provide a stable foundation for a safety fence and subsequent erosion of the fence foundation.

Design Specifications: 1. The previous original two-tiered structure was designed to be built up to the certified shoreline. After our first submittal it was recommended that the wall be built entirely mauka of the property boundary. Due to the small size of the lot (7,594 square feet) and as the area the two-tiered structure would use (from 7 feet to 10 feet in width) of the limited space available of the seaward property boundary (see enclosed plan highlighted in yellow) it was felt a two-tiered structure would cause a hardship in using more land than necessary (nearly 20%) to build an acceptable retaining wall.

2. As the present retaining wall is designed to be built entirely within the owners' property boundary, which presently exists as a steep rocky soil bank, no lateral access is effected as none exists. The structure is well away from the high tide mark and from 16 feet to 4 feet (average 12 feet) away from the certified shoreline. There is no beach in front of the property, only a rocky shoreline. Access to the area is via a shoreline access route along the eastern boundary of the subject parcel continuing on out to the end of Loio Point and down from there to the shoreline, not over or through the subject property.

3. Enclosed please find photographs of a fire caused by a careless cigarette or campfire of a shoreline user. It destroyed our previous attempts at using re-vegetation as a method of erosion control. Also enclosed are photographs of the existing retaining wall to the south which has successfully enabled naupaka to flourish from it's stable soil reserves, almost completely covering the entire wall surface. Geotextile materials will not permanently reduce soil erosion and prevent turbidity of Paia Bay where Hypnea seaweed flourishes (up to two feet deep in summer months) as a result of drought and rain-caused soil run off into the ocean there. Further, in drought periods we will be prevented by the Maui County Water Department from watering vegetation and thus, may

Additionally our reviewers noted that geotextile materials, in combination with native vegetation, could possibly eliminate the need for a retaining wall. Geotextile materials, imbedded in the soil surface, could minimize runoff velocities and reduce erosion while providing support for native plants. However, to allow the plants to survive and grow, grazing pressure from neighborhood goats must be eliminated.

**Backfill Characteristics and water Quality:** To complement the one-tier design, the engineer proposes to use a large amount of soil as backfill. In addition to violating the principles of the draft Beach Management Plan for Maui, soil backfill has the potential to leach through faulty filter cloth, create runoff, and degrade water quality. Sand backfill represents a more environmentally sensitive alternative and is consistent with the Beach Management Plan. Furthermore, many native species such as naupaka, milo, beach morning glory, and akulikuli, grow well in sand.

In order for the proposed wall to improve water quality, the filter cloth must work properly, i.e., allow water to drain out while retaining sediments. Our reviewers emphasize the importance of choosing the right cloth and installing it properly. If this process is not done correctly, then considerable potential exists to degrade water quality.

**Public Access:** The EA needs to address the issue of public access more thoroughly. Will stairs be available for the public access to the shoreline? Will the access be marked clearly with a sign? The sign does not need to be placed along the Hana Highway, but should be visible locally. If the applicant does not provide a designated pathway for the public, then beach goers may walk between properties to reach the shoreline. Such pedestrian traffic would have the potential to impact the area by contributing to scour at the back and side edges of the wall, possibly undermining the structure.

**Conclusion:** In summary, our reviewers find the current design specifications in conflict with the principles of Beach Management Plan for Maui and consequently less environmentally satisfactory than the previous two-tier design. We would urge the applicant to consider less obtrusive alternatives that are in keeping with the Beach Management Plan, sand backfill options, filter cloth quality, and public access."

**Response:** Applicant responded in a letter (Exhibit 30) dated October 27, 1997, which stated:

"General Comments: 1. The owners plan to build a home on the parcel

desirable to first secure the eroding embankment and establish a safety fence on top of the retaining wall. This way the house would not be a barrier in the construction of the wall.

12. United States Department Of The Interior, Fish And Wildlife -- No response provided
13. United States department of Agriculture, Natural Resources Conservation Service -- See letter dated September 9, 1997 (Exhibit 22) which states: "I have no comment on the subject application."
14. Department of The Army Pacific Ocean Division, Corps of Engineers Fort Shafter, Hawaii -- See letter dated October 1, 1997, (Exhibit 23) states:  
"a. Based on the information provided, the retaining wall will be constructed above the high tide line; therefore, a DA permit will not be required for the project. If any additional construction is anticipated for this project, please contact our Regulatory Section at (808) 438-9258 for further permit information and refer to file number 970000351.

b. The flood hazard information provided on pages 15-16 of the EA is correct.

Response: No response provided by the applicant.

15. University of Hawaii at Manoa -- See letter dated October 23, 1997 (Exhibit 24) which states:

"General Comments: In contrast to many protective structures along shorelines, the proposed retaining wall is not likely to adversely affect the adjacent shoreline, nearby beaches, or Paia Bay, located to the west of the proposed action. Although the project should not affect beaches, the motivation for the retaining wall remains somewhat unclear given that no structures exist on the property. Furthermore it appears that more environmentally amenable and less invasive strategies are available to alleviate the site's erosion problems.

Design Specifications: Relative to the two-tired structure proposed in the original draft EA., the currently proposed structure seems unnecessarily large and obtrusive. Why was the original design discarded? Our reviewers find the original design superior since it (1) offers improved lateral access during high surf, (2) provides greater safety for beach goers during high surf, (3) requires less backfill, and (4) is more consistent with the natural character of the coastline.

using burlap cloth and sprinklers. It also, unfortunately reinforces the statement that revegetation is not reliable or permanent in erosion containment in this situation.

2. **Boundaries:** No excavation will take place on public property. All construction will be within the owner's boundary. The resubmitted Certified Shoreline Map and Construction Plan have the following color coded boundary lines for your reference.

A. Yellow is the Meets and Bounds boundary.

B. Pink is the February 25, 1997 Certified Shoreline.

C. Green is the top of the bank.

D. Blue is the actual site of the retaining wall with the seaward edge of the retaining wall footing entirely mauka of the meets and bounds boundary.

E. Orange line shows the 25' setback for the proposed area building footprint.

3. **Coastal Processes:** 50 years of aerial photographs are on file with the Maui County Planning Department (please see Mr. Don Schneider). These photographs convincingly demonstrate the unchanging nature of the rocky shoreline at the project site. Existing sandy beaches are located 500 yards away along the shoreline to the southwest, and likewise 500 to 600 yards away to the east. In between these beaches are rocky shorelines similar to that occurring at the project site.

The project site itself is located on the leeward side of Loio point. Ocean currents and wind predominately run east to west and northeast to southwest. Wave action causes cycles of erosion and sand replenishment at the areas fronting the sandy beaches in Paia Bay 500 yards to the southwest along the shoreline from the project's location.

4. **Setback Variance:** The owners ultimately hope to replace a preexisting home which was demolished in 1990 because of structural damage from termites. In order to build a home on such limited space, the construction sequence would begin with the retaining wall followed by the building of the house as it is most

processes for Paia Bay and not just the section fronting the property. Locate the nearest pre-existing and existing sandy beaches and describe any erosion or other significant coastal processes taking place in Paia Bay.

4. **Setback variance:** Section 205A allows private improvements in the shoreline area by variance only where failure to develop would result in a hardship to the applicant. Since there is no house on the property that the retaining wall would protect, please clearly explain why not having a wall would constitute a hardship."

**Response:** Applicant responded in a letter dated September 30, 1997 (Exhibit 25) which stated:

1. **Revegetation:** Revegetation of the soil bank is unreliable and ineffective in this situation. The vegetation is not a permanent solution to the stabilization of the top down erosion of the soil bank nor does it result in the accomplishment of our main goals which are:

A. Permanent stabilization of the Soil Bank from top down erosion. The top down erosion contributes to the turbidity in Paia Bay during wintertime and encourages the flourishing of Hypnea algae blooms (seaweed) during the summer months. Sometimes the piles of seaweed reach two feet in depth along the shoreline of Paia Bay.

B. The ability to satisfy our safety concerns for the steep embankment and drop off into the rocky shoreline below.

The neighboring property has Naupaka firmly established as a result of the placement of enriched top soil behind the rock retaining wall and using this soil to encourage the Naupaka to flourish, as it does quite successfully. The existing poor soil of the bank will not allow the Naupaka to establish itself. This is evident as none of the soil banks in the area east or southwest have any vegetation growing or established in the embankments.

Further, enclosed are photographs of a fire which occurred around the first of September as the result of either a careless cigarette or cooking fire from shoreline users. This fire completely destroyed the attempts at revegetation which had been undertaken

important site-specific geomorphological features, such as the lack of sandy beach fronting the property and the apparent low rate of shoreline retreat as key considerations in our favorable assessment of the application."

**Response:** No response provided by the applicant.

10. **Office of Hawaiian Affairs** -- See letter dated October 21, 1997, (Exhibit 20) which states: "The Office of Hawaiian Affairs (OHA) has no objections at this time to the proposed wall constriction. Based on information contained in the EA, the wall apparently bears no significant impacts on the shoreline nor upon adjacent areas. No native vegetation exists and no archaeological remains have been reported in the area. Furthermore, the wall does not significantly alter the local scenery. OHA, however, wants to clearly emphasize that the proposed wall should not preclude public access to the shoreline."

**Response:** No response provided by applicant.

11. **Office Of Environmental Quality Control** -- See letter dated September 26, 1997 (Exhibit 21) which states:

- "1. **Revegetation:** Please provide a fuller explanation of why revegetation of the band to prevent erosion is not a viable option, especially in light of the fact that naupaka is firmly established on the wall on the neighboring property. JA "soft" solution to erosion, such as a properly planted and irrigated vegetative cover, would likely be less expensive and have fewer impacts on the natural character of the coastline.
2. **Boundaries:** From the maps provided it is not clear where the shoreline, the property line and the setback line are in relation to one another and to the footprint of the proposed wall. It appears that, although the footing of the proposed wall is to be placed on private property, public property may be excavated to construct the wall. Please clarify these issues in the final EA.
3. **Coastal processes:** Please provide historical aerial photos to support your contention that this coastal area is unchanging and has always been rocky. In addition, discuss the coastal

down erosion contributes to the turbidity of Paia Bay during wintertime and encourages the flourishing of Hypnea algae blooms (seaweed) during the summer months. Sometimes the piles of seaweed reach two feet in depth along the shoreline of Paia Bay.

B) The ability to satisfy our safety concerns for the steep embankment and drop off into the rocky shorelines below. The neighboring property has vegetation (Naupaka) firmly established as a result of the placement of enriched top soil behind the rock retaining wall. This soil is used to encourage the Naupaka to flourish, as it does quite successfully. Further, enclosed are photographs of a fire which occurred around the first of September as the result of either a careless cigarette or cooking fire from shoreline users. This fire completely destroyed the attempts at revegetation which had been undertaken using burlap cloth and sprinklers. It also, unfortunately reinforces the fact that revegetation is not reliable in erosion containment in this situation."

7. **Department of Land and Natural Resources Historic Preservation Division** -- See letter dated November 17, 1997, (Exhibit 17) which states: "The Rasmussen property is located on the coast near Paia Bay, in close proximity to State Site 50-50-05-1253 which includes a pre-Contact house platform and grave. However, SHPD field inspection of the shoreline in 1993 (SHPD DOC. NO. 9308AG45) found no evidence of historic sites in the project area. We therefore find the proposed seawall construction to have "no effect" on historic sites."

**Response:** -- No response provided by the applicant.

8. **Department of Accounting and General Services** -- See memorandum dated September 15, 1997 (Exhibit 18) which states: "The subject proposal has been reviewed and confirmed that no Government Survey Triangulation Stations and Benchmarks are affected. Survey has no objections to the proposed project".

**Response:** No applicant response provided.

9. **Department Of Business, Economic Development & Tourism, Office of Planning** -- See letter dated September 10, 1997 (Exhibit 19) which states: "Based on information presented in the environmental assessment and supporting documents, it appears that the project is designed to minimize erosion and other impacts on shoreline processes. We consider

Management Area Permit for the above referenced project and have no comments."

3. Department of Health, Maui -- See letter dated September 5, 1997 (Exhibit 13) which states: "1. Any construction discharge into state waters will require a National Pollutant Discharge Elimination System (NPDES) permit. 2. Activities associated with the construction phase of the project must comply with the provisions of Hawaii Administrative Rules, Chapter 11-46, "Community Noise Control."

Response: Applicant had no response.

4. Department of Health - Honolulu -- No response provided.

5. Department of Transportation -- See letter dated September 8, 1997 (Exhibit 14) which states: "The subject project will not impact on our State transportation facilities."

Response: Applicant had no response

6. Department of Land and Natural Resources -- See letters dated September 24, and 25, 1997 (Exhibit 15 - 16) which states: "Land Division: The shoreline has been located and certified on July 30, 1997. Copies of the certified survey maps have been forwarded to property owner's surveying consultant, Edgardo Valera on September 5, 1997. Land Division - Planning & Technical Services: If erosion is only being influenced by mauka forces of nature, it seems that a vegetation program, with some landscaping could address this problem adequately, rather than building a wall. Division of Aquatic Resources: Significant impact adverse to aquatic resource values is not expected from the proposed retaining wall since all activities would occur mauka of the applicant's certified shoreline. We suggest that precautions be taken to prevent debris, construction materials, petroleum products and other potential contaminants from blowing, flowing or leaching into coastal waters during construction of the retaining wall."

Response: Applicant's letter of October 6, 1997 (Exhibit 26) stated: "Revegetation of the soil bank is unreliable and ineffective in this situation. The vegetation is not an adequate solution to the stabilization of the top down erosion of the soil band nor does it result in the accomplishment of our main goals which are:

- A) Stabilization of the soil band from top down erosion. The top

### HISTORY OF PROJECT

October 7, 1985 Dr. and Mrs. Richard Rasmussen were issued a Shoreline Setback Variance (Exhibit 3.1 - 3.2) to construct two (2) retaining walls at Paia, Maui, TMK 2-6-004:008. The 1985 approval is for property adjacent to the subject property of this application.

May 19, 1995, Lynn M. Rasmussen applied to the Planning Department for a Shoreline Setback Variance, Environmental Assessment, and Special Management Area Use Permit (SSV950002, EA950006, SM1950012) for a two-tiered rock seawall extending 150 feet along the seaward property boundary of TMK: 2-6-004:019.

June, 1995, Lynn M. Rasmussen withdrew the applications due to unfavorable agency comments.

### EA DETERMINATION PROCESS

1. The draft EA notice was published in the September 23, 1997 OEQC Bulletin.

### REVIEWING AGENCIES COMMENTS AND APPLICANT RESPONSE

1. Department of Public Works and Waste Management -- See memorandum dated October 9, 1997, (Exhibit 11) Stated: "1. The submitted drainage report should be redone and stamped by a licensed professional engineer. 2. Temporary measures such as silt screening should be taken to prevent loose excavated and backfill materials from running off into the ocean waters should there be a rainstorm during the construction period".

Response Applicant's letter of October 27, 1997 (Exhibit 27) stated: "1. We have retained Wayne Arakaki, P.E. to prepare the drainage report. His estimated completion date is November 15, 1997, (See Exhibit 32). I will forward same to Don Schneider upon completion. 2. The contractor has allocated funds for storage of excavated materials and mitigation of runoff into the ocean. In addition to sand bagging, silt screening will be used to prevent rainstorm runoff impact to the ocean as per your request."

**Planning Department Note:** The Drainage and Soil Erosion Report was received from Wayne I. Arakaki, Engineer, on November 10, 1997.

2. Department of Parks and Recreation -- See memorandum dated September 30, 1997 (Exhibit 12) stated: "We have reviewed the Special

- d. **Shoreline Setback Area** -- Work is planned within the Shoreline Setback Area
- e. **Special Management Area** -- Work is planned within the Special Management Area

3. **Surrounding Uses -- Single Family Residences, Cemetery.**

**Existing Services**

- 1. **Water** -- There exists a 4-inch water line that runs along the north side of Loio Place.
- 2. **Sewer** -- There exists a sewer line running along Hana Highway.
- 3. **Drainage** -- Existing drainage is as "natural".
- 4. **Roadways, Curbs, Gutters and Sidewalks** -- The project area is served by Hana Highway and Loio Place, a private road and shoreline access.
- 5. **Electrical and Telephone** -- The project area has electrical and telephone services nearby.
- 6. **Parks** -- The nearest park is the H.P. Baldwin Beach Park.
- 7. **Schools** -- The nearest school is the Elementary School.
- 8. **Solid Waste** -- The nearest landfill site is the Central Maui Landfill located at Puunene.
- 9. **Public Services** -- The nearest police station is located in Kahalui, fire station and ambulance service is located in Paia.

**DESCRIPTION OF THE PROJECT (Exhibits 3 - 10)**

The applicant is requesting an EA review to construct, within the owners property (7,594 sq.ft.) A relatively small scale grouted rock retaining wall 5 to 15 feet in overall height, along approximately 140 feet of shoreline fronting the property. The structure is required for safety reasons as well as to protect the subject property from erosion and decrease soil runoff into Paia Bay The retaining wall will provide for the long-term stabilization of the dirt bank and to ensure protection for a future residence.

revisions; thereof and amendments thereto, Court decision or executive orders;

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

(5) Substantially affects public health;

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

(7) Involves a substantial degradation of environmental quality;

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

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

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

(11) Affects an environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters".

#### **GENERAL DESCRIPTION**

##### **Description of the Property (Exhibits 1- 2)**

1. The project site is an ocean front parcel of land located in Paia on the northern shoreline of Maui. The subject lot is small (7,594 sq. ft.) which is bordered to the east by Loio Place which is a private road and shoreline access. Across the road to the east is a 7-acre parcel owned by the Paia Cemetery Association which is being used as a cemetery, a goat farm, and a horse pasture. An old house on the property was recently demolished. South of the project site is a single-family dwelling.

##### **2. Land Use Designations --**

- a. State Land Use District -- Urban
- b. Paia-Haiku Community Plan -- Single Family Residential
- c. County Zoning -- Interim

## THE REQUEST

1. This matter arises from a request for an Environmental Assessment ("EA") Review filed on August 11, 1997, pursuant to Chapter 343, Hawaii Revised Statutes; and Chapter 200, Environmental Impact Statement ("EIS") Rules of the Department of Health, State of Hawaii; by Lance W. Holter on behalf of Richard A. and Lynn M. Rasmussen ("applicant") on approximately 7,594 square feet of land, at Loio Place, Paia, Maui, Island of Maui, County of Maui, identified as Maui Tax Map Key No.:2-6-004:019 ("property").

2. The applicant is requesting an EA review to construct, within the owners property (7,594 sq.ft.) A relatively small scale grouted rock retaining wall 5 to 15 feet in overall height, along approximately 140 feet of shoreline fronting the property. The structure is required for safety reasons as well as to protect the subject property from erosion and decrease soil runoff into Paia Bay. The retaining wall will provide for the long-term stabilization of the dirt bank and to ensure protection for a future residence.

## APPLICABLE REGULATIONS

1. Chapter 343, Hawaii Revised Statutes, establishes certain classes of action which subjects an applicant to an EA determination. An Environmental Impact Statement (EIS) would be required if the agency finds that the proposed action may have significant adverse environmental effects. The applicable geographical category is, "... (3) Any use within the shoreline area as defined in Section 205A-41 HRS..."

2. Standards for reviewing an Environmental Assessment are found in the Hawaii Administrative Rules, Title 11, Department of Health, Chapter 200 Environmental Impact Statement Rules, Subchapter 6, Determination of Significance, SS 11-200-12 Significance Criteria.

3. In determining whether an action may have a significant effect on the environment, the agency shall consider every phase of a proposed action, the expected consequences, both primary and secondary, and the cumulative as well as the short and long-term effects of the action. In most instances, an action shall be determined to have a significant effect on the environment if it:

(1) Involves and irrevocable commitment to loss or destruction of any natural or cultural resource;

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

(3) Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 343, Hawaii Revised Statutes, and any

BEFORE THE MAUI PLANNING COMMISSION

COUNTY OF MAUI

STATE OF HAWAII

In The Matter of The Application of )

Lance W. Holter on Behalf of )  
Richard A. And Lynn M. Rasmussen )

)  
For an Environmental Assessment (EA)  
review pursuant to HRS Chapter 343 )  
in order to establish a retaining wall )  
along approximately 140 feet of )  
shoreline fronting property at Loio PL. )  
Paia, Maui, Hawaii TMK 2-6-004:019 )

DOCKET NO. EA970006  
RASMUSSEN RETAINING WALL  
(DAS)

APPROVING AGENCY

Maui Planning Commission  
County of Maui  
250 S. High Street  
Wailuku, Maui, Hawaii 96793

Contact Person: Don Schneider (808) 243-7735

THE APPLICANT

Richard A. and Lynn M. Rasmussen  
P.O. Box 89  
Paia, Maui, Hawaii 96779  
Contact: Lance W. Holter (808)-579-8558

THE CONSULTANT

Lance W. Holter  
P.O. Box 656  
Paia, Maui, Hawaii 96779  
Contact: Lance W. Holter (808)-579-8558

**BEFORE THE MAUI PLANNING COMMISSION**

**COUNTY OF MAUI**

**STATE OF HAWAII**

In The Matter of The Application of )

Lance W. Holter on Behalf of )

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Paia, Maui, Hawaii TMK 2-6-004:019 )

**DOCKET NO. EA970006**

**RASMUSSEN RETAINING WALL**

**(DAS)**

**MAUI PLANNING DEPARTMENT'S REPORT  
TO THE MAUI PLANNING COMMISSION  
JANUARY 27, 1998 MEETING**

**DEPARTMENT OF PLANNING  
COUNTY OF MAUI  
250 S. HIGH STREET  
WAILUKU, MAUI, HI. 96793**

**EA970006**

## LANCE W. HOLTER

P.O. Box 656  
Paia, Hawaii 96779

Phone: (808) 579-8558

General Contractors License # BC-17514

Fax: (808) 579-8180

'97 .07 25 11:02

October 27, 1997

David W. Blane  
David Goode  
200 South High Street  
Wailuku, Maui, Hawaii 96793

Dear Messrs. Blane and Goode,

RE: Rasmussen Retaining Wall  
SMI 97/018. ERA 97/006, SSA 97/016  
TMK II-2-6-4:19

We are in receipt of your letter dated October 9, 1997 regarding the above-mentioned application. The following are in answer to your comments:

1. We have retained Wayne Arakaki, P.E., to prepare the drainage report. His estimated completion date is November 15, 1997. I will forward same to Don Schneider upon completion.
2. The contractor has allocated funds (C. Contractors proposal SMA Plans and Proposal) for storage of excavated materials and mitigation of runoff into the ocean. In addition to sand bagging, silt screening will be used to prevent rainstorm run off impact to the ocean as per your request.

Your concerns for our ocean quality are likewise our concerns and they will be given the utmost attention during the construction of the project retaining wall.

Sincerely yours,



Lance W. Holter  
Agent for  
Richard and Lynn Rasmussen

**EXHIBIT 31**

DRAINAGE AND SOIL EROSION REPORT

FOR

TMK: (2) 2-6-04:19  
LOWER PAIA, MAKAWAO, MAUI

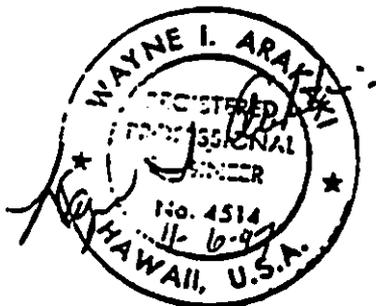
PREPARED FOR:

MR. & MRS. RICHARD RASMUSSEN  
C/O LANCE HOELTER  
P.O. BOX 89  
PAIA, MAUI, HAWAII 96779

PREPARED BY:

WAYNE I. ARAKAKI ENGINEER  
P.O. BOX 884  
WAILUKU, HAWAII 96793

NOVEMBER 3, 1997



**EXHIBIT 32.0**

## INTRODUCTION

This report has been prepared to evaluate the existing site drainage conditions and the effects of the proposed retaining wall on future drainage. We will review the offsite runoff for a 50 year - one hour storm.

## SITE LOCATION

The project site is located in Lower Paia, of the Island of Maui, Hawaii. It is described as TMK: (2) 2-6-04:19. The parcel is located at the west end of Loio Place, next to the ocean. The Paia Chinese Cemetery is located across the project site. It is also approximately 550 feet from the intersection of Loio Place and Hana Highway.

## PROJECT DESCRIPTION

The proposed project is to build a retaining wall to prevent further soil erosion. It will be constructed along the west boundary line. The proposed stone wall will not alter the existing drainage pattern. Landscaping will be performed after the construction is completed.

## EXISTING CONDITIONS

Soil conditions (PpA) Pulehu silt loam. The project site is currently vacant. Natural vegetation for the area consists of bermuda grass, bristly fox tail, finger grass, kiawe, lantana, koa and sandbur.

According to the "Soil Survey of Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii (August, 1972)", the soil type present in this area is "Pulehu silt loam". This soil is similar to Pulehu clay loam, 0 to 3 percent slopes except that the texture is silt loam. The mean annual rainfall amounts to 10 to 35 inches.

## DRAINAGE

The project site is located in areas where there is minimal flooding due to rainfall. Based on the contours of the USGS map, site inspection, Loio Place is located at a high point along Hana Highway, so there is no runoff coming from the highway. Loio Place slopes up at a 2% grade until Kalune Cemetery, then slopes down of 3% grade to the end of the road.

The parcels located along the south side of Loio Place slopes away from the road, to the ocean. Whereas, Loio Road cross sectional slopes towards the Paia Chinese Cemetery. It eventually slopes into the ocean.

We have provides calculations of runoff on site which goes into the ocean. Also, off site runoff of Loio Place which flows towards the cemetery.

## FLOOD AND TSUNAMI ZONE

According to the Flood Insurance Rate Map, prepared by the U.S. Federal Emergency Agency, Federal Insurance Administration, the majority of the project site is situated in area designated as Zone V-23 which is prone to coastal flooding with velocity (wave action)

### Hydrology Calculations

The hydrologic calculations are based on the "Drainage Master Plan for the County of Maui", and the "Rainfall Frequency Atlas of the Hawaiian Islands", Technical Paper No. 43, U.S. Department of Commerce, Weather Bureau.

