ALAN M. ARAKAWA
Mayor

WILLIAM R. SPENCE
Director

MICHELE CHOUTEAU McLEAN
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

May 27, 2011

CERTIFIED MAIL - #7008 0500 0002 0444 6556

Mr. Christopher L. Hart, ASLA
Chris Hart & Partners, Inc.
115 North Market Street
Wailuku, Hawaii 96793

Dear Mr. Hart:

SUBJECT: APPROVAL OF THE SPECIAL MANAGEMENT AREA (SMA) USE PERMIT AND A SHORELINE SETBACK VARIANCE (SSV) FOR A SLOPE REPAIR PROJECT IN ORDER TO CONSTRUCT A STRUCTURALLY ENGINEERED SLOPE RETAINING SYSTEM, LOCATED AT 11 HALE MALIA PLACE, NAPILI, ISLAND OF MAUI, HAWAII; TMK: 4-3-003:096 (SM1 2009/0018) (SSV 2009/0005)

At its regular meeting on April 26, 2011, the Maui Planning Commission (Commission) reviewed the above-referenced application, accepted testimony and exhibits, and after due deliberation, made the determinations listed in the attached Recommendation report prepared by the Department of Planning (Department) for the April 26, 2011 meeting and voted 8-0 to grant APPROVAL of the Shoreline Setback Variance, subject to the following conditions:

1. That the Applicant maintain and require safe lateral access to and along the shoreline for public use.

2. That the Applicant minimize risk of adverse impacts on beach processes.

3. That the Applicant minimize risk of structures failing and becoming loose rocks or rubble on public property.

4. That the Applicant minimize adverse impacts on public views to, from, and along the shoreline. For purposes of this section only, "adversely impacts public views" means the adverse impact on public views and open space resources caused by new building structures exceeding a one-story or thirty-foot height limitation.

5. That the project shall comply with chapters 19.62 and 20.08, Maui County Code, relating to flood hazard districts and erosion and sedimentation control respectively.

6. That full compliance with all governmental regulations shall be rendered.

Furthermore, the Commission voted to grant APPROVAL of the SMA Use Permit subject to the following standard conditions, noting that Standard Condition 2 has been striken in lieu of Standard Condition 3, as indicated below:

STANDARD CONDITIONS

1. That the permit holder or any aggrieved person may appeal to the Commission any action taken by the Planning Director (Director) on the subject permit no later than ten (10) days from the date the Director's action is reported to the Commission.

~~2. That the subject SMA Area Use Permit shall not be transferred without prior written approval in accordance with Section 12-203. However, in the event that a contested case hearing preceded issuance of said SSV, a public hearing shall be held upon due published notice, including actual written notice to the last known addresses of parties to said contested case and their counsel.~~

3. That the subject SMA Use Permit shall not be transferred without prior written approval in accordance with Section 12-202-17(d) of the SMA Rules of the Commission. However, in the event that a contested case hearing preceded issuance of said SMA Use Permit, a public hearing shall be held upon due published notice, including actual written notice to the last known addresses of parties to said contested case and their counsel.

4. That the Applicant, its successors and permitted assigns shall exercise reasonable due care as to third parties with respect to all areas affected by subject SMA Use Permit and shall procure at its own cost and expense, and shall maintain during the entire period of this SMA Use Permit, a policy or policies of comprehensive liability insurance in the minimum amount of ONE MILLION AND NO/100 DOLLARS (1,000,000.00) naming the County of Maui as an additional named insured, insuring and defending the Applicant and County of Maui against any and all claims or demands for property damage, personal injury and/or death arising out of this permit, including but not limited to: (1) claims from any accident in connection with the permitted use, or occasioned by any act or nuisance made or suffered in connection with the permitted use in the exercise by the Applicant of said rights; and (2) all actions, suits, damages and claims by whomsoever brought or made by reason of the non-observance or non-performance of any of the terms and conditions of this permit. A copy of a policy naming County of Maui as an additional named insured shall be submitted to the Department within ninety (90) calendar days from the date of transmittal of the decision and order.

5. That full compliance with all applicable governmental requirements shall be rendered.

The conditions of this SMA Use Permit shall be enforced pursuant to §12-202 et. seq. of the *SMA Rules for the Commission*.

Further, the Commission adopted the Report and Recommendation Memorandum prepared by the Department for the **April 26, 2011** Commission meeting, to include striking Standard Condition 2 for the SMA User Permit, above, as indicated, as the Findings of Fact, Conclusions of Law, and Decision and Order, attached hereto and made a part hereof.

Parties to proceedings before the Commission may obtain judicial review of decision and orders issued by the Commission in the manner set forth in Chapter 91-14, HRS.

Thank you for your cooperation. If additional clarification is required, please contact Staff Planner James Buika at james.buika@mauicounty.gov or at (808) 270-6271.

Sincerely,

WILLIAM SPENCE
Planning Director

Attachments
xc: Clayton I. Yoshida, AICP, Planning Program Administrator
Aaron H. Shinmoto, PE, Planning Program Administrator (2)
John F. Summers, Planning Program Administrator
James A. Buika, Staff Planner
James Giroux, Deputy Corporation Council
Department of Public Works
Department of Environmental Management
Department of Health, Maui
Police Department
Office of Hawaiian Affairs
Department of Health, Clean Water Branch
Department of Health, Maui District Health Office
Department of Health, Office of Environmental Quality Control
Department of Land and Natural Resources-Office of Conservation and Coastal Land
Department of Land and Natural Resources-State Historic Preservation Division
Tara Miller, Sea Grant Extension Agent-Maui
CZM File (SM1)
Project File
General File

WRS:JAB:rm
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BEFORE THE MAUI PLANNING COMMISSION

COUNTY OF MAUI

STATE OF HAWAII

In The Matter Of The Applications Of

MS. MARCIA LUCAS

Requesting a Special Management Area Use Permit and a Shoreline Setback Variance for a Slope Repair Project in order to construct a structurally engineered slope retaining system at 11 Hale Malia Place, TMK: 4-3-003:096, Napili, Island of Maui.

DOCKET NO. SM1 2009/0018 AND SSV 2009/0005

MS. MARCIA LUCAS
Jim Buika, Planner

MAUI PLANNING DEPARTMENT'S REPORT TO THE MAUI PLANNING COMMISSION **APRIL 26, 2011** MEETING

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

(Special Management Area Use Permit)

BEFORE THE MAUI PLANNING COMMISSION

COUNTY OF MAUI

STATE OF HAWAII

In The Matter Of The Applications Of

MS. MARCIA LUCAS

Requesting a Special Management Area Use Permit and a Shoreline Setback Variance for a Slope Repair Project in order to construct a structurally engineered slope retaining system at 11 Hale Malia Place, TMK: 4-3-003:096, Napili, Island of Maui.

DOCKET NO. SM1 2009/0018 AND SSV 2009/0005

MS. MARCIA LUCAS
Jim Buika, Planner

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THE APPLICATION

Special Management Area Use Permit and Shoreline Setback Variance

This matter arises from an application for a Special Management Area Use Permit and Shoreline Setback Variance filed on November 30, 2009 that has resulted from a SMA Emergency Permit issued by the Planning Department in May 2008. The SMA Emergency Permit was requested in April 2008 as a result of catastrophic slope and seawall failure that resulted from severe storm activity in December, 2007. The application was filed pursuant to Section 12-202-12 and 12-202-15 of the Special Management Area Rules of the Maui Planning Commission and Section 12-203-14 and 15 of the Shoreline Rules for the Maui Planning Commission by Mr. Chris Hart of Chris Hart and Partners, on behalf of Ms. Marcia Lucas ("Applicant"); on approximately 0.29 acres (12,623 square feet) of land in the Urban District, located at 11 Hale Malia Place at Napili, Island of Maui and County of Maui, identified as Maui Tax Map Key No. 4-3-003:096 ("Property").

(Exhibit 1. Regional Map, Aerial Location Map, and TMK Location Map, Preliminary landscape plan)

(Exhibit 2, Shoreline Survey and shoreline photographs for survey)

Applicant and Consultant Information

Land Owner:	Ms. Marcia Lucas
Address:	2440 Vallejo St. San Francisco, CA 94123
Contact:	Mr. John Edwards, AIA Edwards Design Group, Inc.
Phone:	Voice: (808) 951-5926 x606 Facsimile: (808) 951-6519
Land Use Planner & Landscape Architect:	Chris Hart & Partners, Inc. 115 N. Market Street Wailuku, Maui, Hawaii 96793
Phone:	Voice: (808) 242-1955 Facsimile: (808) 242-1956

Contact:	Mr. Christopher L. Hart, ASLA, President
Architect/Owner's Representative:	Edwards Design Group, Inc. 1357 Kapiolani Blvd. #1120 Honolulu, Hawaii 96814
Phone:	Voice: (808) 951-5926 x606 Facsimile: (808) 951-6519
Contact:	Mr. John Edwards, AIA
Civil Engineer:	R.T. Tanaka Engineers, Inc. 871 Kolu St. Wailuku, Hawaii 96793
Phone:	Voice: (808) 242-6861 Facsimile: (808) 244-7287
Contact:	Mr. Kirk Tanaka, P.E.
Structural/Geotechnical Engineer:	Meta Engineering, Inc. P.O. Box 4604 Honolulu, Hawaii 96812
Phone:	Voice: (808) 394-1420 Facsimile: (808) 394-1430
Contact:	Mr. Paul Weber, P.E.

PURPOSE OF THE APPLICATION

Purpose

The Applicant is requesting a Special Management Area (SMA) Use Permit and a Shoreline Setback Variance in order to construct permanent erosion control and slope stabilization structures at the site of a catastrophic slope and retaining wall failure that resulted from severe storm activity in December, 2007. The activity is deemed a "development" with a valuation of $644,000 that is at the shoreline, within the shoreline setback area. This activity is not outright permitted under the *Shoreline Rules for the Maui Planning Commission.* Therefore, the activity requires a Shoreline Setback Variance from the *Shoreline Rules for the Maui Planning Commission.*

The project has already been completed. The project was completed as a condition of the SMA Emergency Permit issued in May 2009. Since a permanent solution was the only viable option for this project, both the County of Maui and State of Hawaii agreed to authorize the project as a permanent solution under the SMA Emergency Permit. Thus, this SMA Use Permit Application and Shoreline Setback Variance Application are both after-the-fact in nature.

Project Background and Need

The existing single-family home was constructed in 1999-2000, on the site of a previously existing residence that was demolished in 1999. The rock and concrete facing previously fronting the bluff is estimated to have been constructed during the 1980s by a former owner. In

December of 2007, severe high surf activity, combined with inundation of the *makai* yard area atop the bluff by heavy rains, resulted in the collapse of the rock facing, along with a portion of the bluff (**See: *Exhibit 3***, Site Photographs).

The unstable condition created by the slope collapse raised concerns about public safety and injury risk, along with risk of potential catastrophic property loss for the property owner and damage to neighboring properties. Based upon a site visit conducted on February 25, 2008 by representatives of Chris Hart & Partners, Inc., the County of Maui, Department of Planning, and the State of Hawaii, DLNR, Office of Coastal and Conservation Lands, the property owner was advised to apply for an Emergency SMA Permit for permanent bank stabilization. The SMA Emergency Permit Application was submitted to the Planning Department in April of 2008, and granted approval in May of 2008. A revised approval including a time extension was granted in December of 2008 (**See: *Exhibit 4***, "SMA Emergency Permit dated December 10, 2008").

Due to the urgency of the situation, as well as the risk involved with constructing and then removing a temporary structure on the unstable bluff face, representatives of OCCL and the Planning Department agreed that near-term emergency protection measures implemented under the Special Management Area (SMA) Emergency Permit should be concurrent with the permanent shoreline protection measures. The permanent shoreline protection measures would ultimately be subject to a SMA/SSV application and approval process as well as environmental review pursuant to Chapter 343, Hawaii Revised Statutes (HRS). The purpose of such an approach was to create, as quickly as possible, a long-term solution that would stabilize the bank at the shoreline in order to:

- Prevent further erosion of the bank and damage to the existing residence;
- Prevent potential undermining of the neighboring shoreline protection structures and associated damage to neighboring properties;
- Remove the public hazard associated with the unstable bluff; and
- Prevent earthen soils from eroding and entering the coastal waters.

The purpose of this review is to obtain the necessary government approvals as outlined above, and as required by the SMA Emergency Permit approval (**See: *Exhibit 4***).

APPLICABLE REGULATIONS

Special Management Area (SMA) Use Permit Application

Standards for reviewing a Special Management Area (SMA) Use Permit application are found under HRS 205A-26 and § 12-202-10, § 12-202-11, and § 12-202-12 of Chapter 202, *Special Management Area Rules for the Maui Planning Commission.*

In evaluating an action the following factors, but not limited to same, may constitute a significant adverse effect on the environment:

A. Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;
B. Significantly curtails the range of beneficial uses of the environment;
C. Conflicts with the County's or the State's long-term environmental policies or goals;
D. Substantially affects the economic or social welfare and activities of the community, County or State;
E. Involves substantial secondary impacts, such as population changes and increased effects on public facilities, streets, drainage, sewage, and water systems, and pedestrian walkways;
F. In itself has no significant adverse effect but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;
G. Substantially affects a rare, threatened, or endangered species of animal or plant, or its habitat;
H. Is contrary to the state plan, county's general plan, appropriate community plans, zoning and subdivision ordinances;
I. Detrimentally affects air or water quality or ambient noise levels;
J. Affects an environmentally sensitive area, such as flood plain, shoreline, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh waters or coastal waters;
K. Substantially alters natural land forms and existing public views to and along the shoreline; or
L. Is contrary to the objectives and policies of chapter 205A, HRS.

The following guidelines shall be used by the Authority in reviewing developments within the Special Management Area:

1. All development in the special management area shall be subject to reasonable terms and conditions set forth by the authority to ensure:

    A. Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with sound conservation principles;
    B. Adequate and properly located public recreation areas and wildlife preserves are reserved;
    C. Provisions are made for solid and liquid waste treatment, disposition, and management which will minimize adverse effects upon special management area resources; and
    D. Alterations to existing land forms and vegetation, except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, wind damage, storm surge, landslides, erosion, siltation, or failure in the event of earthquake.

2. No development shall be approved unless the Authority has first found that:

   A. The development will not have any substantial adverse environmental or ecological effect, except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health, safety, or compelling public interest. Such adverse effects shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect, and the elimination of planning options;
   B. The development is consistent with the objectives, policies, and special management area guidelines of this chapter and any guidelines enacted by the legislature; and
   C. That the development is consistent with the county general plan and zoning. Such a finding of consistency does not preclude concurrent processing when a general plan or zoning amendment may also be required.

3. The Authority shall seek to minimize, where reasonable:

   A. Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough, or lagoon;
   B. Any development which would reduce the size of any beach or other area usable for public recreation;
   C. Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the special management areas and the mean high tide line where there is no beach;
   D. Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast; and
   E. Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.

Shoreline Setback Variance

A shoreline setback variance (SSV) is reviewed pursuant to §12-203-15 of the *Shoreline Setback Rules for the Maui Planning Commission.*

A variance may be granted for a structure or activity otherwise prohibited, if the authority finds in writing, based on the record presented, that the proposed structure or activity is necessary for or ancillary to:

1. Cultivation of crops;

2. Aquaculture;

3. Landscaping; provided that, the authority finds that the proposed structure or activity will not adversely affect beach processes and will not artificially fix the shoreline;

4. Drainage;

5. Boating, maritime, or water sports recreational facilities;

6. Facilities or improvements by public agencies or public utilities regulated under Chapter 269, HRS;

7. Private facilities or improvements that are clearly in the public interest;

8. Private facilities or improvements which will neither adversely affect beach processes nor artificially fix the shoreline; provided that, the authority also finds that hardship will result to the applicant if the facilities or improvements are not allowed within the shoreline area;

9. Private facilities or improvements that may artificially fix the shoreline; provided that, the authority also finds that shoreline erosion is likely to cause hardship to the applicant if the facilities or improvements are not allowed within the shoreline area; and provided further that, the authority imposes conditions to prohibit any structure seaward of the existing shoreline unless it is clearly in the public interest; or

10. Moving of sand from one location seaward of the shoreline to another location seaward of the shoreline; provided that, the authority also finds that the moving of sand will not adversely affect beach processes, will not diminish the size of the public beach, and will be necessary to stabilize an eroding shoreline.

Hardship shall not include an economic hardship to the applicant; county zoning changes, planned development permits, cluster permits, or subdivision approvals after June 16, 1989; any other permit or approval which may have been issued by the authority. If the hardship is a result of actions by the applicant, such result shall not be considered a hardship for the purpose of this section.

No variance shall be granted unless appropriate conditions are imposed:

1. To maintain safe lateral access to and along the shoreline or adequately compensate for its loss;

2. To minimize risk of adverse impacts on beach processes;

3. To minimize risk of structures failing and becoming loose rocks or rubble on public property; and

4. To minimize adverse impacts on public views to, from, and along the shoreline. To comply with chapters 19.62 and 20.08, Maui County Code, relating to flood hazard districts and erosion and sedimentation control respectively.

However, §12-203-15(f) also states "Notwithstanding any provision of this section to the contrary, the commission may consider granting a variance for the protection of a legal habitable structure or public infrastructure; provided that, the structure is at risk of damage from coastal erosion, poses a danger to the health, safety and welfare of the public, and is the best shoreline management option in accordance with relevant state policy on shoreline hardening."

PROCEDURAL MATTERS

1. On or about **December 5, 2007**, a large portion of a seventy-five foot shoreline bluff, composed of unconsolidated soils, makai of the parcel structures collapsed during intense rainfall vents occurring from December 4-7, 2007 and high surf events.

2. On **February 25, 2008,** based upon a site visit conducted on by representatives of Chris Hart & Partners, Inc., the County of Maui, Department of Planning, and the State of Hawaii, DLNR, Office of Coastal and Conservation Lands, the property owner was advised to apply for an Emergency SMA Permit for permanent bank stabilization.

3. In **April, 8, 2008,** Chris Hart and Partners submitted the SMA Emergency Permit Application to the Planning Department.

4. On **May 30, 2008**, the Planning Department approved the SMA Emergency Permit with time extension in late summer.

5. On **December 10, 2008**, the Planning Department revised the SMA Emergency Permit approval including a time extension.

6. On **February 4, 2009**, the Building Permit was issued.

7. On **November 30, 2009**, the Applicant filed a Special Management Area Use Permit, the Environmental Assessment and Shoreline Setback Variance Applications with the Maui Planning Department.

8. On **January 22, 2010**, the Applicant published a "Notice of Application" and location map in the Maui News notifying the public of the applicant's intent to file the application with the County of Maui. A copy of the "Notice of Application" and Affidavit of Publication are on file in the Maui Planning Department.

9. On **February 23, 2010**, at it regularly scheduled meeting, the Maui Planning Commission reviewed the Draft Environmental Assessment, Shoreline Setback Variance, and Special Management Area Use Permit Application and had eleven (11) comments for the Applicant to respond to in the Final Environmental Assessment.

10. On **February 23, 2010**, the Draft EA notice was published in the OEQC publication with a 30-day Public Comment Deadline of March 25, 2010.

11. On **March 25 and April 29, 2010**, the Applicant's representatives appeared before the Maui/Lanai Islands Burial Council (MLIBC) at its regular meetings. Based upon presentation of the project information, the MLIBC had no comment on the project.

12. On **November 23, 2010**, the Maui Planning Commission accepted the Final EA as a complete document and determined a Finding of No Significant Impact that the development does not result in significant environmental impacts to surrounding properties, nearshore waters, natural resources, and archaeological and historic resources on the site or in the immediate area.

13. On **December 23, 2010**, the MPC FONSI for the Final EA was published by the Office of Environmental Quality Control for the required challenge period and the EA process was completed on January 23, 2011.

14. On **February 3, 2011**, the Maui Planning Commission conducted a site visit to the property to observe the completed project.

15. On **March 10, 2011**, the Planning Department notified the Applicant's representative of the Application Completeness and Acceptance and set dates for the Maui Planning Commission Public Hearing for April 26, 2011 and informed the Applicant of applicable notification requirements.

16. On **March 25, 2011**, the Planning Department published a "Notice of Public Hearing" in the Maui News notifying the public of the Maui Planning Commission's intent to conduct a Public Hearing on April 26, 2011. A copy of the "Notice of Application" and Affidavit of Publication are on file in the Maui Planning Department.

17. On **April 6, 2011**, the Applicant provided the Department with evidence of its Mailing of *Notice of Public Hearing*, April 5, 2011, to all affected parties within a 500 foot radius. Evidence is available at the Planning Department.

18. On **April 26, 2011**, the Maui Planning Commission conducted the required Public Hearing on the SMA Use Permit Application and the Shoreline Setback Variance.

GENERAL DESCRIPTION

Description of the Property

The subject parcel, TMK No. (2) 4-3-003:096, is located at 11 Hale Malia Place, Napili, island of Maui. The parcel is located approximately 1.5 miles south of the resort community of Kapalua, in an area of residential development situated makai of Lower Honoapiilani Rd. The 0.29-acre (12,623.29 square foot) project site lies in the State Urban District, is designated Single-Family use by the West Maui Community Plan and is zoned R-3 Residential District by Maui County.

(Exhibit 1. Regional Map, Aerial Location Map, and TMK Location Map).

Existing Uses. Existing structures on the parcel include a single-family residence with attached garage, and a lanai structure including a swimming pool/spa. A shoreline bluff previously hardened by a rock and concrete veneer fronts the makai boundary of the property. The bluff frontage is approximately 75 feet and the height of the bluff is approximately 29 feet above sea level. ***(See: Exhibit 3).***

Existing Land Use Designations

The existing land use designations are:

- State District: Urban
- Community Plan: Single Family
- County Zoning: R-3 Residential
- Other: Special Management Area
- Flood Zones: X (areas of minimal flooding)

Surrounding Land Uses

The following is a description of zoning, community plan designations, and existing land uses adjacent and in close proximity to the subject property:

North:
Zoning: R-3 Residential
Community Plan: Single Family
State Land Use: Urban
Existing uses. Single-Family Residence.

South:
Zoning: R-3 Residential
Community Plan: Single Family
State Land Use: Urban
Existing uses. Kahana Sunset Condominiums

East:
Zoning: R-3 Residential
Community Plan: Single Family
State Land Use: Urban
Existing uses. Lower Honoapiilani Road; Single-Family Residences.

West:
Zoning: N/A
Community Plan: N/A
State Land Use: N/A
Existing uses. Pacific Ocean.

DESCRIPTION OF THE PROJECT

The project is a cast-in-place concrete wall, tied against the bluff using micropiles anchored into bedrock. This alternative involves injection grouting at the base of the bluff and the installation of concrete grade beams along the top and bottom of the bluff to provide support for the wall. Concrete wing walls, installed perpendicular to the bluff at the lot boundary with adjacent properties, are integrated into the main wall system. High-drainage fill material is placed in areas where pockets exist between the wall and the face of the bluff, in order to maximize drainage. Ground anchors and micropiles are also installed beneath the swimming pool structure and anchored into bedrock, in order to shore up the pool structure and remove the surcharge weight of this structure from the top of the bluff. This alternative offers the greatest amount of protection for the site against further erosion and collapse, as well as the greatest structural longevity. In addition, the cast-in-place concrete tie-back facing is designed to blend in with the surrounding lava rock in order to minimize the structure's aesthetic impact when viewed from the water. (***See:Exhibit 5,*** "Wall and Drainage System Drawings"). This alternative was determined to be the most practicable alternative relative to the intent of the shoreline setback rules, in terms of protecting ocean resources.

REVIEWING AGENCIES

Table 1, below, summarizes agency comments and responses on the project. The application was mailed on February 12 and 24, 2010 to the following agencies for comment. After reviewing the application, the following agencies provided comments.

AGENCY	DATE	RESPONSE
Agency transmittal Plus transmittal letter	Feb 12 and	Transmittal attached as ***Exhibit 6.***
DAGS	Feb 17, 2010	No objections. Attached as ***Exhibit 7.***
DLNR Land	March 22, 2010	No comments attached as ***Exhibit 8.***
DLNR Office of Conservation and Coastal Lands	Feb 20, 2010	One comment attached as ***Exhibit 9.***
DLNR Engineering	March 2, 2010	Comment attached as ***Exhibit 10.***

DLNR Aquatic Resources	Feb 20, 2010	Comments attached as ***Exhibit 11.***
DLNR State Historic Preservation Division	March 29, 2010 And March 31, 2010	Two letters with comments as attached as ***Exhibit 12***
Dept. of Environmental Management	April 12, 2010	No Comments ***Exhibit 13.***
Dept of Public Works	March 3, 2010	Development Services Administration No Comments. ***Exhibit 14.***
Dept of Water Supply	April 5 2010	Comments attached as ***Exhibit 15.***
Fire Dept.	March 5, 21010	No comments. ***Exhibit 16.***
Planning Dept. Zoning Admin and Enforcement Div	March 12, 2010	Two comments. ***Exhibit 17.***
Dept of Army	Feb 24	Two letters attached with comments as ***Exhibit 18.***
Univ. of Hawaii Sea Grant	April 26 2010	No Comments. ***Exhibit 19.***
Applicant Response Letters to above Agency Comments ***including comments to questions from the Maui Planning Commissioners***	Various dates	***Exhibit 20.***

Table 1. List of Reviewing Agencies.

FINDINGS AND ANALYSIS

Impacts and Mitigation for Physical Environment, Existing Services, and Infrastructure

Physical Environment

1. Land Use

Existing Conditions. The subject property is located in Napili, in an area known as Alaeloa, at TMK: (2) 4-3-003:096 (**See: *Exhibit 1).*** The parcel is located along Keonenui Bay, situated on the northwest coast of West Maui, seven miles north of Lahaina Town and 1.5 miles south of Kapalua. The subject parcel and surrounding parcels are zoned for residential use.

Potential Impacts and Mitigation Measures. The project site is located within an area that is zoned for residential use and community planned for single-family and multi-family residential uses. The proposed long-term residential use of the property is permitted within the zoning district. The construction of the wall involves an action in the shoreline setback area. This report contains an application for Shoreline Setback Variance to support construction of the wall, which is necessary in order to protect a residence which is being threatened. In the context of the *West Maui Community Plan*, adopted in 1996 in order to guide future development in the area, the existing use of the property is consistent with the proposed single family uses and the wall construction is supported because it meets the criteria set forth in the SMA Emergency Permit process.

2. *Shoreline Conditions and Processes*

Existing Conditions. The subject property is located along the northern portion of Keonenui Bay, between Alaeloa Point and Haukoe Point, approximately 3500 feet south of Napili Bay. Keonenui Bay is typical of this stretch of Maui's coastline, about 500 - 600 feet long and situated between two headlands, which protrude 400 to 500 feet seaward. The properties immediately south of the subject property, are occupied by the Kahana Sunset resort and condominiums. Shoreline properties further south are occupied by single-family residences. Vertical rock and concrete walls protect the properties along nearly the entire 500 - 600 foot stretch of coastline.

South of the property, fronting the Kahana Sunset, a sandy beach extends approximately 20 feet *makai* of a rock seawall. To both the north and south of the Kahana Sunset, the beach narrows dramatically, transitioning to an irregular, rough, rocky shore.

From historic shoreline maps contained in the Envorinmental Assessment, the beach at the base of the bluff fronting the property can be characterized as having an ephemeral profile. In essence, this means that sand comes and goes more or less regularly from nearshore deposits, depending on incident wave conditions. Photographic evidence documenting beach conditions at the site over a period of 35 years from 1975 to present shows variation, but no significant overall change, in beach conditions over time.