Rational Formula Used:  $Q = CIA$

Where  $Q$  = rate of flow (cfs)

$A$  = area (acres)

$I$  = rainfall intensity for a duration equal to the time of concentration (in./hr.)

$C$  = runoff coefficient

## ONSITE

We will compute the onsite runoff, which will flow into the ocean.

### DETERMINATION OF RUNOFF COEFFICIENTS

Infiltration	Medium	0.07
Relief	Flat	0.00
Vegetal Cover	Good	0.03
Development Type	Residential	<u>0.40</u>
		0.50

Minimum runoff coefficient for built up areas.

Residential Areas  $C = 0.55$

### Intensity Duration

$L = 110$

$S = 2\%$

$T_c = 13$  mins.

$I = 4.7$  (in./hr.)

Area

$$a = 0.174 \text{ acres}$$

$$Q = C i a$$

$$Q = 0.55 (4.7) 0.174$$

$$Q = 0.45 \text{ cfs}$$

Total onsite runoff,  $Q = 0.45 \text{ cfs}$

OFF SITE

Determination of Runoff Coefficients

Infiltration	Medium	0.07
Relief	Flat	0.00
Vegetal Cover	Good	0.03
Development Type	Residential	<u>0.40</u>
		0.50

Minimum runoff coefficient for built up areas.

Road areas  $C = 0.95$

Intensity Duration

$$L = 260 \text{ feet}$$

$$S = 3\%$$

$$T_c = 6 \text{ mins.}$$

$$I = 6.8 \text{ (in./hr.)}$$

Area

$$a = 0.09 \text{ acres}$$

$$Q = C i a$$

$$Q = 0.95 (6.8) 0.09$$

$$Q = 0.58$$

Total offsite along Loio Place,  $Q = 0.58 \text{ cfs.}$

**EXHIBIT 32.3**

## SOIL EROSION CONTROL PLAN

### A. General

The following measures will be taken to control erosion during the site development period.

1. Minimize time of construction.
2. Retain existing ground cover until latest date to complete construction.
3. Early construction of drainage control features.
4. Use temporary area sprinklers in non-active construction areas when ground cover is removed.
5. Use temporary berms and cut off ditches, where needed, for control of erosion.
6. Graded areas shall be thoroughly watered after construction activity has ceased for the day and on weekends.
7. All cut and fill slopes shall be sodded or planted immediately after grading work has been completed.

The development project is provided with adequate facilities for drainage control and storm water disposal. This, together with ultimate ground cover, shall preclude any appreciable onsite erosion.

### B. Conclusion

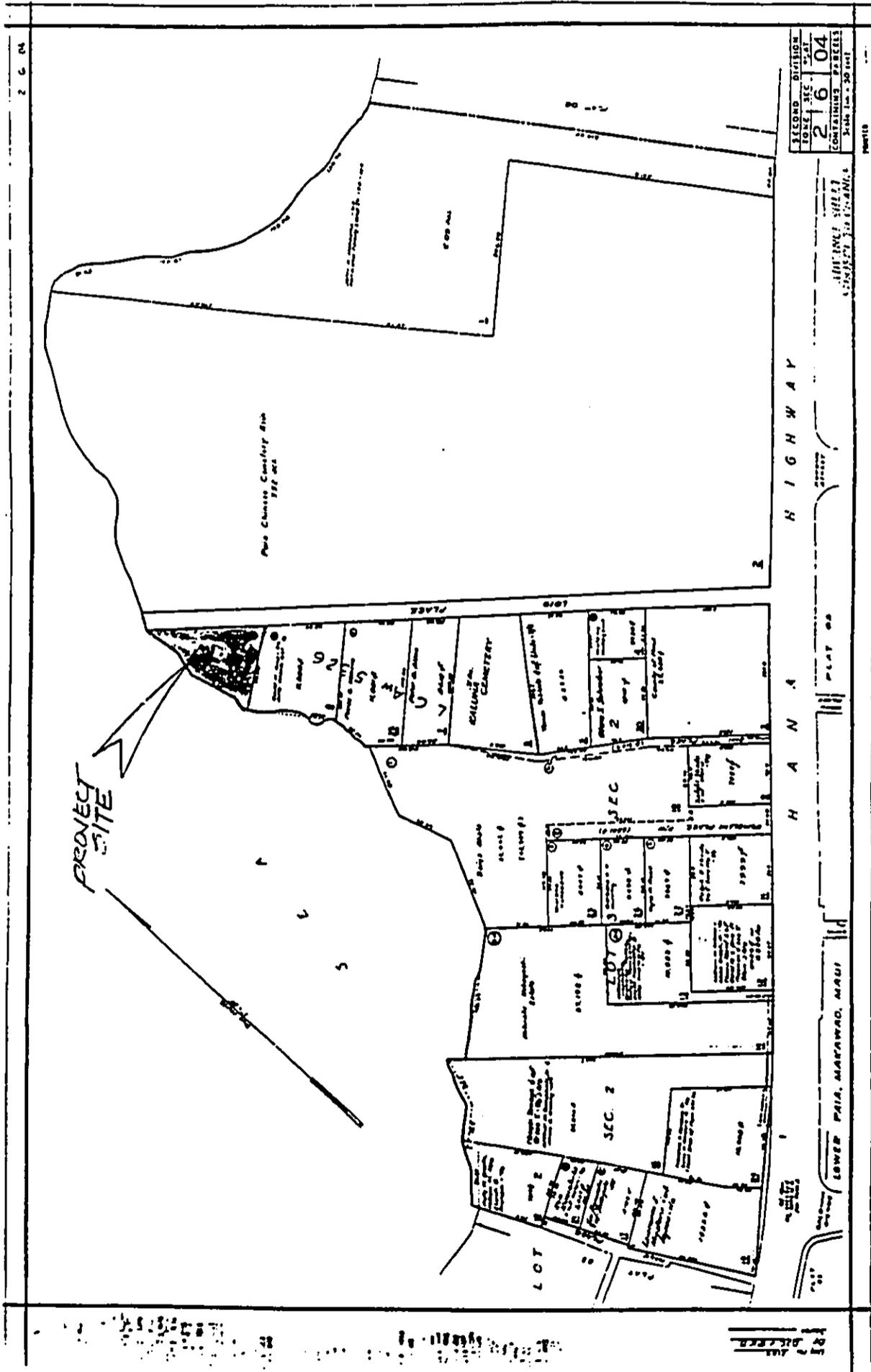
Based on our findings, the sedimentation hazard to coastal waters and downstream properties is minimal. The soil loss per unit area and severity rating for the proposed development are well within the tolerable limits.

## CONCLUSION

Based on our calculations, the proposed development will not create additional onsite runoff. Also, the onsite runoff was a minimum flow rate of 0.45 cfs. Because the parcel is located next to the ocean, runoff from the project site will not have any adverse effects on the adjoining properties.

**EXHIBIT 32.4**





249

TAX MAP KEY

1

326

# FLOOD MAP

**KEY TO MAP**

100-Year Flood Boundary		<b>ZONE B</b>
100-Year Flood Boundary		<b>ZONE B</b>
Zone Designations* With Date of Identification *A, 12/2/74		
100-Year Flood Boundary		<b>ZONE B</b>
100-Year Flood Boundary		<b>ZONE B</b>
Base Flood Elevation Line With Elevation in Feet**		
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 607)	
Elevation Reference Mark	RM7 X	
Coastline Mile	M 20	

\*\* Referenced to the National Geodetic Vertical Datum of 1929

**\*EXPLANATION OF ZONE DESIGNATIONS**

ZONE	EXPLANATION
A	Area of 100-year flood; base flood elevations and flood hazard factors not determined.
AB	Area of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
ABH	Area of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A20	Area of 100-year flood; base flood elevations and flood hazard factors determined.
A20	Area of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Area between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or area protected by levees from the base flood. (Medium shading)
C	Area of minimal flooding. (No shading)
D	Area of undetermined, but possible, flood hazards.
V	Area of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V20	Area of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

**NOTES TO USER**

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all placement features outside special flood hazard areas.

For obtaining map panels, see separately printed Index To Map Panels.

**INITIAL IDENTIFICATION:**  
DECEMBER 6, 1977

**FLOOD HAZARD BOUNDARY MAP REVISIONS:**

**FLOOD INSURANCE RATE MAP EFFECTIVE:**  
JUNE 1, 1981

**FLOOD INSURANCE RATE MAP REVISIONS:**

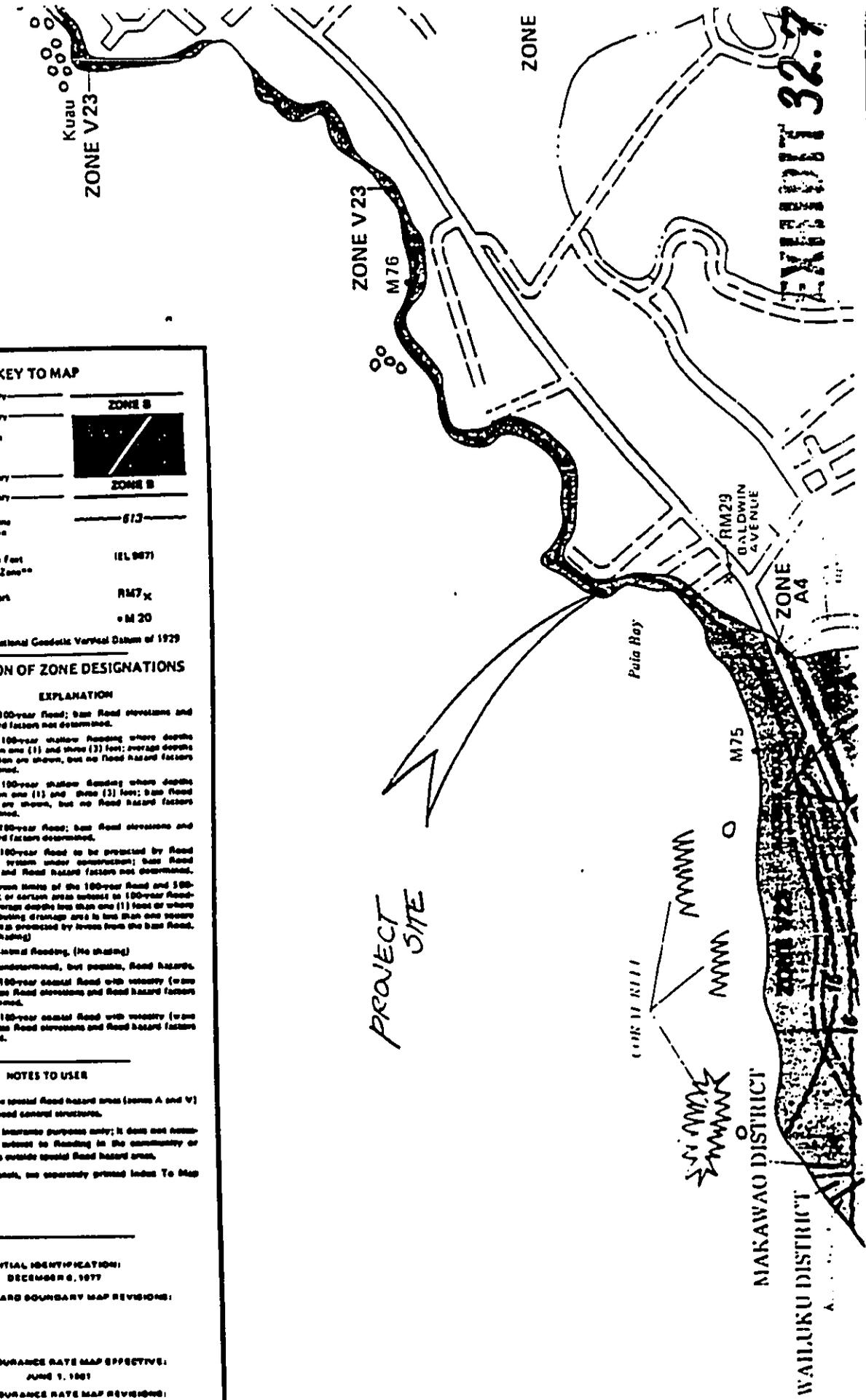


EXHIBIT 32.7

O C E A N

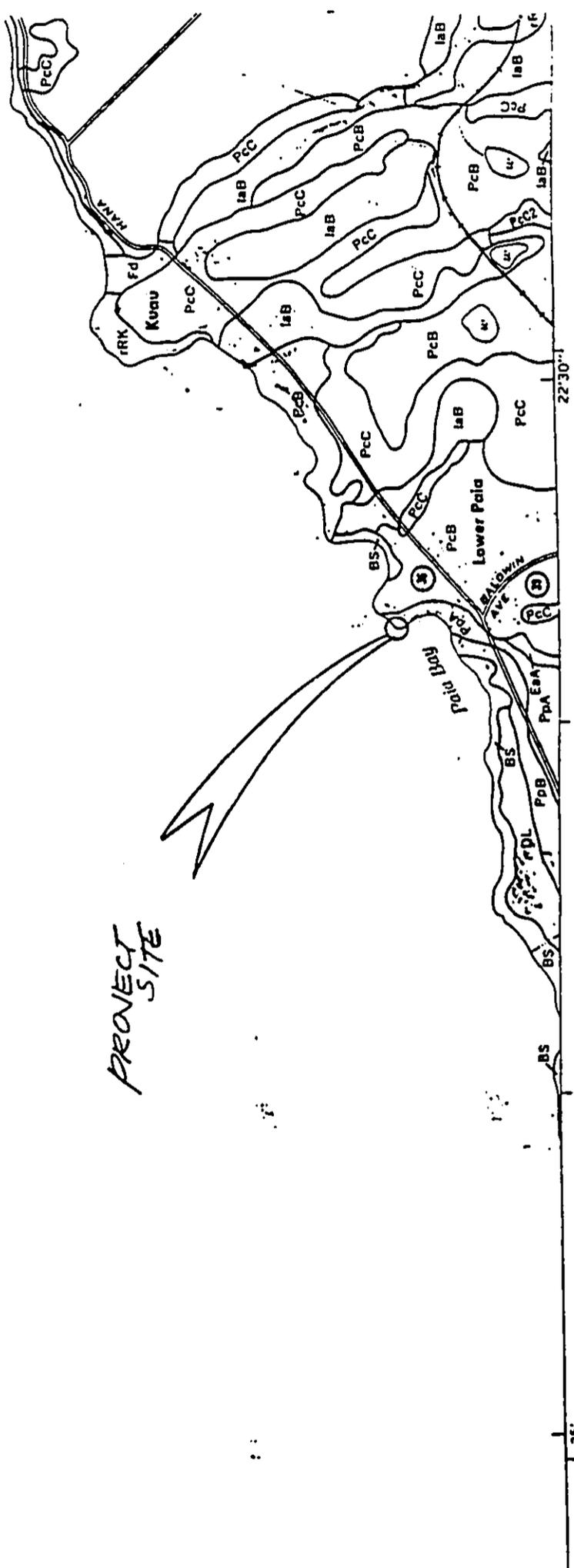


EXHIBIT 32.8 SOIL MAP

DOCUMENT CAPTURED AS RECEIVED

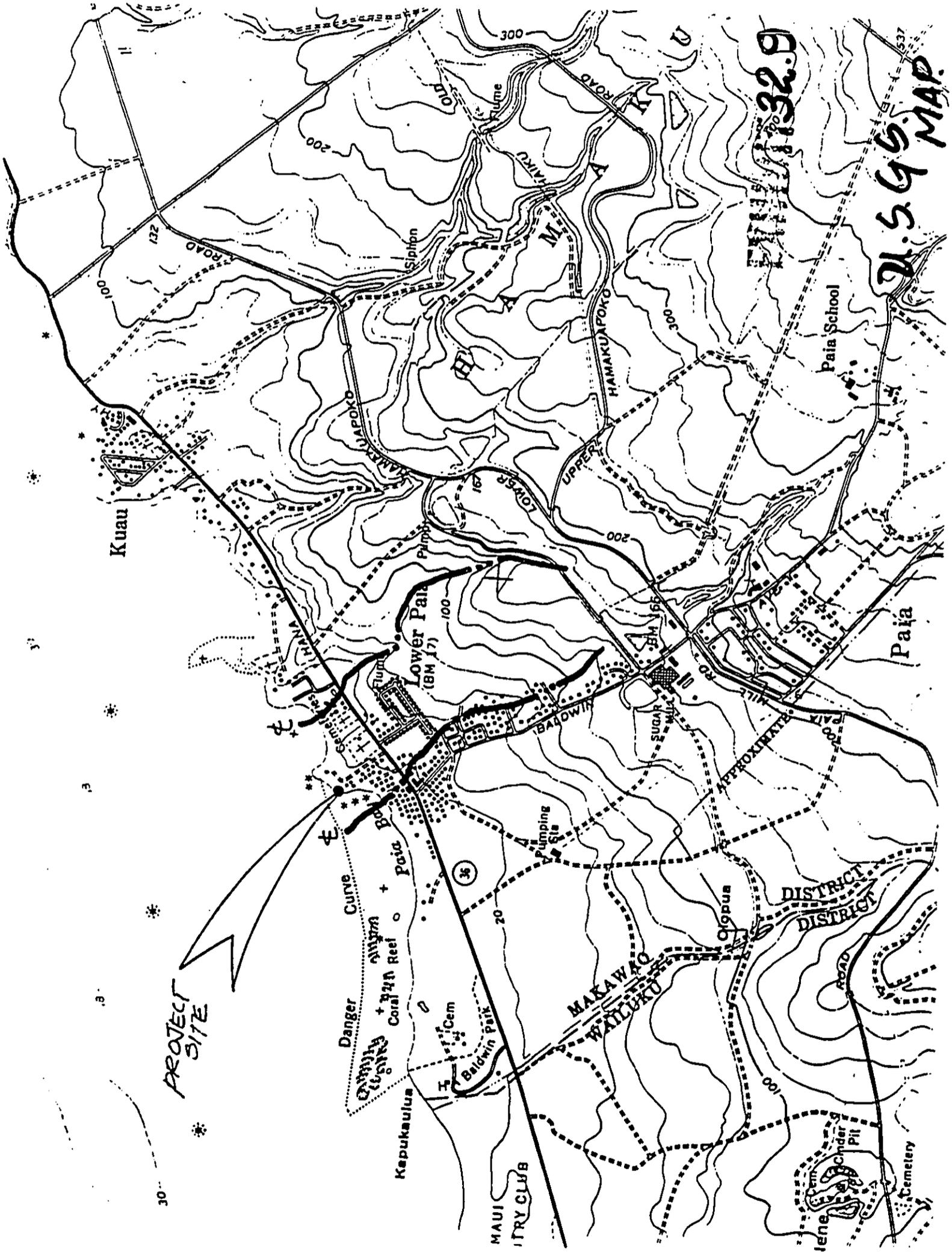


Table 1

GUIDE FOR THE DETERMINATION OF RUNOFF COEFFICIENTS FOR BUILT-UP AREAS\*

WATERSHED CHARACTERISTICS	EXTREME	HIGH	MODERATE	LOW
INFILTRATION	NEGLIGIBLE 0.20	SLOW 0.14	MEDIUM 0.07	HIGH 0.0
RELIEF	STEEP ( > 25% ) 0.08	HILLY ( 15 - 25% ) 0.06	ROLLING ( 5 - 15% ) 0.03	FLAT ( 0 - 5% ) 0.0
VEGETAL COVER	NONE 0.07	POOR ( < 10% ) 0.05	GOOD ( 10 - 50% ) 0.03	HIGH ( 50 - 90% ) 0.0
DEVELOPMENT TYPE	INDUSTRIAL & BUSINESS 0.55	HOTEL - APARTMENT 0.45	RESIDENTIAL 0.40	AGRICULTURAL 0.15

\*NOTE: The design coefficient "c" must result from a total of the values for all four watershed characteristics of the site.

Table 2

RUNOFF COEFFICIENTS

Type of Drainage Area	Runoff Coefficient C
Parks, cemeteries	0.25
Playgrounds	0.35
Railroad yard areas	0.40
Unimproved areas	0.30
Streets:	
Asphaltic	0.95
Concrete	0.95
Brick	0.85
Driveway and walks	0.85
Roofs	0.95
Lawns:	
Sandy soil, flat, 2%	0.10
Sandy soil, avg., 2-7%	0.15
Sandy soil, steep, 7%	0.20
Heavy soil, flat, 2%	0.17
Heavy soil, avg., 2-7%	0.22
Heavy soil, steep, 7%	0.35

EXHIBIT  
32.10

Table 3

MINIMUM RUNOFF COEFFICIENTS FOR BUILT-UP AREAS

Residential areas	C=0.55
Hotel, apartment areas	C=0.70
Business areas	C=0.80
Industrial areas	C=0.80

The type of soil, the type of open space and ground cover and the slope of the ground shall be considered in arriving at reasonable and acceptable runoff coefficients.

Table 4

APPROXIMATE AVERAGE VELOCITIES OF RUNOFF FOR CALCULATING TIME OF CONCENTRATION

TYPE OF FLOW	VELOCITY IN FPS FOR SLOPES (in percent) INDICATED			
	0-3%	4-7%	8-11%	12-15%
<b>OVERLAND FLOW:</b>				
Woodlands	1.0	2.0	3.0	3.5
Pastures	1.5	3.0	4.0	4.5
Cultivated	2.0	4.0	5.0	6.0
Pavements	5.0	12.0	15.0	18.0
<b>OPEN CHANNEL FLOW:</b>				
Improved Channels	Determine Velocity by Manning's Formula			
Natural Channel* (not well defined)	1.0	3.0	5.0	8.0

**EXHIBIT**  
**32.11**

\*These values vary with the channel size and other conditions so that the ones given are the averages of a wide range. Wherever possible, more accurate determinations should be made for particular conditions by Manning's formula.

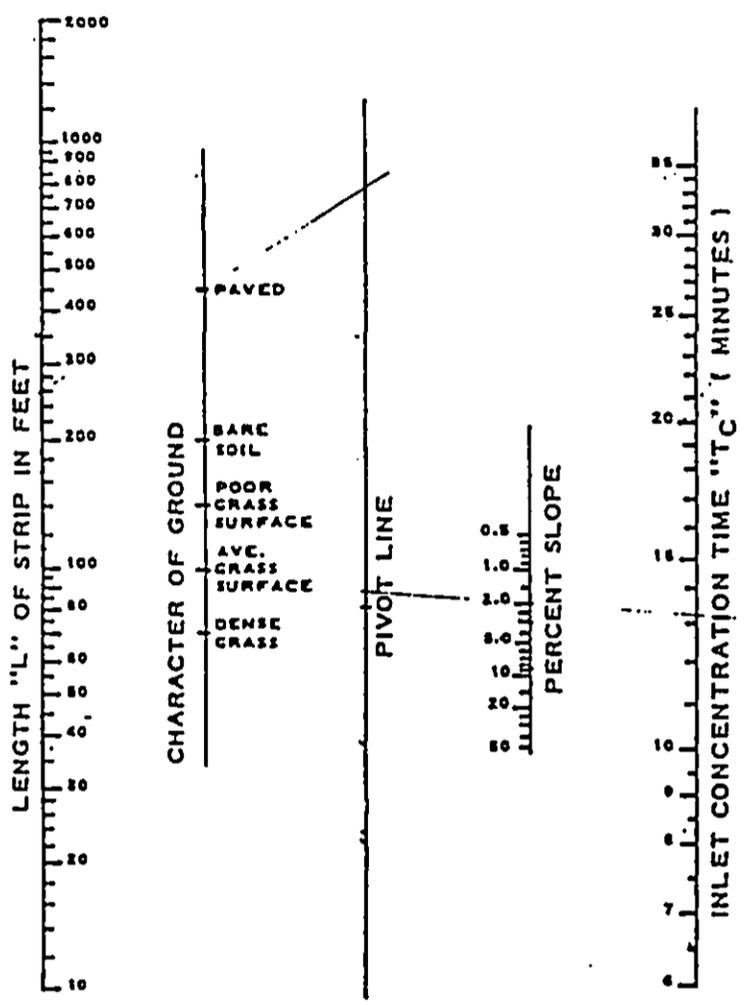


Plate 1  
Overland  
Flow  
Chart

EXHIBIT 32.12

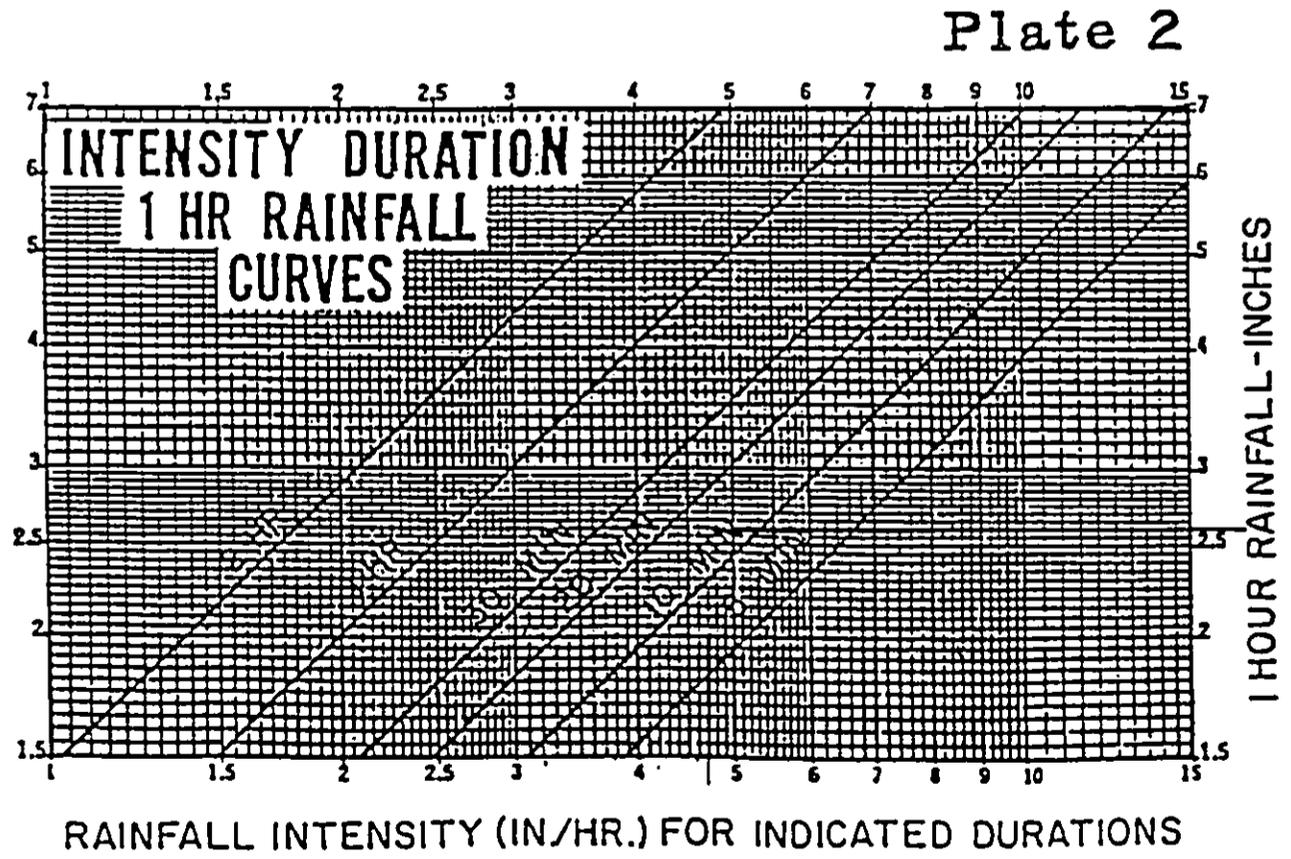


Plate 2



**SPECIAL MANAGEMENT AREA PERMIT**

**RASMUSSEN RETAINING WALL**

Paia, Hamakuapoko, Maui  
TMK 2-6-4:19

Richard and Lynn Rasmussen  
P. O. Box 89  
Paia, Hawaii 96779  
Telephone: 573-1995  
FAX: 572-3666

# CONTENTS

Letter to David Blane, Planning Department, County of Maui

Shoreline Setback Variance Application

Special Management Area Permit Application

Land Ownership Documentation

Owners and Lessees within 500 Feet of the Project Site

Documentation of Publication of Notice of Application

Revised Plans for the Rasmussen Retaining Wall Environmental  
Assessment  
(Includes project location map, certified shoreline map, site plan,  
photographs, etc.)