Potential Impacts and Mitigation Measures. Construction of the retaining wall should have no significant negative impact on the beach fronting the property, nor on adjacent beaches and shoreline properties, for the following reasons: first, the wall hardens only approximately 75 feet of shoreline. The remaining 500 - 600 feet of shoreline along Keonenui Bay is already mostly lined with vertical walls. Second, there is little sand fronting the subject property and the silty clay soil substrate on the subject property does not constitute a resource for replenishment of beach sand. Third, the wall is built on, and fronted by, rocky outcrops. These outcrops function as a naturally hardened shoreline at the base of the bluff, and absorb the primary forces of the waves and currents. The base of the wall is located landward and vertically above the rock outcrops, which form a vertical cliff at the waterline. The wall is therefore not anticipated to have a significant impact on existing coastal processes, and should not aggravate or contribute to erosion.

3. Marine Resources

Existing Conditions. The nearshore seafloor in the bay consists primarily of sand in the central part of the bay, and coral, limestone and rock along the perimeter and beyond about 400 feet offshore. There is a narrow patch of rocky, cobble bottom close to shore in front of the subject property.

Nearshore waters adjacent to the project site are classified as open coastal "A," according to the Water Quality Standards map prepared by the State Office of Environmental Planning and Hawaii Department of Health.

Potential Impacts and Mitigation Measures. The immediate project area for the wall construction is inland of the waterline, and is expected to have no impact on marine resources.

4. Topography and Soils

Existing Conditions. The elevation on the upland portion of the project site ranges from 45 feet above mean sea level (AMSL) at the project driveway along Hale Malia Place to approximately 30 feet AMSL at the edge of the bluff, with a slope averaging approximately 15%.

According to the "Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii (August 1972)," prepared by the United States Department of Agriculture Soil Conservation Service, the soils within the project site are classified as Kahana Silty Clay, 7 to 15% slopes (KbC) and Rough, Broken and Stony Land (rRS). Kahana Silty Clay, 7 to 15% slopes (KbC) is characterized by moderately rapid permeability, slow to

medium runoff, and slight to moderate erosion hazard. Rough, Broken and Stony Land (rRS) is characterized as very steep, stony gulches or rock outcrops, where much of the surface area is covered with stones. Runoff is rapid and geologic erosion is active.

Potential Impacts and Mitigation Measures. The site is suitable for the subject development. The wall is designed to minimize extensive grading. No impacts are anticipated to topography and soils.

5. *Flood and Tsunami Zone*

According to Panel No. 150003 0264E of the Flood Insurance Rate Map, September 25, 2009, prepared by the United States Federal Emergency Management Agency (FEMA), the project site is situated in Flood Zone X. Zone X represents areas determined to be outside of the 0.2% annual chance floodplain. The National Flood Insurance Program does not regulate developments within Zone X (**See**: ***Exhibit 18,*** "Flood Insurance Rate Map").

Potential Impacts and Mitigation Measures. The existing residence is not located in a flood hazard or tsunami inundation zone. The wall is engineered to withstand the level of design forces necessary to minimize the likelihood that an extreme event would damage the structure. The project should not be affected by, or have adverse impacts upon its neighbors with regards to flood hazard potential.

6. *Terrestrial Biota (Flora and Fauna)*

Existing Conditions. The U.S. Army Corps of Engineers Wetland Maps do not indicate the presence of wetlands in or around the subject property. Existing vegetation on the property primarily consists of grasses and native and non-native trees and shrubs. Avifauna typically found in the area includes the common mynah, several species of dove, cardinal, house finch, and house sparrow. Mammals common to this area include cats, dogs, rats, mice, and mongoose. No known rare, endangered, or threatened species of flora or fauna were discovered on the subject property.

Potential Impacts and Mitigation Measures. There are no known significant habitats of rare, endangered or threatened species of flora and fauna located on the subject property. Thus, rare, endangered, or threatened species of flora and fauna will not be impacted by the project.

7. *Air Quality*

Existing Conditions. Air quality refers to the presence or absence of pollutants in the atmosphere. It is the combined result of the natural background and emissions from many pollution sources. The impact of land development activities on air quality in a

proposed development's locale differs by project phase (site preparation, construction, occupancy) and project type. In general, air quality in West Maui is considered relatively good. Non-point source emissions (automobile) are not significant to generate a high concentration of pollutants. The relatively high quality of air can also be attributed to the region's exposure to wind, which quickly disperses concentrations of emissions. West Maui is currently in attainment of all pollutant criteria established by the Clean Air Act, as well as the State of Hawaii Air Quality Standards.

Potential Impacts and Mitigation Measures. Air quality impacts attributed to the project could include dust generated by short-term construction related activities. Site work such as grading and wall construction, for example, could generate airborne particulate. Adequate dust control measures that comply with the provisions of Hawaii Administrative Rules, Chapter 11-60.1, "Air Pollution Control," Section 11-60.1-33, Fugitive Dust, will be implemented during all phases of construction. Some of these measures will include:

- Providing an adequate water source on site prior to start-up of construction activities.
- Landscape planting and rapid covering of bare areas, including slopes, beginning with the initial grading phase.
- Controlling of dust from shoulders, project entrances, and access roads.
- Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities.
- Controlling of dust from debris hauled away from project site.

In the long term, the project is not expected to increase the volume of traffic in the region, which would increase vehicular emissions such as carbon monoxide. Thus, the project is not anticipated to be detrimental to local air quality.

8. Noise Characteristics

Existing Conditions. The noise level is an important indicator of environmental quality. In an urban environment, noise is due primarily to vehicular traffic, air traffic, heavy machinery, and heating, ventilation, and air-conditioning equipment. Ramifications of various sound levels and types may impact health conditions and an area's aesthetic appeal. Noise levels in the vicinity of the project area are generally low. Traffic noise from Lower Honoapiilani Road and noise associated with the residential uses nearby are the predominant sources of background noise in the vicinity of the subject property.

Potential Impacts and Mitigation Measures. In the short-term, the project could generate some adverse impacts during construction. Noise from heavy construction equipment would be the dominant source of noise during the construction period. To minimize construction related impacts to the surrounding neighbors, the developer will limit construction activities to normal daylight hours, and adhere to the Department of Health's Administrative Rules, Chapter 11-46, Community Noise Control." In the longer-term, the project should not impact existing noise conditions in the area.

9. *Archaeological/Historical/Cultural Resources*

Existing Conditions. An Archaeological Monitoring Plan was prepared for the site in March of 2009 by Scientific Consultant Services, Inc. (SCS). The Archaeological Monitoring Plan was approved by the State Historic Preservation Division (SHPD) on April 9, 2009 (**See: *Exhibit 21***, Archaeological Monitoring Documents), and Chris Hart & Partners, Inc. was notified of its approval on April 13, 2009. At this time, it was discovered that approval of building permits for the wall pursuant to the SMA Emergency Permit had not triggered review by SHPD. As a result, building permits had been approved and ground disturbing activities had already commenced at the site as of late March of 2009, without an archaeological monitor present.

An Archaeological Field Inspection was conducted at the subject property on April 14, 2009, by SCS archaeologist David Perzinski. Although excavation for placement of the wall was largely complete by this time, no structures had yet been placed, and the entire profile of the face of the cliff was visible for Mr. Perzinski's inspection. No material cultural remains or sites were identified during archaeological testing.

A Cultural Impact Assessment Report (CIA) for the project was prepared by historical consultant Jill Engledow, based upon archival research as well as consultation with individuals knowledgeable about historical and cultural practices associated with the area surrounding the project site. In May of 2009, during preparation of the CIA, Ms. Engledow interviewed former property owner Joan McKelvey, who indicated the possible presence of a burial cave at the site. Ms. McKelvey stated that the cave had been exposed by a partial collapse of the bluff circa 1980, and that her husband subsequently sealed the cave over with concrete (**See: *Exhibit 22*** Cultural Impact Assessment Report). SCS archaeologist David Perzinski returned to the site on May 22, 2009 to investigate the possible existence of a burial cave at the site. No evidence of a cave was visible; therefore, it was determined that any cave present at the site had not been exposed by the collapse or subsequent excavation.

At its regular meeting on February 23, 2010, the Maui Planning Commission reviewed the Draft Environmental Assessment for the project and requested that the Applicant obtain statements from all individuals involved on-site with excavation for and construction of the wall that no potential human remains or Hawaiian artifacts had been encountered. Release forms were obtained from all contractors involved with excavation and construction at the site.

In addition, the Planning Commission requested that the Maui/Lanai Islands Burial Council (MLIBC) be contacted to provide comment on the project. The Applicant's representatives appeared before the MLIBC at its regular meetings on March 25 and April 29, 2010. Based upon presentation of the foregoing information, the MLIBC had no comment on the project.

Potential Impacts and Mitigation Measures. No surface or subsurface cultural remains were identified during archaeological inspection of the project site, nor during excavation for or construction of the wall. The project archaeologist has recommended that no future mitigation is necessary for the subject parcel.

The CIA concluded that because the subject property has long been developed for residential use, and because the cliff-top lot does not provide shoreline access, the project is unlikely to have an impact on use of the shoreline and/or associated cultural concerns. The CIA also concluded that there appear to be few, if any, other cultural resources that might be impacted by the armoring of the cliff below the property, and that the project does not interfere with any known, ongoing Hawaiian or non-Hawaiian gatherings, practices, protocols or access.

The project is therefore not anticipated to have any impact on significant cultural and historic properties.

10. Visual Resources

Existing Conditions. The subject property is situated *makai* of Lower Honoapiilani Road within a residential area of Napili. The parcel does not front, and is not visible from, Lower Honoapiilani Road.

Napili offers sweeping views of the Pacific Ocean, Lanai, and Molokai. Public views of these resources exist in various locations from Lower Honoapiilani Road and Honoapiilani Highway. Numerous scenic resources have been identified in the Napili area, which are identified and discussed in the Maui Scenic Coastal Resources Study, August 1990. The resource/inventory map in this report identifies the views of the Pacific Ocean as a distinctive scenic resource along Lower Honoapiilani Road in the

area of the project. The ocean is visible through nearby properties along Lower Honoapiilani Road.

Potential Impacts and Mitigation Measures. As the subject property is located in a private subdivision separated from Lower Honoapiilani Road by other existing development, no public views are available toward or through the subject property (**See: *Exhibit 3, Photographs).*** Development of the project will leave the view toward and through the subject property unchanged. The wall construction is designed to blend in with the surrounding bluff, such that it is not anticipated to impact the visual aesthetics of the site when viewed from the ocean. As such, the project is not anticipated to significantly impact public view corridors or the visual character of the site and its immediate environs.

Socio-economic Environment

Potential Impacts and Mitigation Measures. Because of the limited scope of this project, impacts on the socio-economic environment will be minimal. The project will not cause a significant increase in the population of Napili. On a short-term basis, the project will support construction and construction-related employment.

Public Services

Potential Impacts and Mitigation Measures. Due to its location within an existing residential area, connection to existing infrastructure, and limited scope, the project will not extend existing public services (recreational facilities, police and fire protection, schools, medical facilities and solid waste) limits; therefore, the impact on public services will be minimal.

Infrastructure

Water

The Maui Department of Water Supply (DWS) provides public water service for the West Maui region. In addition to the County, private water utilities such as the Kapalua Water Company and the Hawaii Water Service Company provide domestic water service for the Kapalua Resort and Kaanapali Resort, respectively. Domestic water and fire flow for the project will be provided by the County water system. The project area is served by 8-inch and 12-inch County waterlines on Lower Honoapiilani Road.

Potential Impacts and Mitigation Measures. Low flow drip irrigation and drought tolerant plants will be incorporated into the landscape planting plan in order to conserve

water. As the project does not involve any alterations to the existing residence or other actions that would increase domestic water or fire flow demand, the project is not anticipated to impact County water systems.

Sewer

There exists a 21-inch gravity sewerline on Lower Honoapiilani Road, which is part of the County's Napili-Honokowai wastewater transmission system. The lot has an existing sewer lateral which connects to the sewer line. Wastewater collected from the area is transported to the Lahaina Wastewater Reclamation facility located approximately 2¾ miles south of the project site.

Potential Impacts and Mitigation Measures. The existing residence connects to the existing lateral and, given the nature of the project, no change in flow is expected. At the present time, the existing collection and transmission systems, pumping facilities and treatment plant have the capacity to handle the anticipated wastewater generated by the existing residence. According to the Wastewater Reclamation Division, County of Maui, the County is not charging assessment fees for any collection system upgrades or treatment plant facility expansion at this time.

Drainage

Generally, storm runoff generated by the residential property has discharged into the shoreline fronting the property either by sheet flow or by existing drainpipe outlets. The roof runoff and driveway are collected by the existing drainage system(s) that conveys the runoff to the shoreline bluff via underground pipes. The landscaped areas along the sides of the residence and the grassed (lawn) area behind the building drain into the shoreline bluff by surface flow.

Drainage calculations prepared by the Project Civil Engineer indicate that the existing residence and grassed/landscaped areas can generate 1.0 and 1.1 cubic feet per second (cfs) for 10-year and 50-year storm, respectively.

Potential Impacts and Mitigation Measures. **Impacts from runoff on the parcel will be fully mitigated by the proposed drainage system.** The drainage system is laid out in Figure 6 of the Drainage Report and Best Management Practices Plan (**See: *Exhibit 23***, Drainage Report and Best Management Practices, Sept 2008). The main feature of the system is the installation of subsurface retention basins that are sized to retain the 50-year, 1-hour storm runoff volume generated by the existing residence. Storing the anticipated runoff volume will mitigate significant adverse drainage effects by the 50-year intensity storm on the shoreline.

The subsurface retention basins consist of 30 feet of combined 48" and 24" perforated pipes and 30 feet of single 24" perforated pipes, enveloped in crushed rock. The cumulative capacity of the basins is approximately 933 cubic feet (cf), which is greater than the expected 50-year, 1-hour storm volume of 791 cf, resulting in a reduction of about 142 cf.

Aside from the subsurface retention basins, the drainage system also includes grated drain inlets and drainage pipes. Lawn runoff will be collected by the grated drain inlets while the PVC drain pipes will collect and convey roof runoff to the retention basins. Existing drainage pipe outlets that directly discharge into the shoreline bluff have been removed and/or intercepted to empty into the retention basin.

Roadways

Lower Honoapiilani Road, which provides access to the project site, is a two-lane, paved county roadway providing access for local traffic to properties in Napili and Kahana. It begins at its intersection with Honoapiilani Highway near Honokowai Stream in Kaanapali, and continues to its terminus in the Resort Community of Kapalua.

Potential Impacts and Mitigation Measures. It is anticipated that there will be no significant impacts on traffic on Lower Honoapiilani Road because of the limited scope of the project. Access for the subject property is from Lower Honoapiilani Road via Hale Malia Place. Since Hale Malia Place is a private roadway, the project is exempt from Section 16.26.3304 "Improvements to Public Streets", Maui County Code (MCC). No roadway improvements will be required for the construction of the project.

Electrical, Telephone, Cable and Data Systems

The existing residence connects to existing electrical, telephone, CATV and data systems already serving the project vicinity. Because of the limited scope of this project, no increase in demand on these systems is expected, and therefore no significant impact is anticipated

Relationship to Governmental Plans, Policies, and Controls

The project complies with applicable State and County land use plans and policies, including Special Management Area policies as outlined in Hawaii Revised Statutes, Chapter 205A, and the *SMA Rules for the Maui Planning Commission*, Chapter 12-202, as analyzed below:

State Land Use Law

Chapter 205, Hawaii Revised Statutes, relating to the Land Use Commission, establishes four major land use districts into which all lands in the State are placed. These districts are designated Urban, Rural, Agricultural, and Conservation. The subject property is within the Urban District. The existing single-family residence is permitted within the Urban District.

Maui County Zoning

The subject property is situated within the County of Maui's R-3 Residential District. The existing residence is an outright permitted use within the R-3 district.

General Plan of the County

As stated in the Maui County Charter, *"The purpose of the General Plan is to recognize and state major problems and opportunities concerning the needs and the development of the County and the social, economic and environmental effects of such development and set forth the desired sequence, patterns and characteristics of future development."*

The term "General Plan" is presently used to describe a bundle of planning and policy documents that are designed to guide the future growth and direction of Maui County. The General Plan process calls for the preparation of a "Countywide Policy Plan", followed by a "Maui Island Plan", and then the regional "Community Plans. A draft of the Maui Island Plan is currently being reviewed by the Maui County Council.

The Countywide Policy Plan is an over-arching statement of values and acts as an umbrella document for the Maui Island Plan and the regional Community Plans. The Countywide Policy Plan was adopted by Ordinance No. 3732 and went into effect on March 24, 2010. The following Countywide Goals, Objectives and Policies of the Countywide Policy Plan are applicable to the project:

Goal: **A. Protect the Natural Environment**

Objective No. 2: Improve the quality of environmentally sensitive, locally valued natural resources and native ecology of each island

Policies:

2a. Protect and restore nearshore reef environments and water quality.

2b. Protect marine resources and valued wildlife.

Analysis: The project was evaluated to be the most practical and effective solution for long-term protection of the nearshore coastal resource. The project is being implemented in consideration of environmental analysis of the shoreline area and processes, and the potential environmental impacts to the ocean resources, including the nearshore reef environment and associated marine life.

Goal: **I. Improve Physical Infrastructure**

Objective No. 4: Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity

Policies:

4a. Capitalize on existing infrastructure capacity as a priority over infrastructure expansion.

4d. Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner.

Analysis: The project site is located in an area of existing urban development and contains the necessary infrastructure and public services to support the proposed project.

Goal: **J. Promote Sustainable Land Use and Growth Management**

Objective No. 4: Improve and increase efficiency in land use planning and management.

Policies:

4a. Assess the cumulative impact of developments on natural ecosystems, natural resources, wildlife habitat, and surrounding uses.

4b. Ensure that new development projects requiring discretionary permits demonstrate a community need, show consistency with the General Plan, and provide an analysis of impacts.

Analysis: Through the completed Environmental Assessment review process and the Shoreline Setback Variance (SSV) and Special Management Area (SMA) review processes, the subject development has undergone a thorough analysis of potential cumulative impacts to the natural environment; consistency with the County General Plan; and adequacy of response to a community need. In addition, early consultation was conducted with applicable government agencies, as well as with community

members residing within 500 feet of the subject property, as part of the preparation of the Final EA.

West Maui Community Plan

Nine community plan regions have been established in Maui County. Each region's growth and development is guided by a community plan, which contains objectives and policies in accordance with the Maui County General Plan. The purpose of the community plan is to outline a relatively detailed agenda for carrying out these objectives.

The subject property is located within the West Maui Community Plan area and has a SF Single Family designation.

The following West Maui Community Plan goals, objectives, and policies are applicable to the project:

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

Analysis. The project site is community planned for single family residential use. The existing single family residence is consistent with the scale of surrounding properties. Infrastructure in the area is adequate and the existing use is consistent with land use objectives.

Goal: ***Environment.*** *A clean and attractive physical, natural and marine environment in which man-made developments on or alterations to the natural and marine environment are based on sound environmental and ecological practices, and important scenic and open space resources are preserved and protected for public use and enjoyment.*

Objectives and Policies:

1. Protect the quality of nearshore and offshore waters. Monitor outfall systems, streams and drainage ways and maintain water quality standards. Continue to investigate, and implement appropriate measures to mitigate, excessive growth and proliferation of algae in nearshore and offshore waters.

11. Prohibit the construction of vertical seawalls and revetments except as may be permitted by rules adopted by the Maui Planning Commission governing the issuance of Shoreline Area Management (SMA) emergency permits, and encourage beach nourishment by building dunes and adding sand as a sustainable alternative.

Planning Standards:

6. Environmental Aspects

c. Prohibit the construction of vertical seawalls, except as approved by the Planning Commission of the County of Maui

Analysis: In consideration of the alternatives, the preferred alternative (constructing approximately 75 feet of retaining wall) was judged to be the most practical alternative.

Within the context of the objectives and policies of the West Maui Community plan discussed above, consideration of a vertical wall may be allowed if the project meets the criteria set forth in the SMA Emergency Permit process. The purpose of the SMA Emergency Permit is provided in section §205A-22 of the Hawaii Revised Statutes and section §12-202 of the *Special Management Area Rules for the Maui Planning Commission*. The definition provided in HRS §205A-22 states that an emergency permit may allow development in either of two conditions: "*to prevent substantial physical harm to persons or property* ***or*** *to allow the reconstruction of structures damaged by natural hazards.*"

Additionally, seawalls and retaining walls may be permitted by the Maui Planning Commission. The SMA/SSV application is reviewed by the Maui Planning Commission and is subject to the Commission's approval.

The retaining wall is a long-term solution to address an impending public safety hazard as well as a physical hazard to structures on the subject property and adjacent properties. The action was initially permitted by the Planning Director through the SMA Emergency Permit Process.

The project will also help protect the quality of nearshore waters as recommended by the West Maui Community Plan. The retaining wall will aid in the prevention of earthen soils

from being eroded and transported to the coastal waters via wave action and runoff from *mauka* portions of the site.

Environmental and Cultural Impacts and Mitigation

Environmental Impact Statement Law

Since the subject project involves an action within the Shoreline Setback Area, an Environmental Assessment (EA) is required by Chapter 343, Hawaii Revised Statutes. On November 23, 2010, the Maui Planning Commission accepted the Final EA as a complete document and determined that the development does not result in significant environmental impacts to surrounding properties, near shore waters, natural resources, and/or archaeological and historic resources on the site or in the immediate area, resulting in approval of a *Finding of No Significant Impact* for the Final EA that was published by the Office of Environmental Quality Control on December 23, 2010, for the required challenge period. The EA process was completed on January 23, 2011.

Cultural Resources Assessment

Existing Conditions. An Archaeological Monitoring Plan was prepared for the site in March of 2009 by Scientific Consultant Services, Inc. (SCS). The Archaeological Monitoring Plan was approved by the State Historic Preservation Division (SHPD) on April 9, 2009 (**See: *Exhibit 21)*** and Chris Hart & Partners, Inc. was notified of its approval on April 13, 2009. At this time, it was discovered that approval of building permits for the wall pursuant to the SMA Emergency Permit had not triggered review by SHPD. As a result, building permits had been approved and ground disturbing activities had already commenced at the site as of late March of 2009, without an archaeological monitor present.

An Archaeological Field Inspection was conducted at the subject property on April 14, 2009, by SCS archaeologist David Perzinski. Although excavation for placement of the wall was largely complete by this time, no structures had yet been placed, and the entire profile of the face of the cliff was visible for Mr. Perzinski's inspection. No material cultural remains or sites were identified during archaeological testing.

A Cultural Impact Assessment Report (CIA) for the project was prepared by historical consultant Jill Engledow, based upon archival research as well as consultation with individuals knowledgeable about historical and cultural practices associated with the area surrounding the project site. In May of 2009, during preparation of the CIA, Ms. Engledow interviewed former property owner Joan McKelvey, who indicated the possible presence of a burial cave at the site. Ms. McKelvey stated that the cave had been exposed by a partial collapse of the bluff circa

1980, and that her husband subsequently sealed the cave over with concrete (**See: *Exhibit 22)*** SCS archaeologist David Perzinski returned to the site on May 22, 2009 to investigate the possible existence of a burial cave at the site. No evidence of a cave was visible; therefore, it was determined that any cave present at the site had not been exposed by the collapse or subsequent excavation.

At its regular meeting on February 23, 2010, the Maui Planning Commission reviewed the Draft Environmental Assessment for the project and requested that the Applicant obtain statements from all individuals involved on-site with excavation for and construction of the wall that no potential human remains or Hawaiian artifacts had been encountered. Release forms were obtained from all contractors involved with excavation and construction at the site.

In addition, the Planning Commission requested that the Maui/Lanai Islands Burial Council (MLIBC) be contacted to provide comment on the project. The Applicant's representatives appeared before the MLIBC at its regular meetings on March 25 and April 29, 2010. Based upon presentation of the foregoing information, the MLIBC had no comment on the project.

Potential Impacts and Mitigation Measures. No surface or subsurface cultural remains were identified during archaeological inspection of the project site, nor during excavation for or construction of the wall. The project archaeologist has recommended that no future mitigation is necessary for the subject parcel.

The CIA concluded that because the subject property has long been developed for residential use, and because the cliff-top lot does not provide shoreline access, the project is unlikely to have an impact on use of the shoreline and/or associated cultural concerns. The CIA also concluded that there appear to be few, if any, other cultural resources that might be impacted by the armoring of the cliff below the property, and that the project does not interfere with any known, ongoing Hawaiian or non-Hawaiian gatherings, practices, protocols or access.

The project is therefore not anticipated to have any impact on significant cultural and historic properties.

Special Management Area Environmental Assessment

The subject property is situated within the Special Management Area, as established by Chapter 205A, HRS, and the *Special Management Area Rules of the Maui Planning Commission.* These provisions also regulate development within the Special Management Area.

The Department provides the Maui Planning Commission with the following analysis to determine that the proposed project conforms to the guidelines provided by section 205A-26,

HRS, and sections 12-202-10, 12-202-11, and 12-202-12 of the SMA Rules. The Maui Planning Commission is to review the subject application in accordance with these guidelines and rules. From this analysis, the Department recommends conditions to the Special Management Area Use Permit that will minimize impact to the environment.

In accordance with section 205A-26, HRS, and sections 12-202-10, 12-202-11, and 12-202-12 of the SMA Rules, and based on the detailed analysis contained within this document, the following conclusions are supported:

A. Involves an irrevocable commitment to loss or destruction of any natural or cultural resources.

Analysis. No surface or subsurface cultural remains were identified during archaeological inspection of the project site, nor during excavation for or construction of the wall. The project archaeologist has recommended that no future mitigation is necessary for the subject parcel.

The CIA concluded that because the subject property has long been developed for residential use, and because the cliff-top lot does not provide shoreline access, the project is unlikely to have an impact on use of the shoreline and/or associated cultural concerns. The CIA also concluded that there appear to be few, if any, other cultural resources that might be impacted by the armoring of the cliff below the property, and that the project does not interfere with any known, ongoing Hawaiian or non-Hawaiian gatherings, practices, protocols or access.

The project is therefore <u>not</u> anticipated to have any impact on significant cultural and historic properties.

B. Significantly curtails the range of beneficial uses of the environment.

Analysis. The subject property is within the State's *Urban* District and is zoned and community planned to allow for single-family residential development. There are no unique or important environmental or natural resources on the property, the use of which would be impacted by the construction of the wall.

The wall will enhance safety in the shoreline area immediately beneath the subject property, and will also aid in protection of nearshore waters from erosion-borne sediment. The location of the structure is not within a section of the beach that is traversed or utilized, but rather is positioned upon a rocky ledge against the face of the sea cliff, and therefore does not narrow the area available for lateral access. Based upon existing development on neighboring properties, it is unlikely the improvements will result in a significant change to the coastal area. Thus, the project will not curtail the range of beneficial uses of the environment.

C. Conflicts with the County's or the State's long-term environmental policies or goals.

Analysis. The project is being developed in compliance with the State's long-term environmental goals. Appropriate mitigation measures will be implemented to minimize the potential for negative impacts to the environment, including near and off-shore coastal waters. The project will not have any impact on flora and fauna, nor on archeological or cultural resources.

D. Substantially affects the economic or social welfare and activities of the community, County or State.

Analysis. The project will improve public safety in the immediate area. Short-term economic impacts will result from the increase in activity associated with the construction of the project. Because of the limited scope of this project, impacts on the socio-economic environment will be minimal.

E. Involves substantial secondary impacts, such as population changes and increased effects on public facilities, streets, drainage, sewage, and water systems, and pedestrian walkways.

Analysis. The project is not a population generator nor does it precipitate greater demand upon infrastructure.

F. In itself has no significant adverse effect but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.

Analysis. The project does not involve a commitment for larger action on behalf of the applicant or any public agency. The subject property is State and County zoned and community planned for urban development and the project will not significantly impact public infrastructure and services including roadways, drainage facilities, water systems, sewers and educational facilities. In addition, the project is not anticipated to induce an overall significant increase in population growth and will therefore not produce considerable effect on the environment nor require a commitment for larger actions by governmental agencies.

Armoring of a shoreline area can lead to successive armoring of adjacent shoreline areas, which creates a larger (cumulative) structure that can have greater impacts. However, the retaining wall in this case is located outside of the reach of waves on a basalt outcropping and therefore does not artificially affect wave actions. Additionally, given that near total shoreline armoring exists along Keonenui Bay, construction of the retaining wall does not encourage additional development or require a commitment for larger actions.

G. Substantially affects a rare, threatened, or endangered species of animal or plant, or its habitat.

Analysis. The U.S. Army Corps of Engineers Wetland Maps do not indicate the presence of wetlands in or around the subject property. There are no known significant habitats of rare, endangered or threatened species of flora and fauna located on the subject property. Thus, rare, endangered, or threatened species of flora and fauna will not be impacted by the project.

H. Is contrary to the state plan, county's general plan, appropriate community plans, zoning and subdivision ordinances.

Analysis. The retaining wall supports the residential use of the property, which is consistent with all state land use, community plan, and zoning designations. No subdivision requirements are required for this remedial action.

I. Detrimentally affects air or water quality or ambient noise levels.

Analysis. Air, noise and dust impacts were mitigated through implementation of standard mitigation measures. It is not anticipated that there will be significant long-term impacts to air or water quality and ambient noise levels following construction of the retaining wall.

J. Affects an environmentally sensitive area, such as flood plain, shoreline, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh waters or coastal waters.

Analysis. The project site is situated in Flood Zone X, which represents areas determined to be outside of the 0.2% annual chance floodplain. The National Flood Insurance Program does not regulate developments within Zone X

The project is located within a tsunami evacuation area and along the shoreline. However, the retaining wall does not change the existing use of the property, supports the planned residential use, and protects the coastal waters from sedimentation resulting from further erosion.

K. Substantially alters natural land forms and existing public views to and along the shoreline.

Analysis. The project does not interfere with existing *makai* views. The wall is designed to blend in to the shoreline area, mitigating its effects on *mauka* views toward the site. The growth of an overhanging naupaka hedge at the top of the bluff is anticipated to provide further visual mitigation, de-emphasizing the height of the wall. The project is therefore not expected to have any significant adverse effects on visual resources.

L. Is contrary to the objectives and policies of chapter 205A, HRS.

Analysis. The project is not contrary to the objectives and polices of Ch. 205A, HRS as determined below. The subject project is located within the Special Management Area. Pursuant to Chapter 205A, Hawaii Revised Statutes, and the *SMA Rules for the Maui Planning Commission*, projects located within the SMA are evaluated with respect to objectives, policies, and guidelines as set forth in Chapter 205A, and described below:

1. RECREATIONAL RESOURCES

Objective: Provide coastal recreational resources accessible to the public.

Policies:

(A) Improve coordination and funding of coastal recreation planning and management; and

(B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

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

(ii) *Requiring placement of coastal resources having significant recreational value, including but not limited to surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or require reasonable monetary compensation to the state for recreation when replacement is not feasible or desirable;*

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

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

(v) *Ensuring public recreational use of county, state, and federally owned or controlled shoreline lands and waters having standards and conservation of natural resources;*

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

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

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

Analysis. The project site abuts the shoreline; however, the project will not have a direct impact on the public's use or access to the shoreline area. Public shoreline access exists at Hui Road E, approximately 800 feet to the south of the project site.

The subject parcel abuts a small bay located between two rocky headlands. The entire length of the shoreline is armored with vertical seawalls. The project will enhance safety in the shoreline area immediately beneath the subject property and aid in protection of nearshore waters from erosion-borne sediment. The wall structure is located along the unstable bank *mauka* of the shoreline and will not protrude further seaward than the certified shoreline. Therefore, the improvement does not narrow the usable section of the shoreline area and will not inhibit lateral access along the shoreline.

2. *HISTORICAL/CULTURAL RESOURCES*

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

Policies:

(a) Identify and analyze significant archeological resources;

(b) Maximize information retention through preservation of remains and artifacts or salvage operations; and

(c) Support state goals for protection, restoration, interpretation, and display of historic structures.

Analysis. The project is not expected to impact any significant archaeological or cultural resources.

3. *SCENIC AND OPEN SPACE RESOURCES*

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

Policies:

(a) Identify valued scenic resources in the coastal zone management area;

(b) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;

(c) Preserve, maintain, and where desirable, improve and restore shoreline open space and scenic resources; and

(c) *Encourage those developments that are not coastal dependent to locate in inland areas.*

Analysis. Numerous scenic resources have been identified in the Napili area, which are identified and discussed in the Maui Coastal Scenic Resources Study, August 1990. The resource/inventory map in this report identifies makai views of the Pacific Ocean, Lana'i and Moloka'i as the significant scenic resources in the immediate vicinity of the project site.

The project will not interfere with views toward the ocean. The seawall will utilize a similar rock/masonry facing to be consistent with the existing seawalls elsewhere along Keonenui Bay. The growth of an overhanging *naupaka* hedge at the top of the bluff may provide visual mitigation, de-emphasizing the height of the wall.

The wall is constructed against a vertical bluff face and does not protrude above the existing *mauka* grade of the property, thus by topographic nature it will not block scenic views of the ocean or mountains.

4. COASTAL ECOSYSTEMS

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

Policies:

(a) Improve the technical basis for natural resource management;

(b) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;

(c) 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

(d) 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.

Analysis. The project will protect the quality of the nearshore marine environment by preventing siltation from erosion of the sea cliff. Based upon existing development within the project area, it is unlikely that the improvements will have a significant impact on coastal ecosystems.

5. ECONOMIC USES

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

Policies:

(a) Concentrate coastal dependent development in appropriate areas;

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

(c) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such development and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:

(i) Use of presently designated locations is not feasible;

(ii) Adverse environmental impacts are minimized; and

(iii) The development is important to the State's economy.

Analysis. The existing single-family residential use of the property is consistent with the State's urban land use designation, as well as the Maui County Zoning and West Maui Community Plan designations. As such, the project is within an area that has been planned for growth and development and provides the supporting infrastructure and services required to service this growth.

The wall stabilizes the erodible sea cliff at the subject property, leading to both public benefits and private benefits to the applicant and neighboring landowners. Public benefits include the removal of a safety hazard, and prevention of silty clay soils entering coastal waters. Private benefits include greater site safety and the prevention of loss of property and structures.

6. COASTAL HAZARDS

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

Policies:

(a) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and non-point source pollution hazards;

(b) Control development in areas subject to storm wave, tsunami, flood, erosion, subsidence, and point and non-point pollution hazards;

(c) Ensure that developments comply with requirements of the Federal Flood Insurance Program;

(d) Prevent coastal flooding from inland projects; and

(e) Develop a coastal point and nonpoint source pollution control program.

Analysis. The project will protect the upland portion of the property and associated structures from erosion due to storm waves. Stabilization of the shoreline will also provide greater site safety to the residents living along the shoreline. Shoreline stabilization will also protect the beach and nearshore waters from impacts related to eroded silty clay soils transported by wave action or inland runoff.

Since the subject area is prone to storm wave action, the project's impact on a potential evacuation of the area should be considered. Considering that the

existing site conditions consist of an eroding earthen bank, which cannot be traversed, the project will not obstruct a tsunami evacuation route.

7. MANAGING DEVELOPMENT

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

Policies:

(a) Use, implement, and enforce existing laws effectively to the maximum extent possible in managing present and future coastal zone development;

(b) Facilitate timely processing of applications for development permits and resolve overlapping of conflicting permit requirements; and

(c) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life-cycle and in terms understandable to the public to facilitate public participation in the planning process and review process.

Analysis. The development of the project is being conducted in accordance with applicable State and County requirements. Opportunity for review of the project is provided through the County's Special Management Area permitting process and the State's Environmental Assessment review process.

8. PUBLIC PARTICIPATION

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

Policies:

(a) Maintain a public advisory body to identify coastal management problems and to provide policy advise and assistance to the coastal zone management program.

(b) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal-related issues, developments, and government activities; and

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

Analysis. Early Consultation was conducted with applicable government agencies, as well as with neighbors within 500 feet of the subject property, as part of the preparation of the Draft EA and again in preparation of this Final EA.

In conjunction with the submittal of the Special Management Area application, a Notice of Application was mailed to property owners within 500 feet. The mail-out described the project and solicited any issues or concerns that need to be addressed through the permitting process. A number of governmental agencies have also been consulted and copies of this application were circulated to various agencies by the Department of Planning. During the scheduled public hearings, the public will have an opportunity to review and comment on the project. Landowners located within 500 feet of the project will be notified of the scheduled public hearing dates. Public hearing dates and location maps will also be published in the Maui News on two separate occasions. The public will be allowed to participate in the public hearing portion of the Maui Planning Commission's review process. The Environmental Assessment process also provides an opportunity for public comment.

9. BEACH PROTECTION

Objective: Protect beaches for public use and recreation.

Policies:

(a) Locate new structures inland from the shoreline setback to conserve open space and to minimize loss of improvements due to erosion;

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

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

Analysis. The shoreline fronting the project site is artificially hardened; therefore, according to Section §12-203-4 of the Shoreline Rules, the Annual Erosion Hazard Rate is considered to cease at the interface between the wall and the shoreline. Using the Average Lot Depth (ALD) method, results in a shoreline setback of 25.2 feet. The project involves construction of a seawall within the shoreline setback area and therefore requires a Shoreline Setback Variance.

As the shoreline is rocky and hence naturally hardened up to approximately four (4) feet AMSL, and the silty clay substrate underlying the project site does not represent a resource for beach replenishment, no impacts on beach protection are anticipated. The construction of the project on the subject property is not expected to have a direct physical impact upon any public beaches.

10. MARINE RESOURCES

Objective: Implement the State's ocean resources management plan.

Policies:

(a) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;

(b) Assure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;

(c) Coordinate the management of marine and coastal resources and activities management to improve effectiveness and efficiency;

(d) Assert and articulate the interest of the state as a partner with federal agencies in the sound management of the ocean resources within the United States exclusive economic zone;

(e) Promote research, study, and understanding of ocean processes, marine life, and other ocean development activities relate to and impact upon the ocean and coastal resources; and

(f) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Analysis. The project does not involve the direct use or development of marine resources. In addition, with the incorporation of erosion and drainage control measures during construction and after construction as identified in this report, there should not be significant adverse impacts to nearshore waters from point and non-point sources of pollution. Therefore, the subject project will not produce any significant impacts on any coastal or marine resources.

Analysis for Shoreline Setback Variance

The subject development involves an action within the Shoreline Setback Area. As such, it is subject to the requirements of a Shoreline Setback Variance, which is required for all proposed structures, facilities, construction or any such activities which are normally prohibited within the shoreline setback area. Findings of the project's relationship to the required significance criteria for a Shoreline Setback Variance follow:

Shoreline Survey

The shoreline survey was submitted for certification on June 15, 2009. The map indicates that the shoreline follows the base of a rocky cliff that runs along the *makai* boundary of the subject property and adjoining properties. The actions performed are clearly within the Shoreline Setback Area as calculated to be 25.2 feet from the shoreline. **See:** ***Exhibit 2***

Shoreline Setback Determination

A survey of the shoreline fronting the lots was submitted to the Department of Land and Natural Resources (DLNR) for certification on June 15, 2009, and certified on September 15, 2009. **See:** ***Exhibit 2***

Section §12-203-4 of the Shoreline Rules for the Maui Planning Commission, pertaining to the establishment of Shoreline Setback lines, states:

> *"(a). All lots shall have a shoreline setback line that is the greater of the distances from the shoreline as calculated under the methods listed below or the overlay of such distances:*
>
> *(i). Twenty-five feet plus a distance of fifty times the annual erosion hazard rate from the shoreline;*
>
> *(iii). For irregularly shaped lots, or where cliffs, bluffs, or other topographic features inhibit the safe measurement of boundaries and/or the shoreline, the shoreline setback line will be equivalent to twenty-five percent of the lot's depth as determined by the Director, to a maximum of one hundred fifty feet from the shoreline."*

Section §12-203-4 of the Shoreline Rules states,

> *"where the shoreline is fixed by (1) artificial structures that are nonconforming or that have been approved by appropriate government agencies and for which engineering drawings exist to locate the interface between the shoreline and the structure; or (2) exposed natural stabilized geographic features such as cliffs and rock formations, the Annual Erosion Hazard Rate shall cease at the interface."*

As the subject parcel is fronted by a high cliff, and the shoreline is fixed by an *"artificial structure"* which has *"been approved by appropriate government agencies and for which engineering drawings exist to locate the interface between the shoreline and the structure,"* the Shoreline Setback is equivalent to twenty-five percent of the lot's depth.

Using the Average Lot Depth (ALD) method, the shoreline setback for the parcel is calculated as follows:

Average Lot Depth:	72.2 + 120.3 + 109.3 = 301.8
	301.8 / 3 = **100.6 feet**
Shoreline Setback:	100.6 x 0.25 = 25.15 = **25.2 feet**

The proposed Shoreline setback for the subject property is therefore 25.2 feet.

The existing residence is sited outside of the Shoreline Setback as determined by the ALD method. The pool and lanai structure encroaches slightly into the current Shoreline Setback area; however, at the date of their permitting and construction, the pool and lanai were determined to lie outside of the Shoreline Setback Area and therefore qualify as an existing, legally non-conforming structure within the Shoreline Setback Area. Construction of the erosion control and slope stabilization structures involves an action within the Shoreline Setback Area.

Written Justification for the Requested Variance

The Shoreline Rules for the Maui Planning Commission were established to address competing demands for utilization and preservation of the beach and ocean resources. These rules are necessary because development and other man-made improvements have resulted in encroachment of structures near the shoreline and, in numerous instances, erosion and other disturbances affecting the natural movement of the shoreline. These rules are also necessary because the Hawaiian Islands are subject to coastal natural hazards such as, tsunamis, high wave action, sea level rise, hurricanes, coastal flooding, and coastal erosion that pose hazards to residences and other structures near the shoreline. Such hazards may necessitate the need to harden the shoreline to protect structures which may have an adverse impact on the environment.

As set forth in Chapter 203, Shoreline Rules for the Maui Planning Commission, Section 2, "Purpose", and HRS chapter 205A, as amended, development in the shoreline setback area may be permitted where it meets the following criteria:

(1) That use and enjoyment of the shoreline area be ensured for the public to the fullest extent possible;

Analysis. The project will not prevent the public from full use and enjoyment of the shoreline area to which it is already entitled. The project will not have a direct impact on the public's

use or access to the shoreline area, as public shoreline access exists approximately 800 feet to the south of the project site. The project will enhance safety in the shoreline area immediately beneath the subject property and aid in protection of nearshore waters from erosion-borne sediment. The wall structure is located along the bank *mauka* of the shoreline and will not protrude further seaward than the certified shoreline. Therefore, the improvement does not narrow the usable section of the shoreline area and will not inhibit lateral access along the shoreline.

(2) That the natural shoreline environment be preserved;

Analysis. The shoreline area fronting the subject property is composed of rock and cobble, with a rock ledge extending to approximately 4 feet AMSL, transitioning thereafter to a vertical bluff composed of silty clay soils. Since the shoreline is naturally hardened, no structures are proposed for construction on the shoreline itself, and no dune or beach resource is present on the site, the project does not alter the natural shoreline environment.

(3) That man-made features in the shoreline area be limited to features compatible with the shoreline area;

Analysis. The project involves construction of a wall to armor the cliff face *mauka* of the shoreline, similar to armoring structures of comparable design on properties fronting nearly the entire shoreline along Keonenui Bay. The project therefore does not include any new actions or features that are incompatible with the shoreline as it currently appears.

(4) That the natural movement of the shoreline be protected from development;

Analysis. As discussed in Section II.G of this document, according to Section §12-203-4 of the Shoreline Rules, the Annual Erosion Hazard Rate ceases at the interface between the wall and the shoreline. The project therefore involves the construction of a vertical wall within the shoreline setback area as determined by the Average Lot Depth (ALD) method.

The shoreline area fronting the subject property is composed of rock and cobble, with a rocky ledge extending to approximately 4 feet AMSL, transitioning thereafter to a vertical bluff composed of silty clay soils. Since the shoreline is naturally hardened, no structures are proposed for construction on the shoreline itself, and no dune or beach resource is present on the site, the project is note expected to alter the natural shoreline.

This information and the discussion in No. 2 above suggest that the natural movement of the shoreline would not be affected by the project, and therefore, the project is not expected to have an effect on the natural movement of the shoreline.

(5) That the quality of scenic and open space resources be protected, preserved, and where desirable, restored; and

Analysis. Since no alterations are proposed to the existing residence, existing views through the project site will be preserved. The project does not interfere with public views to, toward, or along the shoreline. The project will therefore have no significant effect on the quality of scenic and open space resources.

(6) That adequate public access to and along the shoreline be provided.

Analysis. Public access to the shoreline exists approximately 800 feet to the south of the subject property. The project does not restrict public lateral access along the shoreline.

The variance request meets §12-203-15 "Criteria for approval of a variance" under paragraph (a)(8): *Private facilities or improvements which will neither adversely affect beach processes nor artificially fix the shoreline; provided that, the commission also finds that hardship will result to the applicant if the facilities or improvements are not allowed within the shoreline area:*

(b) A structure or activity may be granted a variance upon grounds of hardship if: (1) The applicant would be deprived of reasonable use of the land if required to fully comply with the shoreline setback rules;

Analysis. A range of alternatives were considered in order to determine the most reasonable response to threats to public safety and private property caused by the slope collapse. It was determined that the slope stabilization work conducted at the site was the most feasible option for protecting public safety and preserving the property owner's right to use the property as the site of a single family residence. This conclusion was supported by the Planning Department in their granting of an SMA Emergency Permit to expedite the work (**See: *Exhibit 4)***

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

Analysis. The project does not draw into question the reasonableness of the shoreline setback rules. The purpose of the wall is to prevent future erosion of the property and damage to a single-family residence; to prevent potential undermining of the neighboring shoreline protection structures; to prevent earthen soils from eroding and entering the coastal waters; and to remove the public safety hazard associated with the unstable bluff.

(3) The proposal is the practicable alternative which best conforms to the purpose of the shoreline setback rules.

Analysis. The preferred alternative, as determined by the County and the State as part of the 2008 SMA Emergency Permit, is the most practicable option which best conforms to the purpose of the Shoreline Setback Rules.

This application is part of the Final Environmental Assessment prepared for the subject development.

Photographs of the Shoreline Area

See: Exhibit 3

Agriculture Analysis

According to the State Department of Agriculture's Agricultural Lands of Importance to the State of Hawaii (ALISH) classification system, the subject parcel is unclassified, with no agricultural uses. The proposed project area is currently not under agricultural activity, nor are any agricultural uses intended with this project.

TESTIMONY

As of April 15, 2011, the Planning Department had received no testimony either supporting or opposing the proposed project.

ALTERNATIVE ACTIONS BY MAUI PLANNING COMMISSION

1. **Deferral.** The Commission may defer action to another meeting date in order to obtain additional information that will assist in their deliberation on the request.
2. **Approve With No Conditions.** The Commission may take action to approve the permit request without imposing any conditions.
3. **Approve With Conditions.** The Commission may take action to approve the permit request with conditions.
4. **Denial.** The Commission may take action to deny the permit request.

LIST OF EXHIBITS

1. Regional Map, Aerial Location Map, and TMK Location Map
2. Shoreline Survey and shoreline photographs for survey
3. Site Photographs
4. SMA Emergency Permit dated December 10, 2008
5. Wall and Drainage System Drawings

6 – 19. Agency Comment Letters

20. Responses to Comment Letters by Applicant including Maui Planning Commission response letter.
21. Archaeological Monitoring Documents
22. Cultural Impact Assessment
23. Drainage Report and Best Management Practices, Sept 2008

APPROVED:

WILLIAM SPENCE
Planning Director

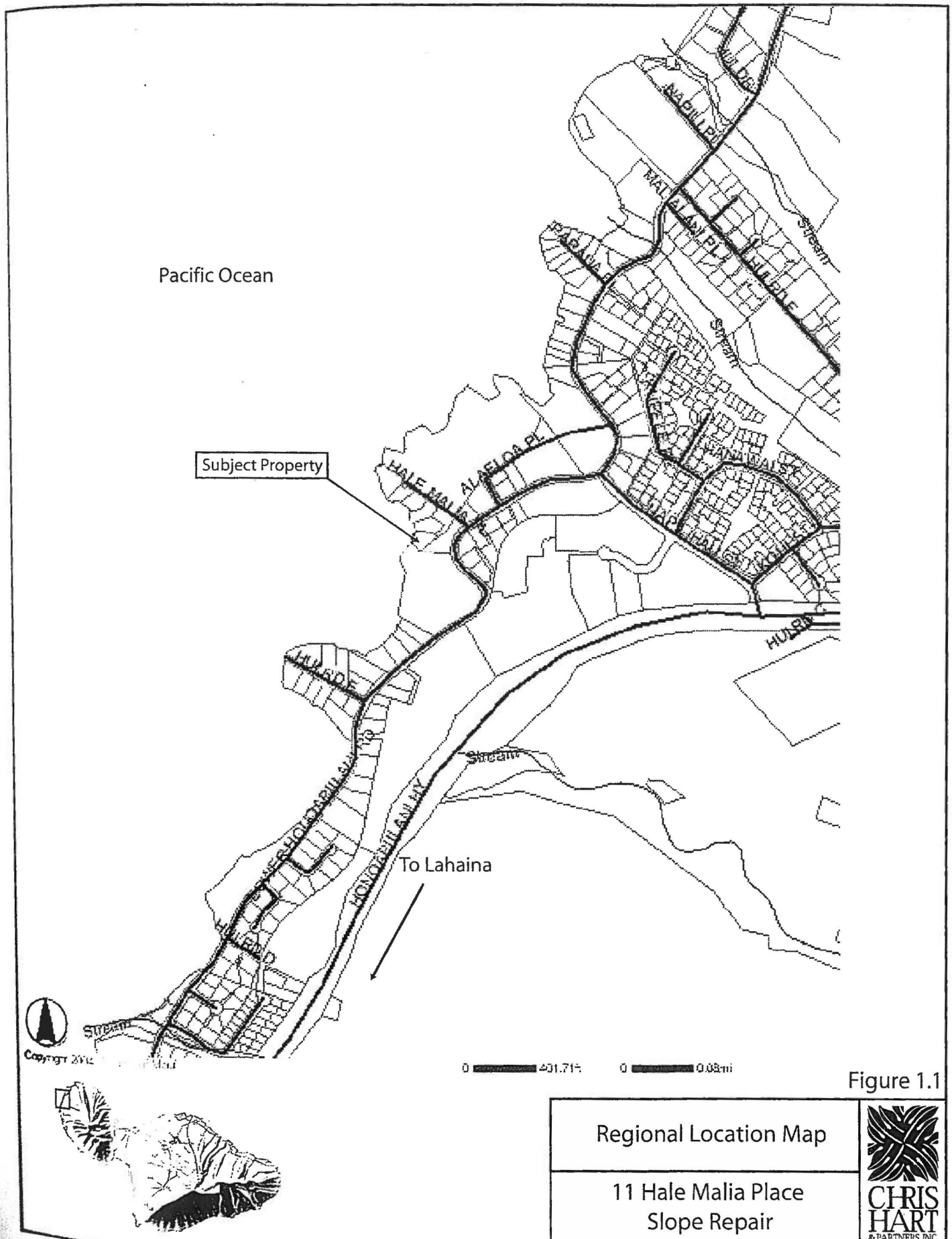


Figure 1.1

Regional Location Map
11 Hale Malia Place Slope Repair

CHRIS HART & PARTNERS, INC.

EXHIBIT 1

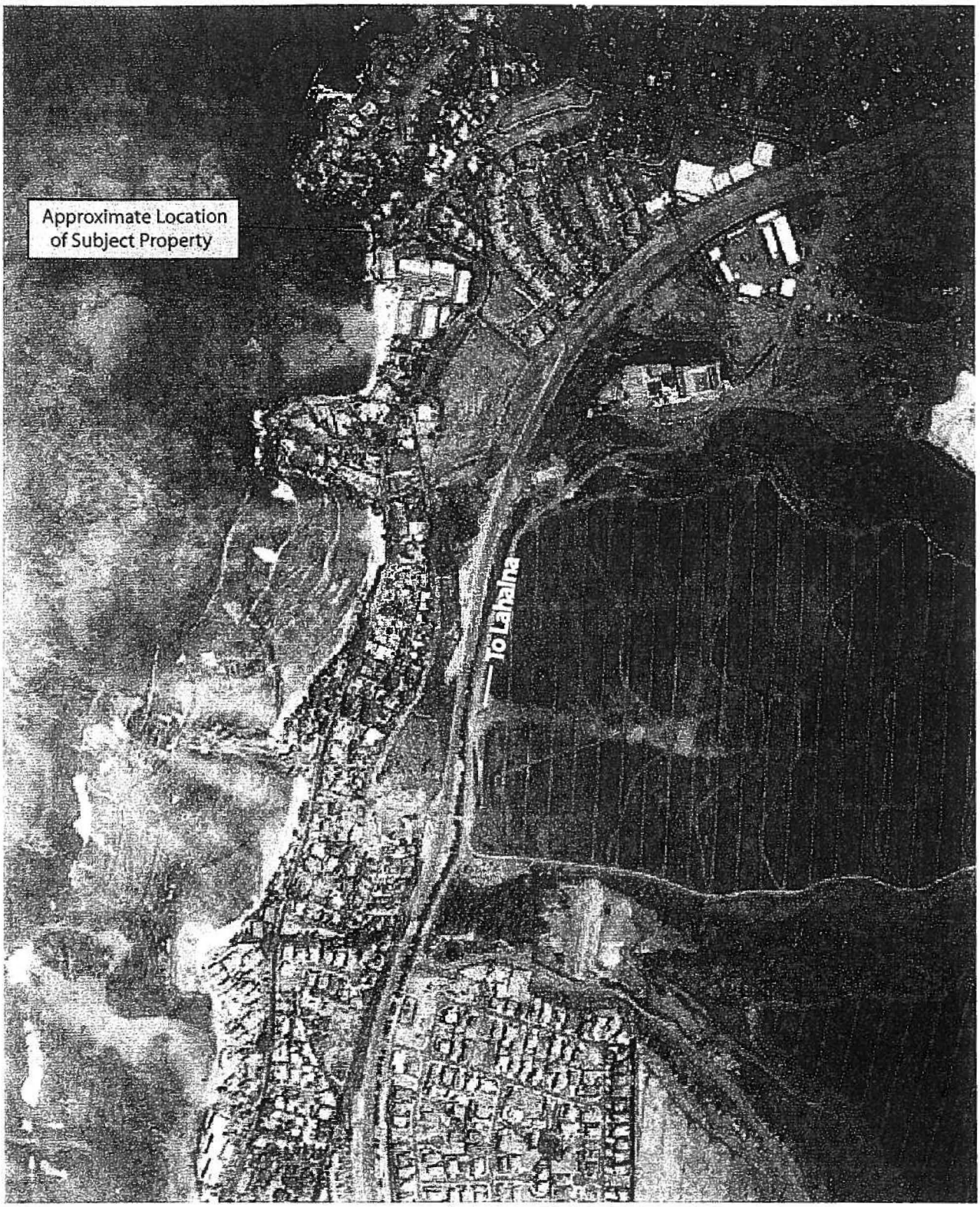


Figure 1.2

Aerial Location Map
11 Hale Malia Place Slope Repair

CHRIS HART & PARTNERS, INC.