*Lance W. Holter*  
General Building Contractor  
License BC-17514  
P.O. Box 656  
Paia, Maui, Hi 96779

July 28, 1997

Mr. David Blane, Director  
Planning Department  
County of Maui  
250 S. High Street  
Wailuku, Hawaii 96793

RE: SMA Permit Application and Environmental Assessment  
Rasmussen Retaining Wall , Paia, Maui, TMK 2-6-4:19

Dear Mr. Blane,

Enclosed are 25 copies and re-submittal of a revised Special Management Area Permit Application, which includes the Environmental Assessment for the Rasmussen Retaining wall at Paia, Maui. In this document we have addressed the comments and concerns of the agencies who responded to our initial requests.

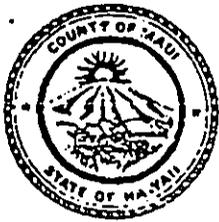
We have also submitted the following to your office:

- Shore Line Setback Variance application form
- SMA permit application form
- filing fees
- current certified shoreline survey map, 2 originals
- transparencies of the site plan, certified shoreline map, and typical shoreline profile
- aerial photographs of the site dated 1950, 1976, and 1993

Thank you for your attention to this proposal. We appreciate the professionalism , responsiveness and the importance of your agency's role in the protection of Maui's shoreline.

Sincerely,

*Lance W. Holter*  
Lance W. Holter



COUNTY OF MAUI  
PLANNING DEPARTMENT  
250 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

APPLICATION TYPE: SHORELINE SETBACK VARIANCE

(Rev. 8/95)

DATE: July 28, 1997

PERMIT TYPE: SMA 1

PROJECT NAME: RASMUSSEN RETAINING WALL

NOTE: 95/SSV-0002, 95/EA-0006 and 95/SMI-0012

PROPOSED DEVELOPMENT: To construct within the owners property a retaining wall to eliminate top down erosion of an existing soil bank and to provide a fence for safety purposes.

TAX MAP KEY #: II-2-6-04; 19

HPR # \_\_\_\_\_

PROPERTY ADDRESS: Loio Place, Paia, Maui, Hawaii

OWNER: Richard A. and Lynn M. Rasmussen

Phone: 573-1995

Address: P.O. Box 89

City / State: Paia, Maui, Hawaii Zip: 96779

Signature: *Richard A. Rasmussen*

APPLICANT: Lance W. Holter

Phone (res): 579-9442

Address: P.O. Box 656

Phone (work): 579-8558

City / State: Paia, Maui, Hawaii Zip: 96779

Signature: *Lance W. Holter*

CONTACT: Lance W. Holter

Phone (res): 579-9442

Address Line 1: P.O. Box 656

Phone (work): 579-8558

City / State: Paia, Maui, Hawaii Zip: 96779

EXISTING USE OF PROPERTY: Single Family Residential

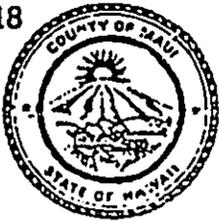
CURRENT STATE LAND USE DISTRICT BOUNDARY DESIGNATION: Urban

COMMUNITY PLAN DESIGNATION: Single Family Residential

MAUI COUNTY ZONING DESIGNATION: currently Urban Interim/Residential

OTHER SPECIAL DESIGNATIONS: Special Management Area

M-18



COUNTY OF MAUI  
PLANNING DEPARTMENT  
250 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

MAUI PLANNING COMMISSION

APPLICATION TYPE: SPECIAL MANAGEMENT AREA PERMIT APPLICATION

DATE: July 28, 1997

PERMIT TYPE: SMA 1

PROJECT NAME: RASMUSSEN RETAINING WALL

NOTE: 95/SSV-0002, 95/EA-0006 and 95/SMI-0012

PROPOSED DEVELOPMENT: To construct within the owners property boundary a retaining wall to eliminate top down erosion of an existing soil bank and to provide a fence for safety purposes.

TAX MAP KEY #: II-2-6-04; 19

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PROPERTY ADDRESS: Loio Place, Paia, Maui, Hawaii

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Address: P.O. Box 89

City / State: Paia, Maui, Hawaii zip: 96779

Signature: Richard A. Rasmussen

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CURRENT STATE LAND USE DISTRICT BOUNDARY DESIGNATION: Urban

COMMUNITY PLAN DESIGNATION: Single Family Residential

MAUI COUNTY ZONING DESIGNATION: currently Urban Interim/Residential

OTHER SPECIAL DESIGNATIONS: Special Management Area

THE ORIGINAL OF THE DOCUMENT  
RECORDED AS FOLLOWS:  
STATE OF HAWAII  
OFFICE OF

BUREAU OF CONVEYANCES

Received for record of 10  
day of September, A.D., 1991  
at 8:00 o'clock A m. and  
Document No. \_\_\_\_\_

LAND COURT SYSTEM

REGULAR SYSTEM

Return by Mail (XX) Pickup ( ) To:  
MR. & MS. RICHARD ALLAN RASMUSSEN  
P.O. BOX 89  
PAIA, MAUI, HI 96779

TG: 69001  
TGE: 91-201-0882  
LYNN SUEDA

**WARRANTY DEED**

THIS INDENTURE made this 3 day of  
September, 1991, by and between SABURO SATO and EDITH S.  
SATO, husband and wife, whose place of residence is Wailuku,  
Maui, Hawaii, and whose mailing address is P. O. Box 375,  
Wailuku, Maui, Hawaii 96793, KENNETH S. SHIMONO and TOMIE  
SHIMONO, husband and wife, whose place of residence and mailing  
address is 99-511 Kahilinai Place, Aiea, Hawaii 96701, ITSUMU  
NAKAMURA and NAMIYE NAKAMURA, husband and wife, whose place of  
residence and mailing address is 442 Maalo Street, Kahului,  
Maui, Hawaii 96732, SIDNEY HAMAMOTO, husband of Lucille  
Hamamoto, whose place of residence is Paia, Maui, Hawaii, and  
whose mailing address is P. O. Box 866, Paia, Maui, Hawaii  
96779, and HAZEL HARUKO ENDO, wife of Sam Endo, whose place of

residence and mailing address is 16600 S. Hoover Street, Gardena, California 90247, hereinafter referred to as the "GRANTOR", and RICHARD ALLAN RASMUSSEN and LYNN MARIE RASMUSSEN, husband and wife, whose place of residence is Paia, Maui, Hawaii, and whose mailing address is P. O. Box 89, Paia, Maui, Hawaii 96779, hereinafter referred to as the "GRANTEE",

W I T N E S S E T H:

That the Grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00), lawful money of the United States of America, and for other good and valuable consideration to the Grantor paid by the Grantee, the receipt whereof is hereby acknowledged, does hereby grant, bargain, sell and convey unto the Grantee, as tenants by the entirety with full rights of survivorship, the survivor of them, their assigns and the heirs and assigns of such survivor, forever, the property described in Exhibit "A" attached hereto and by reference made a part hereof.

AND the reversions, remainders, rents, issues and profits thereof, and all of the estate, right, title and interest of the Grantor, both at law and in equity, therein and thereto.

TO HAVE AND TO HOLD the same, together with all improvements, rights, easements, privileges and appurtenances thereon and thereunto belonging or appertaining or held and

enjoyed therewith, unto the Grantee according to the tenancy and estate as hereinabove set forth, forever.

AND the Grantor hereby covenants and agrees with the Grantee, as aforesaid, that the Grantor is lawfully seised in fee simple of the property described in said Exhibit "A", and has good right and lawful authority to sell and convey the same as aforesaid; that said property is free and clear of all encumbrances, subject, however, to the reservations, restrictions, and encumbrances shown on said Exhibit "A", if any, and that the Grantor will WARRANT AND DEFEND the same unto the Grantee as aforesaid, against the lawful claims and demands of all persons whomsoever, except as herein set forth.

The covenants and obligations, and the rights and benefits of the Grantor and the Grantee shall be binding upon and inure to the benefit of their respective estates, heirs, devisees, personal representatives, successors, successors in trust, and assigns, and all covenants and obligations undertaken by two or more persons shall be deemed to be joint and several unless otherwise expressly provided herein. The terms "Grantor" and "Grantee," wherever used herein, and any pronouns used in place thereof, shall mean and include the singular and the plural, and the use of any gender shall mean and include all genders.

The parties hereto agree that this instrument may be executed in counterparts, each of which shall be deemed an

original, and said counterparts shall together constitute one and the same agreement, binding all of the parties hereto, notwithstanding all of the parties are not signatory to the original or the same counterparts. For all purposes, including, without limitation, recordation, filing and delivery of this instrument, duplicate unexecuted and unacknowledged pages of the counterparts may be discarded and the remaining pages assembled as one document.

IN WITNESS WHEREOF, the Grantor has caused these presents to be duly executed on the day and year first above written.

*Saburo Sato*  
SABURO SATO

*Edith S. Sato*  
EDITH S. SATO

\_\_\_\_\_  
KENNETH S. SHIMONO

\_\_\_\_\_  
TOMIE SHIMONO

*Itsumu Nakamura*  
ITSUMU NAKAMURA

*Namiye Nakamura*  
NAMIYE NAKAMURA

Approved as to Form  
CARLSMITH BALL WICHMAN  
MURRAY CASE MUKAI & ICHIKI

By *Sam M. Ueda*

2-6-4:1  
John Hokoana / etal.  
5161-l Koni  
Lahaina HI 96761

2-6-4:2  
Paia Chinese Cemetary Association  
Chee, K U  
268 Niihau St.  
Kahului HI 96732

2-6-4:3  
State of Hawaii--Court House, Fire  
Station

2-6-4:4  
Robert Kamensky Trust  
P.O. Box 656  
Paia HI 96779

2-6-4:5  
Tabisola, Alejo / etal.  
P.O. Box 1082  
Paia HI 96779

2-6-4:6  
Kaluna Cemetary  
David Keala  
240 Ellilani St.  
Pukalani HI 96788

2-6-4:7  
Waxman, Jonathan  
103 Kokomo Rd.  
Haiku HI 96708

2-6-4:8  
Rasmussen, Richard  
P.O. Box 89  
Paia HI 96779

2-6-4:9  
Ikeda, Robert / etal.  
94 1001 Nalii St.  
Waipahu HI 96797

2-4-6:10  
2-4-6:26  
Huntley, Barbara / etal.  
P.O. Box 700  
Paia HI 96779

2-6-4:11  
Ikeda, Ralph, Trustee / etal.  
P. O. Box 730  
Paia HI 96779

2-6-4: 13  
Iwamoto, Mitsuyo / etal.  
P.O. Box P  
Paia HI 96779

2-6-4:14  
Ke'alani International, Inc.  
1126 12th Ave. Room 208  
Honolulu HI 96816

2-6-4:15  
Tamaye, Goyei and Grace  
1269 Ala Aloalo St.  
Honolulu HI 96818

2-6-4:20  
Schreiber, Fredric Paul  
140-1 Del Rio Ct.  
Vacaville CA 95687

2-6-4:22  
Reed, Myra  
P.O. Box 293  
Dawson MN 56232

2-6-4:23  
Skyles, Mae N. / etal.  
P.O. Box 416  
Paia HI 96779

2-6-4: 25  
Bolton, Alan  
P.O. Box 356  
Paia HI 96779

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AFFIDAVIT OF PUBLICATION

STATE OF HAWAII, }  
County of Maui. } ss.

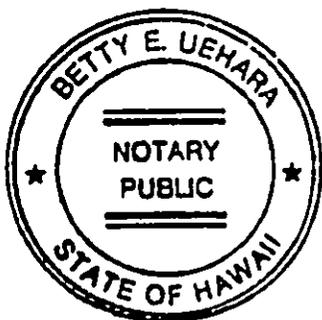
Lana S. Kusunoki .....being duly sworn  
deposes and says, that he is ADVERTISING SALES..... of the  
Maui Publishing Co., Ltd., publishers of the MAUI NEWS, a newspaper  
published in Wailuku, County of Maui, State of Hawaii; that the or-  
dered publication as to NOTICE OF APPLICATION  
SPECIAL MANAGEMENT AREA USE PERMIT

of which the annexed is a true and corrected printed notice, was  
published .....<sup>2</sup>..... times in the MAUI NEWS, aforesaid, commencing  
on the 21st day of July....., 1995, and ending  
on the 28th day of July....., 1995, (both days  
inclusive), to-wit: on .....  
July 21, 28, 1995

and that affiant is not a party to or in any way interested in the above  
entitled matter.

*Lana S. Kusunoki*  
.....

Subscribed and sworn to before me this  
28th day of July A. D. 1995



*Betty E. Uehara*  
.....  
Notary Public, Second Judicial  
Circuit, State of Hawaii.  
My commission expires 9-26-95

*[Handwritten notes and scribbles]*

**NOTICE OF APPLICATION  
SPECIAL MANAGEMENT AREA USE I**  
Please be advised that the undersigned has  
application for a Special Management Area P  
the County of Maui Planning Department for  
following parcel(s)  
1. Tax Map Key: 2-6-004-019  
2. Street Address: Leia Place, Paia, Maui, HI  
3. Existing Land Use Designation:  
a. State Land Use Designation: Urban  
b. Community Plan Designation:  
Single Family Residential  
c. County Zoning: SR-1  
4. Description of the Existing Uses of Property:  
5. Description of the Proposed Development:  
Two-tiered residential 150 feet along  
property boundary  
Richard & Lynn Kusunoki  
.....  
(Owned/Applicant): Richard & Lynn Kusunoki  
(Sgd.) Lynn Kusunoki  
.....  
(Signature) Lynn Kusunoki  
P.O. Box 89, Paia, HI 96779  
Paia, HI 96779  
.....  
(Address) Paia, HI 96779  
(808) 573-1995  
.....  
(Telephone) (808) 573-1995  
(MN: July 21, 28, 1995)

**ENVIRONMENTAL ASSESSMENT**

**Revised Plans for**

**THE RASMUSSEN RETAINING WALL**

Paia, Hamakuapoko, Maui  
TMK 2-6-4:19

Richard and Lynn Rasmussen  
P.O. Box 89  
Paia, Hawaii 96779  
Telephone: 573-1995  
FAX: 572-3666

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**EXHIBITS**

A. Agency Transmittals

B. Public Comment

## I. Project Overview

### A. Location and Existing Use

The property, which is approximately 7,594 square feet, is identified as Maui Tax Map Key Number (II) 2-6-04:19, Hamakuapoko, Maui, Hawaii. It is located on Loio Place, Paia, Maui, Hawaii.

The property is currently undeveloped. A former single family dwelling was demolished by the previous owners over six years ago.

### B. Project History

On May 19, 1995 the original SMA Permit application "Rasmussen Seawall" (reference 95/SSV-0002, 95/EA-0006, 95/SM1-0012) was submitted. After an exchange of letters and discussions about the application with various departments and agencies ( see Exhibits A and B) a second submittal was made on July 16, 1996 entitled "Final Environmental Assessment- Rasmussen Seawall". The project specifications at that time called for a two tiered structure similar to the existing seawall east of the the proposed project site. Further, the wall was designed to be Mauka of the Certified Shoreline boundary and Makai of the owners' property boundary pins.

Communication and discussion continued on the project and after two site inspections by the Maui County Planning Department and representatives of the State Department of Land and Natural Resources it became apparent that the sea wall should be moved back to the owners' side of the property boundary pins, avoiding any work within State property and any potential wall or structural contact with the high waterline activity of the ocean. **This has resulted in a complete redesign of the project : a single retaining wall to be built entirely within the owners property boundary.**

The re-submittal which follows now known as "Environmental Assessment- Revised Rasmussen Retaining Wall Plans" reflects the input of all agencies and departments involved in the project. Further, the owners concerns for our ocean resources, water quality, shoreline access and public safety are made an integral part of the application.

### **C. Project Justification and Hardship**

According to Section 13 of the Shoreline Setback Rules and Regulations of Maui County, a special variance may be provided for "special structures necessary for safety reasons or to protect property from erosion".

The small lot is currently undeveloped. The former resident and property owner was a single, retired plantation worker, who lived quietly with few visitors. The present owners have an active family and social life, and use the ocean for swimming, surfing, diving, and fishing.

The grassy, flat lot is bordered on two sides by a dirt embankment to a rocky shoreline. The precipitous drop to the rocky shoreline from the grassy surface is dangerous and a safety and liability concern for the owners.

Foot traffic from the owners and users of the property, as well as stray dogs and goats result in top down erosion of the embankment. This erosion is enhanced by drought, wind action and rain. These factors contribute to sediment-generated turbidity of the ocean waters of Paia Bay. Digging into the top grassy layer to plant a barrier only allows for further deterioration of the slope. A hedge and/or fence further back severely interferes with use of the property because the lot is small. The resulting buildable area is minimal and a hedge or fence does not completely resolve the problem of top down erosion of the embankment.

A retaining wall would 1) prevent top-down erosion of the soil embankment from foot traffic, drought, wind and rain 2) increase the safety of the slope by allowing for landscaping and low-impact fencing 3) improve the water quality of Paia Bay by decreasing the amount of erosion-originated sediments washing into the waters.

### **D. Proposed Action**

A sloping rock retaining wall varying in height from 5 to 15 feet in overall height is proposed along the bulk of the ocean frontage of this property. The lot is small (7,594 sq. ft.) and is zoned residential. There are no structures currently on the lot. (A residence was demolished by previous owners in 1991).

Access to the shoreline area from the proposed future residence will be rock steps blending into the existing rock surfaces. The northern end of the wall would be turned inwards at the side property line in a gradual curve to ensure a smooth transition with the exposed rocky shoreline entirely within the boundary of the owners property. It will extend approximately 150 feet along (mauka of ) the seaward boundary pins of this property, again completely within the owners boundary pins. The toe of the wall will be set at levels stepping from 5 to 11 feet above sea level and the

crest will be set level at 19 feet-6 inches. The slope of the front face of the wall will be 4 vertical to 1 horizontal.

It is the owners' intention to plant native Hawaiian vine-type ground cover as well as small shrubs along the top of the wall to soften the appearance of the wall from the ocean. (The owners, who also own the neighboring property to the south, have effectively grown out the entire face of the seaward face of a seawall installed by them about 10 years ago. It is their intention to achieve the same effect with this wall.)

Cost of construction is estimated at \$48,000.

#### **E. Alternatives to Proposed Action**

In an effort to save time, trouble, and money, the owners extensively investigated alternatives to the proposed project.

Alternatives to the proposed action were presented by Stephen Pitt, Registered Professional Engineer, in his "Description and Assessment Proposed Retaining wall", pages 2-5. (See Appendices) These included no action, vegetation, sandbags, vertical and near vertical retaining wall, gravity wall, and sloping rock gravity wall. He recommends a version of the sloping rock gravity wall.

The owners further investigated planting alternatives with Russ Riley, landscape architect, and determined that planting of the exposed soil embankment would require extensive digging and would not protect the shoreline ecosystem from runoff of loose soil. Over time the success of much of the planting would be questionable.

Gary Gill of the State Office of Environmental Quality Control suggested investigating new soil erosion products. The owners called John R. Purbough and Associates, Environmental Material Consultants, Kamuela, Hawaii, regarding current products on the market available for soil erosion control. He sent brochures and, after investigating the products and making telephone calls to the consultant and the companies, the owners determined the products were not appropriate for the site. The soil erosion solutions were appropriate for the sides of highways and drainage revetments. They require less slope and/or invasion of the shoreline for construction and support.

**F. Land Use Designation**

State Land Use District -- Urban

Haiku-Paia Community Plan -- Single Family Residential

Zoning -- Residential

*Other -- Special Management Area*

## **II. Description of Existing Environment**

### **A. Physical Environment**

#### **Surrounding Land Uses**

The project site is bordered on the north and west by rocky shoreline. It is bordered to the east by Loio Place which is a private road and shoreline access. Across the road to the east is a 7-acre parcel owned by the Paia Cemetery Association which is being used as a cemetery, a goat farm, and a horse pasture. An old house on the shoreline was recently demolished. South of the project site is a single-family dwelling with a rock seawall.

#### **Topography and Soil Characteristics**

The project site is a triangular-shaped lot with elevations between 19± feet M.S.L. and 21± feet M.S.L. The north and west boundaries of the site drop off in an exposed dirt bank to the rocky shoreline. The shoreline is composed of solid rock outcrops interspersed with various sizes of rock boulders. The base of the exposed dirt bank is located on solid or semi-solid rock at elevations ranging from 4 to 10 feet above sea level.

The soil is of the Pulehu series which consists of deep, well-drained soils on alluvial fans and stream terraces and in basins. They are nearly level to moderately sloping and found in areas with 10 to 35 inches of annual rainfall. According to Pitt Engineering Consultants the soil is Pulehu silt loam, found on 0 to 3 percent slopes, providing moderate permeability and slow runoff.

The exposed dirt embankment is eroded by wind action, drought, heavy rains, goats, animals and by foot traffic of the human users of the property.

There are no sandy beaches in the immediate vicinity of this lot. This shoreline is always rocky and never receives any sand deposits or build-up.

#### **Flood Hazard and Wave Action**

According to the Federal Emergency Management Agency's Flood Insurance Rate Map, the project site is located in V23. These are areas inundated by the 100-year coastal flood with velocity hazards (wave action) and a base flood elevation of 14 to 15 feet above mean sea level.

Aerial photographs dated February 27, 1950, included with this proposal, indicate no discernible change in the shoreline of the site, despite major storms and tsunamis. According to Atlas of Hawaii, 2nd edition, tsunami run-up in Paia in 1957

was 14 feet and in 1960 was 13 feet. Existing palm trees along the embankment appear to be the same palm trees as the 1950 photos. Shoreline characteristics in 1950, rock outcrops and underwater rock formations, appear to be the same as those in photos dated 1993.

On the west shoreline at the site, waves break on the rocks perpendicular to the shoreline. On the shoreline to the north the waves break on the rocky shoreline. Outer reefs protect the site from the strongest wave action, with high water levels running to either side of the point into lower Paia on one side and the Buddhist cemetery on the other.

### **Climate**

Average temperatures at the project site range from lows in the 60's to highs in the 80's. Rainfall is approximately 30 inches per year. Winds are predominantly out of the northeast.

### **Flora and Fauna**

The vegetation on the site consists of palm trees, weeds, and grasses. There are no rare, endangered or threatened species of plants on the site.

Animal life consists of common birds and goats, dogs, cats, and rodents.

### **Noise Characteristics**

Noise levels are from ocean surf and wind. Some background airport noise occurs during southerly winds.

### **Scenic Resources**

The project site is located over 600 feet makai of Hana Highway, at the end of a public access/private road. It is not part of the Hana Highway view corridor. It is distantly visible from Lower Paia Beach Park and homes on the oceanfront. The site's row of palm trees along the bank enhance the distant view.

### **Archaeological/Historical Resources**

According to DLNR, State Historic Preservation Division, there is no record of historic sites at the project site and a field inspection of the embankment showed it to be "devoid of cultural layers or materials." (See transmittals)

## **B. Socio-Economic Environment**

### **Population**

The population of Paia is approximately 2093 (1990 census). The population is increasing with the recent construction of single-family residences.

### **Economic Environment**

Paia is a mix of small businesses and single-family residences. Its principle employers are HC&S's Paia Mill and Mama's Fish House, a local restaurant. It is surrounded by cane fields and bordered by the ocean. Its economy "booms and busts" with changes over the years--wind surfing, vacation rentals, down-hill biking, etc. Its economy depends on tourist traffic as well as services to the local population.

### **Use of the Shoreline**

Paia Bay, with its sandy beach and rocky shoreline, is a popular surfing , recreation and fishing area.

Surfers access the ocean by the beach and another shoreline access in Paia. The Loio Place access is not used by surfers.

Most of the rocky shoreline is well above high tide and walking the rocky shoreline is possible, during all but storm conditions. It is used by local fishermen fishing for ulua and smaller reef fish and a few nature walkers.

Currently the shoreline access bordering the site of the proposed wall is not maintained by the County. The owners of the surrounding properties have worked together with community groups to delineate and improve the access, maintain the weeds, fencing out the livestock and allowing parking for users of the access trail.

## **C. Public Services**

### **Recreational Facilities**

The project site is on Maui's north shore giving it access to fishing, swimming, diving, surfing and other water activities. Beach parks in the area are Lower Paia Park, Hookipa Beach Park, and Baldwin Beach Park. The Paia Gym provides limited recreational opportunities. The Paia Youth Center is located on Paia Bay.

### **Police and Fire Protection**

The County Department of Fire Control's Paia Station is located on Hana Highway at Loio Place. The Maui County Police Department, headquartered in

Wailuku, has a substation at Paia Community Center. Paia also has a Community Police Officer.

### **Solid Waste**

Single-family residential solid waste disposal is provided by the County of Maui. Recycling bins are located in Paia and private companies offer residential recycling pick-up.

### **Health Care**

Paia is served by Maui Memorial Hospital in Wailuku and by numerous privately operated medical/dental clinics and offices in Paia and the Kahului/Wailuku area.

### **Schools**

State Department of Education facilities include Paia School, King Kekaulike Intermediate School, and Maui High School.

## **D. Infrastructure**

### **Water**

There is an existing 4" diameter water line running along Loio Place from a 12" main on Hana Highway. An existing fire hydrant is located at the southeast corner of the property.

### **Sewers**

The property is connected to an 8" sewer line via an easement.

### **Roadway**

Loio Place is a privately-owned and maintained roadway. It provides shoreline access where it terminates at the ocean shoreline.

### **Drainage**

There are no County improved storm drainage systems within the project site. Storm drainage from above Hana Highway runs past Loio Place on the mauka side of

Hana Highway in gutters, until it reaches Charley's Restaurant parking lot, where it sheets across Hana Highway, well west of Loio Place.

Loio Place is elevated where it meets Hana Highway preventing run-off from above to come down the road. Loio Place is banked away from the residences toward the cemetery and horse and goat pens. Run-off from Loio Place does not come into the property.

### **Electrical**

The project site is serviced by Maui Electric Company, Ltd. overhead power lines.

### **III. Project Impact Assessment**

#### **A. Physical Environment**

##### **Surrounding Land Uses**

The proposed project will not intensify existing land use. The project is not anticipated to have any adverse impacts upon surrounding land uses. Hopefully, it will encourage the County to improve the neighboring shoreline access. The wall will blend into the neighboring wall on the south boundary. It will curve into the north boundary at the neighboring shoreline access, preventing erosion of the unimproved embankment. (Prevention of erosion of neighboring properties was achieved successfully by the neighboring seawall).

##### **Flora and Fauna**

Some of the palm trees along the shoreline, which are well over 50 years old and somewhat unhealthy, will be replaced with younger, nearly fully-grown trees. New planting will be native Hawaiian shrubs and ground cover. The rock wall itself will be built with rock resembling the shoreline rock.

##### **Topography and Soil Characteristics**

A retaining wall built of rock will replace the wind-scoured soil embankment, blending with the shoreline rocks.

Construction of the wall would involve hand excavation of footings of the wall. Any excavated earth will be stored behind sand bags at the back of the lot or will be carried off-site to avoid run-off. (See Appendix E, Contractor's Proposal) All excavation will be well above the high-tide mark and any wave action during construction.

##### **Wave Action and Flood Hazard**

The proposed retaining wall is located far enough up the natural area to be beyond the reach of all but the most severe storm waves. The possibility of scour action at each end of the wall is very low because of the elevation of the wall. The rate of erosion of adjacent properties will therefore be unaffected by this action.

Since the wall will be both grouted and reinforced, it is unlikely that a tsunami or extreme storm waves would separately dislodge any small portions of the structure which could then become water projectiles.

There are no sandy beaches adjacent to or in the immediate vicinity of the lot. This shoreline is always rocky and never receives any sand deposits or build-up. Storm waves do not significantly affect the rocky shoreline. The retaining wall will follow the embankment, not changing wave action that may occur in the largest storm activity.

### **Scenic Resources**

The proposed rock wall will blend in with the existing rock outcrops and will be relatively small and inconspicuous when viewed from the ocean or adjacent shoreline. It is the owners' intention to plant native Hawaiian vine-type ground cover and small shrubs along the top of the wall. Some of the palm trees, which are well over 50 years old and unhealthy, will be replaced with nearly full-grown palm trees.

Construction will be done in a well-planned, professional, timely manner to minimize any scenic disruption.

### **B. Socio-Economic Environment**

#### **Shoreline Use**

Access to and lateral access along the foreshore area would remain unchanged from the present unimproved condition. Construction and effects of construction would not go beyond the certified shoreline at the foot of the dirt embankment.

### **C. Public Services and Infrastructure**

There will be no effect on public services or infrastructure during and after construction of this project.

#### **IV. Special Management Area Objectives and Policies**

Pursuant to Chapter 205A, Hawaii Revised Statutes, and the Rules and Regulations of the Planning Commission of the County of Maui, projects located within the SMA are evaluated with respect to SMA objectives, policies, and guidelines. This section addresses the project's relationship to applicable coastal zone management considerations, as set forth in Chapter 205A and the Rules and Regulations of the Planning Commission.

##### **A. RECREATIONAL RESOURCES**

Objective: Provide coastal recreational resources accessible to the public.

Policies:

1. Improve coordination and funding of coastal recreation planning and management; and
2. Provide adequate, accessible and diverse recreational opportunities in the coastal zone management area by:
  - a. Protecting coastal resources uniquely suited for recreation activities that cannot be provided in other areas;
  - b. Requiring replacement of coastal resources having significant recreational value, including, but not limited to, surfing sites and sandy beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;
  - c. Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;
  - d. Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;
  - e. Encouraging expanding public recreational use of county, state, and federally owned or controlled shoreline lands and waters having recreational value;

- f. Adopting water quality standards and regulating point and non-point sources of pollution to protect and, where feasible, restore the recreational value of coastal waters; and
- g. Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits, and crediting such dedication against the requirements of Section 46-6 of the Hawaii Revised Statutes.

**Response:** Construction, digging, or movement of rocks will occur only behind(mauka) and totally within.the owners boundary line. All construction activity will take place from the top of the embankment down, except for hand digging which will occur on the embankment and at it's base. Precautions will be taken during construction to prevent debris, wastes, eroded materials, dirt or other contaminants from entering the marine environment

The present unimproved access to and lateral access to the foreshore will not be negatively affected or changed by construction activity or by the wall itself.only enhanced.and improved.

## **B. HISTORICAL/CULTURAL RESOURCES**

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

### **Policies:**

1. Identify and analyze significant archaeological resources;
2. Maximize information retention through preservation of remains and artifacts or salvage operations; and
3. Support state goals for protection, restoration, and interpretation and display of historic resources.

**Response:** According to DNL, State Historic Preservation Division, there is no State record of historic sites at the project site and a field inspection of the embankment showed it to be "devoid of cultural layers or materials." (See transmittals)

## **C. SCENIC AND OPEN SPACE RESOURCES**

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

**Policies:**

1. Identify valued scenic resources in the coastal zone management area;
2. Insure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural land forms and existing public view to and along the shoreline;
3. Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and
4. Encourage those developments which are not coastal dependent to locate in inland areas.

**Response:** The rock wall is designed to blend in with the existing outcrops and would be relatively small and inconspicuous when viewed from the ocean or adjacent shoreline. The owners will plant native Hawaiian vine-type ground cover and small shrubs along the top of the walls. Some of the palm trees, which are well over 50 years old and unhealthy, will be replaced with nearly full-grown palm trees. Construction will be done in a well-planned, professional, timely manner to minimize scenic disruption.

**D. COASTAL ECOSYSTEMS**

**Objective:** Protect valuable coastal ecosystems from disruption and minimize adverse impacts on all coastal ecosystems.

**Policies:**

1. Improve the technical basis for natural resource management;
2. Preserve valuable coastal ecosystems of significant biological or economic importance;
3. Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and
4. Promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibit land and water uses which violate state water quality standards.

**Response:** Every effort will be made during construction to prevent any change to the rocky shoreline and the shoreline ecosystem. Drainage from the surrounding area does not affect this lot. Drainage from the lot itself is minimal, only rain sheeting from the grassy surface to the shoreline. The wall will allow for filtering cleaning and percolation of that little rain drainage and any future yard irrigation. Water quality of the near marine environment will be enhanced by the prevention of top-down erosion of the clay bank and resulting turbidity of the Paia Bay shoreline waters .

#### **E. ECONOMIC USES**

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

**Policies:**

1. Concentrate in appropriate areas the location of coastal dependent development necessary to the state's economy;
2. Insure that coastal dependent development such as harbors and ports, visitor facilities, and energy-generating facilities are located, designed, and constructed to minimize adverse social, visual and environmental impacts in the coastal zone management area; and
3. Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:
  - a. Utilization of presently designated locations is not feasible,
  - b. Adverse environmental effects are minimized, and
  - c. Important to the state's economy.

**Response:** The project will have minimal effect on the economy of the area. Its visual impact will likewise be minimal.

#### **F. COASTAL HAZARDS**

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

**Policies:**

1. Develop and communicate adequate information on storm wave, tsunami, flood, erosion and subsidence hazard;
2. Control development in areas subject to storm wave, tsunami, flood, erosion and subsidence hazard;
3. Ensure that developments comply with requirements of the Federal Flood Insurance Program; and
4. Prevent coastal flooding from inland projects.

**Response:** This property has a documented 46-year history of insignificant erosion from ocean activity, despite storms and tsunamis. The intention to follow the present configuration of the embankment will result in no significant changes to wave activity during very high water storm conditions. The walls will be grouted and reinforced to prevent increased projectiles during tsunamis.

The owners understand the risks involved in oceanfront ownership and do not carry Federal Flood Insurance on their properties, preferring to self-insure through savings and investment.

#### **G. MANAGING DEVELOPMENT**

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

**Polices:**

1. Effectively utilize and implement existing law to the maximum extent possible in managing present and future coastal zone development;
2. Facilitate timely processing of application for development permits and resolve overlapping of conflicting permit requirements; and
3. Communicate the potential short- and long-term impacts of proposed significant coastal developments early in their life-cycle and in terms understandable to the general public to facilitate public participation in the planning and review process.

**Response:** Development of the proposed project will be conducted in accordance with applicable State and County requirements. Review of the proposed action occurs through the environmental impact review process established in Chapter 343, Hawaii Revised Statutes and the County's Special Management Area permitting process.

## V. Findings and Conclusions

The proposed wall is a retaining wall, not a seawall intending to prevent erosion from wave action. The owners' needs are primarily to prevent top down erosion from drought, wind and rain, human and animal foot traffic. The project would also increase safety and decrease liability concerns.

Aerial photographs indicate a 48-year record of no significant erosion from wave activity, despite two tsunamis and significant changes elsewhere on Maui's north shore.

The footings of the wall will begin 5 to 11 feet above sea level at the foot of the embankment behind the owners property boundary and rocky foreshore. Wave action occurs well below the footing and out on the rocks. Scouring action that undermines many seawalls will not occur in this case.

The wall is designed to blend in to the rocky shoreline. The owners will keep the palm trees that lend to the distant shoreline view from points on Paia Bay. The wall will not significantly affect the view.

A two-tiered wall constructed on the adjacent property ten years ago has not affected adjacent properties and shows absolutely no effects of wave or storm activity. It is overgrown with naupaka.

At no time during or after construction will the present access to or the lateral access across the shoreline be affected. Shoreline access adjacent to the property (East /Hana side) remains unaffected, in fact the owners fencing for goats, weed control and parking improvements delineates the public shoreline access trail.

Measures to mitigate the effects of construction activity will be taken by the contractor. Preventing any materials from entering the shoreline ecosystem and close attention to working behind the owners property boundary would be a priority and mandatory.

The project will have no impact on infrastructure systems or public services.

Positive impacts of this project will be, 1) The retaining wall will prevent and eliminate top-down erosion of the embankment, 2) the wall will improve water quality of Paia Bay by reducing sediment inflow and consequential turbidity of shoreline waters, 3) Public access will be improved, 4) The shoreline will be protected from damage by Goats and feral animals.

Because of the above considerations, it is the conclusion of this report that the proposed action will not have significant negative impact on the shoreline area and neighboring properties.

## **Appendix A.**

### **Professionals Consulted in the Preparation of the Draft Environmental Assessment**

**Pitt Engineering Consultants  
Stephen J. Pitt, Registered Professional Engineer  
P. O. Box 109  
Paia, Hawaii 96779**

**Russ Riley  
Landscape Architect  
82 Central Avenue  
Wailuku, Hawaii 96793**

**John R. Purbaugh & Associates  
Environmental Material Consultants  
P.O. Box 6329  
Kamuela, Hawaii 96743**

**R.M. Towill Corporation  
Photogrammetric Engineers  
420 Waiakamilo Road, Suite 411  
Honolulu, Hawaii 96817**

**Dennis Dehr  
Licensed Contractor  
3165 Baldwin Ave.  
Makawao, Hawaii 96768**

**B. Engineer's Description and Assessment of Proposed Rock Retaining Wall**

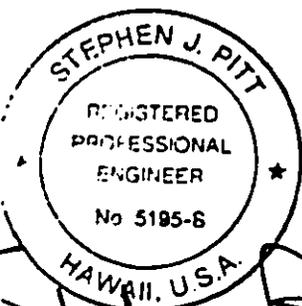
PITT ENGINEERING

DESCRIPTION AND ASSESSMENT OF  
PROPOSED RETAINING WALL

FOR:

OWNER:  
DR. & MRS. RICHARD RASMUSSEN  
P.O. Box 89  
Paia, HI 96779

PROJECT LOCATION:  
Loio Place  
Paia, HI 96779  
TMK: (2) 2-6-04:19



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION  
June 12, 1997

SJP:kt  
p:\a\11\Rasmussen rpt



ONE

PROPOSED ROCK RETAINING WALL FOR RASMUSSEN PROPERTY

1. DESCRIPTION OF PROPOSED ACTION

A sloping rock retaining wall varying in height from 5 to 15 feet in overall height is proposed along the bulk of the ocean frontage of this property. The estimated cost for this construction of \$48,000. The lot is small (7594 sq. ft.) and is zoned residential. There are no structures currently on the lot. (A residence was demolished by previous owners in 1991).

Access to the shoreline area from the proposed future residence will be rock steps blending into the existing rock surfaces. The northern end of the wall would be turned inwards at the side property line in a gradual curve to ensure a smooth transition with the exposed rock shoreline entirely within the boundary of the owners' property. It will extend approximately 140 feet along the mauka side of the seaward boundary of this property, again completely within the owners' boundary pins. The base of the wall will be set at levels stepping from 6 to 11 feet above sea level and the crest will be set level at 19 feet-6 inches. The slope of the front face of the wall will be 4 vertical to 1 horizontal.

It is the owners' intention to plant native Hawaiian vine-type ground cover as well as small shrubs along the top of the wall to soften the appearance of the wall from the ocean. (The owners, who also own the neighboring property to the south, have effectively grown out the entire face of the seaward face of a seawall installed by them about 10 years ago. It is their intention to achieve the same effect with this wall.)

2. DESCRIPTION OF PROJECT AREA

The project site is indicated on the attached location map and is an ocean front parcel of land located in Paia on the northern shoreline of Maui.

Reference to the soil map contained in this report indicates that there is no sandy beach in front of this section of shoreline. The shoreline is composed of solid rock outcrops interspersed with various sizes of rock boulders.

The base of the proposed retaining wall will be located on solid or semi-solid rock at elevations ranging from 6 to 12 feet above seal level.

3. ALTERNATIVES AND IMPACTS TO THE PROPOSED ACTION

A) NO ACTION

Taking no action would leave the steep silty-loam soil embankment exposed to continuing erosion, which, besides causing property loss, maintains an existing dangerous condition. The existing embankment varies from 6 to 12 feet in height, with little visual warning of the drop until one stands on the edge of the drop-off. Further, continued top down erosion of the embankment will add to the turbidity of the near shore waters from soils being washed into the bay.

- B) VEGETATION  
Because of drought and wind erosion, the soil in this area does not appear capable of sustaining any vegetation. The dirt bank is also near to vertical in parts and top down erosion does not enable vegetation to take a foot hold in the crumbling embankment.
- C) SANDBAGS  
This system would provide temporary protection against erosion, but is not considered acceptable due to aesthetics and the continual maintenance that would be required.
- D) VERTICAL AND NEAR VERTICAL RETAINING WALL  
This is a proven long lasting and relatively low maintenance earth retention method. The structure requires limited horizontal space along the shoreline, and stairs may be provided for access to the shoreline area. This type of retaining wall may be constructed of cast-in-place reinforced concrete or of individual rocks grouted in place. Masonry walls have been commonly used for this type of earth retention in Hawaii.
- E) GRAVITY WALL  
A gravity wall is stabilized by its own weight. Resistance to toppling seaward by the retained soil is accomplished by providing a broad base and sloping tie back face so that the resultant force of the backfill pressure is directed downward through the wall. Weep holes are provided at regular intervals for drainage. The near vertical seaward faces of seawalls cause two problems. Wave energy is deflected both upward and downward. The downward component can cause severe scour at the base of the wall, particularly in shallow waters, and, thus, adequate toe protection is required. Ideally, the wall should be constructed on solid, non-erodible substrata. This is often impossible on sandy shorelines, and as it is usually difficult to excavate and construct the base of the wall below the possible scour depth, a well-designed rock toe is required to prevent undermining of the wall. Undermining of the toe is one of the most common causes of seawall failure. Seawalls are inflexible structures and failure of one section can often initiate failure of the entire wall. Because they dissipate little wave energy, smooth, vertical seawalls are also more easily overtopped by waves and spray than sloping, irregular walls.
- F) SLOPING ROCK GRAVITY WALL  
This is a slight modification of the vertical retaining wall described in D) above. A sloping front face (1H:4V) would better withstand and dissipate any wave action that may reach that distance, as well as being more aesthetic. It would also be more stable in the event of a tsunami. The sloping front face would blend in harmoniously with the adjacent unprotected shoreline on the north side and match the existing rock wall to the south.

4. SUMMARY

The proposed action involves construction of a relatively small scale grouted rock wall along approximately 140 feet of shoreline fronting the property. The structure is needed for 1) safety reasons (fence at top of drop-off), 2) to protect the property from erosion (most of the erosion is initiated at the top of the bank and is caused by rain and wind action) and 3) to decrease soil run off (turbidity) in Paia bay.

The present shoreline is composed of outcrops of basalt interspersed with both large and small basalt boulders extending from 6 to 12 feet above mean sea level. This is capped by a dirt layer of some 6 to 12 feet in thickness. It is this dirt layer that is slowly eroding along portions of the shoreline. **There are no sandy beaches in the immediate vicinity of this lot. This shoreline is always rocky and never receives any sand deposits or build-up.**

The construction of a structurally sound revetment would provide for the long-term stabilization of the dirt bank and to ensure protection for a future residence, which, due to the small lot area, must be constructed close to the top of the existing bank.

The proposed wall would establish an aesthetically and structurally sound solution for this particular application, as other properties on the same shoreline have previously used vertical walls, random piles of rock, as well as gunite sprayed directly onto the backshore slope. It would blend in well with an existing seawall revetment located on the next door property (to the south), since a similar construction is proposed.

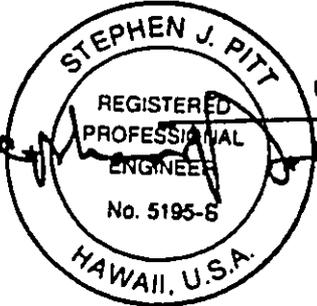
A total of six alternatives to the proposed action, including "NO ACTION", VEGETATION, SANDBAGS, VERTICAL RETAINING WALLS and the SLOPING ROCK GRAVITY WALLS were evaluated. The sloping rock retaining wall was considered the best viable alternative.

The proposed retaining wall is located far enough up the natural foreshore area to be beyond the reach of all but the most severe storm waves. The possibility of any scour action at each end of the wall is unlikely due to the elevation of the wall. The rate of erosion of adjacent properties will therefore be unaffected by this action. Since the wall will be solid grouted, it is unlikely that a tsunami or extreme storm waves would separately dislodge any small portions of the structure which could then become waterborne projectiles. **Lateral access to all foreshore users would remain unchanged from the present unimproved condition as the retaining wall is mauka of the owners' boundary pins and the shoreline area.**

The project site is within the County-administered Special Management Area and in the Shoreline Setback Zone. The proposed project is consistent with the policies, objectives and guidelines of Chapter 205A, Hawaii Revised Status and the Special Management Area Rules and Regulations.

The proposed project is also consistent with the intent of Section 13 of the Shoreline Setback Rules and Regulations of Maui County which provide a variance for "special structures necessary for safety reasons or to protect property from erosion or wave damage shall be permitted."

The proposed rock walls will blend in with the existing rock outcrops and will be relatively small and inconspicuous when viewed from the ocean or adjacent shoreline. Since this is not a sandy beach area, and since the wall is located well above the water line, the proposed construction is not likely to cause any adverse effect or significant changes to the shoreline.



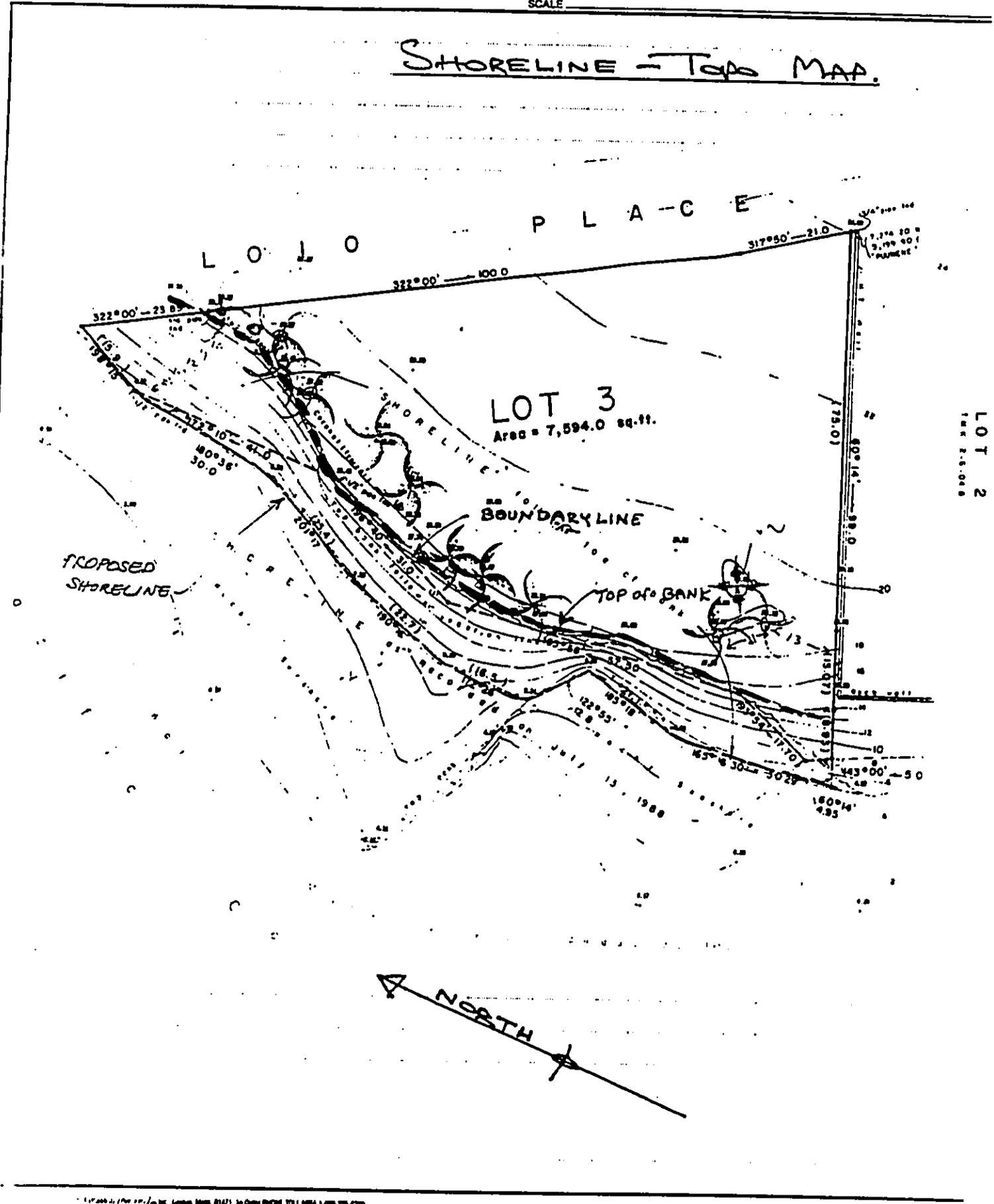
6.12.97

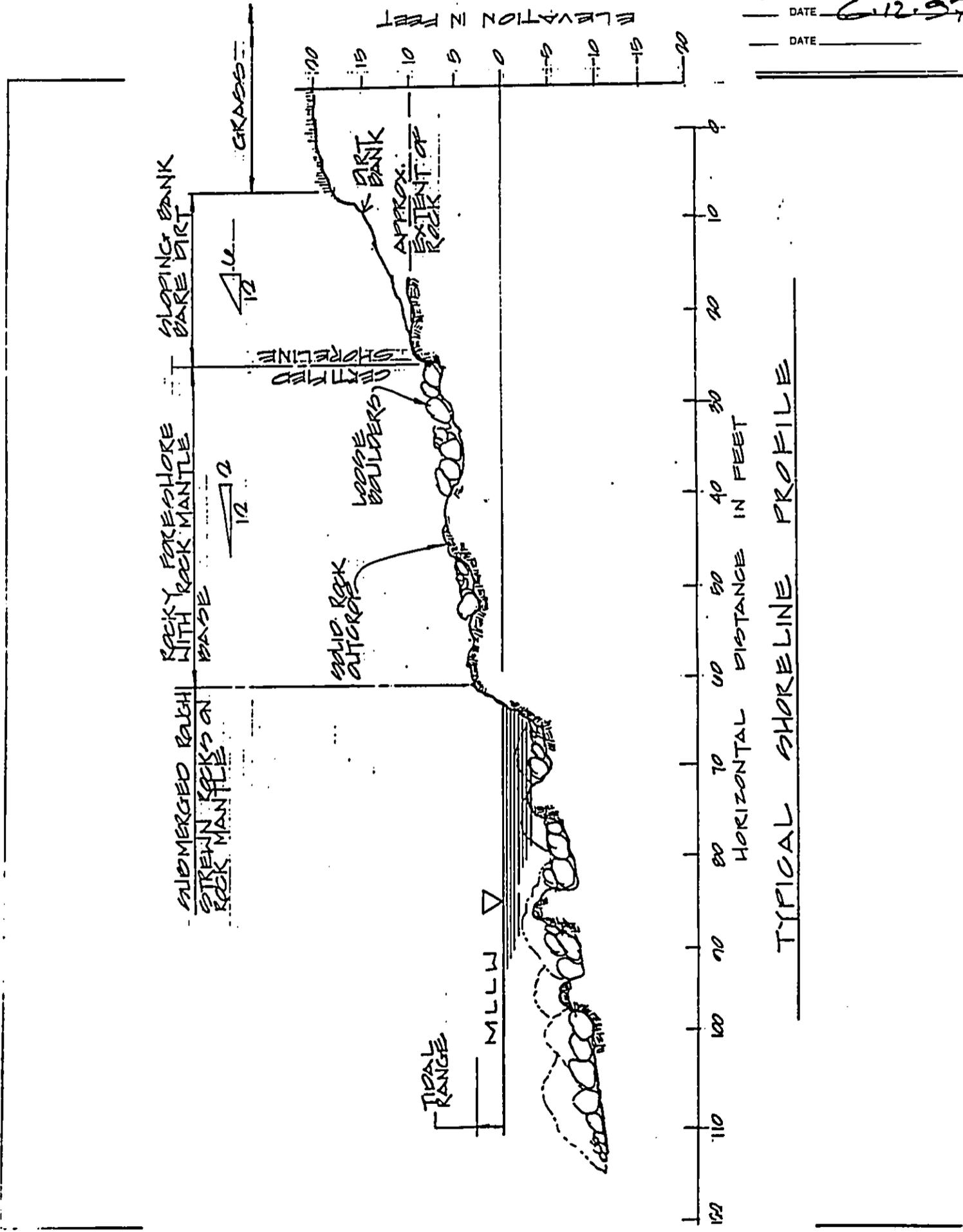
DOCUMENT CAPTURED AS RECEIVED

PITT ENGINEERING CONSULTANTS  
Structural & Civil Engineers  
P.O. Box T  
PAIA, HAWAII 96779  
(808) 871-8689  
FAX (808) 871-7488

JOB RASMUSSEN  
SHEET NO. 6 OF 13  
CALCULATED BY SD DATE 6.25.9  
CHECKED BY \_\_\_\_\_ DATE 6.12.9  
SCALE \_\_\_\_\_

SHORELINE - TOP MAP.