BACK TO 2-4-3

BACK TO 2-4

BACK TO 2-0

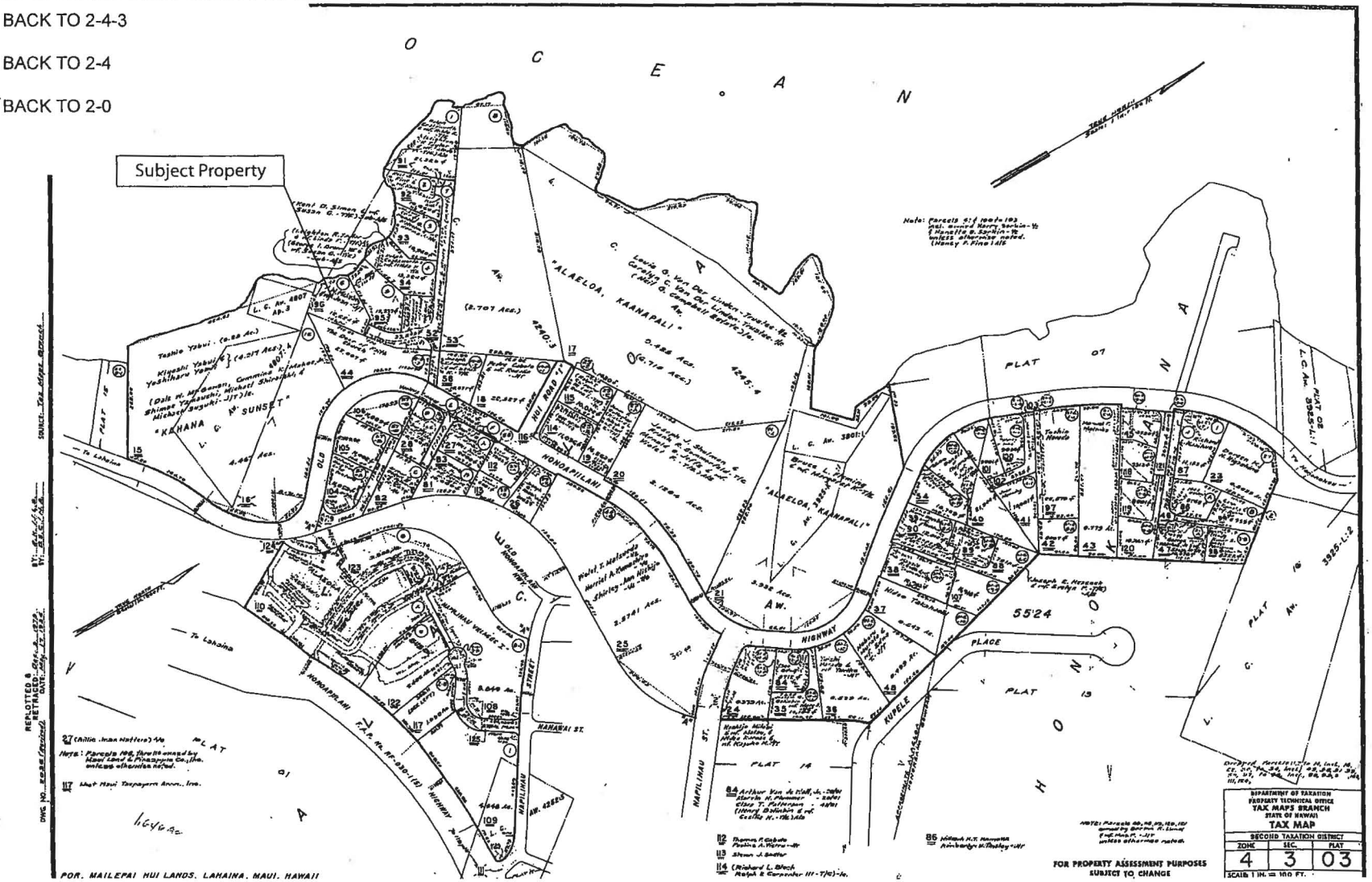
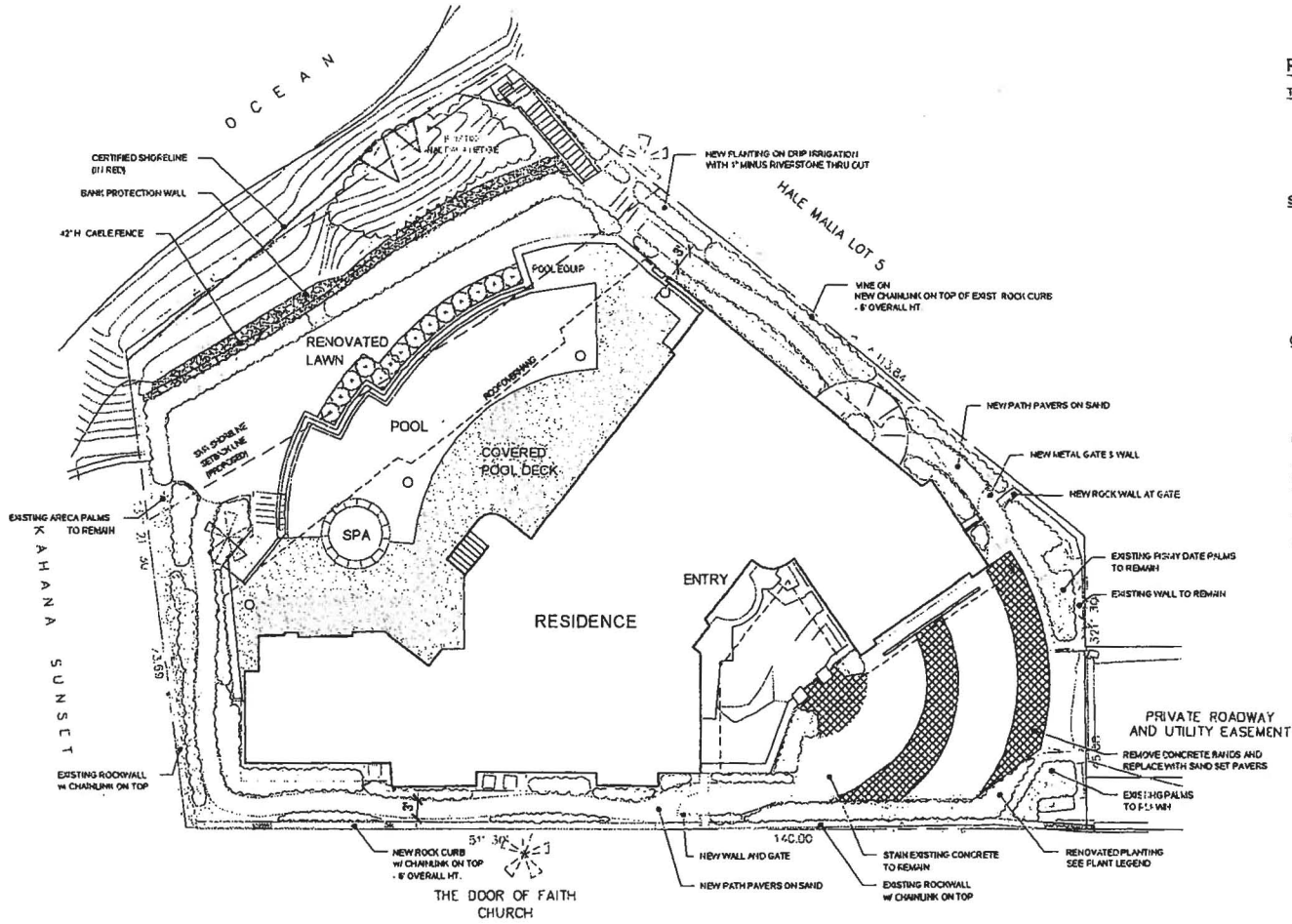


Figure 2

TMK Map
11 Hale Malia Place Slope Repair

CHRIS HART & PARTNERS, INC.



PLANT PALETTE

TREES
- PLUMERIA
- JATROPHA
- ARECA PALM
- PIGMY DATE PALM
- MACARTHUR PALM

SHRUBS
- GOLDEN DURANTA
- ELDORADO 'YELLOW-VEIN'
- RED GINGER
- CREEP TI
- GARDENIA
- BAMBOO
- CROTON

GROUNDCOVER
- LAUAE FERN
- HEMIGRAPHIS
- BACOPA

NOTES:

- ONLY BEACH QUALITY SAND & COMPOST TO BE USED IN SHORELINE SETBACK
- ALL PLANTING WILL BE WATERED BY AN AUTOMATIC IRRIGATION SYSTEM

CHRIS HART & PARTNERS

Preliminary Landscape Plan

LUCAS RESIDENCE

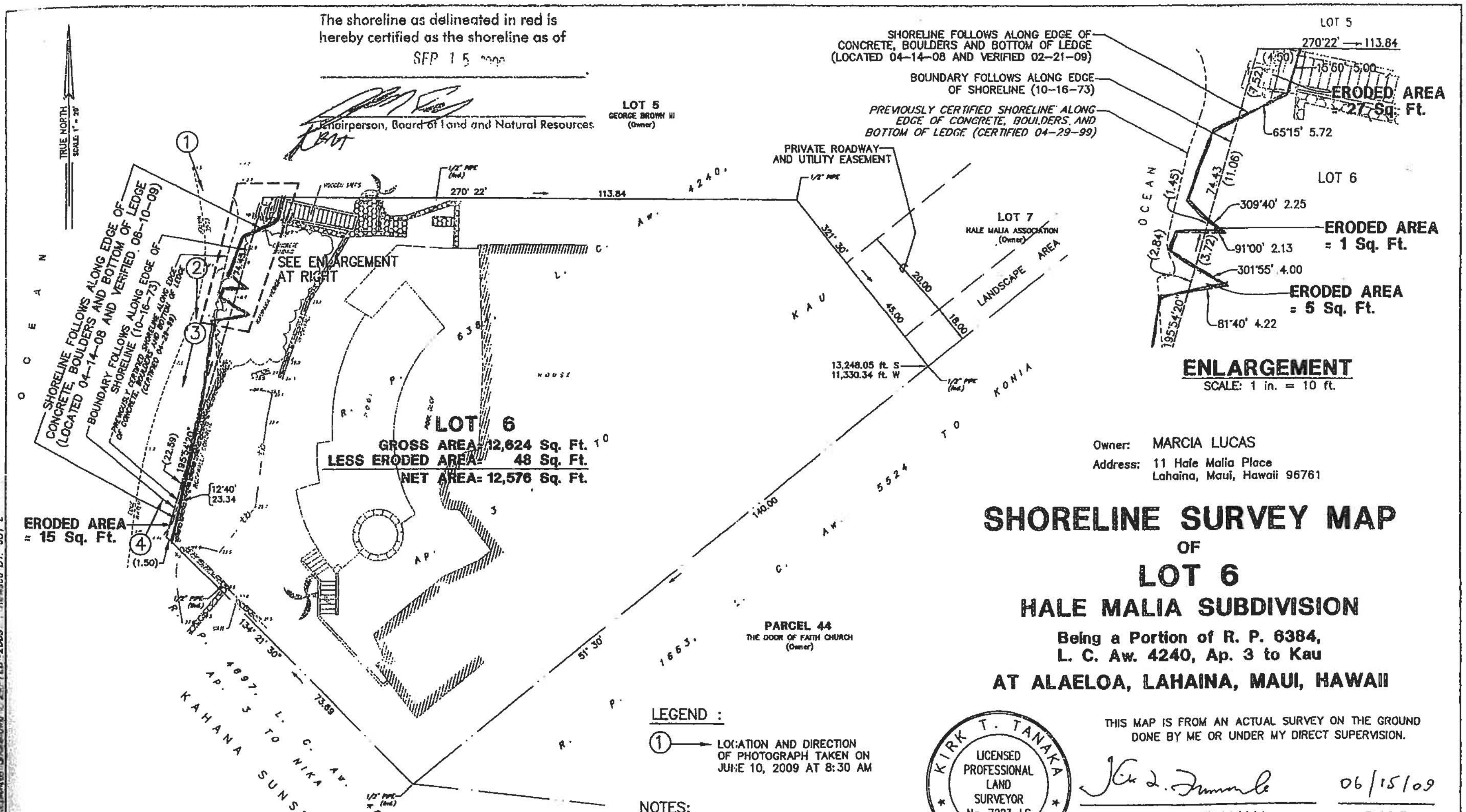
11 HALE MALIA PLACE, MAUI, HI

BAR SCALE

SCALE: 1/8"=1'-0"
PROJECT: 09-039
DATE: 10/20/09
REV. DATE: 5/20/09

Figure 9

Concept Landscape Site Plan	CHRIS HART & PARTNERS, INC.
11 Hale Malia Place Slope Repair	



Owner: MARCIA LUCAS
Address: 11 Hale Malia Place
Lahaina, Maui, Hawaii 96761

SHORELINE SURVEY MAP
OF
LOT 6
HALE MALIA SUBDIVISION

Being a Portion of R. P. 6384, L. C. Aw. 4240, Ap. 3 to Kau

AT ALAELOA, LAHAINA, MAUI, HAWAII

THIS MAP IS FROM AN ACTUAL SURVEY ON THE GROUND DONE BY ME OR UNDER MY DIRECT SUPERVISION.

KIRK T. TANAKA LICENSED PROFESSIONAL LAND SURVEYOR No. 7223-LS HAWAII, U.S.A.

KIRK T. TANAKA
Licensed Professional Land Surveyor
Certificate No. 7223
License Expires: April 30, 2010

06/15/09
DATE

Revised: JUNE 12, 2009
Revised: FEB. 24, 2009
Revised: SEPT. 01, 2008
MAY 05, 2008

LEGEND :

① LOCATION AND DIRECTION OF PHOTOGRAPH TAKEN ON JUNE 10, 2009 AT 8:30 AM

NOTES:

1. ADJOINING OWNERS AS SHOWN TAKEN FROM TAX MAP.
2. ALL AZIMUTHS AND RECORD COORDINATES AS SHOWN REFERRED TO GOVERNMENT SURVEY TRIANGULATION STATION "MALO" △.

Tax Map Key (2) 4-3-03: 96

871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
SURVEYORS — CIVIL & STRUCTURAL ENGINEERS

JOB NO. 08-019

①

②

Shoreline Suvey
Lot 6, Hale Malia Subdivision
Photographs taken on June 10, 2009 at 8:30 a.m.

③

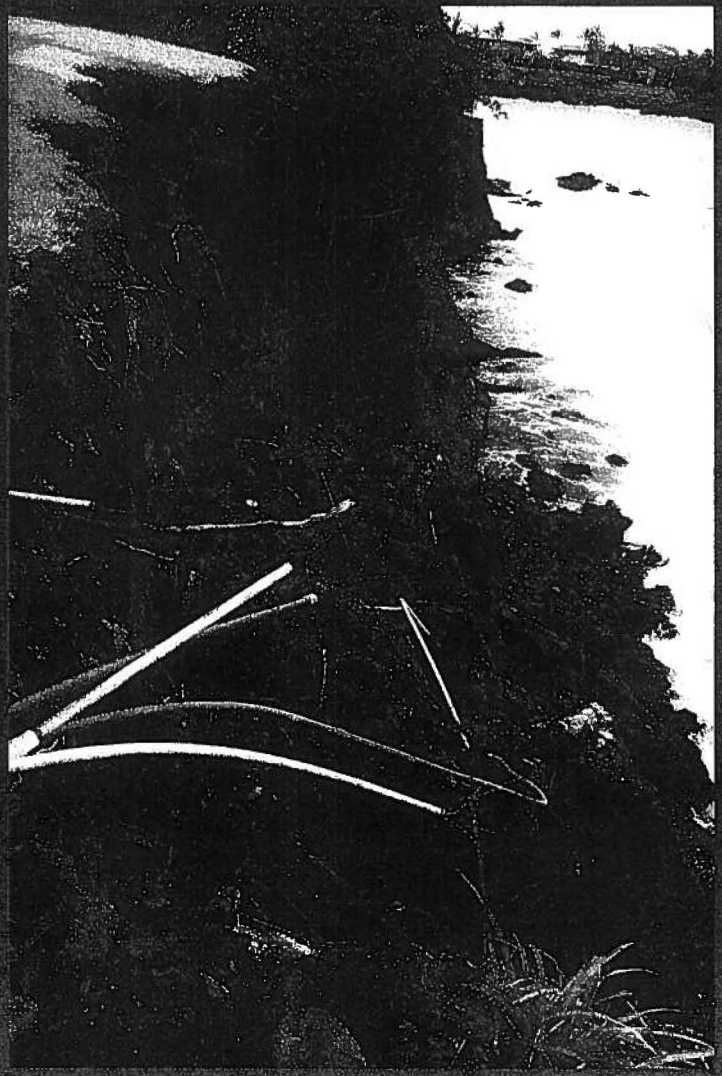
④

Shoreline Suvey
Lot 6, Hale Malia Subdivision
Photographs taken on June 10, 2009 at 8:30 a.m.

Site Photographs

EXHIBIT 3

Site Photographs



Site Photographs

Site Photographs

CHARMAINE TAVARES
Mayor

JEFFREY S. HUNT
Director

KATHLEEN ROSS AOKI
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

December 10, 2008

Mr. Jason Madema
Chris Hart & Partners, Inc.
115 North Market Street
Wailuku, Hawaii 96793

Dear Mr. Madema:

SUBJECT: **SPECIAL MANAGEMENT AREA (SMA) AND SHORELINE SETBACK ASSESSMENTS - FOR EMERGENCY MITIGATION MEASURES AT 11 HALE MALIA PLACE NAPILI, ISLAND OF MAUI, HAWAII, TMK: (2) 4-3-003:096 (SMX 2008/0219) (SM3 2008/0004) (SSA 2008/0020) (EAE 2008/0026)**

This following is a brief chronological synopsis regarding your SMA Emergency Use Permit application and approvals.

A. The application was received on April 8, 2008;

B. Site visits were conducted on February 28, 2008;

C. A Special Management Area Emergency Permit was issued by the Director on May 30, 2008;

D. The applicant requested a time extension in late summer of 2008;

E. The Department of Planning (Department) revised condition no. 11 in light of the applicant's request for a time extension;

F. The applicant requested that conditions no. 12 and no. 13 be revised to reflect a financial security rather than an environmental performance bond;

G. The Department presented the application, approvals, time extension and language revisions to the Maui Planning Commission (Commission) during the Director's Report at their regular meeting on November 17, 2008; and

H. The Commission adopted the Director's Report at the aforementioned meeting after receiving comments from Department Staff.

EXHIBIT 4

Based on the above, and in accordance with the SMA Rules for the Commission, Sections 12-202-12 and 12-202-14, a revised determination has been made relative to the above project that:

A. The project is immediately necessary to stabilize an embankment which failed, in part, due to drainage at the site during inclement weather;

B. The project is immediately necessary to protect a habitable structure which is located less than 20 feet from the shoreline from potential damage;

C. The site consists of a 25 feet high bluff along 75 feet of ocean frontage, 40 feet of which has experienced a "slump" or failure of the soils and CRM seawall at it's base;

D. The proposed action is to correct a slope failure, and is not clearly and explicitly related to shoreline and/or beach erosion;

E. The project is a development with an estimated valuation of $309,507.00, according to a November 3, 2008 memo;

F. The project is located within the shoreline area and is subject to the Shoreline Rules of Maui County, 12-203; and

G. The SMA Rules (12-202 et. seq.) and the Shoreline Rules (12-203 et. seq.) mandate that certain conditions are included and adhered to in any emergency permit for work within the Shoreline Setback and SMA.

In light of the above determinations, you are hereby granted a SMA Emergency Permit for "Alternative #2: Concrete Wall," as described on Page 5 of the SMA Emergency Permit application subject to the following conditions:

1. That Alternative #3 shall not be implemented in light of the signed Structural Observation Report's various recommendations.

2. That the five (5) "General" actions described on Page 7 of the application shall be fully implemented.

3. That the existing drainage in the overhang area shall be removed, redirected and that an appropriate diffuse drainage system be installed.

4. That such drainage system shall be reviewed by the Department, shall meet all government regulations, and shall also be approved by a licensed engineer.

5. That all requirements of the DLNR-OCCL be adhered to, including submission of a shoreline survey for certification, recognizing that a performance bond may be required to allow processing of the shoreline certification application as stated in the DLNR-OCCL letter of April 8, 2008.

6. That a building, grading and/or retaining wall permit be obtained, if required by County code, rules and/or ordinance.

7. That appropriate measures shall be taken during construction to mitigate the short-term impacts of the project relative to soil erosion from wind, water and construction wastewater.

8. That a community noise permit will be obtained, if required.

9. That all sprinklers, irrigation lines, gas lines, tiki torches, and similar structures be removed and relocated outside the minimum shoreline setback area of 25 feet.

10. That the face of the repair structure shall be textured and colored to match and/or blend in with the natural surrounding environment so as to not create visual blight and reduce adverse visual impacts when viewed from the ocean and along the shoreline.

11. That all repairs and actions are temporary in nature and the applicant will obtain all necessary government approvals no later than **December 7, 2009.** Should approvals not be granted, the repairs shall be removed within 180 calendar days of the date of the decision at the applicant's expense.

12. That the applicant shall provide the County of Maui financial security in the amount of **$309,507.24**, approved by the Department and payable to the County of Maui, guaranteeing completion of the proposed structures in accordance with the engineering/construction plans submitted to and reviewed by the Department of Public Works and the subsequent removal of said structures (if required by these conditions), together with the applicant's improvements bond in a form acceptable to the Department.

13. That should the temporary improvements at the site not be removed or permitted within a timely manner, the County of Maui may, at its sole discretion and/or upon recommendation of the Director of Planning, remove such improvements at the landowners expense and/or exercise the County's right to use the financial security described in condition no. 12 above.

14. That a complete application for a SMA Use Permit, Shoreline Setback Variance, and Environmental Assessment in support of the variance and SMA Major permit be submitted to the Department prior to the expiration of this permit. Said documents shall be competent and fully documented including all necessary studies such as a Soils Analysis and Report as recommended by the Structural Observation Report (Appendix A within the SMA Emergency application), a Drainage Report, and an Engineering Report for the proposed temporary and long-term structural repairs.

15. That the applicant, its successors and permitted assigns shall exercise reasonable due care as to third parties with respect to all areas affected by subject SMA Use Permit and shall procure at its own cost and expense, and shall maintain during the entire period of this SMA Use Permit, a policy or policies of comprehensive liability insurance in the minimum amount of ONE MILLION AND NO/100 DOLLARS ($1,000,000.00) naming the County of Maui as an additional named insured, insuring and defending the applicant and County of Maui against any and all claims or demands for property damage, personal injury and/or death arising out of this permit, including but not limited to: (1) claims from any accident in connection with the permitted use, or occasioned by any act or nuisance made or suffered in connection with the permitted use in the exercise by the applicant of said rights; and (2) all actions, suits, damages and claims by whomsoever brought or made by reason of the non-observance or non-performance of any of the terms and conditions of this permit. A copy of a policy naming County of Maui as an additional named insured shall be submitted to the Department within ninety (90) calendar days from the date of transmittal of the decision and order.

16. That the applicant, its successors, and permitted assigns shall defend, indemnify, and hold the County of Maui harmless from and against any and all loss, liability, claim or demand arising out of damages to said structures or activities from coastal natural hazards, storm runoff, and/or coastal erosion.

17. That the construction of all additional erosion-control or shoreline hardening structures or activities, with the exception of beach or dune nourishment activities, and landscape planting and hand irrigation, shall be prohibited throughout the life of the temporary structural repair until the final structural repair is fully permitted.

18. That the requirements above shall run with the land and shall be set forth in a unilateral agreement recorded by the applicant with the bureau of conveyances or land court prior to the date of approval of all structures or activities. A copy of the recorded unilateral agreement shall be filed with the Planning Director and the Director of Public Works.

19. That full compliance with all applicable government requirements shall be rendered.

20. That the applicant shall submit to the Department a detailed report addressing its compliance with the conditions established with the subject SMA Use Permit.

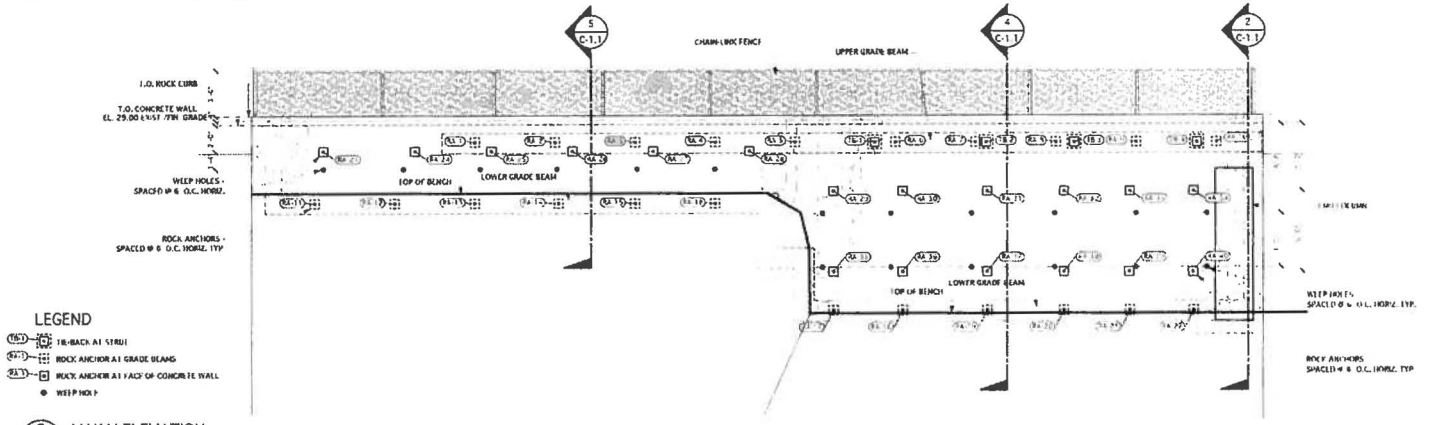
Thank you for your cooperation. If additional clarification is required, please contact Coastal Resources Planner Thorne Abbott at thorne.abbott@mauicounty.gov or at 270-7520.

Sincerely,

JEFFREY S. HUNT, AICP
Planning Director

xc: Kathleen R. Aoki, Deputy Planning Director
Aaron H. Shinmoto, PE, Planning Program Administrator (2)
Thorne E. Abbott, Coastal Resources Planner
Sam Lemmo, DLNR-OCCL
Dolan Eversole, DLNR-OCCL
Daniel Ornellas, DLNR Land Division, Maui
Zoe Norcross-Nu'u, SeaGrant
08/SM3 File
General File

JSH:TEA:bv
K:\WP_DOCS\PLANNING\SM3\2008\0004_HaleMaliaSlump\Revised Conditions-Approval.wpd



2 C-1.0 MAKAI ELEVATION
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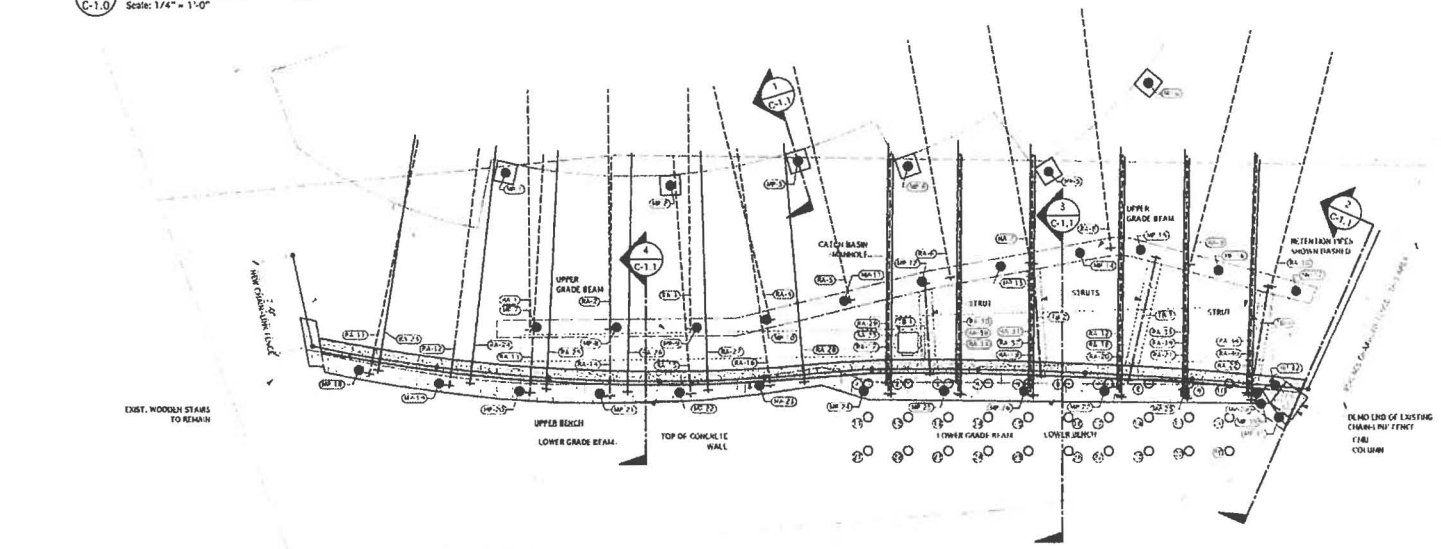


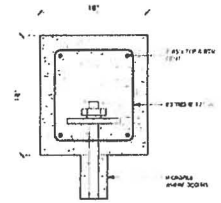
1 C-1.0 PLAN
Scale: 1/4" = 1'-0"

DATE: 31 AUG 09
DESIGN BY: PRW
DRAWN BY: JE
JOB NO: 1113G001
FILE NAME: LUCAS

LUCAS RESIDENCE
11 HALE MALIA PLACE
LAHAINA, MAUI,
BANK PROTECTION

META ENGINEERING
PAUL R. WEBER, P.E.
PO BOX 4606 HONOLULU, HI 96812
TEL 808-394-1420 FAX 808-394-1430

C-1.0
DRAFT



5 C-1.1 GRADE BEAM DETAIL
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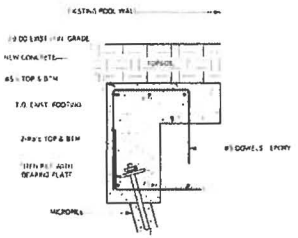

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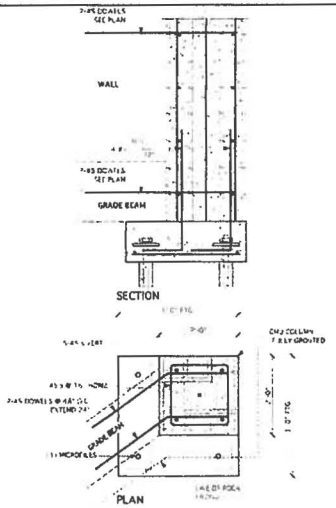

7 C-1.1 CMU COLUMN DETAIL
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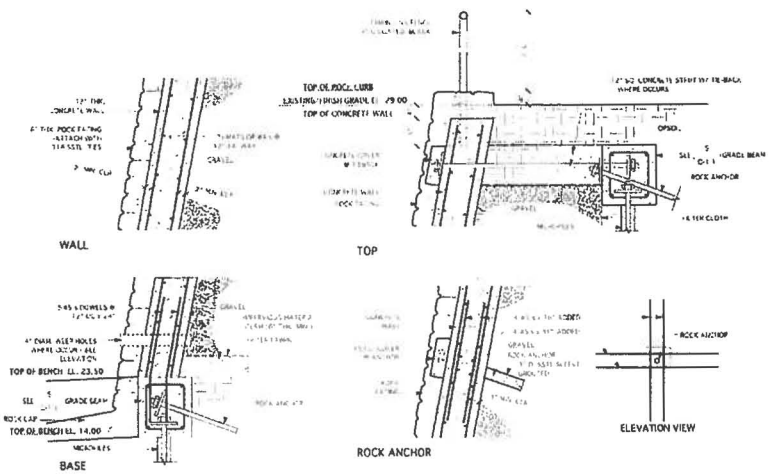

8 C-1.1 TYPICAL WALL DETAILS
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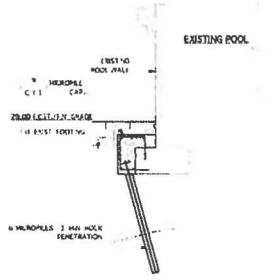

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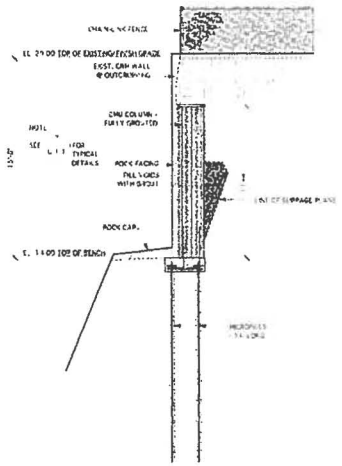

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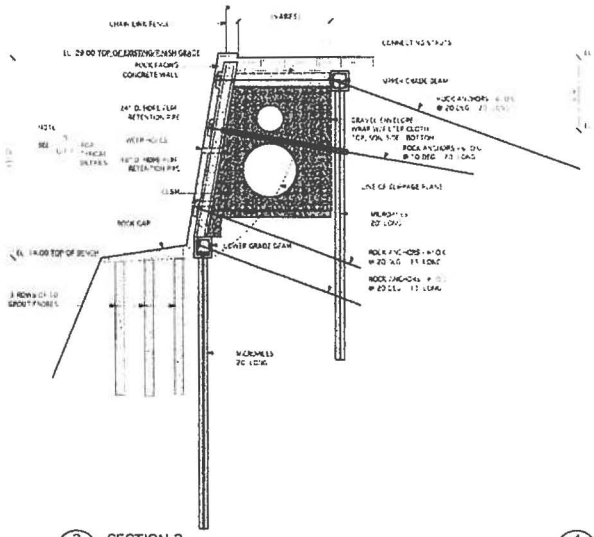

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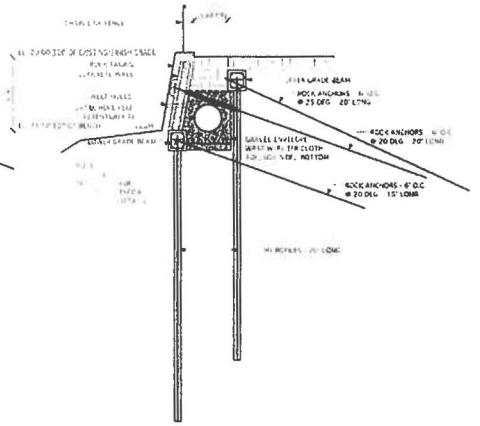


4 C-1.1 SECTION 4
SCALE: 1/4" = 1'-0"

DATE: 31 AUG 09
DESIGN BY: PRW
DRAWN BY: JE
JOB NO: 11136001
FILE NAME: LUCAS

LUCAS RESIDENCE
11 HALE MALIA PLACE
LAHAINA, MAUI,
BANK PROTECTION

META ENGINEERING
PAUL R. WEBER, P.E.
PO BOX 4606 HONOLULU, HI 96812
TEL 808-394-1420 FAX 808-394-1430

C-1.1
DRAFT

CHARMAINE TAVARES
Mayor

JEFFREY S. HUNT
Director

KATHLEEN ROSS AOKI
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

TRANSMITTAL

February 12, 2010

STATE AGENCIES	
•	DAGS
•	DLNR-Land, Maui
•	DLNR-OCCL
•	DLNR-Planning (5)
•	DLNR-SHPD
•	OEQC
•	Office of Planning
OTHER	

COUNTY AGENCIES	
•	Dept of Environmental Management (2)
•	Dept of Finance – Real Property Division
•	Dept of Public Works (3 Hard Copies)
•	Dept of Water Supply
•	Fire & Public Safety
•	ZAED, Zoning & Enforcement Division
FEDERAL AGENCIES	
•	Fish & Wildlife
•	U.S. Army Corp. of Engineers (Hard Copy)

PROJECT:	**DRAFT ENVIRONMENTAL ASSESSMENT (EA) IN REVIEW OF A SPECIAL MANAGEMENT AREA (SMA) USE PERMIT AND SHORELINE SETBACK VARIANCE (SSV) FOR A SHORELINE SLOPE REPAIR AND SEAWALL.**
APPLICANT:	**Ms. Marcia Lucas (Consultant – Chris Hart & Partners, Inc.)**
PERMIT NO.:	**(SM1 2009/0018) (EA 2009/0008) (SSV 2009/0005)**
TMK:	**(2) 4-3-003:096**
STREET ADDRESS:	**11 Hale Malia Place, Napili, Maui, Hawaii 96761**
PROJECT DESCRIPTION:	**Draft EA in review of an Application for a SMA Use Permit and Application for a SSV for a structurally engineered slope retaining system consisting of a concrete tie-back facing anchored into bedrock with pilings to repair and stabilize a collapsing shoreline bluff.**

TRANSMITTED TO YOU ARE THE FOLLOWING:

•	Application(s)

THESE ARE TRANSMITTED AS CHECKED BELOW:

•	For your Comment and Recommendation

Please identify any comments you would like the Department of Planning to propose as conditions of project approval. Please also provide any previous comments, letters, etc. pertinent to this application. Submit your comments directly to me by **March 25, 2010**. A comment box is also provided to assist you. If no comment, please sign the "No Comment" box and fax to (808) 270-1775. Thank you for your time and assistance. For additional clarification, please contact me at kurt.wollenhaupt@mauicounty.gov or at (808) 270-1789.

Sincerely,

Kurt Wollenhaupt

KURT F. WOLLENHAUPT, Staff Planner

xc: Clayton I. Yoshida, AICP, Planning Program Administrator
Kurt F. Wollenhaupt, Staff Planner
Project File
General File

KFW:sg
K:\WP_DOCS\PLANNING\SM1\2009\0018_HaleMaliaPlace\Agency Transmittal.doc

EXHIBIT 6

AGENCY NAME		PHONE	

NO COMMENT			
Signed:		Dated:	
Print Name:		Title:	

COMMENT/RECOMMENDATION BOX			
Signed:		Dated:	
Print Name:		Title:	

CHARMAINE TAVARES
Mayor

JEFFREY S. HUNT
Director

KATHLEEN ROSS AOKI
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

February 12, 2010

Reviewing Agencies
and Organizations, and Interested Individuals

Dear Sir or Madam:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA), SHORELINE SETBACK VARIANCE (SSV), AND SPECIAL MANAGEMENT AREA (SMA) USE PERMIT APPLICATION FOR THE SHORELINE SLOPE REPAIR, LOCATED AT 11 HALE MALIA PLACE, LAHAINA, MAUI, HAWAII; TMK: (2) 4-3-003:096 (SM1 2009/0018) (EA 2009/0008) (SSV 2009/0005)

This letter is being transmitted by the Department of Planning (Department) to coordinate concurrent Agency review requirements of the Draft EA, SSV, and SMA Use Permit application for the subject action, which is described in the attached Draft EA/SSV/SMA document for the shoreline slope repair located at 11 Hale Malia Place, Lahaina, Maui, Hawaii.

The SMA Use Permit application was received by the Department on November 30, 2009, and has been deemed complete for processing. A Notice of Application has been published in a newspaper of general circulation in Maui County, pursuant to applicable noticing requirements.

A Draft EA has also been prepared for the subject action, pursuant to Chapter 343, Hawaii Revised Statutes and Chapter 200, Title 11, Hawaii Administrative Rules, Environmental Impact Statement Rules. The approving Agency for the Draft EA is the Maui Planning Commission. The notice of availability of the Draft EA will be published in the Office of Environmental Quality Control's (OEQC) Environmental Notice on February 23, 2010. **The 30-day comment deadline is March 25, 2010, and we would appreciate receiving your comments prior to that date.**

An application for an SSV is also attached with this application requiring comment in concurrence with the Draft EA.

To facilitate processing of the review requirements of the Draft EA, SSV, and SMA applications, it would be appreciated if you would provide copies of your consolidated written comments to both the Department and the Consultant at the addresses listed below by March 25, 2010:

Chris Hart & Partners, Inc.
115 North Market Street
Wailuku, Hawaii 96793
Attn: Mr. Jason Medema

Department of Planning
250 South High Street
Wailuku, Hawaii 96793
Attn: Kurt F. Wollenhaupt, Staff Planner

Thank you for your cooperation in facilitating this consolidated review process. Should you require further clarification, please contact me at kurt.wollenhaupt@mauicounty.gov or at (808) 270-1789.

Sincerely,

Kurt Wollenhaupt

KURT F. WOLLENHAUPT, Staff Planner

Attachments
xc: Clayton I. Yoshida, AICP, Planning Program Administrator
Kurt F. Wollenhaupt, Staff Planner
Jason Medema, Chris Hart & Partners, Inc.
Project File
General File
KFW:sg
K:\WP_DOCS\PLANNING\SM1\2009\0018_HaleMaliaPlace\SMADEA concurrent transltr.doc

LINDA LINGLE
GOVERNOR

RUSS K. SAITO
Comptroller

SANDRA L. YAHIRO
Deputy Comptroller

'10 FEB 19 P1:49

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING
AND GENERAL SERVICES
LAND SURVEY DIVISION
P.O. BOX 119
HONOLULU, HAWAII 96810-0119

Response refer to:
Ma-052(10)

February 17, 2010

MEMORANDUM

TO: Jeffrey S. Hunt, AICP, Planning Director
Department of Planning, County of Maui

ATTN: Kurt F. Wollenhaupt, Staff Planner

FROM: Reid K. Siarot, State Land Surveyor
DAGS, Survey Division

SUBJECT: Renovations and Improvements to The Whaler on Kaanapali Beach
Applicant: Board of Directors of the Association of Apartment Owners for The Whaler on Kaanapali Beach
Permit No.: SM1 2009/0019
TMK: 4-4-08: 02

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

Should you have any questions, please call me at 586-0390.

7

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

'10 MAR 24 A11 :42

March 22, 2010

County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

Attention: Mr. Kurt F. Wollenhaupt, Staff Planner

Ladies and Gentlemen:

Subject: Draft Environmental Assessment in Review of a Special management Area Use Permit and Shoreline Setback Variance for a Shoreline Slope Repair and Seawall (SM1 2009/0018) (EA 2009/008) (SSV 2009/0005)

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR), Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Division of Aquatic Resources, Office of Conservation & Coastal Lands, Engineering Division, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Historic Preservation will be submitting comments through a separate letter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

Charlene E. Unoki

for Morris M. Atta
Administrator

EXHIBIT 8

MA-10-1, 2

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 20, 2010

2010 FEB 22 A 10:09
STATE OF HAWAII

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
__Commission on Water Resource Management
x Office of Conservation & Coastal Lands
x ~~Land Division – Iao~~
__Historic Preservation

FROM: Morris M. Atta
SUBJECT: Draft Environment Assessment in Review of a Special Management Area Use Permit and Shoreline Setback Variance for a Shoreline Slope Repair and Seawall
LOCATION: Island of Maui
APPLICANT: Ms. Marcia Lucas

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by March 20, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

(X) We have no objections.
( ) We have no comments.
( ) Comments are attached.

Signed: Dawn Hegger
Date: 3/10/10

* Please make sure lateral public access is included in the design of the proposed project, pursuant to HRS, 115

DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

RECEIVED
LAND DIVISION
2010 MAR 11 P 1:15

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

'10 MAR 11 P1:07

REF:OCCL:AB

Correspondence MA-10-170

MAR 11 2010

MEMORANDUM

To: Kurt Wollenhaupt, Staff Planner
County of Maui, Planning Department

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

SUBJECT: Draft Environmental Assessment (EA) Review of a Special Management Area (SMA) Use Permit and Shoreline Setback Variance (SSV) for a Shoreline Slope Repair and Seawall, Located at 11 Hale Malia Place, Napili, Maui, TMK: (2) 4-3-003:096

The Department of Land and Natural Resources (DLNR) Office of Conservation and Coastal Lands (OCCL) has reviewed the information provided on the Draft Environmental Assessment (EA) Review of a Special Management Area (SMA) Use Permit and Shoreline Setback Variance (SSV) for a Shoreline Slope Repair and Seawall, Located at 11 Hale Malia Place, Napili, Maui, TMK: (2) 4-3-003:096.

The proposed project involves the installation of a shoreline protection measure which includes a cast-in-place concrete wall, tied against the bluff using micropiles anchored into bedrock. According to the applicant, all work will take place within the area mauka of the certified shoreline within Maui County jurisdiction.

The OCCL previously provided early consultation comments on the subject application in a letter dated March 4, 2009. As the applicant has stated that all work will take place mauka of the certified shoreline, the OCCL has no further comments regarding this application.

Thank you for the opportunity to review this application. Should you have any questions regarding this correspondence, please contact Audrey Barker of OCCL at 587-0377 or audrey.t.barker@hawaii.gov.

c: Chairperson
MDLO

EXHIBIT 9

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 20, 2010

RECEIVED
LAND DIVISION
2010 MAR -3 A 9:47
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
__Commission on Water Resource Management
x Office of Conservation & Coastal Lands
x Land Division –Ian
__Historic Preservation

FROM: Morris M. Atta
SUBJECT: Draft Environment Assessment in Review of a Special Management Area Use Permit and Shoreline Setback Variance for a Shoreline Slope Repair and Seawall
LOCATION: Island of Maui
APPLICANT: Ms. Marcia Lucas

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by March 20, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(x) Comments are attached.

Signed:
Date: 3/2/10

EXHIBIT 10

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/MorrisAtta
Ref.:DEASMAUPReviewSlopeRepairSeawall
Maui.500

COMMENTS

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

( ) Please note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone____.

(X) Please note that the correct Flood Zone Designation for the project site, according to the Flood Insurance Rate Map Panel No. 1500030264E dated September 25, 2009 (Copy attached), is Zone X. The National Flood Insurance Program does not regulate developments within Zone X.

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

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

( ) Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.

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

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

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

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

( ) Additional Comments: _____

_____

( ) Other: _____

_____

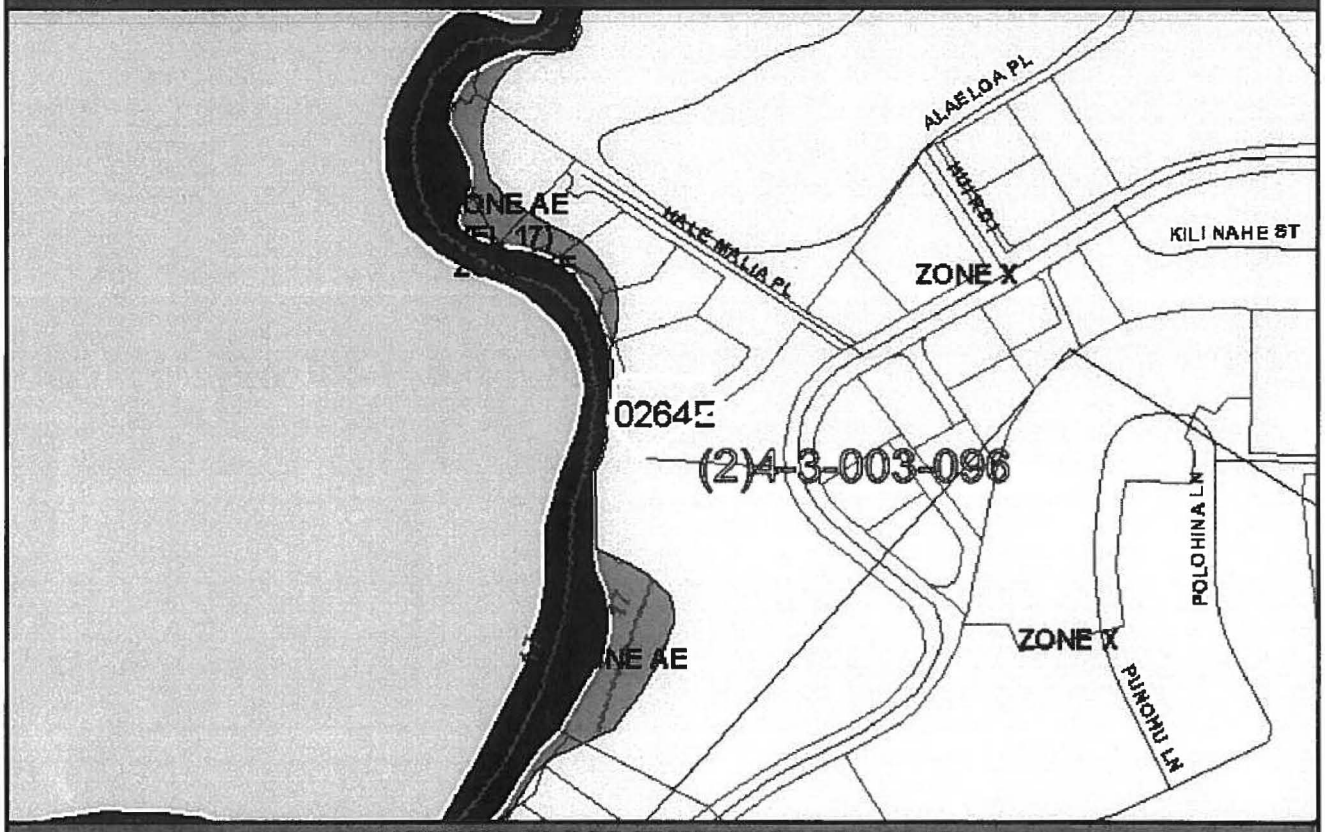
Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed: _____
CARTY S. CHANG, ACTING CHIEF ENGINEER

Date: 3/29/16

State of Hawaii

FLOOD HAZARD ASSESSMENT REPORT



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD ZONE DEFINITIONS

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD – The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water-surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

- **Zone A:** No BFE determined.
- **Zone AE:** BFE determined.
- **Zone AH:** Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
- **Zone AO:** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
- **Zone V:** Coastal flood zone with velocity hazard (wave action); no BFE determined.
- **Zone VE:** Coastal flood zone with velocity hazard (wave action); BFE determined.
- **Zone AEF:** Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA – An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

- **Zone XS (X shaded):** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- **Zone X:** Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

- **Zone D:** Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

PROPERTY INFORMATION

COUNTY:	MAUI
TMK NO:	(()2-)-4-3--00
PARCEL ADDRESS:	11 HALE MALIA PL
FIRM INDEX DATE:	SEPTEMBER 25, 2009
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL(S):	1500030264E
PANEL EFFECTIVE DATE:	SEPTEMBER 25, 2009

PARCEL DATA FROM:	APRIL 2009
IMAGERY DATA FROM:	MAY 2005

IMPORTANT PHONE NUMBERS

County NFIP Coordinator	
County of Maui	
Francis Cerizo, CFM	(808) 270-7771
State NFIP Coordinator	
Carol Tyau-Beam	(808) 587-0267

Disclaimer: The Department of Land and Natural Resources assumes no responsibility arising from the use of the information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the Department of Land and Natural Resources from any liability, which may arise from its use.

Preliminary DFIRM Disclaimer: If this map has been identified as "PRELIMINARY", please note that it is being provided for commenting purposes only and is not to be use for official/legal decisions or regulatory compliance.

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED
LAND DIVISION
2010 MAR 16 P 2:57
DEPT OF LAND & NATURAL RESOURCES STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 20, 2010

AQUATIC RESOURCES: 290.4

DIRECTOR	
COMM. FISH.	
AQ RES/ENV	
AQ REC	
PLANNER	
STAFF SVCS	
RCUH/UH	
STATISTICS	
AFRC/FED AID	
EDUCATION	
SECRETARY	
OFFICE SVCS	
TECH ASST	X
Return to:	
No. Copies	
Copies to:	
Due Date:	

SH

RECEIVED
FEB 22 2010
AQUATIC RESOURCES

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
__Commission on Water Resource Management
x Office of Conservation & Coastal Lands
x Land Division –Ian
__Historic Preservation

FROM: Morris M. Atta
SUBJECT: Draft Environment Assessment in Review of a Special Management Area Use Permit and Shoreline Setback Variance for a Shoreline Slope Repair and Seawall
LOCATION: Island of Maui
APPLICANT: Ms. Marcia Lucas

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by March 20, 2010.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(X) Comments are attached.

Signed:
Date: 15 March 2010

EXHIBIT 11

DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES
130 Mahalani Street
Wailuku, Hawaiÿi 96793
March 11, 2010

To: Alton Miyasaka, Aquatic Biologist

From: Skippy Hau, Aquatic Biologist

Subject: Draft EA in Review of a SMA Use Permit (DAR 2904)
TMK: (2) 4-3-003:096
(Comments due by March 20, 2010 Morris Atta)

On the CD, I was only able to read the document to p. 202.

We recommend best management practices to minimize construction impacts but what will be done to minimize further erosion, sedimentation, and continued loss of rocks and soil from the existing property (shown in site photos pp.85-86; p.172; pp.182-185)? What will be done to stabilize the shoreline before construction can proceed safely?

Honu or green turtle, a threatened species, have been reported to aggregate near the West Maui shoreline. I've confirmed reports of large turtles basking on the beach at Alaeloa.

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

March 29, 2010

Kurt F. Wollenhaupt, Senior Planner
County of Maui, Department of Planning
Sent via email to: kurt.wollenhaupt@mauicounty.gov

LOG NO: 2010.0559
DOC NO: 1003MD29
Archaeology

Dear Mr. Wollenhaupt:

SUBJECT: **Chapter 6E-42 Historic Preservation Review –**
Draft Environmental Assessment - SMA (2009/0018), EA (2009/0008),
SSV (2009/0005)
Nāpili, ʻAlaeloa Ahupuaʻa, Lahaina District, Island of Maui
TMK: (2) 4-3-003:096

Thank you for the opportunity to comment on the aforementioned project, which we received on February 25, 2010. We apologize for the delay in our reply.

This EA is for a project to repair a sea wall that collapsed in 2007. SHPD previously reviewed an archaeological monitoring plan (AMP, *Chaffee and Dega 2009*) which was approved on April 9, 2009 (*Log No. 2009.0307, Doc No 0904PC27*).

However, we understand that the repairs have already been completed – is this EA then going to be after-the-fact? In a letter we received from Scientific Consulting Services (SCS), the firm hired to do the archaeological monitoring, when they went out to the site on April 13, 2009 the excavations were already complete and had been made without any archaeological monitors present as required by the AMP. The required archaeological monitoring report therefore can not be written or submitted to SHPD for our review.

If you have questions about this letter please contact Morgan Davis at (808) 896-0514 or via email to: morgan.e.davis@hawaii.gov.

Aloha,

Nancy A. McMahon

'10 MAR 31 P1:01

Nancy McMahon, Deputy SHPO/State Archaeologist
and Historic Preservation Manager
State Historic Preservation Division

Cc:

Maui CRC, Department of Planning, 250 S. High Street, Wailuku, Hawaii 96793

EXHIBIT 12

LINDA LINGLE
GOVERNOR OF HAWAII

'10 APR -6 P12:15

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

March 31, 2010

Mr. Kurt Wollenhaupt
Staff Planner
County of Maui Planning Department
250 South High Street
Wailuku, Hawai'i 96793

LOG NO: 2010.0105
DOC NO: 1003.HR02

Dear Mr. Wollenhaupt:

SUBJECT: Draft EA in Review of an Application for a SMA Use Permit and Application for a SSV for a Structurally Engineered Slope Retaining System Consisting of a Concrete Tie-back Facing Anchored Into Bedrock With Pilings to Repair and Stabilize a Collapsing Shoreline Bluff at 11 Hale Malia Place, Napili, Maui, Hawai'i, Alaeloa Ahupua'a, Lahaina District, Maui Island. TMK: (2) 4-3-003: 096.