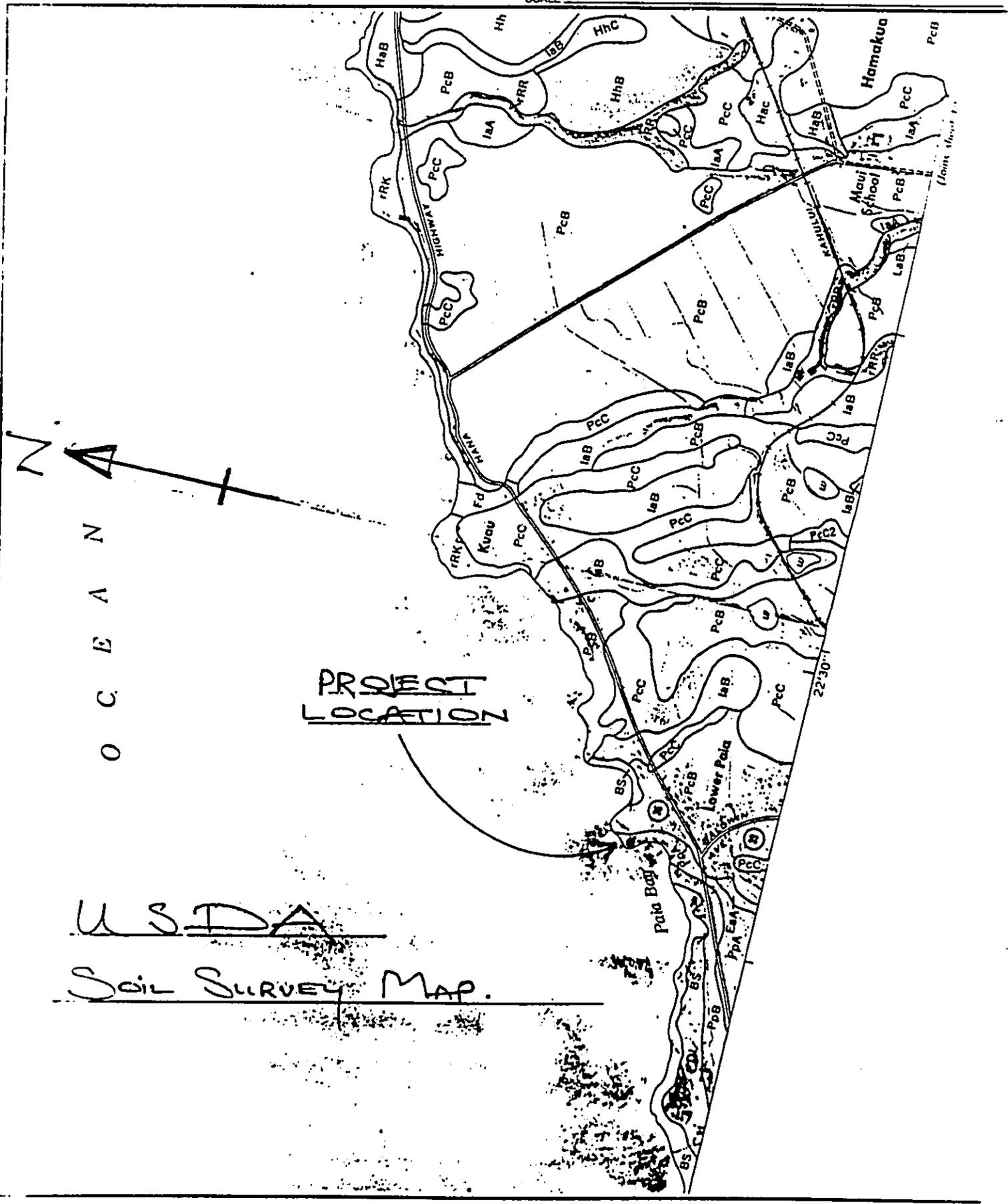


TYPICAL SHORELINE PROFILE

DOCUMENT CAPTURED AS RECEIVED

PITT ENGINEERING CONSULTANTS  
Structural & Civil Engineers  
P.O. Box T  
PAIA, HAWAII 96779  
(808) 871-8689  
FAX (808) 871-7488

JOB RASMUSSEN  
SHEET NO 8 OF 13  
CALCULATED BY SPD DATE 6.25.97  
CHECKED BY \_\_\_\_\_ DATE 6.12.97  
SCALE \_\_\_\_\_



USDA  
SOIL SURVEY MAP.



SHORELINE PHOTOGRAPHS



PHOTO 1: Taken from mid-point along subject property looking South. shows steep eroding bank and rocky shoreline typical in this area.



PHOTO 2: Middle of property looking north, shows rocky foreshore. Certified shoreline follows along base of dirt embankment.



PHOTO 3: Middle of property, looking South, shows steep eroding (approximately 10 foot drop-off) dirt embankment.



PHOTO 4: Shoreline at Southern property corner. Green-colored ground cover completely covers stone seawall on adjacent property.

**C. Contractor's Proposal**

# CORRECTION

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

**C. Contractor's Proposal**

DENNIS DEHR  
DESIGNER/BUILDER  
3165 BALDWIN AVE. MAKAWAO, HI 96768  
PHONE (808) 573-1366  
BC 17969

JUNE 10, 1997

PROPOSED:  
RETAINING WALL  
TO BE LOCATED AT LOIO PLACE  
PAIA, HAWAII  
TMK: 2-6-04:19

OWNER:  
DR. RICHARD RASMUSSEN  
P.O. BOX 89  
PAIA, HAWAII 96779

PLEASE FIND THE ATTACHED ESTIMATE THAT I PREPARED FROM THE PLANS PREPARED BY STEVEN PITT, REGISTERED PROFESSIONAL ENGINEER, FOR THE RETAINING WALL TO PROTECT YOUR PROPERTY AT LOIO PLACE. I BASED MY ESTIMATE ON 12" CRUSHED ROCK FROM AMERON SET IN HAND MIXED GROUT PLACED IN 2 FOOT HIGH LIFTS ALONG THE FACE OF THE WALL. I WOULD USE 2 FOOT HIGH MOVABLE FORMS ON THE REAR OF THE WALL AND POUR THE VOID WITH REDI-MIXED CONCRETE. I WOULD ADD #5 STEEL REINFORCING BARS AT 32" O.C. TO AVOID COLD JOINTS. IF WE USED ALL GROUTED ROCK THE WHOLE JOB WOULD HAVE TO BE HAND MIXED. THE MATERIALS FOR HAND MIXING, NOT COUNTING THE VERY EXTENSIVE LABOR TO HAND MIX AND PLACE THE MATERIAL, ARE AS EXPENSIVE AS THE REDI-MIXED CONCRETE BEING DELIVERED TO THE JOB.

THE EXCAVATION FOR THE LOWER WALL WOULD REQUIRE EXTENSIVE HAND EXCAVATION BUT SOME EXCAVATION COULD BE DONE WITH A BACKHOE REACHING DOWN FROM THE TOP OF THE BANK. SINCE THE BASE OF THE FOOTING EXCAVATIONS ARE SO HIGH ABOVE THE MEAN HIGH TIDE LINE (9.5 FEET) SEA WATER SHOULD BE NO PROBLEM. I HAVE ALLOCATED ESTIMATED FUNDS FOR STORING EXCAVATED EARTH BEHIND SAND BAGGING OR OFF SITE TO AVOID RUNOFF INTO THE OCEAN. AFTER MANY VISITS TO THE SITE I CAN ASSURE YOU THAT OUR LOWER FOOTING EXCAVATION IS FAR ENOUGH ABOVE AND BACK FROM THE HIGH TIDE LINE THAT WE CAN AVOID ANY SILT RUN OFF INTO THE OCEAN.

YOU CAN SEE FROM THE ATTACHED ESTIMATE THAT THE PRICE FOR BUILDING THE WALL IS \$45,125. THIS WOULD INCLUDE GRADING AND CLEAN-UP BUT NOT THE FENCING OR

2.

WE WOULD PROVIDE THE PVC SLEEVES IN THE TOP OF THE UPPER WALL FOR THE FENCE POST. AS YOU CAN SEE WE WOULD PROVIDE DRAINAGE AND SCREENED BACKFILL AS PER PLAN.

THANK YOU FOR LETTING US BID ON YOUR PROJECT,

SINCERELY,

DENNIS DEHR

## **D. Figures**

**Project Location Map**

**Certified Shoreline and Topography Map**

**Typical Shoreline Profile**

**Site Plan**

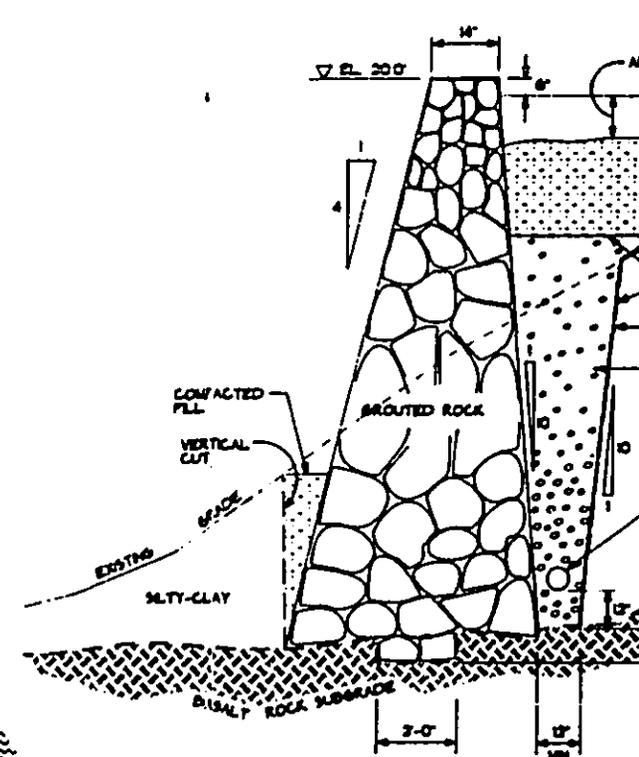
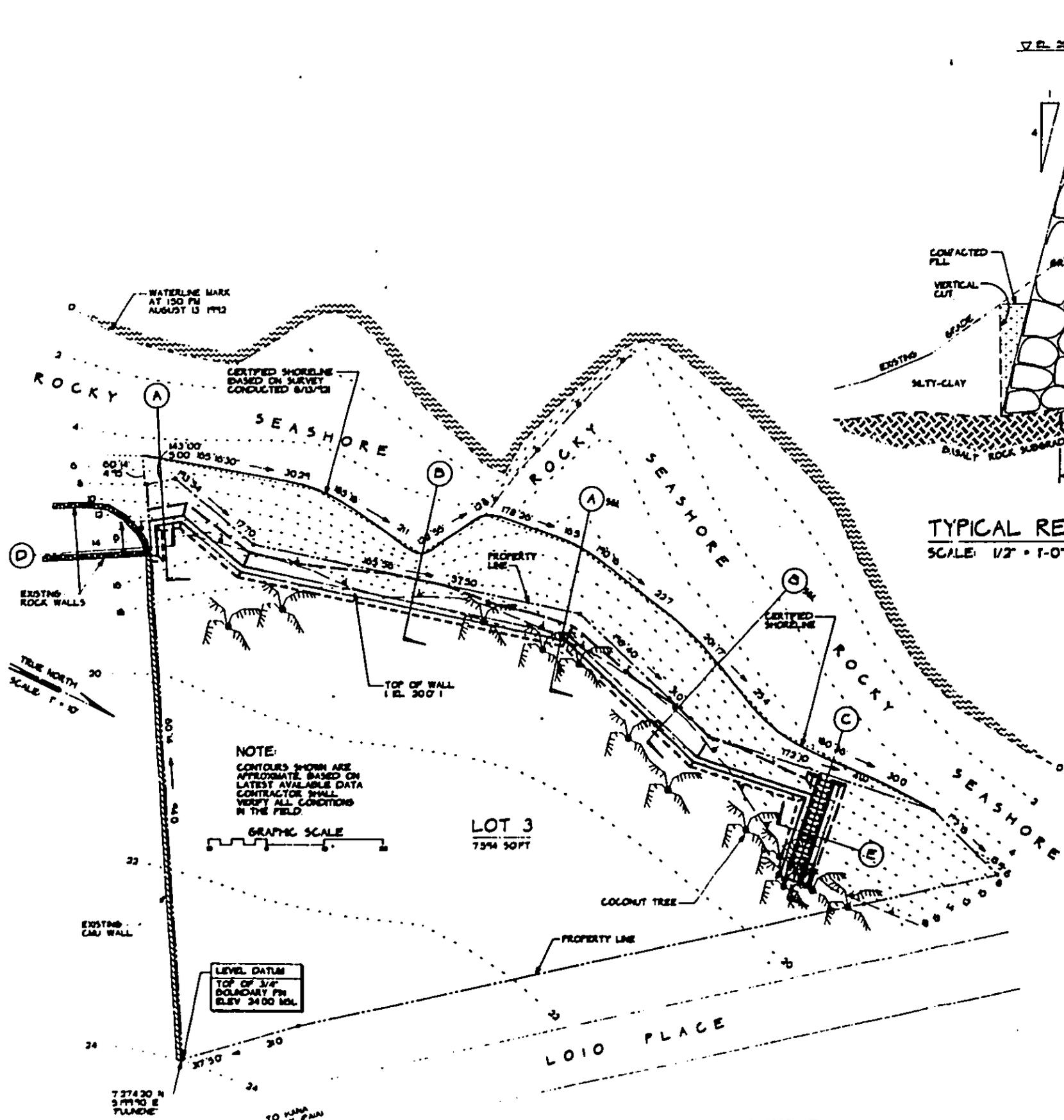
**Landscape Plan**

**Flood Insurance Rate Map**

**Soil Survey Map**

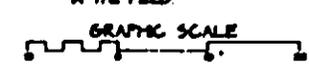
**Soil Data**

**Photographs**



TYPICAL RETAINING WALL  
SCALE: 1/2" = 1'-0"

NOTE:  
CONTOURS SHOWN ARE APPROXIMATE BASED ON LATEST AVAILABLE DATA CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD.

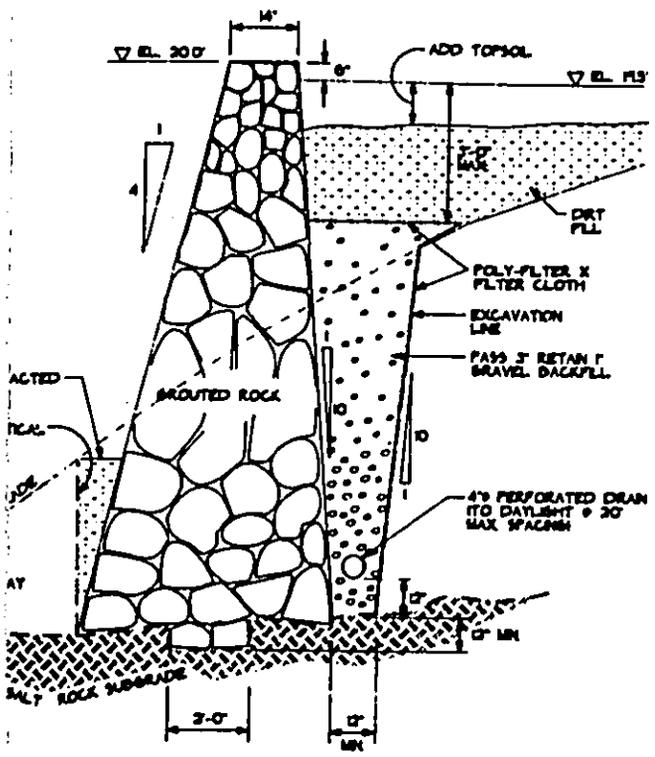


LOT 3  
75' x 90' FT

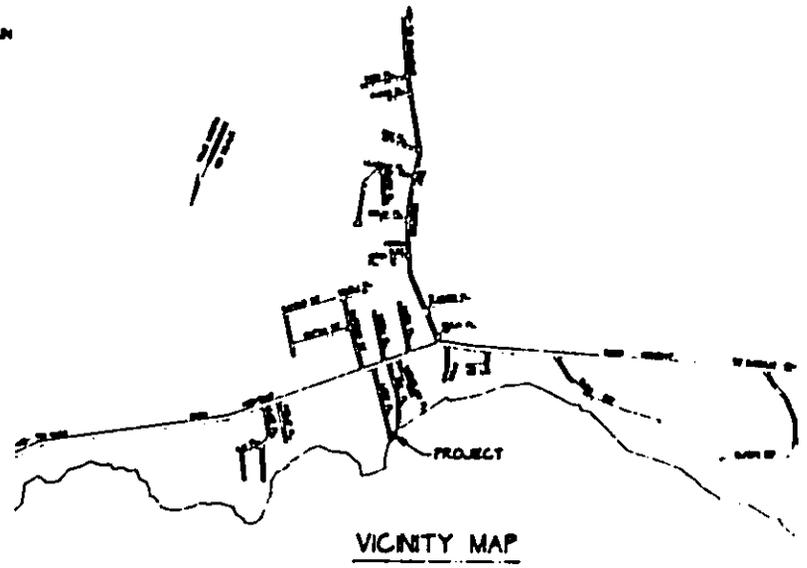
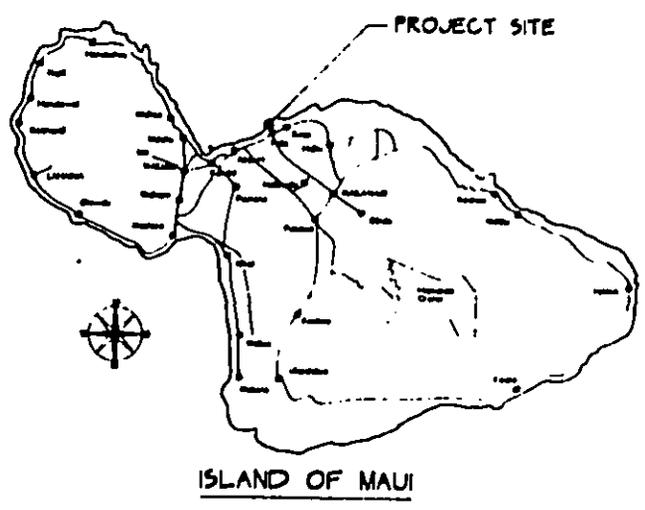
LEVEL DATUM  
TOP OF 3/4" BOUNDARY PIN  
ELEV. 34.00 MSL

SITE PLAN  
SCALE: 1" = 10'

- NOTES:
1. CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL SURVEY REPERE TO ENSURE ACCURACY OF RETAINING WALL ON THIS PLAN. APPROVED BY THE START OF CONSTRUCTION.
  2. CONTRACTOR TO INSPECT AND REPORT INSPECTION OF EXCAVATION PRIOR TO ANY ROCK.
  3. CONTRACTOR TO MAINTAIN PROPERTY BOUNDARY EXCAVATION OF ROCK.
  4. ROCK SHALL BE DASALT OF 16" SECTION APPROXIMATE IN SIZE WHICH SHALL BE BY BOTH OWNERS BEFORE PROCEED.
  5. CONTRACTOR TO REPLANT ALL TREES LOCATED IN CO...



**GRAVITY RETAINING WALL SECTION**  
 SCALE: 1/2" = 1'-0"



**NOTES:**

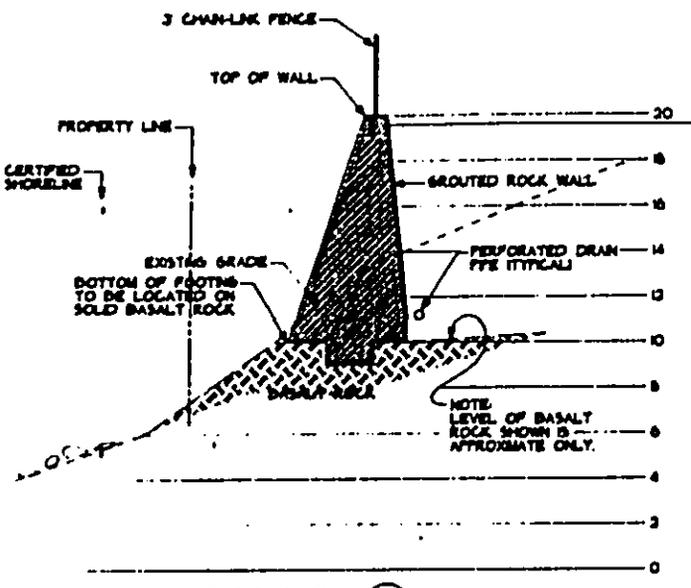
1. CONTRACTOR TO ESTABLISH HORIZONTAL AND VERTICAL SURVEY REFERENCE POINTS TO ENSURE ACCURATE PLACEMENT OF RETAINING WALL AS SHOWN ON THIS PLAN LAYOUT TO BE APPROVED BY ENGINEER PRIOR TO START OF CONSTRUCTION.
2. CONTRACTOR SHALL CALL FOR INSPECTION OF FOOTING EXCAVATION PRIOR TO PLACEMENT OF ANY ROCK.
3. CONTRACTOR TO RESET EXISTING MAKAI PROPERTY PINS AFTER EXCAVATION OF WALL FOOTING.
4. ROCK SHALL BE CRUSHED BASALT OF 10" AVERAGE SIZE. CONTRACTOR TO BUILD A TEST SECTION APPROXIMATELY 10 SQ. FT. IN SIZE WHICH SHALL BE APPROVED BY BOTH OWNER AND ENGINEER BEFORE PROCEEDING WITH WORK.
5. CONTRACTOR TO RELOCATE DIG AND REPLANT ALL SHRUBS AND TREES LOCATED IN CONSTRUCTION ZONE.

**APPROVAL:**

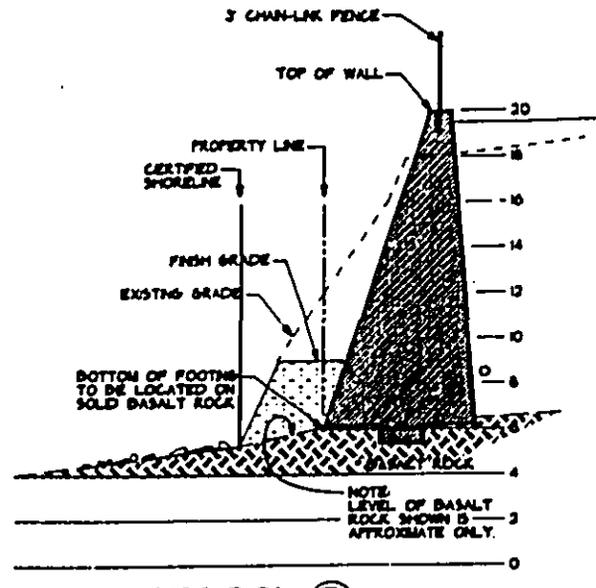
DIRECTOR, DEPARTMENT OF PUBLIC WORKS      DATE  
 COUNTY OF MAUI  
 APPROVAL GRANTED FOR WORK WITHIN  
 THE COUNTY RIGHT-OF-WAY ONLY!

CHIEF, ENVIRONMENTAL MANAGEMENT DIVISION      DATE  
 DEPARTMENT OF HEALTH  
 STATE OF HAWAII

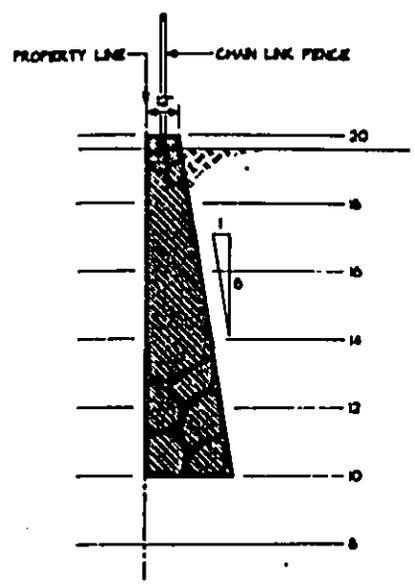
	LUCAS		
	No.	Date	Reason
THE WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION 		<b>PROPOSED          RETAINING WALL</b> TO BE LOCATED AT LOIO PLACE PAIA, HAWAII T.M.K. (2ND) 2-6-0419	
DATE: 6-25-97	OWNER DR. RICHARD RASMUSSEN P.O. BOX 89 PAIA, HAWAII 96779		Sheet <b>1</b> of 2



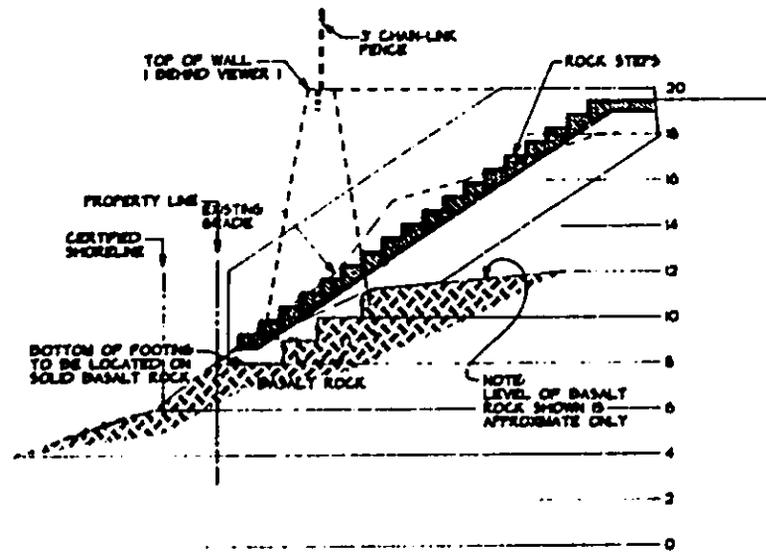
**SECTION (A)**  
SCALE: 1/4"=1'-0"



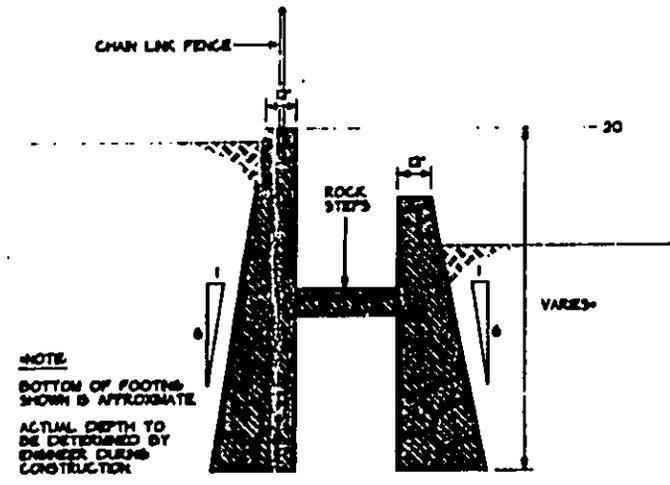
**SECTION (B)**  
SCALE: 1/4"=1'-0"



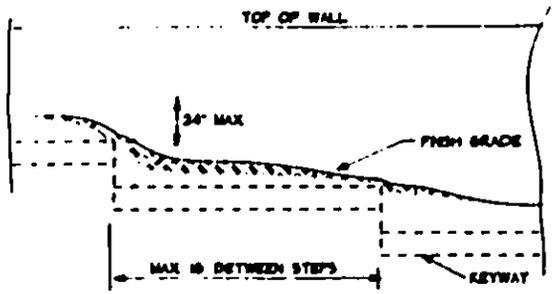
**SECTION (C)**  
SCALE: 3/8"=1'-0"



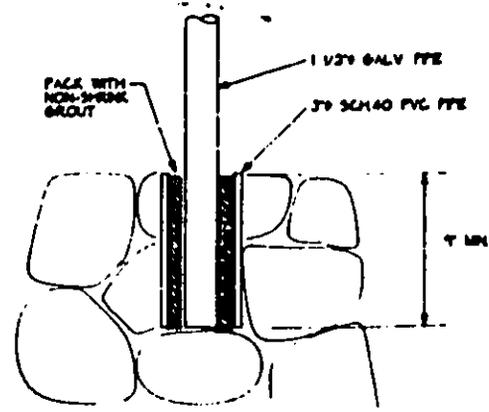
**SECTION (D)**  
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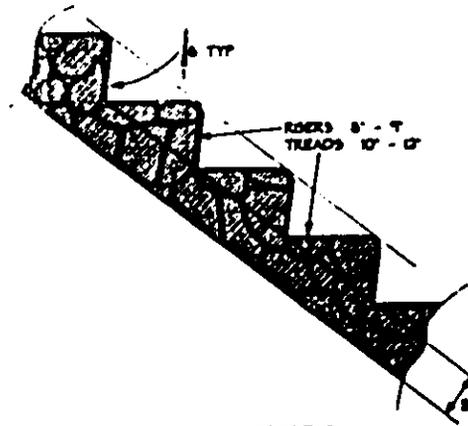
**SECTION (E)**  
SCALE: 3/8"=1'-0"



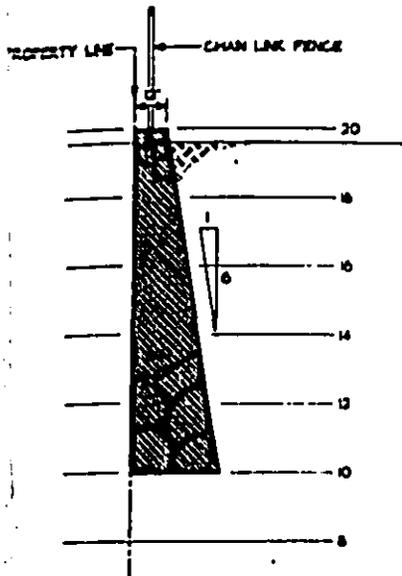
**STEP FOOTING DETAIL**  
NO SCALE



**FENCE POST ANCHOR**  
NO SCALE



**ROCK STEPS**  
NO SCALE



SECTION D  
SCALE: 3/8"=1'-0"

**GENERAL NOTES**

1. ALL DETAILS, SECTIONS AND NOTES SHOWN ON DRAWINGS ARE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS OTHERWISE NOTED
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION
3. ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWING AND/OR THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED.
4. ANY OBSERVATION VISITS TO THE SITE BY ENGINEER'S FIELD REPRESENTATIVES SHALL NOT BE CONSIDERED AS INSPECTION NOR APPROVAL OF CONSTRUCTION
5. THE CONTRACTOR SHALL NOTIFY ENGINEER NOT LESS THAN TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION
6. ALL WORK SHALL CONFORM TO THE BEST PRACTICE PREVAILING WITHIN THE VARIOUS TRADES COMPRISING THE WORK
7. THE CONTRACTOR SHALL PROVIDE ADEQUATE BRACING AND SHORING FOR ALL STRUCTURAL MEMBERS DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONDITION WHICH MIGHT ENDANGER THE STABILITY OR CAUSE VISIBLE DISTRESS IN THE STRUCTURE
8. ALL FOUNDATION EXCAVATIONS SHALL BE KEPT CLEAR OF WATER AT ALL TIMES. THE BOTTOM OF THE FOOTING EXCAVATION SHALL BE NEAT AND FREE OF LOOSE SOILS OR CLONES
9. FILLS AND BACKFILLS SHALL BE CLEAN GRANULAR FILL PLACED IN MAXIMUM 8-INCH LIFTS AND COMPACTED TO A MINIMUM OF 90% OF ITS MAXIMUM DRY DENSITY ESTABLISHED BY ASTM D-1557-78
10. THE ON-SITE CLAY SOIL OR DEBRIS SHALL NOT BE USED FOR FILL MATERIAL BELOW STRUCTURES
11. ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON PLANS, IF DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE. CONTRACTOR SHALL PROVIDE HO-TALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, BARRICADES, AND OTHER PROTECTIVE DEVICES FOR THE PROTECTION SAFETY AND CONVENIENCE OF THE PUBLIC.
12. THE DIRECTOR OF PUBLIC WORKS HAS THE RIGHT TO STOP CONSTRUCTION SHOULD ANY WORK BE FOUND CONTRARY TO THE APPROVED CONSTRUCTION PLAN OR DETRIMENTAL TO THE PUBLIC'S INTEREST

**DEPARTMENT OF HEALTH CONSTRUCTION NOTES**

1. THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS, AND OTHER AREAS. THE COSTS INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE STATE DEPARTMENT OF HEALTH SHALL BE PAYABLE BY THE CONTRACTOR
2. THE CONTRACTOR AT HIS EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE OF DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH
3. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS CONTAINED IN THE PUBLIC HEALTH REGULATIONS, STATE DEPARTMENT OF HEALTH, ON WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS
4. ALL SLOPES AND EXPOSED AREAS SHALL BE SOODED OR PLANTED IMMEDIATELY AFTER THE GRADING WORK HAS BEEN COMPLETED
5. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED IN AN APPROPRIATE SITE. THE CONTRACTOR SHALL INFORM THE ENGINEER OF THE LOCATION OF DISPOSAL SITES. THE DISPOSAL SITE SHALL ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE
6. THE CONTRACTOR SHALL PROVIDE CONTINUOUS EROSION CONTROL MEASURES SHOWN IN THE APPROVED EROSION CONTROL PLAN AND OUTLINED IN THE REPORT ON DRAINAGE AND EROSION CONTROL AND PROVIDE TEMPORARY DUST CONTROL BY SPRINKLING WITH WATER WAGONS OR OTHER SUITABLE MEANS TO GRASS EXPOSED AREAS IMMEDIATELY AFTER GRADING IS COMPLETED

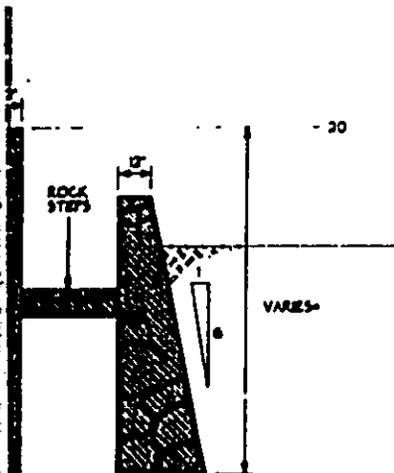
**EROSION CONTROL**

THE FOLLOWING MEASURES SHALL BE TAKEN TO CONTROL EROSION DURING THE SITE DEVELOPMENT PERIOD

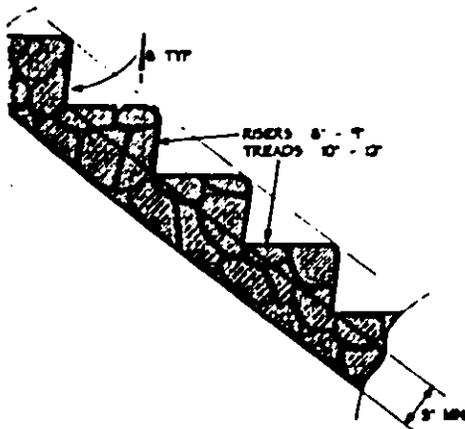
1. MINIMIZE TIME OF CONSTRUCTION
2. RETAIN EXISTING GROUND COVER UNTIL LATEST DATE TO COMPLETE CONSTRUCTION
3. USE TEMPORARY AREA SPRINKLERS IN NON-ACTIVE CONSTRUCTION AREAS WHEN GROUND COVER IS REMOVED
4. STATION WATER TRUCK ON SITE DURING CONSTRUCTION PERIOD TO PROVIDE FOR IMMEDIATE SPRINKLING, AS NEEDED, IN ACTIVE CONSTRUCTION ZONES WEEKENDS AND HOLIDAYS INCLUDED
5. USE TEMPORARY DRAINS AND CUT-OFF DITCHES WHERE NEEDED FOR CONTROL OF EROSION
6. GRADED AREAS SHALL BE THOROUGHLY WATERED AFTER CONSTRUCTION ACTIVITY HAS LEAVED FOR THE DAY AND ON WEEKENDS
7. ALL CUT AND FILL SLOPES SHALL BE SOODED OR PLANTED IMMEDIATELY AFTER GRADING WORK IS COMPLETED

**ENVIRONMENTAL PROTECTION**

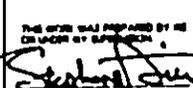
1. THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAY AND OTHER AREAS. THE COSTS INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE CHIEF ENVIRONMENTALIST SHALL BE BORNE BY THE CONTRACTOR
2. THE CONTRACTOR SHALL KEEP THE PROJECT AREA AND SURROUNDING AREAS FREE FROM DUST NUISANCE. ALL IN ACCORDANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH. ALL COSTS SHALL BE BORNE BY THE CONTRACTOR
3. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS OF THE PUBLIC HEALTH REGULATIONS OF THE STATE DEPARTMENT OF HEALTH AND THE GRADING ORDINANCE OF THE COUNTY OF MAUI
4. ALL CUT AND FILL SLOPES SHALL BE SOODED OR PLANTED IMMEDIATELY AFTER GRADING WORK HAS BEEN COMPLETED
5. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT APPROPRIATE SITES. THE CONTRACTOR SHALL INFORM THE ENGINEER OF THE LOCATION OF DISPOSAL SITES. THE DISPOSAL SITE SHALL ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE
6. THE CONTRACTOR SHALL NOT DEMOLISH OR CLEAR ANY STRUCTURE, SITE, OR VACANT LOT WITHOUT FIRST ASCERTAINING THE PRESENCE OR ABSENCE OF RODENTS WHICH MAY ENDANGER THE PUBLIC HEALTH BY DISPERSAL FROM SUCH PREMISES. SHOULD SUCH INSPECTION REVEAL THE PRESENCE OF SUCH RODENTS, THE CONTRACTOR SHALL ERADICATE SUCH RODENTS BEFORE DEMOLISHING OR CLEARING SAID STRUCTURE, SITE OR VACANT LOT



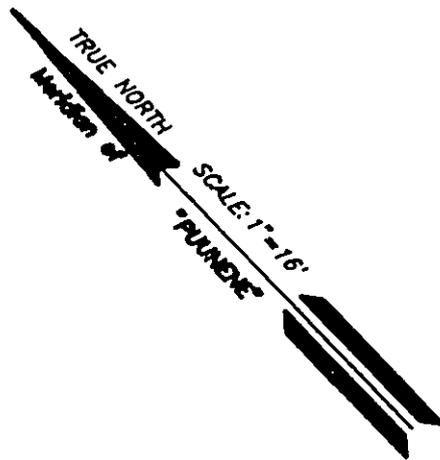
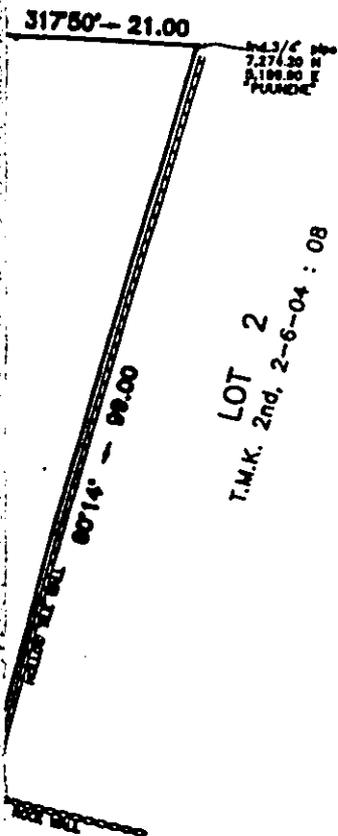
SECTION E  
SCALE: 3/8"=1'-0"



ROCK STEPS  
NO SCALE

LUCA	No	Date	Reason	Int
 <p><b>PROPOSED RETAINING WALL TO BE LOCATED AT LOIO PLACE PAIA, HAWAII TKM 12ND 2-6-04M</b></p>				
THIS OFFER WAS PREPARED BY ME IN ACCORDANCE WITH THE 			<b>OWNER</b> DR RICHARD RASMUSSEN PO BOX 69 PAIA, HAWAII 96779	
DATE 6-25-97			Sheet ① of 2	





**NOTES:**

1. This map was based from a survey performed on August 13, 1992, July 27, 1994, January 4, 1996 and February 25, 1997.
2. Coordinates and Azimuths are based upon Triangulation Station "PUUNENE" and its meridian as established from found boundary corners.
3. Topographic information shown are general reference only.

**STAMPED CERTIFIED ORIGINAL  
ON FILE WITH MAUI COUNTY  
PLANNING DEPARTMENT**

**Shoreline Verification  
(For Shoreline Setback Purpose)**

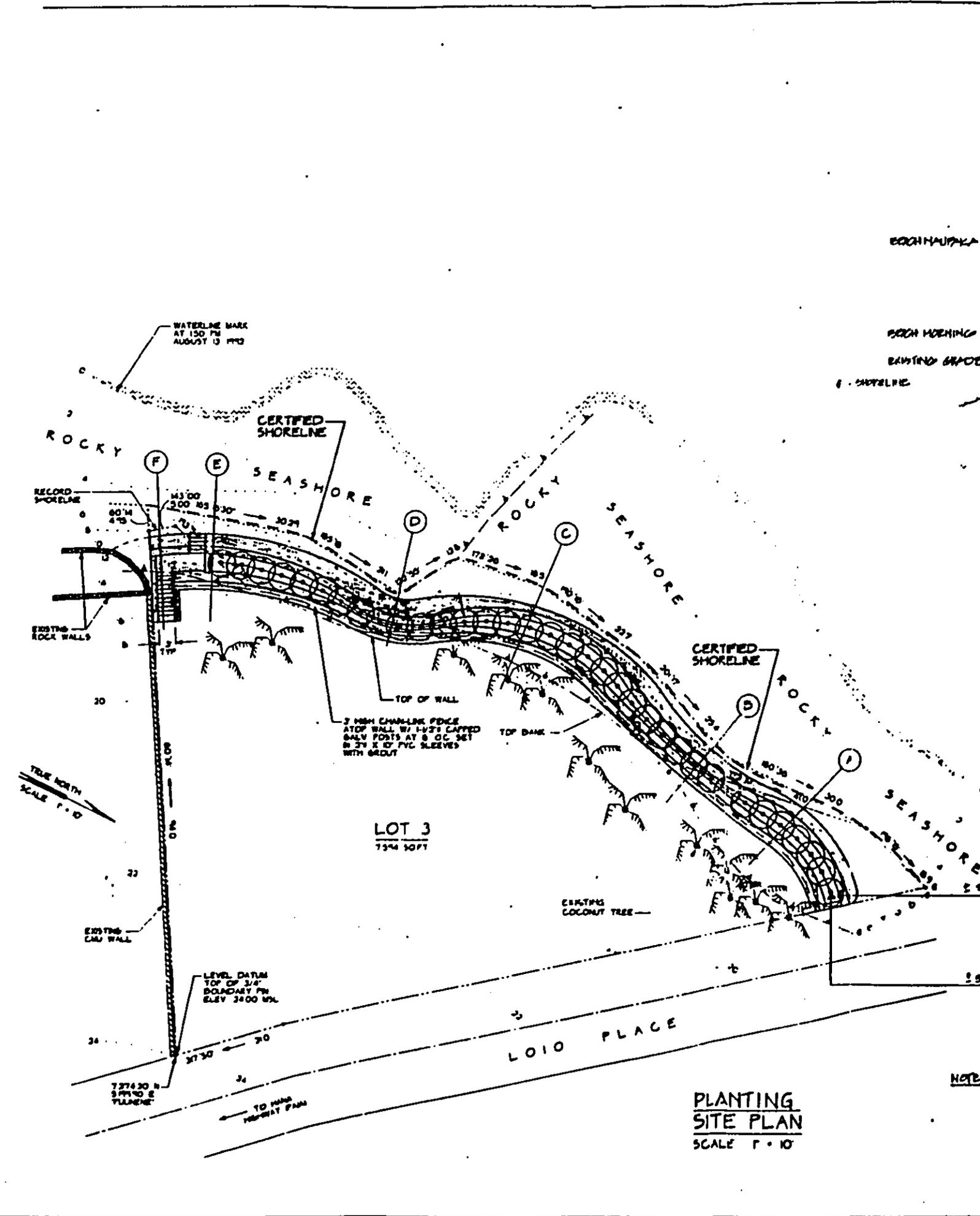
**LOT 3  
HAMAKUAPOKO HUI PARTITION  
SECTION 2**

**PAIA, MAUI, HAWAII**

Owner: Richard and Lynn Rasmussen  
P.O. Box 89  
Paie, Maui, Hawaii

REVISED : 5/22/87



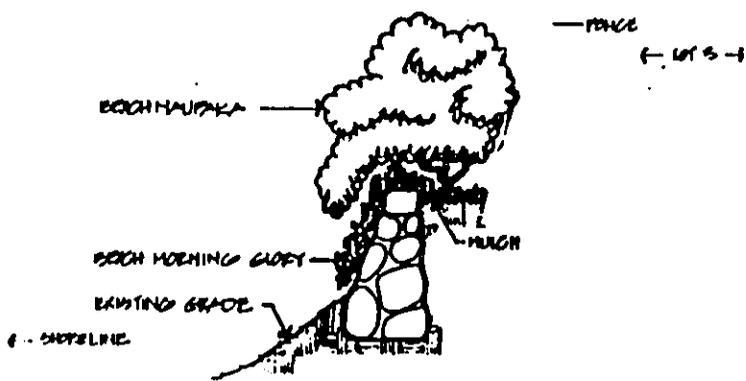


BOON HAI PAKA  
BOON HOENING  
EXISTING GRADE  
E. SHORELINE

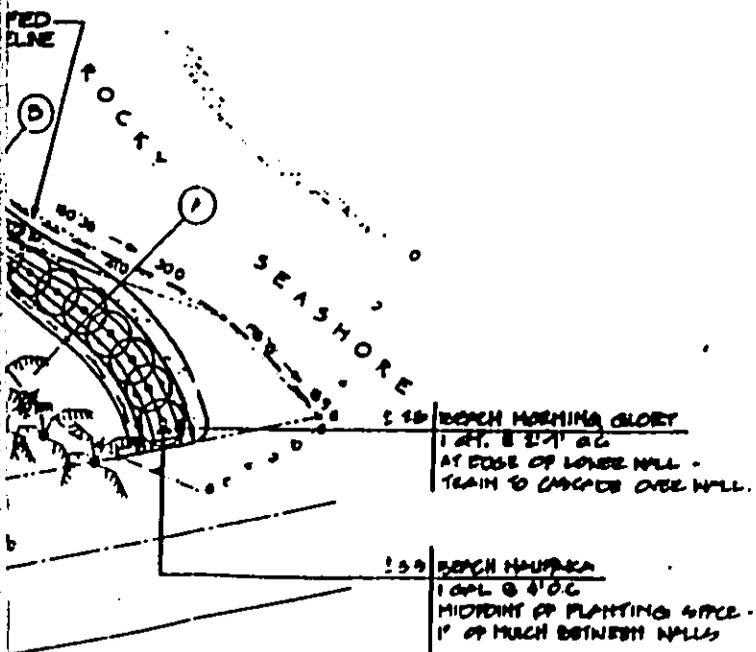
LOT 3  
7344 3077

PLANTING  
SITE PLAN  
SCALE 1" = 10'

NOTE

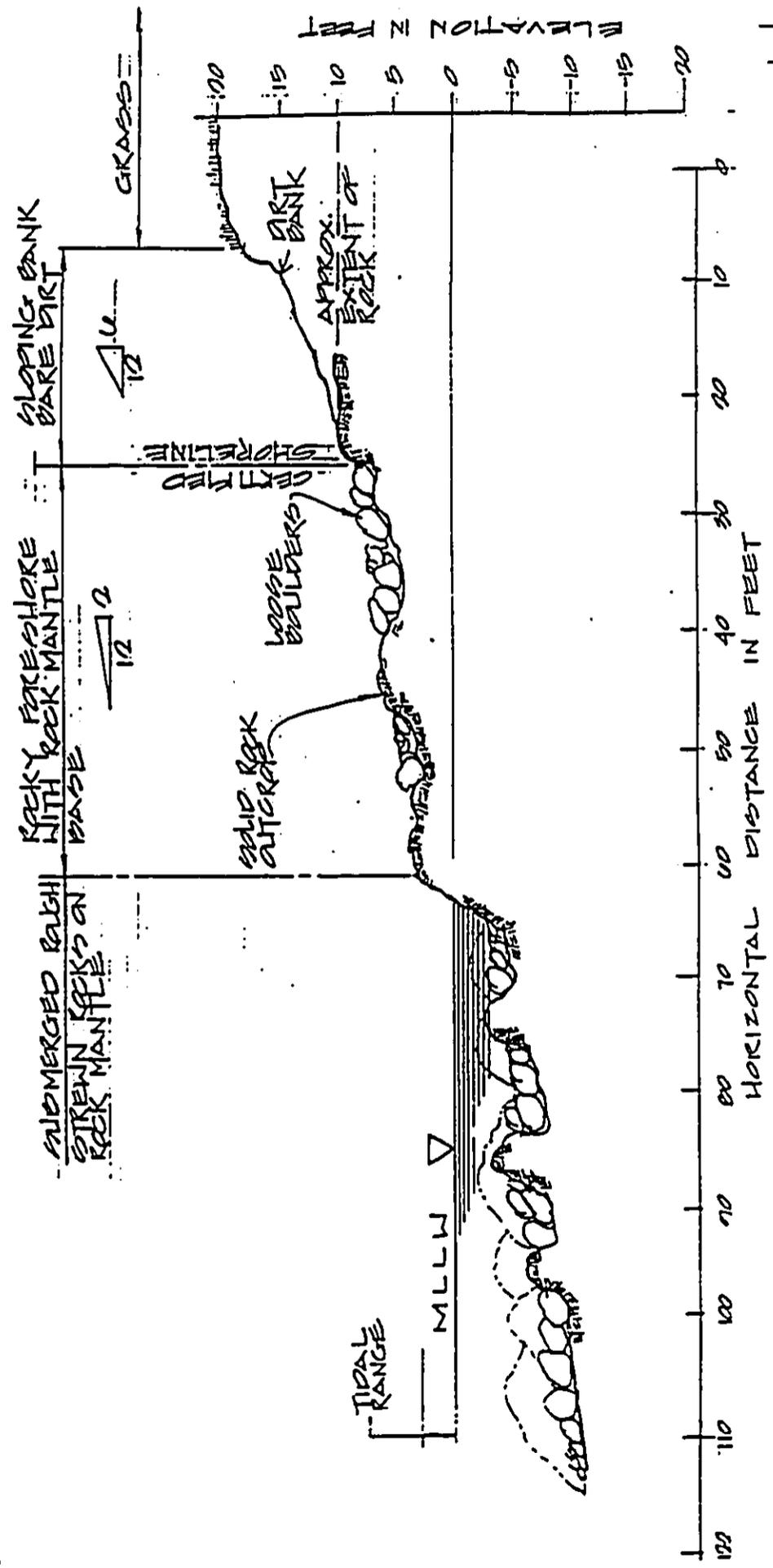


TYPICAL WALL & PLANTING SECTION



NOTE: PLANTINGS TO BE MAINTAINED BY IRRIGATION  
SYSTEM PROVIDED BY OWNER.