Thank you for the opportunity to provide comments on the above matter. We understand that this emergency project was before the Maui County Planning Commission and that since there was a probability that a burial cave may exist on the property, one of the commissioners asked that the matter be referred to the Department of Land and Natural Resources, State Historic Preservation Division (SHPD) Culture and History Branch and the Maui/Lana'i Islands Burial Council (MLIBC) for comments.

As you may know, the matter was discussed by the MLIBC at the March 25, 2010 meeting. As the MLIBC and SHPD are autonomous, the comments contained herein are independent of the MLIBC.

The SHPD is aware that the Cultural Impact Assessment (CIA) was prepared after the seawall was constructed and that this same CIA revealed the probability of a burial cave on the property. There was testimony at the MLIBC meeting of March 25, 2010 that the contract archaeologist, Scientific Consultants Services Inc. (SCS), inspected the property in August of 2009 upon hearing of the probability of a burial cave. That inspection did not result in a find. Nevertheless, the SHPD recommends that the archaeology firm document its August 2009 inspection including the circumstances for that inspection and the inspection results. The SHPD is also requesting that SCS send a copy of that inspection to all the stakeholders including the County of Maui, the SHPD and the MLIBC.

Should you have any questions or concerns, please feel free to contact our Cultural Historian, Mr. Hinano Rodrigues at 808 243-4640.

Sincerely,

P. Coochie Cayan

Phyllis Coochie Cayan
History and Culture Branch Chief

cc: Mr. Hinano Rodrigues, SHPD Cultural Historian
Dr. Mike Dega, Scientific Consultants Services,Inc., 711 Kapiolani Blvd. #975, Honolulu 96813
All commissioners, Maui/Lana'i Island Burial Council

CHARMAINE TAVARES
Mayor

CHERYL K. OKUMA, Esq.
Director

GREGG KRESGE
Deputy Director

TRACY TAKAMINE, P.E.
Solid Waste Division

DAVID TAYLOR, P.E.
Wastewater Reclamation
Division

COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
2200 MAIN STREET, SUITE 100
WAILUKU, MAUI, HAWAII 96793

April 12, 2010

MEMO TO: JEFF HUNT, PLANNING DIRECTOR

FROM: CHERYL K. OKUMA, DIRECTOR OF ENVIRONMENTAL MANAGEMENT

Cheryl K. Okuma

Digitally signed by Cheryl K. Okuma
DN: cn=Cheryl K. Okuma, o=Depart. of Environmental Management, ou=Director, email=cheryl.okuma@mauicounty.gov, c=US
Date: 2010.04.12 14:00:22 -10'00'

SUBJECT: **MS. MARCIA LUCAS, 11 HALE MALIA PLACE**
SHORELINE EROSION MITIGATION
SM1 2009/0018, EA 2009/0008, SSV 2009/0005
TMK (2) 4-3-003:096, NAPILI, LAHAINA

We reviewed the subject application and have the following comments:

1. Solid Waste Division comments:

   a. None.

2. Wastewater Reclamation Division (WWRD) comments:

   a. None

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

EXHIBIT 13

CHARMAINE TAVARES
Mayor

MILTON M. ARAKAWA, A.I.C.P.
Director

MICHAEL M. MIYAMOTO
Deputy Director

RALPH M. NAGAMINE, L.S., P.E.
Development Services Administration

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
DEVELOPMENT SERVICES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793

March 3, 2010

MEMO TO: JEFFREY S. HUNT, A.I.C.P., PLANNING DIRECTOR

FROM: MILTON M ARAKAWA, A.I.C.P, DIRECTOR OF PUBLIC WORKS

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT IN SUPPORT OF A SPECIAL MANAGEMENT AREA USE PERMIT AND SHORELINE SETBACK VARIANCE FOR SHORELINE SLOPE REPAIR AND SEAWALL TMK: (2) 4-3-003:096 SM1 2009/0018; EA 2009/008; SSV 2009/005

We reviewed the subject application and have no comments at this time.

If you have any questions regarding this memorandum, please call Michael Miyamoto at 270-7845.

MMA:MM:jc
S:\LUCA\CZM\Draft Comments\43003096_11_Malia_Place_sm1_ea_ssv_jc.wpd

c Highways Division
Engineering Division

'10 MAR -5 A9:40

EXHIBIT 14

CHARMAINE TAVARES
Mayor

JEFFREY K. ENG
Director

ERIC H. YAMASHIGE, P.E., L.S.
Deputy Director

'10 APR -7 A9:54

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

April 5, 2010

Mr. Kurt F. Wollenhaupt, Staff Planner
Department of Planning
County of Maui
250 South High Street
Wailuku HI 96793

Re: TMK: (2) 4-3-003:096
SM1 2009/0018
Project Name: Shoreline Slope Repair & Seawall at 11 Hale Malia Place

Dear Mr. Wollenhaupt:

Thank you for the opportunity to comment on this Draft Environmental Assessment (DEA).

Source Availability and Consumption
The EA should identify sources and potable and/or non-potable demand for construction of the proposed shoreline improvement. The project area is served by the Lahaina system. The main sources of water for this portion of the Lahaina system are wells withdrawing from Launiupoko aquifer, and surface water from Kanaha Stream. New source development projects include upgrades to the Lahaina and Mahinahina Water Treatment Plants, and review of potential sites for groundwater wells and raw water storage is under way. The parcel is served by a 5/8-inch water meter. Average demand for this property is approximately 1,915 gallons per day. The project is not anticipated to generate additional demand on the DWS system. Our comments are directed to protection of water resources.

System Infrastructure
A six-inch waterline running along Hale Malia Place serves the property. There is one DWS fire hydrant approximately 125' from the parcel and one standpipe within 250' of the site.

Conservation
To alleviate demand on the Lahaina system, we recommend that the following conservation measures be specified in the final EA and included in the project implementation:1.
Use Climate-adapted Plants: We recommend using native climate-adapted and salt tolerant plants to

restore the disturbed areas and for all landscaping. The project is located in Plant Zone 5. Native plants adapted to the area conserve water and protect the watershed from degradation due to invasive alien species. Enclosed you will find a copy of our Plant Brochure, "Saving Water in the Yard".

- Prevent Over-Watering By Automated Systems: Provide rain-sensors on all automated irrigation controllers. Check and reset controllers at least once a month to reflect the monthly changes in evapo-transpiration rates at the site. As an alternative, provide the more automated, soil-moisture sensors on controllers. All irrigation should be scheduled between 7 PM and 10 AM, no more than 2 days per week once plants are established.

Pollution Prevention

In order to protect ground and surface water sources, Best Management Practices (BMPs) designed to minimize infiltration and runoff from construction should be implemented during construction. In addition to the required BMPs, the mitigation measures below should be included in the final EA:

- Prevent cement products, oil, fuel and other toxic substances from falling or leaching into the ground. Maintain vehicles and equipment to prevent oil or other fluids from leaking. Concrete trucks and tools used for construction should be rinsed off-site.
- Properly and promptly dispose of all loosened and excavated soil and debris material from drainage structure work.
- Properly install and maintain erosion control barriers such as silt fencing.
- Disturb the smallest area possible.
- Retain ground cover until the last possible date.
- Stabilize denuded areas by sodding or planting as soon as possible. Replanting should include soil amendments, mulch and temporary irrigation. Use high seeding rates to ensure rapid stand establishment.
- Minimize paved areas that increase runoff and prevent water from seeping into the ground.
- Keep run-off on site.
- No construction or toxic materials or debris should be placed where it may enter the ocean.
- Construction debris and sediment should be removed from construction areas each day that construction occurs to prevent the accumulation of sediment and other debris which may be discharged into coastal waters. Debris should be disposed of outside the coastal zone.

Should you have any questions, please contact our Water Resources and Planning Division at 808-244-8550.

Sincerely,

Jeffrey K. Eng, Director
mlb
cc: applicant, engineering division

Fire comments

From: Paul Haake
To: Kurt Wollenhaupt
Date: 3/5/2010 4:10 PM
Subject: 11 Hale Malia Place SSV 2009/0005

Date : March 5, 2010

To : Kurt Wollenhaupt, Staff Planner

Project : EA & SMA Regarding Permit and Shoreline Setback Variance
SM1 2009/0018, EA 2009/0008, SSV 20090005
TMK (2) 4-3-003:096
11 Hale Malia Place, Napili, HI 96761

Kurt,

Thank you for the opportunity to comment on this subject. At this time, our office does not have any comments or objections regarding this project.

If there are any questions or comments, please feel free to contact me by e-mail or at 244-9161 ext. 23.

Sincerely,

Paul Haake
Captain, Fire Prevention Bureau
313 Manea Place
Wailuku, HI 96793

EXHIBIT 16

TRANSMITTED TO YOU ARE THE FOLLOWING:
√ Application(s)

PLANNING DEPT
ZONING

THESE ARE TRANSMITTED AS CHECKED BELOW:
√ For your Comment and Recommendation

Please identify any comments you would like the Department of Planning to propose as conditions of project approval. Please also provide any previous comments, letters, etc. pertinent to this application. Submit your comments directly to me by March 25, 2010. A comment box is also provided to assist you. If no comment, please sign the "No Comment" box and fax to (808) 270-1775.

Thank you for your time and assistance. For additional clarification, please contact me via email at kurt.wollenhaupt@mauicounty.gov or by phone at (808) 270-1789.

Sincerely,

KURT F. WOLLENHAUPT, Staff Planner

Proj. Name:	HaleMalia Place Shoreline setback variance for a shoreline slope repair and seawall		
Permit no.	SM1 20090018		
TMK	(2) 4-3-003:096		

COMMENT/RECOMMENDATION BOX

1. Please inform the applicant that the property is located in the special flood hazard area V & X zone. Please submit a flood delineation of the subject site to determine whether a special flood development permit and other applicable certification maybe required.

2. That all other required State and County permits be obtained from the appropriate public agency.

Commenting Agency:	ZAED	Phone:	2707139	Date:	3/12/2010
Signed:	A Cabais	Email address:	avelina.cabais@mauicounty.gov		
Print Name:	Avelina Cabais	Title:	Land Use and Building Plans Examiner		

EXHIBIT 17

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
BUILDING 223
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF: CEPOH-EC-T

'10 FEB 25 P1:28

February 24, 2010

DEPT OF LAND
COU
RECEIVED

Civil Works Technical Branch

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

Dear Mr. Wollenhaupt:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment and Project Assessment Report for the Hale Malia Place Project, Napili, Maui (TMK 4-3-3: 96)). We concur with the flood hazard designations provided on page 17 of the Project Assessment Report.

Should you require additional information, please call Ms. Jessie Dobinchick of my staff at 438-8876.

Sincerely,

Steven H. Yamamoto, P.E.
Chief, Civil Works Technical Branch

EXHIBIT 18

10-233

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF:

March 22, 2010

Regulatory Branch

File No. POH-2009-085

Kurt F. Wollenhaupt
County of Maui, Department of Planning
250 South Hight Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Wollenhaupt:

This is in response to your letter dated February 12, 2010 requesting a review and comments on the Draft Environmental Assessment for bank stabilization measures completed by Ms. Marcia Lucas on property located at 11 Ḥale Malia Place, Napili, Maui, Hawaii (TMK: (2)4-3-003:096).

The assessment appears complete with regard to impacts to any waters of the U.S. under our regulatory jurisdiction. The project was reviewed pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 requires that a Department of the Army (DA) permit be obtained for certain structures or work in or affecting navigable waters of the United States (U.S.) (33 U.S.C. 403) and Section 404 requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands (33 U.S.C. 1344). Both Section 10 and Section 404 require that you obtain a DA permit prior to conducting the work. Navigable waters of the U.S. are those waters subject to the ebb and flow of the tide shoreward to the plane of the Mean Higher High Water (MHHW). The Pacific Ocean is a navigable water of the U.S. The project, as constructed, does not require a DA permit as no work has occurred in a water of the United States.

Be advised that any future work, required as a result of a catastrophic failure of the completed wall, which occurs *makai* of the MHHW, will require a DA permit be issued **prior** to the commencement of construction to correct the failure.

'10 MAR 23 PI2:16

We appreciate the opportunity to comment on the draft assessment. If you have questions, please contact Mr. Robert Deroche of my staff at 808-348-2039 (FAX: 808-438-4060 or by email at robert.d.deroche2@usace.army.mil and refer to File No. POH-2009-085 regarding this project.

Sincerely,

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

Copy Furnished:

Chris Hart & Partners, Inc., 115 N. Market St., Wailuku, HI 96796-1717
Ms. Marcia Lucas, 2440 Vallejo Street, San Francisco, CA 94123

AGENCY NAME	UH Sea Grant	PHONE	808-463-3868

NO COMMENT			
Signed:		Dated:	
Print Name:		Title:	

COMMENT/RECOMMENDATION BOX			
As an after the fact EA + SMA application, I defer to comments made by Sea Grant and DLNR OCCL prior to construction of seawall.			
Signed:		Dated:	4/26/2010
Print Name:	Tara L Miller	Title:	Coastal Hazards Specialist

CHRIS HART & PARTNERS, INC.
Landscape Architecture
City & Regional Planning

July 1, 2010

Mr. Reid K. Siarot
State Land Surveyor
Department of Accounting and General Services
Land Survey Division
State of Hawaii
P.O. Box 119
Honolulu, HI 96810-0119

Dear Mr. Siarot:

RE: Draft Environmental Assessment (DEA) for shoreline erosion mitigation and bank stabilization, located on property situated at 11 Hale Malia Place, Napili, Maui, Hawaii, TMK: (2) 4-2-003:096 (approx. 0.29 acres).

Thank you for your February 17, 2010 letter regarding the above referenced project. We understand from your letter that there are no State Survey Triangulation Stations or Benchmarks affected by the project, and that your Division has no objections to the project.

Thank you for your consideration of this application. Should you have any further questions, please contact myself, or Mr. Jason Medema, Planner, at 242-1955.

Sincerely Yours,

Matthew M. Slepin
Senior Associate • Planner

cc. Mr. James Buika, County of Maui Department of Planning
Mr. John Edwards, AIA, Edwards Design Group, Inc.
Project File (CHP Project No. 08-039)

115 N. Market Street, Wailuku, Maui, Hawaii 96793-1717 • Ph 808-242-1955 • Fax 808-242-1956
www.chpmaui.com

CHRIS HART
& PARTNERS, INC.
Landscape Architecture
City & Regional Planning

August 16, 2010

Mr. Morris M. Atta
Administrator
Department of Land and Natural Resources
Land Division
State of Hawaii
P.O. Box 621
Honolulu, HI 96809

Dear Mr. Atta:

RE: Draft Environmental Assessment (DEA) for shoreline erosion mitigation and bank stabilization, located on property situated at 11 Hale Malia Place, Napili, Maui, Hawaii, TMK: (2) 4-2-003:096 (approx. 0.29 acres).

Thank you for your March 22, 2010 letter regarding the above referenced project. We are pleased to respond to the comments from the Office of Coastal and Conservation Lands (OCCL); Engineering Division; and Division of Aquatic Resources as follows.

1. **OCCL Comments.** Lateral shoreline access was considered as part of the design of the project, pursuant to HRS Chapter 115. The project in no way constrains lateral access along the shoreline beneath the subject property.

2. **Engineering Division Comments.** We note that the correct Flood Zone Designation for the site is Zone X, and that the National Flood Insurance Program does not regulate developments within Zone X.

3. **Aquatic Resources Division Comments.** The structurally engineered bank retaining system that was installed as part of this project is designed to prevent any further erosion, sedimentation, and loss of rocks and soil from the property.

   The Contractor, Pacific Ground Systems, followed and exceeded BMP practices during construction of the subject project. In particular, BMPs included the following:

   - Crushed gravel covering the entire working path from the concrete driveway to the slope protection site.
   - Temporary filters in catch basins to impede sediment infiltration.
   - Sand bag buttressing at the lower bench above the surf zone.
   - A two foot high silt fence and an eight foot high dust barrier along the sand bag barrier to keep sediment associated with runoff or construction activities from reaching nearshore waters.

Thank you for your consideration of this application. Should you have any further questions, please contact myself, or Mr. Jason Medema, Planner, at 242-1955.

Sincerely Yours,

Matthew M. Slepin
Senior Associate • Planner

cc. Mr. John Edwards, AIA, Edwards Design Group, Inc.
Project File (CHP Project No. 08-039)

CHRIS HART
& PARTNERS, INC.
Landscape Architecture
City & Regional Planning

July 6, 2010

Mr. Samuel J. Lemmo
Administrator
Office of Conservation and Coastal Lands
Department of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, HI 96809

Dear Mr. Lemmo:

RE: Draft Environmental Assessment (DEA) for shoreline erosion mitigation and bank stabilization, located on property situated at 11 Hale Malia Place, Napili, Maui, Hawaii, TMK: (2) 4-2-003:096 (approx. 0.29 acres).

Thank you for your comments dated March 11, 2010 regarding the above referenced project. We note your reference to early consultation comments on the subject project that were provided in a letter from your office dated March 4, 2009. We understand from your letter that you have no additional comments to offer at this time.

Thank you for your consideration of this application. Should you have any further questions, please contact myself, or Mr. Jason Medema, Planner, at 242-1955.

Sincerely Yours,

Matthew M. Slepin
Senior Associate • Planner

cc. Mr. James Buika, Planner, County of Maui, Department of Planning
Mr. John Edwards, AIA, Edwards Design Group, Inc.
Project File (CHP Project No. 08-039) ✓

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www.chpmaui.com

CHRIS HART
& PARTNERS, INC.
Landscape Architecture
City & Regional Planning

August 16, 2010

Ms. Phyllis Coochie Cayan
History and Culture Branch Chief
Department of Land and Natural Resources
State Historic Preservation Division
State of Hawaii
601 Kamokila Blvd. Room 555
Kapolei, HI 96707

Dear Ms. Cayan:

RE: Draft Environmental Assessment (DEA) for shoreline erosion mitigation and bank stabilization, located on property situated at 11 Hale Malia Place, Napili, Maui, Hawaii, TMK: (2) 4-2-003:096 (approx. 0.29 acres).

Thank you for your March 31, 2010 letter regarding the above referenced project. We are pleased to respond to your comments as follows.

Your letter correctly notes that the aforementioned emergency project was brought before the Maui Planning Commission and subsequently referred to the Maui/Lana'i Islands Burial Council (MLIBC) due to concerns about a possible burial cave on the property. The project was discussed by the MLIBC during its regular meeting on March 25, 2010 and again during its regular meeting on April 29, 2010. Following review of the project at the aforementioned meetings, the MLIBC had no comments on the Draft EA.

The testimony that the project Archaeologist, SCS, Inc., inspected the property in August of 2009 was erroneous. In fact, a representative of SCS inspected the property on April 14, 2009, and again on May 22, 2010 after research in support of the Cultural Impact Assessment revealed allegations of a burial cave at the site. In both cases, no evidence of a cave was found.

A summary report of the April 14, 2009 and May 22, 2009 Archaeological Inspections was transmitted by SCS Archaeology to SHPD on April 27, 2009, and again in July of 2009. A third field inspection was conducted on April 21, 2010 by representatives of SCS and Chris Hart and Partners. The third inspection was performed in response to consultation with a former property owner, in order to further document the possible exposure of the sea cave and inspect the completed sea wall for any possible indications of a sea cave. No evidence of a cave was found.

We will ensure that copies of the inspection have been provided to all stakeholders, including the County of Maui and MLIBC. A copy of the inspection report is also included in the Final Environmental Assessment (FEA) and Special Management Area (SMA) Use Permit Application for the project, which will be made available to applicable government agencies as well as the general public.

Thank you for your consideration of this application. Should you have any further questions, please contact myself, or Mr. Jason Medema, Planner, at 242-1955.

Sincerely Yours,

Matthew M. Slepin
Senior Associate • Planner

cc. Mr. John Edwards, AIA, Edwards Design Group, Inc.
Project File (CHP Project No. 08-039)

CHRIS HART
& PARTNERS, INC.
Landscape Architecture
City & Regional Planning

July 1, 2010

Ms. Cheryl Okuma, Esq.
Director of Environmental Management
Department of Environmental Management
2200 Main Street, Suite 175
Wailuku, Maui, Hawaii 96793

Dear Ms. Okuma:

RE: Draft Environmental Assessment (DEA) for shoreline erosion mitigation and bank stabilization, located on property situated at 11 Hale Malia Place, Napili, Maui, Hawaii, TMK: (2) 4-2-003:096 (approx. 0.29 acres).

Thank you for your April 12, 2010 letter regarding the above referenced project. We understand from your letter that the Solid Waste Division and the Wastewater Reclamation Division have no comments on the project.

Thank you for your consideration of this application. Should you have any further questions, please contact myself, or Mr. Jason Medema, Planner, at 242-1955.

Sincerely Yours,

Matthew M. Slepin
Senior Associate • Planner

cc. Mr. James Buika, County of Maui Department of Planning
Mr. John Edwards, AIA, Edwards Design Group, Inc.
Project File (CHP Project No. 08-039)

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CHRIS HART
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Landscape Architecture
City & Regional Planning

July 1, 2010

Mr. Milton Arakawa, AICP
Director of Public Works
Development Services Administration
250 South High Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Arakawa:

RE: Draft Environmental Assessment (DEA) for shoreline erosion mitigation and bank stabilization, located on property situated at 11 Hale Malia Place, Napili, Maui, Hawaii, TMK: (2) 4-2-003:096 (approx. 0.29 acres).

Thank you for your March 3, 2010 letter regarding the above referenced project. We understand from your letter that your Department has no comments on the project.

Thank you for your consideration of this application. Should you have any further questions, please contact myself, or Mr. Jason Medema, Planner, at 242-1955.

Sincerely Yours,

Matthew M. Slepin
Senior Associate • Planner

cc. Mr. James Buika, County of Maui Department of Planning
Mr. John Edwards, AIA, Edwards Design Group, Inc.
Project File (CHP Project No. 08-039)

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CHRIS HART
& PARTNERS, INC.
Landscape Architecture
City & Regional Planning

July 1, 2010

Mr. Jeffrey K. Eng
Director
Department of Water Supply
200 South High Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Eng:

RE: Draft Environmental Assessment (DEA) for shoreline erosion mitigation and bank stabilization, located on property situated at 11 Hale Malia Place, Napili, Maui, Hawaii, TMK: (2) 4-2-003:096 (approx. 0.29 acres).

Thank you for your April 5, 2010 letter regarding the above referenced project. We are pleased to address your comments as follows.

1. **Source Availability and Consumption.** The Applicant notes your clarifying remarks concerning the main sources of water for the system as well as new source development projects in the project area. The applicant confirms the Department's expectation that the project will not generate additional demand.

2. **System Infrastructure.** The Applicant notes from your letter that the property is served by a 6-inch DWS waterline running along Hale Malia Place, and also that one DWS fire hydrant is located approximately 125 feet from the parcel and a standpipe is located within 250 feet of the site.

3. **Conservation.** The project will utilize climate-adapted plants in all landscape plantings. The project will have rain sensors on all automated irrigation.

4. **Pollution prevention.** Best Management Practices (BMPs), such as those described in your letter, were implemented during construction of the wall in order to minimize infiltration and runoff from construction.

Thank you for your consideration of this application. Should you have any further questions, please contact myself, or Mr. Jason Medema, Planner, at 242-1955.

115 N. Market Street, Wailuku, Maui, Hawaii 96793-1717 • Ph 808-242-1955 • Fax 808-242-1956
www.chpmaui.com

Sincerely Yours,

Matthew M. Slepin
Senior Associate • Planner

cc. Mr. James Buika, County of Maui Department of Planning
Mr. John Edwards, AIA, Edwards Design Group, Inc.
Project File (CHP Project No. 08-039)

CHRIS HART
& PARTNERS, INC.
Landscape Architecture
City & Regional Planning

July 1, 2010

Mr. Paul Haake
Captain
Fire Prevention Bureau
County of Maui
313 Manea Place
Wailuku, Maui, Hawaii 96793

Dear Mr. Haake:

RE: Draft Environmental Assessment (DEA) for shoreline erosion mitigation and bank stabilization, located on property situated at 11 Hale Malia Place, Napili, Maui, Hawaii, TMK: (2) 4-2-003:096 (approx. 0.29 acres).

Thank you for your comments dated March 5, 2010 regarding the above referenced project. We understand that you have no further comments or objections to this project.

Thank you for your consideration of this application. Should you have any further questions, please contact myself, or Mr. Jason Medema, Planner, at 242-1955.

Sincerely Yours,

Matthew M. Slepin
Senior Associate • Planner

cc. Mr. James Buika, County of Maui Department of Planning
Mr. John Edwards, AIA, Edwards Design Group, Inc.
Project File (CHP Project No. 08-039)

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CHRIS HART
& PARTNERS, INC.
Landscape Architecture
City & Regional Planning

July 1, 2010

Mr. Francis Cerizo
Zoning Administration and Enforcement Division
Department of Planning
County of Maui
250 South High Street
Wailuku, Maui, Hawaii 96793

ATTN: Ms. Avelina Cabais, Land Use and Building Plans Examiner

Dear Mr. Cerizo:

RE: Draft Environmental Assessment (DEA) for shoreline erosion mitigation and bank stabilization, located on property situated at 11 Hale Malia Place, Napili, Maui, Hawaii, TMK: (2) 4-2-003:096 (approx. 0.29 acres).

Thank you for your comments dated March 1, 2010 regarding the above referenced project. We are pleased to address your comments as follows.

1. According to the attached Flood Hazard Assessment Report by the State of Hawaii, the subject property is located within the special flood hazard area Zone X. Zone X represents areas determined to be outside of the 0.2% annual chance floodplain, and a Special Flood Hazard Area Development Permit is therefore not required for the subject development.

2. The Applicant notes that all other required State and County permits must be obtained from the appropriate agencies.

Thank you for your consideration of this application. Should you have any further questions, please contact myself, or Mr. Jason Medema, Planner, at 242-1955.

Sincerely Yours,

Matthew M. Slepin
Senior Associate • Planner

115 N. Market Street, Wailuku, Maui, Hawaii 96793-1717 • Ph 808-242-1955 • Fax 808-242-1956
www.chpmaui.com

CHRIS HART
& PARTNERS, INC.
Landscape Architecture
City & Regional Planning

July 1, 2010

Mr. George P Young, P.E., Chief
Regulatory Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, HI 96858-5440

Dear Mr. Young:

RE: Draft Environmental Assessment (DEA) for shoreline erosion mitigation and bank stabilization, located on property situated at 11 Hale Malia Place, Napili, Maui, Hawaii, TMK: (2) 4-2-003:096 (approx. 0.29 acres).

Thank you for your March 22, 2010 letter regarding the above referenced project. We note your comment that the assessment appears complete with regard to any waters of the United States under your agency's jurisdiction. We understand from your letter that the project, as constructed, does not require a DA permit, as no work has occurred in a water of the United States.

We acknowledge that any future work required as a result of catastrophic failure of the completed wall, that occurs *makai* of the Mean Higher High Water (MHHW) mark, will require the issuance of a DA permit prior to commencement of construction to correct the failure.

Thank you for your consideration of this application. Should you have any further questions, please contact myself, or Mr. Jason Medema, Planner, at 242-1955.