PLANTING  
PLAN  
1" = 10'



TYPICAL SHORELINE PROFILE

0 10 20 30 40 50 60 70 80 90 100 110 120

ELEVATION IN FEET

0 10 20 30 40 50 60 70 80 90 100 110 120  
HORIZONTAL DISTANCE IN FEET



KEY TO MAP

100-Year Flood Boundary	-----	ZONE B
50-Year Flood Boundary	-----	ZONE B
Zone Designations* with Date of Certification (e.g., 2012 74)	-----	ZONE A1 DATE
100-Year Flood Boundary	-----	ZONE A1 DATE
100-Year Flood Boundary	-----	ZONE B
Base Flood Elevation Line with Elevation in Feet**	-----	513
Base Flood Elevation in Feet where Uniform Within Zone**		1EL 9871
Elevation Reference Mark		RM7
Coastline Mark		M 20

\*\*Referenced to the National Geodetic Vertical Datum of 1929

\*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AOH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
AOB	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood, or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile, or areas protected by levees from the base flood (medium shading).
C	Areas of minimal flooding (No shading).
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
FLOOD INSURANCE RATE MAP

MAUI COUNTY, HAWAII

PANEL 185 OF 400  
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER  
150003 0185 8  
EFFECTIVE DATE:  
JUNE 1, 1981

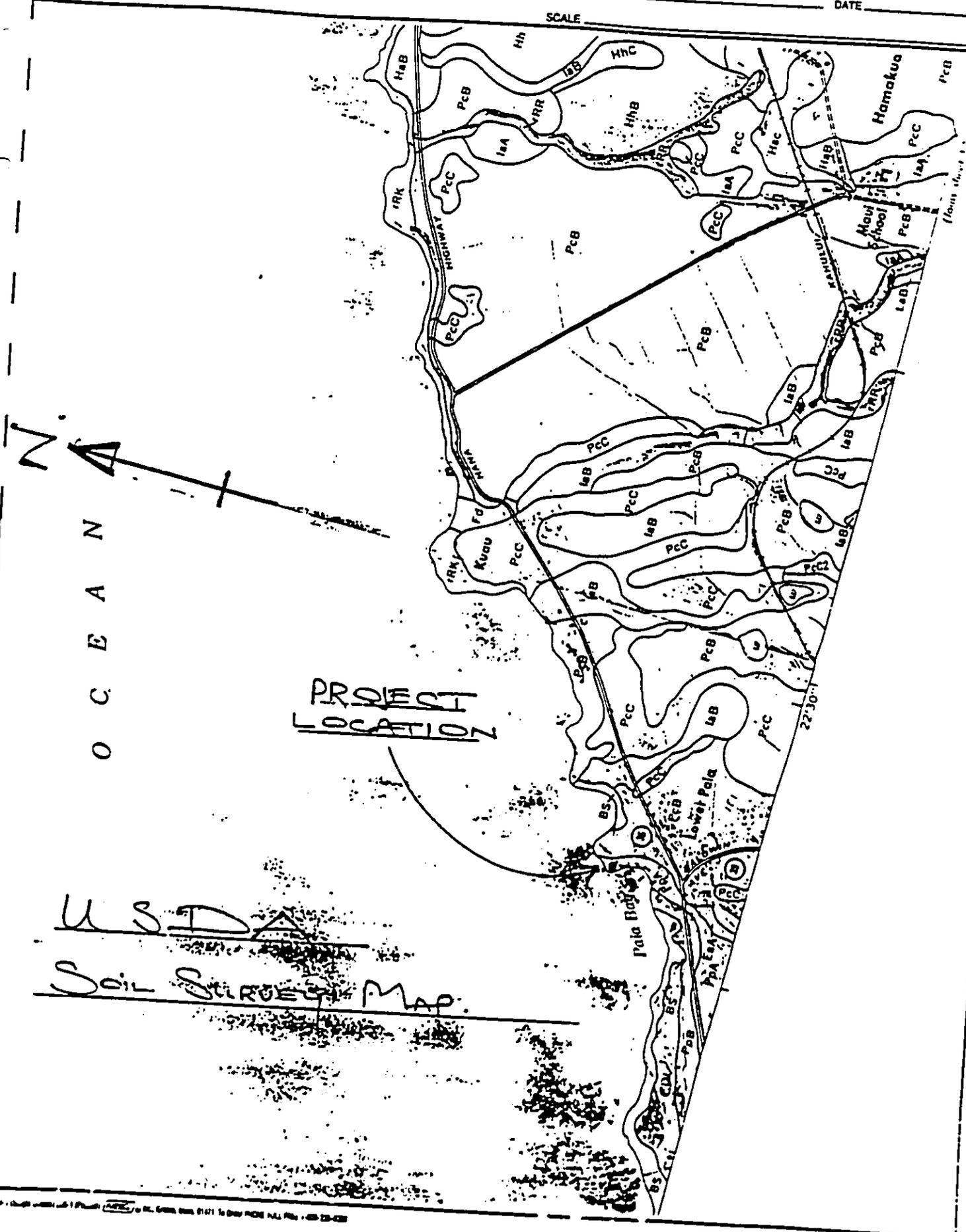


federal emergency management agency  
federal insurance administration

CUSTOMER COPY

PITT ENGINEERING CONSULTANTS  
Structural & Civil Engineers  
P.O. Box T  
PAIA, HAWAII 96779  
(808) 871-8689  
FAX (808) 871-7488

JOB K. ASMUSSEN  
SHEET NO. 8 OF 13  
CALCULATED BY SPD DATE 6.25.97  
CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
SCALE \_\_\_\_\_



USDA  
Soil Survey Map

DOCUMENT CAPTURED AS RECEIVED

**PITT ENGINEERING CONSULTANTS**  
Structural & Civil Engineers  
P.O. Box T  
PAIA, HAWAII 96779  
(808) 871-8689  
FAX (808) 871-7488

JOB R. SMUSSEN  
SHEET NO. 9 OF 13  
CALCULATED BY SP DATE 6.25.93  
CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
SCALE \_\_\_\_\_

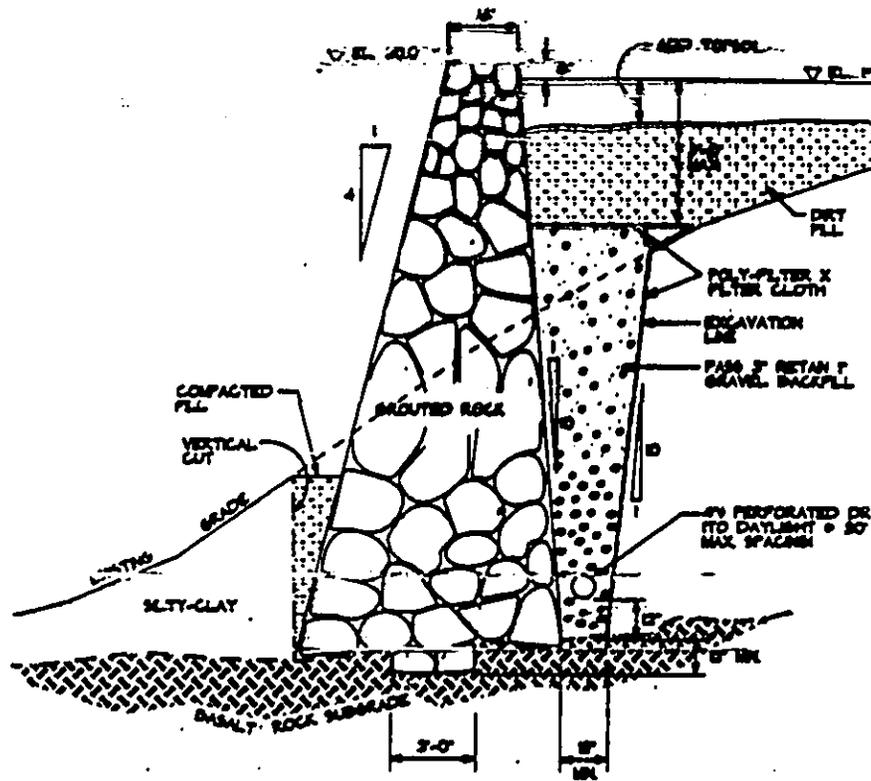
SOIL DATA

**Pulehu Series**

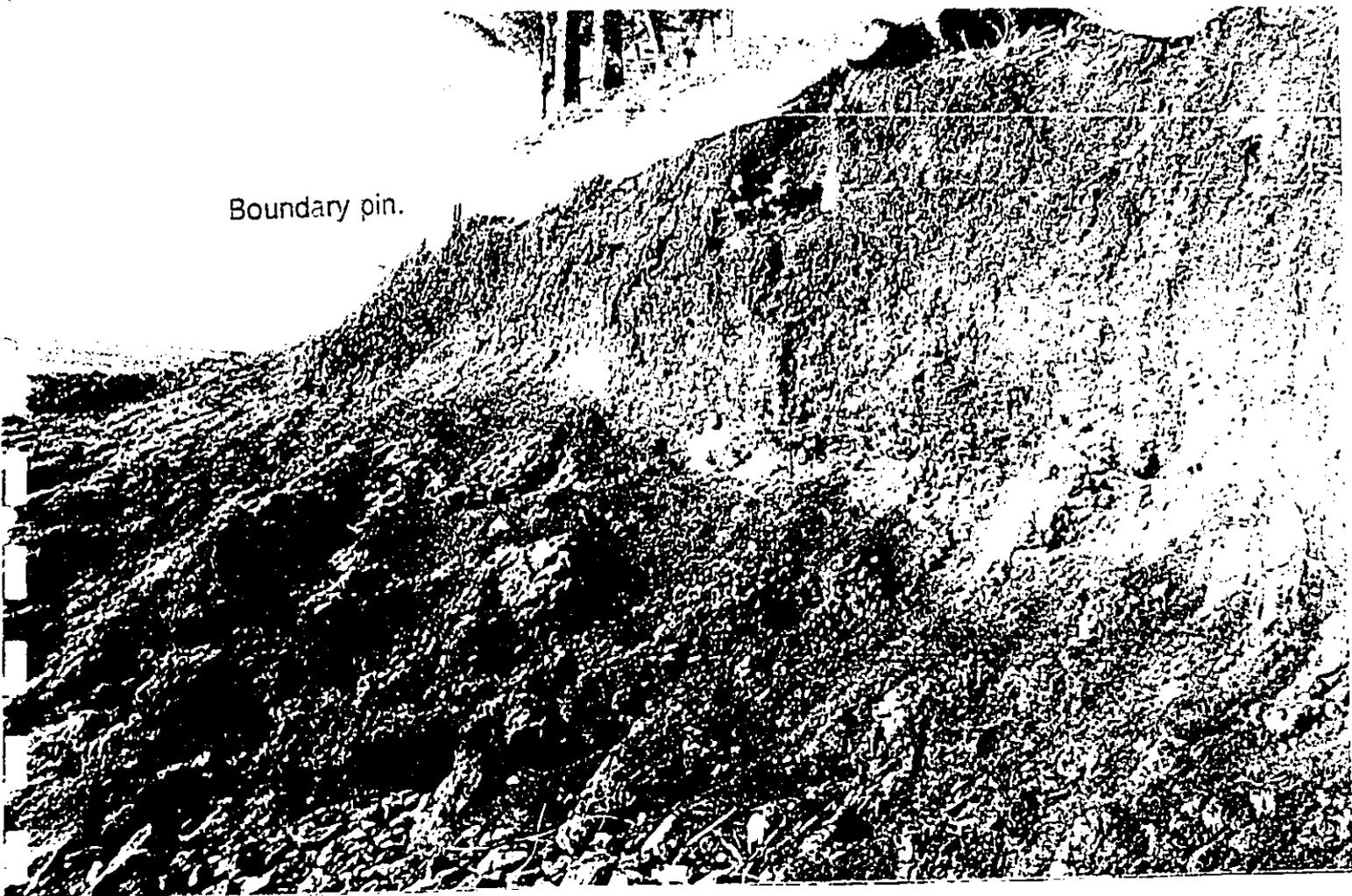
This series consists of well-drained soils on alluvial fans and stream terraces and in basins. These soils occur on the islands of Lanai, Maui, Molokai, and Oahu. They developed in alluvium washed from basic igneous rock. The soils are nearly level to moderately sloping. Elevations range from nearly sea level to 300 feet. The annual rainfall amounts to 10 to 35 inches. The mean annual soil temperature is 74° F. Pulehu soils are geographically associated with Ewa, Jaucas, Kealia, Lualualei, Waialua, and Mala soils.

These soils are used for sugarcane, truck crops, pasture, homesites, and wildlife habitat. The natural vegetation consists of bermudagrass, bristly foxtail, fingergrass, kiawe, klu, lantana, koa haole, and sandbur.

Pulehu silt loam, 0 to 3 percent slopes (PpA)-I soil is similar to Pulehu clay loam, 0 to 3 percent slope except that the texture is silt loam. This soil is used for sugarcane. Small acreages are used for homesites. (Climatic classification I if irrigated, IVc if nonirrigated; sugarcane group 1; pasture group 2)

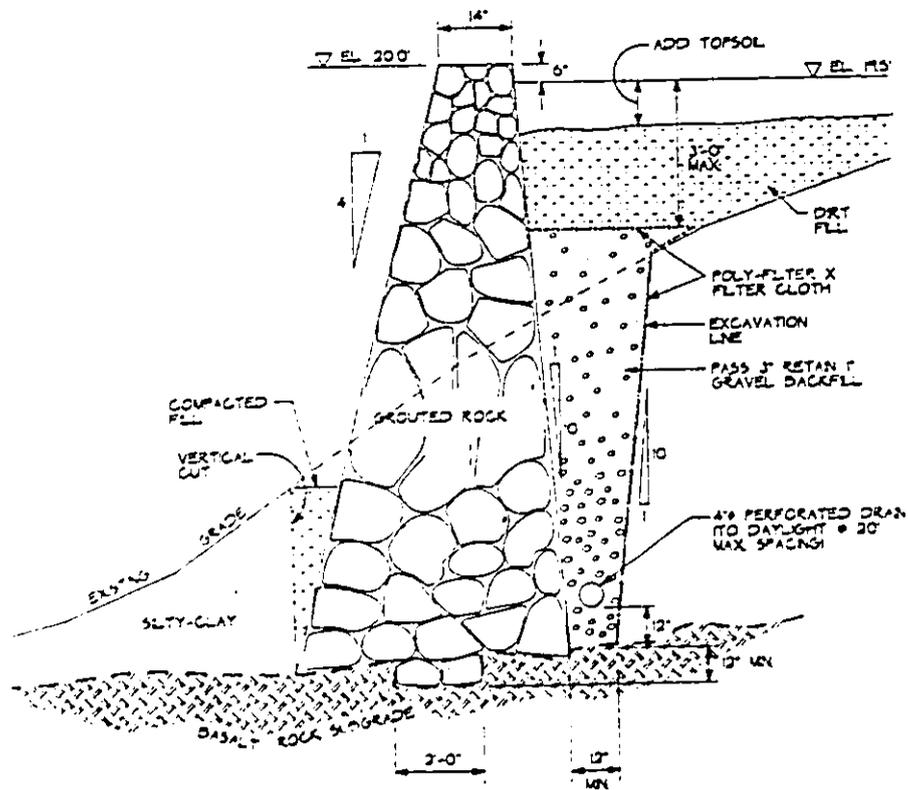


TYPICAL RETAINING WALL SECTION



Boundary pin.

Typical soil bank profile with rock retaining wall section overlay.



TYPICAL RETAINING WALL SECTION



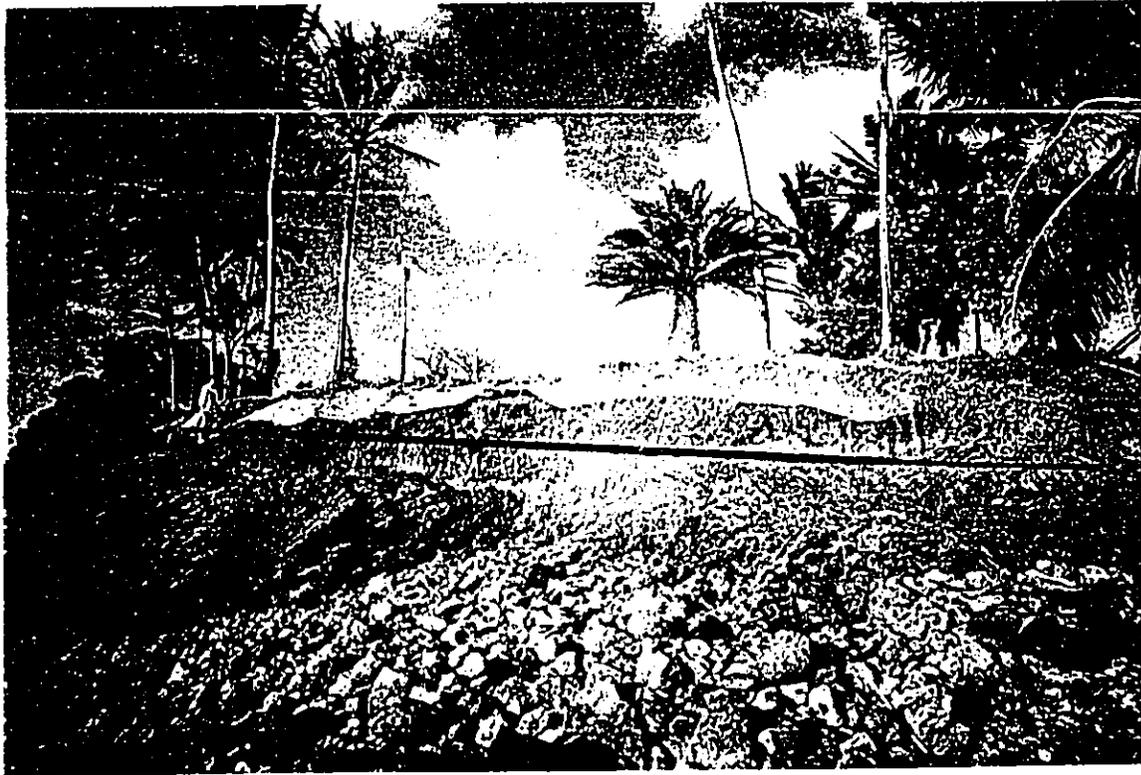
Two views of adjacent property looking SE (right of picture) showing existing rock retaining wall with Naupaka ground cover. Picture below with exposed soil bank of subject property on left and continuing NW.





Exposed soil bank continuing NW (left of picture) note: orange boundary stakes. Picture below looking NW towards subject property from existing rock retaining wall on adjacent property.





Boundary line follows exposed soil bank NW from NE corner to middle of subject property. Picture below shows typical rocky shoreline situation. Retaining wall to be built Mauka of boundary line.





Boundary line continuing NW at top of exposed soil bank from middle of subject property. Picture below shows proposed location of stairway ( person standing) retaining wall ends at stairway.



**E. Drainage Report**

Lynn Rasmussen  
P.O. Box 89  
Paia, Hawaii 96779  
(808) 573-1995

May 11, 1995

County of Maui  
Planning Department

re: Preliminary Drainage Report for a Shoreline Setback Variance Request  
TMK #2-6-04:19

To whom it may concern:

Attached is a map of the area affecting the site. The arrows indicate the flow of storm run-off.

As you can see, during heavy rain storms water flows from the mauka direction down Hana Highway on the mauka side of the road. Just after passing Charley's Restaurant, it crosses the highway draining through properties makai of Hana Highway. Properties on Loio Place are not affected by makai run-off during heavy storms because the water flows on the other side of Hana Highway and because Loio Place is higher than the highway.

Loio Place is banked to drain into the cemetery property. During very heavy storms some water gathers at the end of the road on cemetery property, but I have never seen it drain directly into the ocean.

The site of the proposed wall is a 7594 square foot lot. Construction of a seawall that involves gravel behind it will only filter and clean whatever small amount of storm drainage that may accumulate from the lot. Our intention is to drain water away from the proposed wall and from draining directly into the ocean.

Thank you for your attention.

Sincerely,

Lynn Rasmussen



**EXHIBITS**

## **A. Exhibits of Agency Comments**

### **County of Maui**

**Department of Parks and Recreation**

**Department of Public Works and Waste Management**

### **State of Hawaii**

**Department of Land and Natural Resources**

**University of Hawaii at Manoa, Environmental Center**

**Department of Accounting and General Services**

**Department of Health**

**Department of Transportation**

**Department of Land and Natural Resources, Historic Preservation Division**

**Office of State Planning**

**U. S. Department of the Army, Director of Engineering**

**U. S. Department of Agriculture, Natural Resources Conservation Service**

5244



DEPARTMENT OF  
PARKS AND RECREATION  
COUNTY OF MAUI

1580 KAAHUMANU AVENUE, WAILUKU, HAWAII 96793 **75 JUL 14 P2:49**

LINDA CROCKETT LINGLE  
Mayor  
CHARMAINE TAVARES  
Director  
LEE DODSON  
Deputy Director

DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

(808) 243-7230

May 26, 1995

Ms. Gwen Ohashi  
Acting Planning Director  
Maui Planning Department  
250 South High Street  
Wailuku, HI 96793

Attention: Larry Brooks

Subject: I.D. No.: 95/SM1:019, 95/SSV-0002, 95/EA-0006  
TMK: 2-6-004:019  
Rasmussen Seawall  
Applicant: Richard and Lynn Rasmussen

Dear Ms. Ohashi:

We have reviewed the subject application and have no objections to the project as long as the public access to the shoreline is not impeded. We defer our comments for the project to the Planning Department and Department of Public Works and Waste Management.

Thank you for allowing us to comment on the applications.

Sincerely,

*Charmaine Tavares*

*for* CHARMAINE TAVARES  
Director

CT/rt

Enclosure

LINDA CROCKETT LINGLE  
Mayor

CHARLES JENCKS  
Director

AARON SHINMOTO, P.E.  
Chief Staff Engineer



95 JUL 27 1995  
COUNTY OF MAUI  
DEPARTMENT OF PUBLIC WORKS  
AND WASTE MANAGEMENT  
DEPT OF LAND AND NATURAL RESOURCES  
COUNTY ENGINEERING AND CODES ADMINISTRATION  
RECEIVED  
30 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

RALPH NAGAMINE, L.S., P.E.  
Land Use and Codes Administration

EASSIE MILLER, P.E.  
Wastewater Reclamation Division

LLOYD P.C.W. LEE, P.E.  
Engineering Division

DAVID WISSMAR, P.E.  
Solid Waste Division

BRIAN HASHIRO, P.E.  
Highways Divisions

July 25, 1995

MEMO TO: Gwen Y. Ohashi, Acting Director of Planning

F R O M: Charles Jencks, Public Works & Waste Management Director

SUBJECT: Special Management Area Permit, Shoreline Setback Variance and  
Environmental Assessment Applications

**RASMUSSEN SEAWALL**

TMK: (2)2-6-004:019

95/SM1-019, 95/SSV-0002, 95/EA-C006

We reviewed the above request and have no comments.

If you have any questions regarding this memorandum, please call me at ext.  
7845.

ey

xc: Engineering Division  
Solid Waste Division  
Wastewater Reclamation Division

g:\luca\all\czm\rasmussen

BENJAMIN J. CAYETANO  
Governor of Hawaii



95 SEP 13 12:19  
DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

REF: OCEA:KRM

P. O. Box 621  
Honolulu, Hawaii 96809

File No.: 95-603

The Honorable David W. Blane, Director  
Planning Department  
County of Maui  
250 South High Street  
Wailuku, Maui, Hawaii 96793

Chairperson  
MICHAEL D. WILSON  
Board of Land and Natural Resources

Deputy Director  
GILBERT COLOMA-AGARAN

Aquaculture Development  
Aquatic Resources  
Boating and Ocean Recreation  
Bureau of Conveyances  
Conservation and Environmental Affairs  
Conservation and Resources Enforcement  
Forestry and Wildlife  
Historic Preservation  
Land Management  
State Parks  
Water and Land Development

Dear Mr. Blane:

SEP 14 1995

SUBJECT: Special Management Permit (95/SM1-019) and Shoreline  
Setback Variance Applications (95/SSV-0002): Rasmussen  
Seawall, Paia, Hamakuapoko, Maui, TMK: 2-6-04:19

We have reviewed the information for the subject project transmitted by your memorandum dated June 9, 1995, and apologize for the delayed response. The following are our comments and concerns:

Office of Conservation and Environmental Affairs

The Office of Conservation and Environmental Affairs (OCEA) is generally opposed to the hardening of Hawaii's shorelines which are located within the Conservation Land Use District. However, insofar as there is no sandy beach in this front of this segment of the shoreline, we agree that the impact of this split-level sloping seawall is likely to be minimal.

OCEA points out that the document by PITT Engineering Consultants does not address how the subject project conforms to the objectives and policies of the State's Coastal Zone Management (CZM) Program, Chapter 205A-2, Hawaii Revised Statutes (HRS).

Division of Historic Preservation

Our Historic Preservation Division (HPD) comments are based on historic reports, maps, and aerial photographs maintained at the HPD; in addition, the Maui archaeologist inspected the entire length of eroded beach embankment in August 1993.

There is no record of historic sites at this location, and the field inspection of the beach embankment showed it to be devoid of cultural layers or materials. Therefore, we believe that the granting of a Special Management Area Permit and a Shoreline Setback Variance will have "no effect" on significant historic sites.

Mr. D. Blane

-2-

FILE NO.: 95-603

Division of Land Management

Our Division of Land Management (DLM) comments that although the building of seawalls helps prevent coastal retreat, it also destroys beaches. However, should a seawall be approved for construction, the wall shall be constructed totally within the private property. DLM also notes that this request should be reviewed by the Coastal Zone Management Office of the Office of State Planning.

Division of Aquatic Resources

Our Division of Aquatic Resources (DAR) comments that no significant long-term impact adverse to aquatic resource values is expected from the rock seawall.

The seawall should only be allowed mauka of the certified shoreline with precautions taken during construction to prevent debris, wastes, eroded materials, dirt or other contaminants from entering the marine environment.

Thank you for the opportunity to comment on this matter. Please feel free to contact Steve Tagawa at our Office of Conservation and Environmental Affairs at 587-0377, should you have any questions.

Aloha,

*Michael D. Wilson*  
MICHAEL D. WILSON



University of Hawai'i at Mānoa <sup>85</sup> AUG 23 P1:46

Environmental Center  
A Unit of Water Resources Research Center  
Crawford 317 • 2550 Campus Road • Honolulu, Hawai'i 96822  
Telephone: (808) 956-7361 • Facsimile: (808) 956-3980

DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

August 16, 1995  
EA: 00127

Mr. Larry Brooks  
County of Maui  
Planning Commission  
200 South High Street  
Wailuku, Hawaii 96793

Dear Mr. Brooks:

Draft Environmental Assessment  
Rasmussen Seawall  
Paia, Maui

The proposed structure is a split-level, sloping rock seawall varying from 5 to 15 feet in height. It will extend approximately 150 feet along and back from the seaward boundary of the property. The site is located in Paia on the northern shoreline of Maui. The present shoreline is composed of outcrops of basalt interspersed with large and small boulders 6 to 12 feet in thickness. It is capped by a dirt layer of some 6 to 12 feet in thickness which is eroding along portions of the shoreline. There are no sandy beaches in the vicinity of the site. The shoreline is rocky and receives no sand deposits or build-up.

Our review was completed with the assistance of Charles Fletcher, Geology and Tom Hawley, Environmental Center.

We are concerned about the rationale provided in the Environmental Assessment for construction of the seawall. Although the document cites safety concerns as the prime reason for the proposed project (p. 3), there are other, less environmentally damaging methods available to improve the safety of the area. Thus, we view the proposed seawall simply as an attempt to tidy up the shoreline. Since there is no sandy beach at this site which might require "protection," there is little to fear from wave action. Given these factors, we question the wisdom of further armoring the shoreline.

Mr. Larry Brooks  
August 21, 1995  
Page 2

Several other, much less harmful techniques are available that could help stabilize the shoreline, including landscaping, drainage diversion and plantings. We suggest consultation with a landscape architect to further pursue these options.

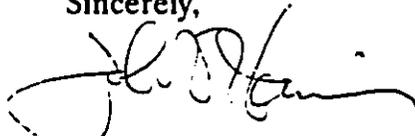
No discussion of prevailing physical oceanographic conditions in the region fronting the proposed shoreline structure is included. Again, although surf hazards are implied, the majority of landform alteration appears to result from rain and wind erosion. Without long-term records of shoreline migration or historic wave runup data, it is difficult to assess the degree of hazard which is present.

The plan calls for installation of rock steps within the seawall to provide access to the foreshore area from the proposed future residence. Though perhaps less able to withstand heavy wave action, wooden steps, because they are lighter, are significantly less destructive should they be carried inland during high storm conditions. Wooden steps also reflect more of a "design with nature" approach to the shoreline.

Finally, public beach access is crucial and the ability to walk around rocky outcrops must be preserved. We acknowledge and appreciate the explicit attention given to this issue in the Draft Environmental Assessment (p. 5). Nevertheless, it is important to consider the interests of fishermen and other beach users in the area who will require lateral access to the beach which the seawall could impede.

Thank you for the opportunity to comment on this Environmental Assessment.

Sincerely,



John T. Harrison  
Environmental Coordinator

cc: OEQC  
Pitt Engineering Consultants  
Dr. And Mrs. Richard Rasmussen  
Roger Fujioka  
Charles Fletcher  
Tom Hawley

4634  
BENJAMIN J. CAYETANO  
~~XXXXXXXXXX~~  
GOVERNOR



EUGENE S. IMAI  
~~XXXXXXXXXX~~  
COMPTROLLER

95 JUN 22 12:41

DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING  
AND GENERAL SERVICES  
SURVEY DIVISION  
P. O. BOX 119  
HONOLULU, HAWAII 96810

FILE NO. \_\_\_\_\_

June 21, 1995

TRANSMITTAL

TO: Mr. Brian Miskae, Director  
ATTN.: Mr. Larry Brooks  
SUBJECT: I.D. No.: 95/SM1:019, 95/SSV-0002, 95/EA-0006  
TMK: 2-6-004:019  
Project Name: Rasmussen Seawall  
Applicant: Richard and Lynn Rasmussen

REMARKS:

The subject proposal has been reviewed and confirmed that no Government Survey Triangulation Stations and Benchmarks are affected. Survey has no objections to the proposed project.

*Randall M Hashimoto*  
RANDALL M. HASHIMOTO  
Acting State Land Surveyor

2-144  
BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



LAWRENCE MIKE  
DIRECTOR OF HEALTH

95 JUL -3 P4:08  
STATE OF HAWAII  
DEPARTMENT OF HEALTH  
MAUI DISTRICT HEALTH OFFICE  
54 HIGH STREET  
WAILUKU, MAUI, HAWAII 96793

LAWRENCE HART, M.D., M.P.H.  
DISTRICT HEALTH OFFICER

June 30, 1995

Ms. Gwen Ohashi  
Acting Director  
Department of Planning  
County of Maui  
250 S. High Street  
Wailuku, Hawaii 96793

Dear Ms. Ohashi:

Subject: 95/SM1-019, 95SSV-0002, 95/EA-0006, Rasmussen Seawall, Paia, Maui,  
Hawaii, TMK: 2-6-004: 019

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

A National Pollutant Discharge Elimination System (NPDES) permit is required for any discharge to waters of the State including the following:

1. Storm water discharges relating to construction activities for projects greater than five acres;
2. Storm water discharges from industrial activities;
3. Construction dewatering activities;
4. Cooling water discharges less than one million gallons;
5. Ground water remediation activities; and
6. Hydrotesting water.

Any person wishing to be covered by the NPDES general permit for any of the above activities should file a Notice of Intent with the Department of Health's Clean Water

Ms. Gwen Ohashi

Page 2

June 30, 1995

Branch at least ninety (90) days prior to commencement of discharge into waters of the State.

Any questions regarding this matter should be directed to Mr. Denis Lau of the Clean Water Branch on Oahu at 586-4309.

Sincerely,



HERBERT S. MATSUBAYASHI  
Chief Sanitarian, Maui

xc: Art Bauckham, EPO

5011  
BENJAMIN CAYETANO  
GOVERNOR



KAZU HAYASHIDA  
DIRECTOR  
DEPUTY DIRECTORS  
SAM CALLEJO  
GLENN M. OKIMOTO

95 JL -6 P352

DEPT OF PLANNING  
COUNTY OF MAUI  
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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:  
STP 8.6844

June 30, 1995

Ms. Gwen Y. Ohashi  
Acting Director  
Planning Department  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

Dear Ms. Ohashi:

Subject: Rasmussen Seawall  
Assessment for a Proposed Shoreline Rock Wall  
I.D. No. 95/SM1:019, 95/SSV-0002, 95/EA-0006  
TMK: 2-6-004: 019

Thank you for your transmittal dated June 9, 1995.

The subject development is not anticipated to impact our State transportation facilities.

We appreciate the opportunity to provide comments.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Kazu Hayashida".

KAZU HAYASHIDA  
Director of Transportation

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



MICHAEL D. WILSON, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY  
GILBERT COLOMA-AGARAN

95 JUL 12 12:40

DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION  
33 SOUTH KING STREET, 6TH FLOOR  
HONOLULU, HAWAII 96813

AQUACULTURE DEVELOPMENT  
PROGRAM  
AQUATIC RESOURCES  
CONSERVATION AND  
ENVIRONMENTAL AFFAIRS  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
DIVISION  
LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT

July 10, 1995

Mr. Brian Miskae, Director  
Maui Planning Department  
250 South High Street  
Wailuku, Hawaii 96793

LOG NO: 15056 ✓  
DOC NO: 9507SC17

Dear Mr. Miskae:

SUBJECT: (I.D. No. 95/SMI:019, 95/SSV-0002, 95/EA-0006) Historic  
Preservation Review of a Special Management Permit  
(95/SMI-019) and Shoreline Setback Variance (95/SSV-0002)  
for the Rasmussen Seawall  
Paia, Hamakuapoko, Makawao District, Maui  
TMK: 2-6-04:19

Thank you for the opportunity to comment on the Special Management Area (SMA) permit application, a Shoreline Setback Variance (SSV), and an Environmental Assessment (EA) for the proposed construction of a seawall on the Rasmussen property at Paia, Maui. Our review is based on historic reports, maps, and aerial photographs maintained at the State Historic Preservation Division; in addition, the Maui archaeologist inspected the entire length of eroded beach embankment in August 1993.

We have no record of historic sites at this location, and the field inspection of the beach embankment showed it to be devoid of cultural layers or materials. Therefore, we believe that the granting of a Special Management Area Permit and a Shoreline Setback Variance will have "no effect" on significant historic sites.

Should you have any questions, please feel free to call Sara Collins at 587-0013.

Aloha

  
DON HIBBARD, Administrator  
State Historic Preservation Division

SC:jen



# OFFICE OF STATE PLANNING

Office of the Governor

MAILING ADDRESS: P.O. BOX 3540, HONOLULU, HAWAII 96811-3540  
STREET ADDRESS: 250 SOUTH HOTEL STREET, 4TH FLOOR  
TELEPHONE: (808) 587-2846, 587-2800

BENJAMIN J. CAYTANO, A

FAX: Director's Office 587-  
Planning Division 587-2.

Ref. No. C-1322

July 13, 1995

DEPT OF PLANNING,  
COUNTY OF MAUI  
RECEIVED  
95 JUL 19 3:15

Ms. Gwen Ohashi  
Acting Director  
Planning Department  
County of Maui  
250 South High Street  
Wailuku, Hawaii 96793

Dear Ms. Ohashi:

We have reviewed the environmental assessment for the proposed rock seawall on Loio Place, Paia, Maui.

It is unclear whether the applicant has submitted a certified shoreline map. The shoreline should be certified before granting a shoreline setback variance. The shoreline setback variance (SSV) application should make it clear that the wall is to be built mauka of the shoreline.

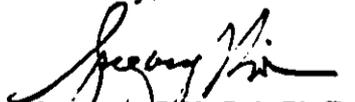
The environmental assessment should address the potential for scouring to occur below the wall, thus undermining the foundation below the wall.

HRS 205A-2(c)(1) requires that public access be provided along shoreline with recreational value. Furthermore, HRS 205A-46 requires that no variance shall be granted unless appropriate conditions are imposed to maintain safe lateral access to and along the shoreline. The EA states that the rocky shoreline is currently used by fishermen and people walking on the rocky foreshore area. In addition, the adjacent property provides shoreline access. In this regard, if the SSV is granted, conditions should be imposed to require safe public access along the top of the wall should sea level rise make lateral access along the foreshore impractical.

Since variances allow structures or activities normally prohibited by law, variances can only be granted under limited circumstances, HRS 205A-46. For the proposed use, the applicant must demonstrate hardship.

If there are any questions, please contact Tom Eisen or David Kimo Frankel at 587-2877 or 587-2839, respectively.

Sincerely,

  
Gregory G.Y. Pai, Ph.D.  
Director



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



REPLY TO  
ATTENTION OF

July 17, 1995

95 JUL 19 A8:12

Planning Division

DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

Mr. Larry Brooks, Staff Planner  
County of Maui  
Planning Department  
250 South High Street  
Wailuku, Maui, Hawaii 96793

Dear Mr. Brooks:

Thank you for the opportunity to review and comment on the Project Plans and Environmental Assessment for the Rasmussen Seawall, Paia, Maui (TMK 2-6-4: 19). The following comments are provided pursuant to Corps of Engineers authorities to disseminate flood hazard information under the Flood Control Act of 1960 and to issue Department of the Army (DA) permits under the Clean Water Act; the Rivers and Harbors Act of 1899; and the Marine Protection, Research and Sanctuaries Act.

a. Based on the information provided, a DA permit will not be required for the project as long as the wall is constructed above the ordinary high tide water line.

b. According to the enclosed Federal Emergency Management Agency's Flood Insurance Rate Map, panel number 150003 0185B (dated June 1, 1981), the project site is located in V23 (areas inundated by the 100-year coastal flood with velocity hazards and a base flood elevation of 14 to 15 feet above mean sea level).

Sincerely,

Ray H. Jyo, P.E.  
Director of Engineering

Enclosure

5010



United States  
Department of  
Agriculture

Natural  
Resources  
Conservation  
Service

210 Imi Kala Street  
Suite 209  
Wailuku, HI  
96793-2100

July 5, 1995

Mr. Larry Brooks, Planner  
Planning Department  
County of Maui  
250 S. High Street  
Wailuku, Hawaii 96793

Dear Mr. Brooks,

Subject: Rasmussen Seawall; TMK: 2-6-04:19  
I.D. No. 95/SM1-019, 95/SSV-0002, 95/EA-0006

I have no comment on the subject application.

Sincerely,

Neal S. Fujiwara  
District Conservationist

95 JUL -6 P352  
DEPT OF PLANNING,  
COUNTY OF MAUI  
RECEIVED

The Natural Resources Conservation Service  
formerly the Soil Conservation Service,  
is an agency of the  
United States Department of Agriculture

AN EQUAL OPPORTUNITY EMPLOYER

**B. Exhibits of Public Comment and Response**

Gary Gill, State of Hawaii, Office of Environmental Quality Control

Response from Lynn Rasmussen

Response from Gary Gill, OEQC

BENJAMIN J. CAYETANO  
GOVERNOR



GARY GILL  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
220 SOUTH KING STREET  
FOURTH FLOOR  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 586-4186  
FACSIMILE (808) 586-2452

95 AUG 22 12:30  
DEPT OF PLANNING  
COUNTY OF MAUI  
RECEIVED

August 21, 1995

Ms. Gwen Ohashi  
Acting Planning Director  
County of Maui Planning Department  
250 S. High Street  
Wailuku, Hawaii 96793

Attention: Larry Brooks

Dear Ms. Ohashi:

Subject: Draft Environmental Assessment (EA) for Rasmussen Seawall, Paia, Maui;  
TMK 3-8-1:19

It is the policy of the State of Hawaii under HRS Chapter 205A to discourage all shoreline hardening that may affect access to, or the configuration of, our island beaches.

Any EA prepared in conjunction with an application to construct a seawall, revetment or similar structure should be accompanied by appropriate justification and detailed studies including, but are not limited to, the following:

1. A Historical Shoreline Analysis of coastal erosion and accretion rates. This should include a description of all movements of the neighboring shoreline over at least the past 30 years. This analysis should be based, at least in part, on aerial photographs available through government agencies and private vendors. The analysis should provide a detailed history of erosion and accretion patterns using all available evidence.
2. A description of the nature of the effected shoreline, whether sandy, rocky, mud flats or any other configuration. The history and characteristics of adjoining sand dunes and reefs should be included.
3. Site maps that clearly show the current certified shoreline, previous certified shorelines, the private property line and the location of the proposed structure. Any nearby public access right-of-way should also be depicted.

Ms. Gwen Ohashi  
August 21, 1995  
Page 2

4. Beach profiles that extend off shore at appropriate intervals along the beach indicating the width and slope of both the submerged and dry portions of the beach.
5. An analysis of any existing nearby walls or revetments and their cumulative impacts on the shoreline.
6. A description of structures and improvements (such as homes or swimming pools) on the subject property, their distance from the property line and shoreline, and how they may be affected by the construction of the proposed hardening project.
7. A wave and storm frequency analysis for the area in question. This should include any relevant coastal processes such as longshore currents and seasonal wave patterns.
8. An analysis that predicts the location of future shorelines with and without the proposed wall at least 30 years into the future or over the expected life of the hardening project.
9. Photos of the site that illustrate past and present conditions and locate the proposed structure.
10. All alternatives to shoreline hardening should be thoroughly researched and analyzed. These alternatives should include beach replenishment, dune-scaping, retreat from the shoreline by moving existing structures inland, and a no action alternative.

In addition please provide the following:

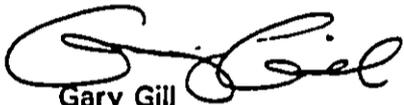
11. A map of the island and a map of the area, each indicating the project site.
12. Indicate the present public use of the coastal area. Any structure must be designed so that it will not limit public access to the shoreline. Note also that we oppose any structure that does not lie entirely within the applicant's property lines.
13. Indicate the previous use of the parcel. Archeological, flora and fauna surveys also need to be conducted for the site.
14. The applicant proposes to introduce ground cover and shrubs that will eventually hide the proposed seawall and the soil data report shows this soil suitable for various types of vegetation, yet the discussion on Vegetation (Part B) states that the soil does not appear capable of sustaining any vegetation. Please clarify. Also note that we encourage the use of only native Hawaiian plants and shrubs.

Ms. Gwen Ohashi  
August 21, 1995  
Page 3

15. Indicate if a Special Management Area permit is required and, if so, the status of the permit.

*The inclusion of this information will help make an Environmental Assessment complete and meet the requirements of Chapter 343, HRS. Only after thorough study and analysis should any permit for shoreline hardening be considered. If you have any questions please call Nancy Heinrich at 586-4185.*

Sincerely,



Gary Gill  
Director

GG/NH:kk

c: Stephen Pitt, R.P.E.  
Dr. & Mrs. Richard Rasmussen

Richard and Lynn Rasmussen  
P.O. Box 89  
Paia, Hawaii 96779  
(808)573-1995

Mr. David Blane, Director  
County of Maui Planning Department  
250 South High Street  
Wailuku HI 96793

Attention: Donald Schneider

Subject: Draft Environmental Assessment for Rasmussen Seawall, Paia, Maui TMK 2-6-4:19

Dear Mr. Blane:

The following is in response to Gary Gill, Director, Office of Environmental Quality Control, letter dated 8/21/95.

Please note that our TMK number is different from the number responded to in the letter. That TMK is located on the airport runway.

I telephoned Gary Gill regarding his letter because it seemed to be his office's standard letter referring to sandy beach oceanfront and our project involves rocky shoreline. His response dated 1/19/96 is enclosed.

(1) Regarding coastal erosion and accretion rates: We have provided aerial photos dated 2-27-50 that show that the distance between the shoreline and the existing palm trees has not visibly changed.

(2) Regarding the shoreline description: As indicated in Steve Pitt's report and in the enclosed photos, this is a rocky shoreline with no history of sandy beach. The property is located on the western side of Paia Bay. The waves tend to break perpendicularly to the lot on one side, and on the north side the waves hit the rocks well below the proposed wall. Historically tidal waves--tsunamis--have broken to each side of the point to wash up into Paia.

(3) Regarding site maps: A certified shoreline map was included in our proposal. Previous certified shorelines are less than five years old and show no changes. We will add them to our proposal.

(4) Regarding beach profiles: We have no sandy beach. The engineer does include a sample rocky shoreline profile in the proposal.

(5) Regarding nearby walls and their impacts: The adjacent property to the south, which we own, has a rock wall built about nine years ago by us. There has been no impact on the shoreline resulting from this structure. It is built at least 5-6 feet above sea level, on rock, with waves breaking perpendicularly to it. Various structures built in the past--the HC&S lime kiln wall, the Gaddis boulder wall on the bay Hana side of Paia bay, the wall on Paia Bay--do affect the sandy shoreline and erosion on adjacent properties. All of these walls are built

nearly at sea level and the waves break directly in front of them.

(6)Regarding structures on the property: There are no structures or improvements on the property at this time. An old house was demolished by the former owners over six years ago.

(7)(8)Regarding wave and storm frequency analysis and 30-year predictions of shorelines: It is my understanding that both of these concerns are for sandy shorelines. Wave action does not effect this wall and the surrounding area. A 30-year prediction of this shoreline has not been made and is beyond the scope of this project and of our finances. In fact, is this possible to do with current data? Please refer to the 46-year-old aerial photos and also to Gary Gill's letter dated 1/19/96 regarding this issue.

(9)Regarding site photos: Site photos and aerial photos are included in our proposal.

(10)Regarding alternatives to hardening: This is not sandy beachfront. The purpose of the wall is not to retard property loss caused by natural erosion and wave patterns. The purpose of the wall is to provide a safe, plantable boundary for the yard. The intention of this wall is not to extend or maintain the size of the lot. The usable yard will be somewhat reduced. It will prevent the dirt from crumbling down the slope and allow for drainage.

A variety of products are on the market for prevention of soil erosion. I have contacted John Pubaugh of John R, Purbaugh & Associates by phone. We discussed the various alternatives. He sent product information to me. Obviously, if my husband and I could avoid the complicated permit process and expense involved with a retaining wall and still meet our objectives, we would. All of the alternatives on the market at this time do not make sense for our property conditions. They are designed to prevent erosion on the side of highways and in waterways; they do not adequately protect the slope of this embankment and/or would be invasive to the shoreline and could undermine the integrity of existing soil.

(11)Regarding a map of the area: A map of the area was included in the proposal.

(12)Regarding public use and access: The shoreline use and access has been described in the report and reviewed by County agencies. Public shoreline access is adjacent to the property and will not be affected by this project at any time.

(13)Regarding previous site use: Appropriate County agencies have reviewed this proposal for these concerns and have found no archeological concerns. Plants on the property consist of grass, coconut trees, a date palm, and a few assorted weeds of no significance.

(14)Regarding plants and soil: The wall will allow us to add organic nutrients to the soil, to irrigate, to plant starts without having them wash away in the rain. The adjacent wall is covered in naupaka with a hau tree at one end to protect the property from Kona winds. We plan to use naupaka and maybe a small native tree for protection in the northern corner of the property.

(15)Regarding a SMA permit: This project is under \$50,000.

I attended a workshop put on by Charles Fletcher for Maui's Planning Commission. I have been reading about shoreline hardening and I am concerned about and aware of beach loss on

Maui. I would not propose this wall if I believed that it would negatively effect our shoreline.  
We use the beaches in Paia. We own property adjacent to this property and also in lower Paia.  
We appreciate your efforts to save our shoreline and protect our beaches.

Please call me with further concerns that you may have about our project.

Sincerely,

Lynn Rasmussen

BENJAMIN J. CAYETANO  
GOVERNOR



GARY GILL  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

220 SOUTH KING STREET  
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TELEPHONE (808) 588-4186  
FACSIMILE (808) 588-6482 4186

January 19, 1996

Ms. Lynn Rasmussen  
3191 Baldwin Avenue  
Makawao, Hawaii 96768

Dear Ms. Rasmussen:

Pursuant to our telephone conversation, I have enclosed some information that my office have collected on two products available that may retain the soil on your property without the need to build a wall along the shoreline.

It is my understanding that the intent of your project is not to stop land erosion caused by ocean waves but rather to hold a soil bank that crumbles under the feet of people and animals walking downslope to the rocky coastline.

If the products we have identified meet your needs, then time-consuming and expensive wall building and associated environmental studies can be avoided.

If you do decide to continue your seawall application, you have asked if a wave climate study need be included in your Environmental Assessment (EA). As I mentioned on the phone, the 10 study items required for a complete seawall EA are to scientifically predict the impact of a shoreline hardening project on a sandy beach. Public access issues should also be considered.

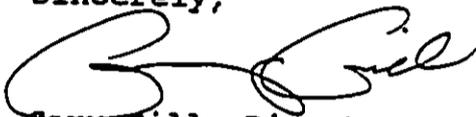
However, if your research proves that the coastline in question has always been rocky and storm waves will not affect the beach conditions, we feel that a detailed wave and storm frequency analysis would not be needed.

It is not the intent of this office to require needless work on behalf of an applicant. An applicant such as yourself, however, should adequately justify in the text of your EA the reason for omitting any of the information called for in our policy.

Ms. Lynn Rasmussen  
Page 2  
January 19, 1996

I hope this is helpful to you in your work. Please call us for any further assistance and clarification.

Sincerely,



Gary Gill, Director  
Office of Environmental Quality Control

Enclosures