Sincerely Yours,

Matthew M. Slepin
Senior Associate • Planner

cc. Mr. James Buika, County of Maui Department of Planning
Mr. John Edwards, AIA, Edwards Design Group, Inc.
Project File (CHP Project No. 08-039)

115 N. Market Street, Wailuku, Maui, Hawaii 96793-1717 • Ph 808-242-1955 • Fax 808-242-1956
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CHRIS HART
& PARTNERS, INC.
Landscape Architecture
City & Regional Planning

July 1, 2010

Ms. Tara L. Miller
Coastal Hazards Specialist
UH Sea Grant Program
c/o County of Maui, Department of Planning
Current Planning Division
2200 Main St.
One Main Plaza Building, Suite 619
Wailuku, HI 96793

Dear Ms. Miller:

RE: Draft Environmental Assessment (DEA) for shoreline erosion mitigation and bank stabilization, located on property situated at 11 Hale Malia Place, Napili, Maui, Hawaii, TMK: (2) 4-2-003:096 (approx. 0.29 acres).

Thank you for your comments dated April 26, 2010 regarding the above referenced project. The project construction was originally approved by the Maui County Planning Department in May of 2008, pursuant to a Special Management Area (SMA) Emergency Permit. Representatives of UH Sea Grant Program and DLNR-OCCL were consulted as part of the SMA Emergency Permit Application process.

Please note that the subject HRS 343 Environmental Assessment, SMA Use Permit, and Shoreline Setback Variance Application are being submitted as a condition of approval for the SMA Emergency Permit. Therefore, the aforementioned development permits for the project do not represent an after-the-fact application.

Thank you for your consideration of this application. Should you have any further questions, please contact myself, or Mr. Jason Medema, Planner, at 242-1955.

Sincerely Yours,

Matthew M. Slepin
Senior Associate • Planner

115 N. Market Street, Wailuku, Maui, Hawaii 96793-1717 • Ph 808-242-1955 • Fax 808-242-1956
www.chpmaui.com

cc. Mr. James Buika, County of Maui, Department of Planning
Mr. John Edwards, AIA, Edwards Design Group, Inc.
Project File (CHP Project No. 08-039)

KATHLEEN ROSS AOKI
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

March 31, 2010

Mr. Jason Medema
Chris Hart & Partners, Inc.
115 North Market Street
Wailuku, Hawaii 96793

Dear Mr. Medema:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA), SHORELINE SETBACK VARIANCE (SSV), AND SPECIAL MANAGEMENT AREA (SMA) USE PERMIT APPLICATION FOR THE SHORELINE SLOPE REPAIR, LOCATED AT 11 HALE MALIA PLACE, LAHAINA, MAUI, HAWAII; TMK: (2) 4-3-003:096 (SM1 2009/0018) (EA 2009/0008) (SSV 2009/0005)

At a regular meeting of February 23, 2010, the Maui Planning Commission reviewed the above-referenced document and provided the following comments:

1. Forward a copy of the Draft EA to the Maui/Lanai Islands Burial Council and the State Historic Preservation Division (SHPD) for review and comment;

2. Prepare a history on structures located on the property including the house and swimming pool, including previous building permits, SMA permits, and dates of permitting and indicate whether or not such structures were located within the Shoreline Setback Area as defined at the time of permitting. Indicate the footprint of the original house and subsequent renovations as information is available;

3. Review the potential for beach restoration and prepare a series of "mosaic" slides showing the condition of the beach over a period of 20 years;

4. Prepare a shoreline map indicating the certified shoreline in relation to the "built" seawall and show all Shoreline Setback Calculations. Show the erosion rate map used for this particular part of the shoreline;

5. Prepare an analysis on the potential impact to the property and to the shoreline of removing the swimming pool and other hardened structures within the Shoreline Setback Area;

6. Provide a timeline on the relationship among the issuance of a building permit, site excavation, preparation of an archaeological monitoring plan, review and approval of the plan by SHPD, excavation work, and field inspections by the archaeological monitor;

7. Provide a discussion of coastal hazards that may influence the integrity of the wall during severe storms;

8. Provide a map and photographs demonstrating lateral shoreline access by the public;

9. Obtain statements from individuals directly involved on-site with excavation for and construction of the seawall as to their knowledge of any potential human remains and/or Hawaiian artifacts that may have been found during excavation and/or construction operations;

10. Provide a series of photographs on the condition of the beach and shoreline before and after the construction of the seawall and the current condition of the beach and shoreline with particular attention given to inclusion of these photographs in Appendix B related to the Shoreline Setback Determination; and

11. Provide a discussion as to the potential effect of the construction of the seawall on adjacent beaches and shoreline properties.

Please provide written responses to the above comments in the Final EA. Should you require further clarification, please contact Staff Planner Kurt Wollenhaupt by email at kurt.wollenhaupt@mauicounty.gov or by telephone at (808) 270-1789.

Sincerely

JEFFREY S. HUNT, AICP
Planning Director

xc: Clayton I. Yoshida, AICP, Planning Program Administrator
Kurt F. Wollenhaupt, Staff Planner
Project File
General File

JSH:KFW:sg
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CHRIS HART
& PARTNERS, INC.
Landscape Architecture
City & Regional Planning

August 19, 2010

Ms. Kathleen Ross Aoki
Planning Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Maui, Hawaii 96793

ATTN: Mr. James Buika, Coastal Resources Planner

Dear Ms. Aoki:

RE: Maui Planning Commission Comments on the Draft Environmental Assessment (DEA) for shoreline erosion mitigation and bank stabilization, located on property situated at 11 Hale Malia Place, Napili, Maui, Hawaii, TMK: (2) 4-2-003:096 (approx. 0.29 acres).

Thank you for your letter dated March 31, 2010 regarding the above referenced project, attached as Exhibit "A." We are pleased to address the comments provided by the Maui Planning Commission at its February 23, 2010 meeting as follows.

1. **SHPD and Burial Council Review of Draft EA.** The State Historic Preservation Division (SHPD) was consulted during the Early Consultation phase of the EA process. A copy of the Draft EA was provided to SHPD as part of the agency review and comment component of the Draft EA.

   A copy of the Draft EA was also provided to the Maui/Lanai Islands Burial Council (MLIBC) for review, and the project was discussed by the MLIBC during its regular meetings on March 25, 2010 and April 29, 2010. The MLIBC had no comments on the Draft EA.

2. **History of Structures Located on the Subject Property.** The original structure on the subject property, a single-family residence, was constructed by a previous landowner circa 1975, at approximately the same time the Hale Malia subdivision was initially created. No information concerning the dimensions or the footprint of the original residence was available from the County of Maui or the previous landowner. A permit for demolition of the original residence was approved by the County of Maui in June of 1999.

   In July of that year, a Building Permit was issued to the previous landowner for construction of the existing dwelling, garage, and lanai. The residence met all relevant development requirements, such as building height, setback, and footprint. The Building

Permit notes that the property's Shoreline Setback was 25 feet, pursuant to the Shoreline Rules for the Maui Planning Commission as they existed at that time. Concurrently with the permit for construction of the residence, a permit was also approved in July of 1999 for construction of a spa as part of the building lanai.

In December of 2003, a Building Permit was approved for conversion of a portion of the lanai consisting of a koi pond into the current swimming pool. The conversion was subject to a Special Management Area (SMA) Assessment. A determination was made by the Planning Director on December 3, 2003, that the improvements represented alterations to an existing, permitted structure, and therefore were exempt from the SMA Rules. The structure was determined to lie outside of the Shoreline Setback Area. Please see Exhibit "B" for copies of all available building permit records attributable to prior developments on the subject parcel.

3. **Historic Beach Conditions.** Please see Exhibit "C" for a series of mosaic slides showing beach conditions over a period of 35 years, from 1975 to present. As indicated by the attached historical mosaic, photographic evidence suggests no significant change in beach conditions at the site over time.

   The beach at the base of the bluff can be characterized as having an ephemeral profile. In essence, this means that sand comes and goes more or less regularly, depending on incident wave conditions. The substrate underlying the subject property is composed of silty clay and does not represent a source of sand for beach replenishment; therefore, the sand for the beach likely comes and goes from nearshore deposits. In light of the foregoing, current prevailing beach conditions likely represent the naturally occurring beach conditions, and the merit of any beach restoration efforts is unclear.

4. **Location of the Built Wall Relative to the Certified Shoreline.** Please see Exhibit "D" for a site and landscape plan showing the location of the State certified shoreline relative to the bank protection wall. This exhibit has been added to the Final EA to replace the previously existing Figure 9, "Concept Landscape Plan."

   The Annual Erosion Hazard Rate (AEHR) map for Keonenui Bay is attached as Exhibit "E," and shows an average AEHR of roughly 0.5 to 0.8 feet at the shoreline fronting the subject property. As discussed in Section II.G of the Draft EA, Section §12-203-4 of the Shoreline Rules for the Maui Planning Commission states:

   "where the shoreline is fixed by (1). artificial structures that are nonconforming or that have been approved by appropriate government agencies and for which engineering drawings exist to locate the interface between the shoreline and the structure; or (2). exposed natural stabilized geographic features such as cliffs and rock formations, the Annual Erosion Hazard Rate shall cease at the interface."

   The subject parcel is fronted by a high cliff, and the shoreline is fixed by an *"artificial structure"* which has *"been approved by appropriate government agencies and for which engineering drawings exist to locate the interface between the shoreline and the structure."* Therefore, the Shoreline Setback is determined as twenty-five percent of the lot's average depth of 100.6 feet as calculated by the Project Surveyor, or 25.2 feet.

5. **Analysis of Removal of Swimming Pool.** The building lanai, of which the pool is a part, was determined to be outside of the Shoreline Setback Area when the existing

residence was constructed in 1999, as well as when the preexisting koi pond was converted into the existing pool in 2003. Due primarily to changes in the shoreline setback calculations, approximately 200 square feet of the lanai now lies within the Shoreline Setback Area and qualifies as a legally nonconforming structure. No other hardened structures are located within the Shoreline Setback Area, aside from the wall that is the subject of this EA.

The slope and wall collapse in 2007 was generally attributable to inundation of the *makai* yard area by heavy rainfall, combined with heavy surf activity at the base of the bluff. According to the project's consulting Geotechnical and Structural Engineer, the swimming pool was not a contributing factor in the collapse of the bluff. A new wall would have been necessary to stabilize and repair the collapsed bluff, and protect the existing habitable structure, regardless of the existence of the pool and lanai structure.

Removing 200 square feet of the pool and lanai structure from the Shoreline Setback Area would have no positive impact on the property or the shoreline area, as it would neither mitigate the threat to the existing habitable structure, nor the threat to public health, safety and welfare created by the collapsing bluff. Therefore, removal of the roughly 200 square feet of hardened structure that legally lies within the Shoreline Setback Area is not a practical alternative for mitigating the threats to the property, the shoreline, or the nearshore environment.

6. Project Timeline Relative to Alleged Burial Cave.

May 30, 2008:	SMA Emergency Permit for Erosion Mitigation and Bank Stabilization approved by Maui County Planning Department.
August 8, 2008:	Building Permit Application Filed.
August, 2008:	Determination by Development Services Administration, Engineering Division, that proposed work is exempt from a grading permit as existing conditions represent an emergency situation.
December 10, 2008:	Revised SMA Emergency Permit Approval and Time Extension.
January, 2009:	SCS Archaeologists contracted to prepare Archaeological Monitoring Plan for the proposed project.
February 4, 2009:	Building Permit Issued.
March 4, 2009:	Archaeological Monitoring Plan, prepared by SCS Archaeologists, submitted to State Historic Preservation Division (SHPD) for review and approval.
March, 2009:	Initiation of ground disturbing activity for wall construction.

April 9, 2009:	Archaeological Monitoring Plan approved by SHPD.
April 13, 2009:	CH&P contacted SCS Archaeologists, notifying them of near completion of excavation for the new wall.
April 14, 2009:	SCS monitor arrived on-site to inspect the progress of the excavation. The entire profile of the face of the bluff was exposed at this time, as construction had not yet commenced. No cultural materials or layers were encountered during the field inspection. Determination by SCS monitor that exposed sediments suggest previous grading and filling episodes and no subsurface sites were disturbed.
April 27, 2009:	Summary report of April 14, 2009 Archaeological Inspection transmitted to SHPD.
May, 2009:	In-progress Cultural Impact Assessment, prepared by Jill Engledow in support of the HRS 343 Environmental Assessment for the wall, reveals possible existence of a cave. Interview with a prior landowner alleges exposure of a burial cave at the site by erosion in the 1980s, and subsequent sealing of the cave with concrete.
May 22, 2009:	Second inspection of site by SCS monitor, to verify presence of a cave. No evidence of a cave, nor any evidence of a concrete seal, was encountered. Findings of the second archaeological inspection communicated verbally by SCS to Hinano Rodrigues of SHPD.
March 25, 2010:	Project presented before Maui/Lanai Islands Burial Council (MLIBC) for comment.
April 16, 2010:	Release forms received by Chris Hart & Partners, Inc., containing statements from all project personnel involved directly with excavation and construction activities, that no potential human remains and/or native Hawaiian artifacts were found.
April 21, 2010:	Phone conversation between representatives of Chris Hart & Partners, Inc. and former property owner Joan McKelvey. Mrs. McKelvey indicated that the alleged burial cave opening was located at approximately 4-6 feet AMSL and 7 feet from the southern boundary of the subject property. Mrs. McKelvey stated that the cave had been sealed over with concrete 40 years prior.

April 21, 2010:	Representatives of Chris Hart & Partners, Inc. and SCS Archaeology visit site to re-survey the shoreline and cliff area for evidence of a cave. No evidence of a cave was found.
April 29, 2010:	Project presented before MLIBC a second time. MLIBC had no comment.

7. **Discussion of Coastal Hazards.** According to the project's consulting Geotechnical and Structural Engineer, the wall is engineered to withstand the level of design forces necessary to minimize the likelihood that an extreme event, including but not limited to a tsunami, would damage the structure. A discussion of coastal hazards that may influence the integrity of the wall during severe storms is included in Section III.A of both the Draft and the Final EA.

8. **Lateral Shoreline Access.** Public access to the shoreline exists at Hui Rd. E, approximately 600 feet south of the subject property, and lateral shoreline access exists from the southern end of Keonenui Bay to the Kahana Sunset Condominium property, which abuts the subject property immediately to the south. Between Kahana Sunset and the subject property, lateral shoreline access is constrained by a naturally occurring rocky outcrop extending approximately 75 feet seaward. Access to the shoreline area beneath the subject property is by stairs and a ladder from the top of the bluff. The wall and slope retaining system does not in any way restrict lateral access along the shoreline beneath the subject property; however, natural circumstances unrelated to the project make lateral public access to the site along the shoreline somewhat impractical. Please see Exhibit "F" for documentation of lateral shoreline access along Keonenui Bay, including photographs of shoreline conditions at the boundary between the subject property and the adjacent Kahana Sunset Condominium.

9. **Contractors' Statements Regarding Burials.** Please see Exhibit "G" for copies of signed statements from all contractors involved with ground-disturbing activities at the site, indicating that no burials or other subsurface cultural features were encountered during excavation for the wall.

10. **Beach Conditions Before and After Wall Construction.** Please see Exhibit "H" for a series of photographs documenting beach conditions at the site prior to and following construction of the wall. Please refer also to Exhibit "C" referenced above, which shows beach conditions in the project vicinity over a period of 35 years, from 1975 to present. **Note:** a previously existing seawall was constructed at the site circa 1980, and was in existence until the collapse of the shoreline bluff in December of 2007.

11. **Effect of the Wall on Adjacent Beaches and Shoreline Properties.** As discussed in Section III.A.2 of the Draft and Final EA, the wall is built on, and fronted by, rocky outcrops. These outcrops function as a naturally hardened shoreline at the base of the bluff, and absorb the primary forces of the waves and currents. The base of the wall is landward of the rock outcrops, which form a vertical cliff at the waterline. The wall is therefore not anticipated to have a significant impact on existing coastal processes, and should not aggravate or contribute to beach erosion, nor generate adverse effects on neighboring shoreline properties.

Thank you for your consideration of this application. Should you have any further questions, please contact myself, or Mr. Jason Medema, Planner, at 242-1955.

Sincerely Yours,

Matthew M. Slepin
Senior Associate • Planner

cc. Mr. James Buika, Coastal Resources Planner
Mr. John Edwards, AIA, Edwards Design Group, Inc.
Project File (CHP Project No. 08-039)

SCS Project Number 1027-AMP-1

AN ARCHAEOLOGICAL MONITORING PLAN FOR 0.29 ACRE PARCEL OF LAND IN NĀPILI, `ALAELOA AHUPUA`A LAHAINA DISTRICT, MAUI ISLAND, HAWAI`I [TMK: (2) 4-3-003:096]

Prepared by:
David B. Chaffee, B.A.
and
Michael F. Dega, Ph.D.

March 2009

Prepared for:
Mr. John Edwards, AIA
Edwards Design Group, Inc.
1357 Kapiolani Blvd., Suite 1120
Honolulu, HI 96814

SCIENTIFIC CONSULTANT SERVICES Inc.

711 Kapiolani Blvd. Suite 975 Honolulu, Hawai`i 96813

EXHIBIT 21

TABLE OF CONTENTS

LIST OF FIGURES

INTRODUCTION

Scientific Consultant Services, Inc. (SCS) has prepared this Archaeological Monitoring Plan (AMP) for Edwards Design Group, Inc, and their client Ms. Marcia Lucas (landowner), in advance of coastal hazard mitigation measures at 11 Hale Malia Place, `Alaeloa Ahupua`a, Lahaina District, Maui Island, Hawai`i [TMK: (2) 4-3-003:096] (Figures 1 and 2).

The project area is located along Nāpili Bay, an area approximately 1.5 miles south of the resort community of Kapalua. This AMP is being prepared in conjunction with the issuance of a HRS 343 Environmental Assessment (EA), Special Management Area Use Permit (SMA), and Shoreline Setback Variance (SSV) due to the catastrophic failure of a section of the property slope and a preexisting seawall roughly 40 feet in length and 15 to 20 feet in height damaged by heavy rainfall and high surf in December of 2007. Appendix A is included to show photographs of the existing damage and the reason for these permitting processes. Photographs courtesy of Chris Hart & Partners.

This Monitoring Plan will ensure that if human remains are identified during subsurface work, appropriate and lawful protocol concerning the Inadvertant Discovery of Human Remains (pursuent to §13-300-40a, b, c, HAR) is followed. Archaeological Monitoring "shall entail the archaeological observation of, and possibly intervention with, on-going activities which may adversely affect historic properties" (§13-279-4, HAR). Thus, Monitoring will also ensure that significant cultural resources, if identified on the property, are documented through profiles and plan view maps, possibly sampled through excavation of exposed features, and evaluated for their historical significance. As will be made aware to the construction team, the archaeological Monitor has the authority to halt any ground disturbing activities during this project in the immediate area of a find in order to appropriately carry out the provisions of this plan.

This AMP will require the approval of the State Historic Preservation Division (SHPD) prior to any land altering activit ies on the parcel. The following text provides more detailed information on the reasons for monitoring, potential site types to be encountered during excavation, monitoring conventions and methodology for both field and laboratory work, and discusses curation and reporting of cultural material recovered.

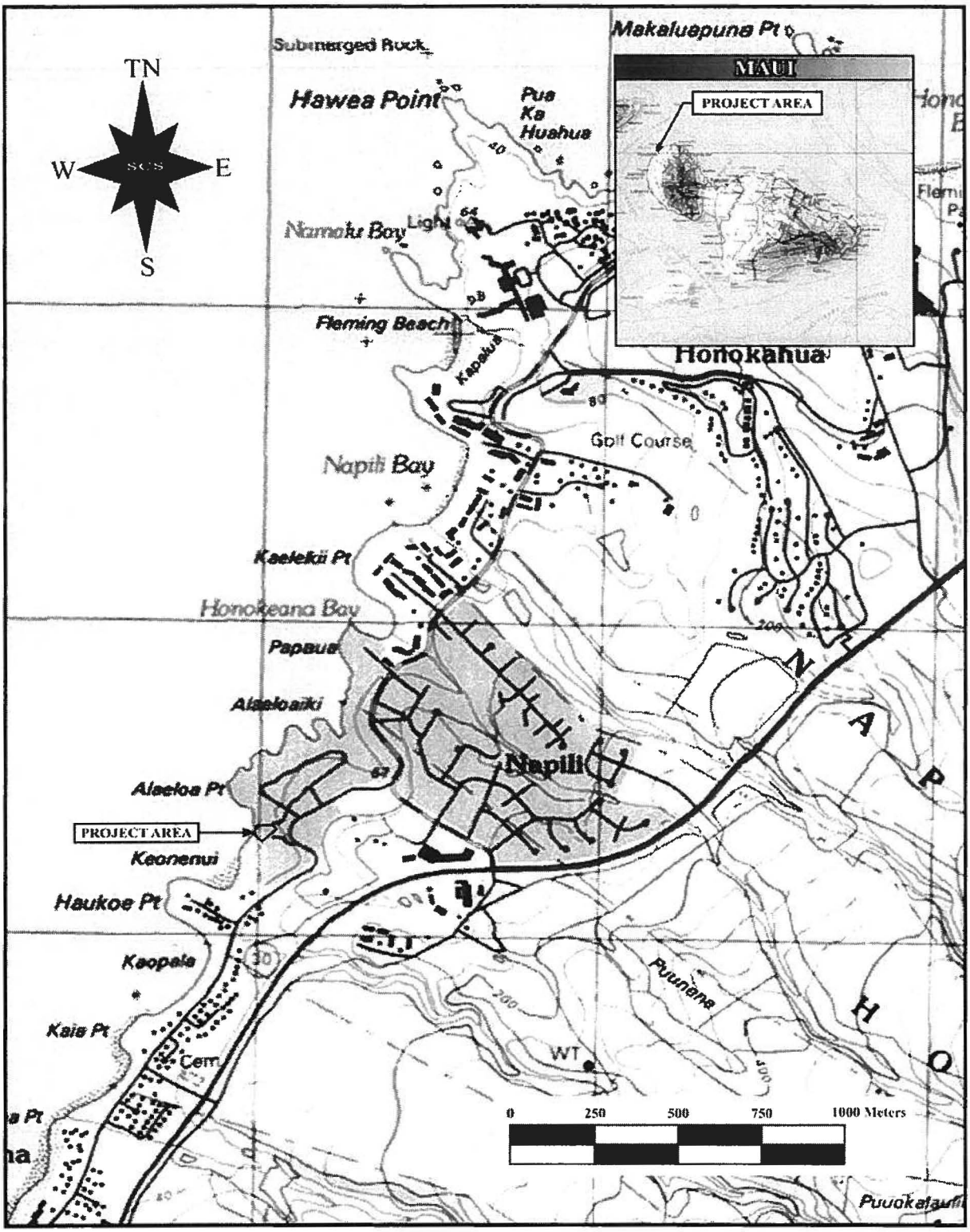

Figure 1: USGS Quadrangle Map Showing Project Area Location.

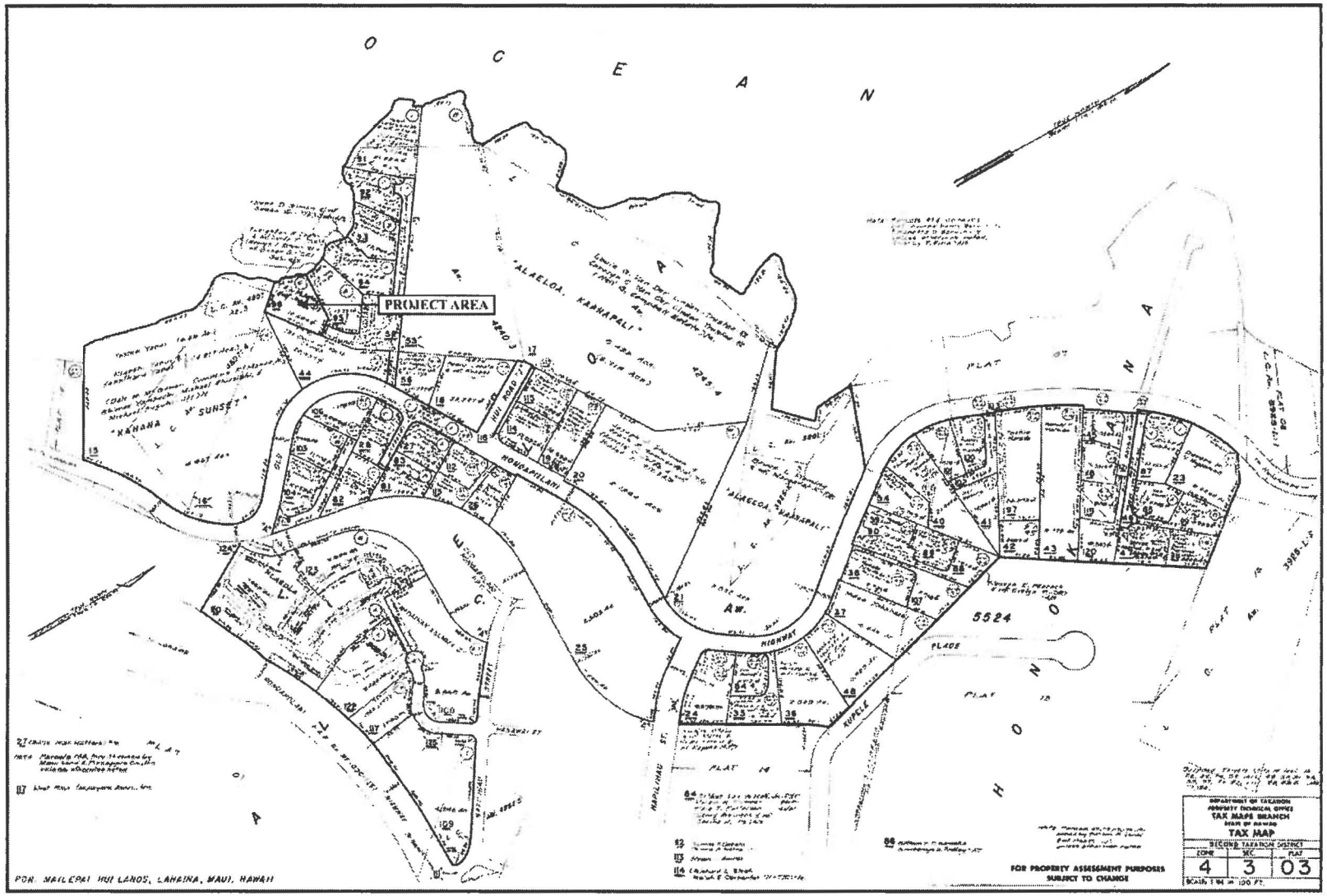

Figure 2: Tax Map Key [TMK] Showing Project Area Location (TMK: (2) 4-3-02: 25, 30, 58, 59, 104 and 105).

ENVIRONMENTAL SETTING

The project area, comprising 0.29 acres in Coastal Nāpili, `Alaeloa Ahupua`a, Lahaina District, Maui Island (see Figure 1). Napili is situated on the northwestern shore of Maui. The project area is beachfront property along the Nāpili Bay.

In general, the terrain slopes moderately down from the Lower Honoapiilani Road (east), at approximately 25 m (80 ft) above mean sea level (amsl), to the seashore *pali* (west), at approximately 3–12 m (10–40 ft) amsl. Much of the project area consists of a current residence located on the parcel.

CLIMATE AND VEGETATION

Coastal Nāpili, in general, is classified as a '*Kiawe* and Lowland Shrubs' vegetation zone, and common, local plants include: *kiawe* (*Prosopis pallida*), *koa haole* (*Leucaena glauca*), finger grass, and *pili* grass, (the latter is a native species) (Armstrong 1983). In traditional times, *i.e.*, before the historic-era introduction of *kiawe* and *koa haole,* the project area was probably covered with indigenous grasses (Kirch 1973a). Today, vegetation in the project area includes beach *naupaka* (*Scaevola taccada*), coconut palm (*Cocus nucifera*), beach heliotrope (*Heliotropium* sp.), plumeria (*Plumeria acuminate*), *wiliwili* (*Erythrina sandwicensis*), yellow hibiscus (Family, *Malvaceae*), and bougainvillea (*Bougainvillea spectabilis*) as well as various other introduced tropical flowering plants and extensive grassy lawns.

The project area receives an average amount of precipitation, compared with other settled parts of Maui and the Hawaiian Islands, in general. According to Armstrong (1983), mean annual rainfall in the Nāpili area is approximately 76 cm (30 in.). Giambelluca *et al.* (1986) report *median* annual rainfall for the area of approximately 100 cm (40 in.). Part of the discrepancy between these rainfall data is probably due to the steeply increasing precipitation gradient east and southeast of the project area, as one moves up into the relatively wet flanks of West Maui. Regardless of which of these (30 or 40 in.) numbers is more typical of the local rainfall, a tremendous amount of through-flowing water from the West Maui uplands would have been available in traditional times in the Honokahua Stream and the (smaller, but much closer) Napili Stream.

SOILS

According to Foote *et al.* (1972), soils in the project area are classified as beaches (BS), Kahana silty clay (KbB) and rough broken stony land (rRS). Beaches (BS) consist mainly of light-colored sands derived from coral and seashells; occur as sandy, gravelly, or cobbly areas.

They are washed and rewashed by ocean waves. Kahana silty clay, with 3 to 7 percent slopes (KbB) has slow runoff and the erosion hazard is slight. This soil could be used for sugarcane, pineapple, and homesites. Rough broken and stony land (rRS) consists of very steep, stony gulches. The local relief is generally between 25 and 500 feet. Runoff is rapid, and geologic erosion is active. Elevations range from nearly sea level to 3,000 feet. This soil material is generally less than 20 inches deep over saprolite or bedrock, with about 3 to 25 percent of the surface covered with stones, and few rock outcrops.

Due to the presence of these sandy deposits throughout the project area, and, due to the well-documented presence of traditional Native Hawaiian burials and other archaeological resources in the general Nāpili area, future construction related ground altering activities must be subjected to appropriate Archaeological Monitoring.

PREVIOUS ARCHAEOLOGY AND POTENTIAL SITE TYPES TO BE ENCOUNTERED

The primary reason for Archaeological Monitoring, given the geographic and historic context of the project area, is the potential for the inadvertent discovery of Native Hawaiian burials and, to a lesser extent, other cultural resources, particularly traditional sites and features. This issue is particularly sensitive for the current parcel, given its proximity to the Honokahua Burial Site (State Site 50-50-01-1342), located approximately 1.0 km, or 0.6 miles, to the east-northeast. This burial site is one of the largest Native Hawaiian burial grounds documented within the state. The current project area is also sensitive because it consists of both beach sands and Kahana silty clay (noted for being historic locations of pineapple and sugarcane cultivation, and homesites) in a coastal/near-coastal setting. Coastal geomorphological and sedimentary conditions always require special attention in Hawai`i because they frequently yield unmarked, traditional Native Hawaiian burials (*cf.* Kirch 1985). Two burial features, containing at least three individuals, have been documented in Archaeological Monitoring (Fredericksen 2001) on a nearby land parcel (*i.e.* the Coconut Grove condominiums at TMK: (2) 4-2-004:026).

The first archaeological survey done on Maui was conducted by Winslow Walker in 1930. Walker (1931) focused on monumental sites, mostly coastal *heiau*, during his early survey of Maui. He noted four sites in the general project area. Walker's sites consisted of a destroyed *heiau* at Kahana point (Site 50-50-01-12), a *heiau* that was washed away at Mailepai Point (Site 50-50-01-13), and a destroyed *heiau* named Hihiho, the latter which was located along a country road near Kalaeokaea Point (Site 50-50-01-14). Another *heiau* was located on the bluff between Alaeloa Point and Papaua Point (Site 50-50-01-15) (Walker 1931).

A fair number of archaeological investigations have been conducted over the years in Napili in Lahaina District, Maui, resulting almost unanimously in the documentation of both pre-contact and historic deposits. The majority of these cultural deposits were identified as burials, habitation plots, or refuse pits. Classes of artifacts midden found in association with these features included coral abraders, basalt flakes, volcanic glass debitage, and marine shell debris.

North of the project area, remnants of a pre-historic *ala loa* (trail) have been recorded. Traditional accounts attribute the construction of this trail to chief Kiha-a-Pi'ilani during the early 1500s (Sterling 1998). In 1973 the Bishop Museum conducted archaeological research at Hawea Point. A site complex (Site 50-50-01-1346) comprised of eight features was identified and recorded. This site was interpreted to be a temporary Hawaiian settlement for marine exploitation and was dated to *c.* A.D. 1500 (Kirch 1973a) (Figure 3). Additional sites were located and recorded by Kirch (1973a), including a cave shelter on the cliff face of Hawae Point (Site 50-50-01-1347) and a stone terrace platform, which was located on a promontory overlooking Oneloa Bay (Site 50-50-01-1348). During this survey the Honokahua Burial Site (Site 50-50-01-1342) was first recorded. Several additional sites were located by Kirch at Fleming Beach Park along Honokahua Stream; these included a house site, terrace, enclosure, and midden deposits (Site 50-50-01-1345).

Archaeological work conducted by Griffin and Lovelace (1977) in conjunction with the realignment of Honoapi`ilani Road was concentrated in the gulches of Honokowai, Mahinahina, Kahana, Mailepai, and Alaeloa. The survey resulted in the identification of four sites, a buried midden deposit, a trail segment, a stone wall, and three retaining wall segments. It was concluded that this site represented a prehistoric, repetitively occupied, temporary habitation site (Griffin and Lovelace 1977). In Kahana, work conducted in conjunction with U.S. Department of Agriculture's Soil Conservation Service to create a desilting basin resulted in the identification of a prehistoric inland agricultural area that had been reused during historic times for commercial sugarcane and pineapple cultivation (Walker and Rosendahl 1985).

North of the project area, multiple studies in conjunction with the development of the Ritz Carlton Kapalua Resort have resulted in the identification of eight sites and the expansion of the Honokahua Burial Area (Site 50-50-01-1342) (Figure 4). Interim results reported the site as a multi-component burial site with over one thousand prehistoric burials. Radiocarbon analysis by Donham (1989) suggests that the site was used from as early as A.D. 600.

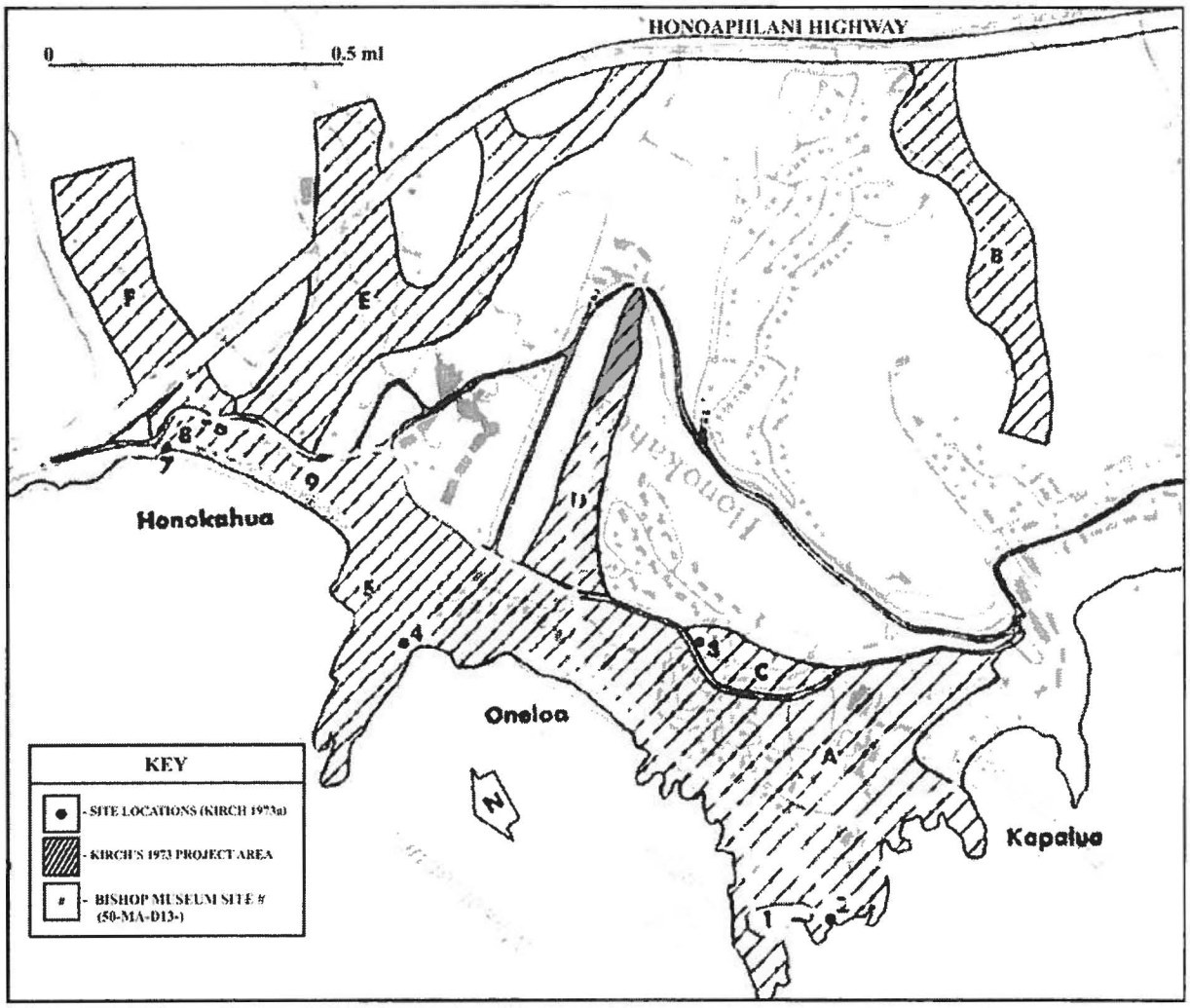

Figure 3: Honolua Development Area Surveyed by Kirch (1973a), with Identified Sites.

An Inventory Survey was conducted to the north of the current project area in January 2005 (Monahan 2005) (see Figure 4). Subsurface excavations (20 backhoe trenches) led to the identification of one significant site (SIHP No. 50-50-01-5565), a buried cultural layer located in sandy deposits between 80 to 150 cm (31.5–59.1 in.) below the ground surface, on the prominent rocky point just north of Kapalua Bay Beach. This site consists of charcoal-stained sediment, diffuse and concentrated charcoal, fire-cracked rock, and two lithic fragments. A radiocarbon date of 210 ± 60 BP was obtained from this buried layer and when calibrated dates ranging from A.D. 1610 to 1860.

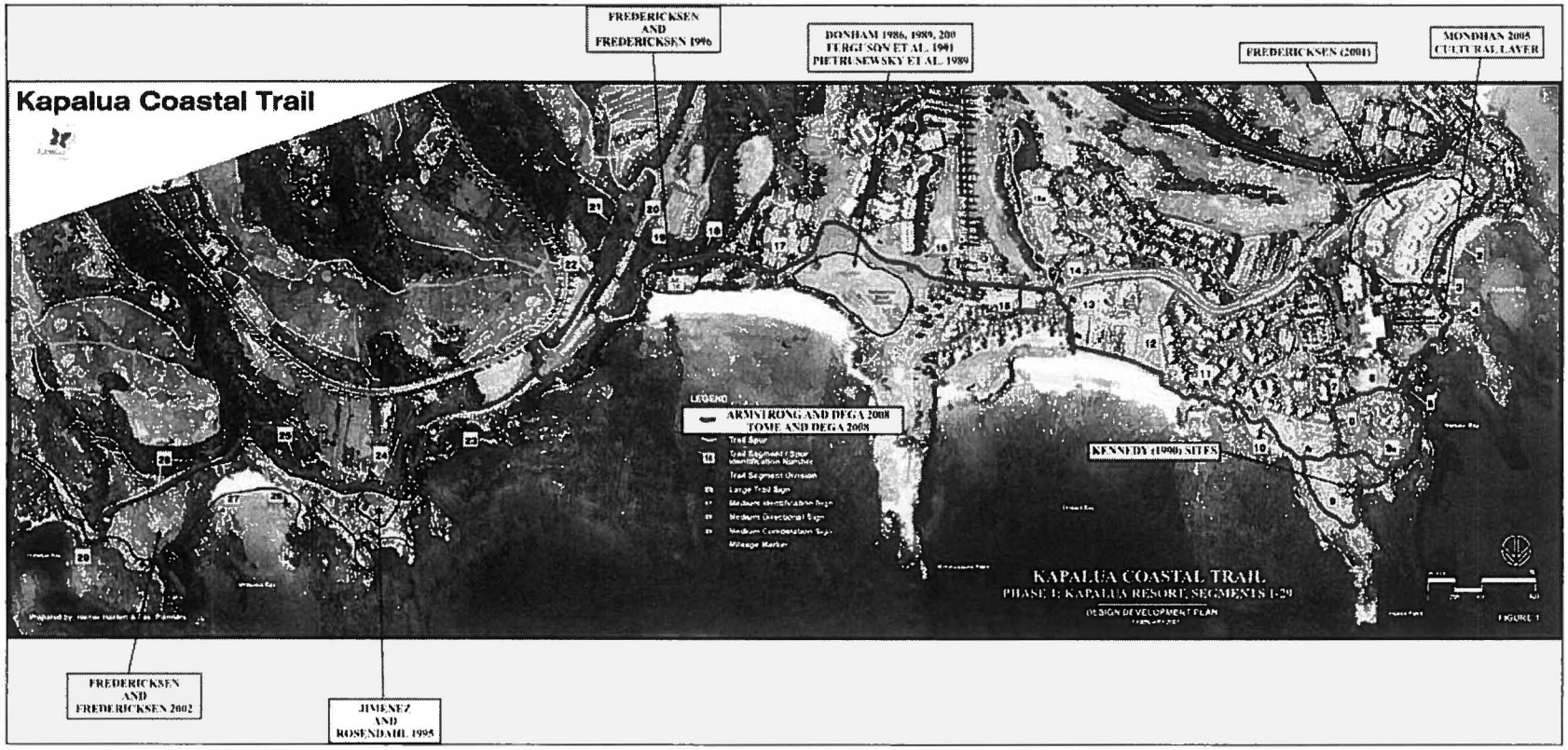

Figure 4: Previous Archaeology in Napili Along the Kapalua Coast Trail.

Kirch (1973a) conducted the first systematic archaeological survey near the project area. Maui Land and Pineapple contracted the B.P. Bishop Museum to conduct the survey in advance of development in the Honolua Development Area. This study extends from Kapalua to Honokahua, and includes mostly seashore and near-shore lands with some (limited) *mauka* uplands.

Kirch documented a total of nine, mostly traditional, archaeological sites in the Honolua Development Area. Most of these were located in and around Honokahua, including the Honokahua Burial Site (Bishop No. D13-9; State Site No. 50-50-01-1342). No sites were documented in the current project area, but no subsurface testing (excavation) was conducted on the subject parcel either. Two nearby sites identified by Kirch included:

- a small, temporary fishing village at TMK: 4-2-04: por. 10 & por. 30 (SIHP No. 50-50-01-1346, Bishop No. D13-1), about 1.2 km (0.75 miles) north of the current project area; the site consisted of eight features, including several small shelters, one *ahu* (stone cairn), and midden (see Figure 3, site 1).

- a stone platform (SIHP No. 50-50-01-1348, Bishop No. D13-3), with an associated low wall, on a promontory 0.85 km, (0.5 miles.) northeast (and upslope) of the eastern boundary of the subject parcel (see Figure 3, site 3).

A total of 4.0 m^2 was excavated at the small, temporary fishing village (SIHP No. 1346) located north of the current project area (Kirch 1973b). Several formal tools were recovered in excavation, including one unfinished bone fishhook, one bone fishhook blank, one shell adze fragment, ten coral abraders, one sea urchin abrader, and three dog tooth ornaments. Midden was recovered from the surface and from excavation, and consisted of marine shells, sea urchins, fish bone, and *kukui* nut shell (*Aleurites moluccana*). One radiocarbon determination of 327 ± 80 B.P. was obtained for a buried *imu* (cooking pit). Calibration yielded three possible calendric dates, indicating a maximum (*i.e.,* conservative) range for occupation of the site of between roughly A.D. 1400 and 1700.

Two additional, brief archaeological surveys/field inspections were conducted at the parcel (TMK: 4-2-04: 30) in which Kirch (1973a, b) documented the small, temporary fishing village and the cliff-face rockshelter. Rosendahl (1988a) did not locate any additional sites, but Kennedy (1990) recorded three additional sites, all stacked-rock features, presumably dating from traditional times (*i.e.,* a low, soil-filled platform, an L-shaped alignment, and a C-shaped structure) (see Figure 3). No excavation was conducted at these sites.

Archaeological Inventory Survey (Fredericksen *et al.* 1994, 1996) and Archaeological Monitoring (Fredericksen 2001) were conducted on the 12.2-acre parcel (TMK: 4-2-04: 26) just north of the current project area (see Figure 4). The survey area was extensively excavated with backhoe trenches and hand-dug units. No significant sites or features were identified in the Inventory Surveys, although one area of buried sand dune deposits was recommended for Monitoring. Three sites were identified:

- Site 50-50-03-4815 was a buried (subsurface) cultural layer, interpreted as a probable habitation site, approximately 15 cm thick, located approximately 1.5 m below the ground surface, containing three traditional artifacts (coral abrader, bone fishhook blank, and utilized basalt flake), shell midden, fire-cracked rock, and a hearth; one radiocarbon date indicated a later pre-Contact occupation (A.D. 1490–1665, 2 Sigma);

- Site –4814 was a historic burial feature containing two individuals, located approximately 1.7–1.9 m below the ground surface, and cutting into and through the cultural layer (-4815); the burial feature consists of a stone-lined crypt, probably topped with a wooden cover; stratigraphic evidence and artifact style (of the nails used to construct the overlying cover) suggest that the burial feature dates from the late 19th to early 20th century;

- Site –5059 consisted of a scatter of fragmentary human remains, representing one or more individuals, in previously disturbed sediments; the author also reports several oral accounts from local informants suggesting that graves were encountered and destroyed during the construction of the Kapalua Bay Hotel in the 1970s (footnotes 6 & 7, Fredericksen 2001).

In sum, Archaeological Monitoring may lead to the identification of existing prehistoric subsurface cultural deposits associated with temporary or permanent habitation areas, human remains (isolated find spots or *in situ*, articulated individuals), and historic remains associated with agriculture in the area. The presence of natural sand deposits in portions of the project area indicates that buried cultural layers and burials may be identified during Monitoring.

MONITORING CONVENTIONS AND METHODOLOGY

This AMP has been prepared in accordance with DLNR/SHPD administrative "Rules Governing Standards for Archaeological Monitoring Studies and Reports" (§ 13-279, DLNR-SHPD 2002). Archaeological Monitors will adhere to the following guidelines during monitoring:

1. A qualified archaeologist intimately familiar with the project area and the results of previous archaeological work conducted in the Napili area will monitor subsurface construction activities on the parcel. One archaeologist will be required per each piece of ground altering machinery in use. No land altering activities will occur on the parcel until this AMP has been accepted by SHPD. There will be one archaeologist on-site for each piece of ground altering machinery being utilized. Monitoring for this project will commence during the destruction and removal of building foundations, footings, and other in-place structures due to the potential for identifying significant cultural deposits beneath these structures.

   If significant deposits or features are identified and additional field personnel are required, the archaeological consultants conducting the Monitoring will notify the contractor or representatives thereof before additional personnel are brought to the site.

2. As per the recommendation of the Maui/Lana`i Island Burial Council, there will be one archaeological monitor per each piece of machinery conducting excavation, or other ground altering activities, within the project area. The coastal location of the subject property and the presence of a beach sand deposit suggest the project area may be a culturally sensitive area.

3. If features or cultural deposits are identified during Monitoring, the on-site archaeologist will have the authority to temporarily suspend construction activities at the significant location so that the cultural feature(s) or deposit(s) may be fully evaluated and appropriate treatment of the cultural deposit(s) is conducted. SHPD will be contacted to establish feature significance and potential mitigation procedures. Treatment activities primarily include documenting the feature/deposit through plotting its location on an overall site map, illustrating a plan view map of the feature/deposit, profiling the deposit in three dimensions, photographing the finds-with the exception of human burials, artifact and soil sample collection, and triangulation of the finds. Construction work and/or back-filling of excavation pits or trenches will only continue in the sample location when all documentation has been completed.

4. Control stratigraphy in association with subsurface cultural deposits will be noted and photographed, particularly those containing significant quantities or qualities of cultural materials. If deemed significant by SHPD and the contracting archaeologist, these deposits will be sampled, as determined by the same.

5. In the event that human remains are encountered, all work in the immediate area of the find will cease; the area will be secured from further activity until burial protocol has been completed. The SHPD island archaeologist and SHPD-Burial Sites Program (SHPD Cultural Historian) will both be immediately identified as to the inadvertent discovery of human remains on the property. Notification of the inadvertent discovery will also be made to the Maui-Lanai Island Burial Council by both SHPD Maui staff and the contracting archaeologist. A determination of

6. To ensure that contractors and the construction crew are aware of this Archaeological Monitoring Plan and possible site types to be encountered on the parcel, a brief coordination meeting will be held between the construction team and monitoring archaeologist prior to initiation of the project. The construction crew will also be informed as to the possibility that human burials could be encountered and how they should proceed if they observe such remains.

7. The archaeologist will provide all coordination with the contractor, SHPD, and any other groups involved in the project. The archaeologist will coordinate all Monitoring and sampling activities with the safety officers for the contractors to ensure that proper safety regulations and protective measures meet compliance. Close coordination will also be maintained with construction representatives in order to adequately inform personnel of the possibility that open archaeological units or trenches may occur in the project area.

8. As necessary, verbal reports will be made to SHPD and any other agencies as requested.

9. Acceptance of this Archaeological Monitoring Plan will be done in writing by the SHPD within 45-days of receipt. If no written response is forwarded by the SHPD after 45-days, concurrence with this documented shall be accepted and work will proceed, pursuant to 6e-42 HRS, Chapter 13-284 HAR.

LABORATORY ANALYSIS

All samples collected during the project, except human remains, will undergo analysis at the at the laboratory of the archaeological consultants conducting the Monitoring. In the event that human remains are identified and the SHPD-Maui Lanai Island Burial Council authorizes their removal, they will be curated on Maui. Photographs, illustrations, and all notes accumulated during the project will be curated at the laboratory of the archaeological consultants conducting the Monitoring. All retrieved artifact and midden samples will thoroughly cleaned, sorted, and analyzed. Significant artifacts will be photographically recorded, sketched, and classified (qualitative analysis). All metric attributes and weights will be recorded (quantitative analysis). These data will be presented in tabular form within the final monitoring report.

Midden samples will be minimally identified to major "class" (*e.g.*, bivalve, gastropod mollusk, echinoderm, fish, bird, and mammal). All data will be clearly recorded on standard laboratory forms that include number and weight (as appropriate) of each constituent category. These counts will also be included in the final report.

Should any samples amenable to dating be collected from a significant cultural deposit, they will be prepared in the laboratory of the archaeological consultants conducting the Monitoring and submitted for specialized radiocarbon analysis. While primary emphasis for dating is placed on charcoal samples, we do not preclude the use of other material such as marine shell or nonhuman bone materials. The archaeological consultants conducting the Monitoring will consult with SHPD and the client if radiocarbon dates are deemed necessary.

All stratigraphic profiles will be drafted for presentation in the final report. Representative plan view sketches showing the location and morphology of identified sites/features/deposits will be compiled and illustrated.

CURATION

If requested by the landowner, archaeological consultants conducting the Monitoring will curate all recovered materials in the laboratory of the archaeological consultants conducting the Monitoring (except human remains) until a permanent, more suitable curation center is identified. The landowner may request to curate all recovered cultural materials once analysis has been completed. Human remains will be stored on-site in a secure location until a Burial Treatment Plan has been prepared and accepted.

REPORTING

An Archaeological Monitoring report documenting the project findings and interpretation, following SHPD guidelines for Archaeological Monitoring reports, will be prepared and submitted within 180 days after the completion of fieldwork. This time line is requested to account for any radiocarbon age determinations (typically 30-45 days) if necessary, the necessary time in preparing the report, and the 45 day deadline from submittal that SHPD allows for review.

If cultural features or deposits are identified during fieldwork, the sites will be evaluated for historical significance and assessed under State and Federal Significance Criteria. The Archaeological Monitoring report will be in draft form until accepted by SHPD and will be submitted to both SHPD and the client.

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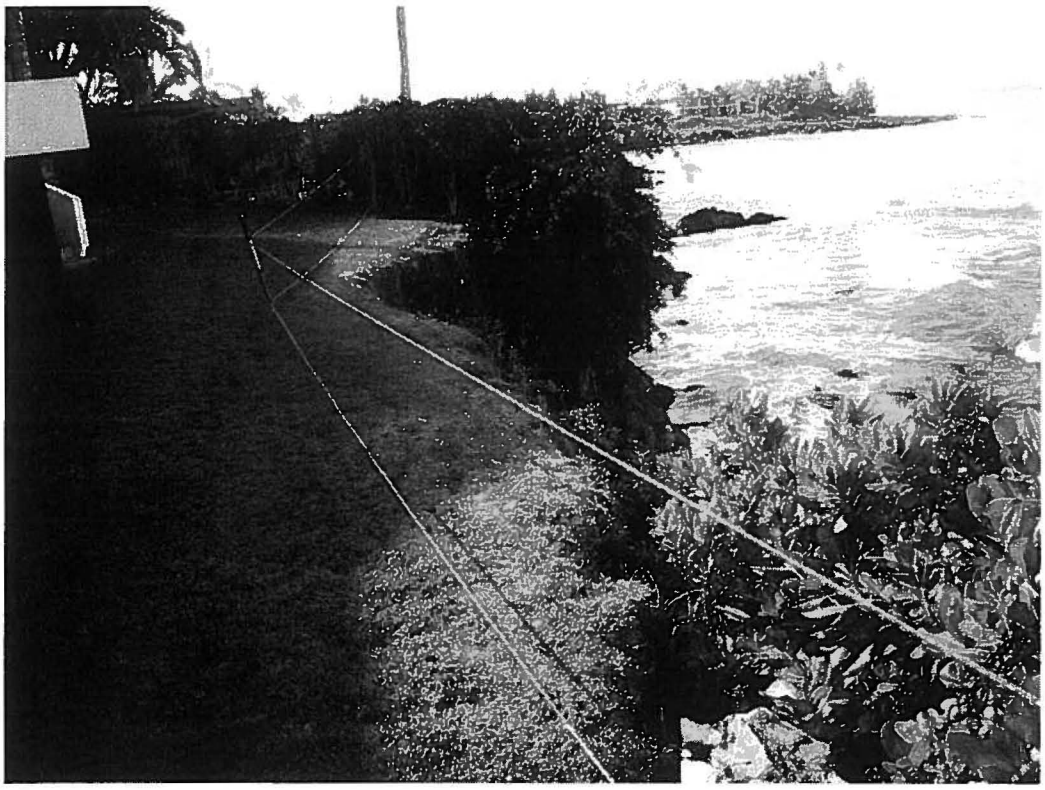
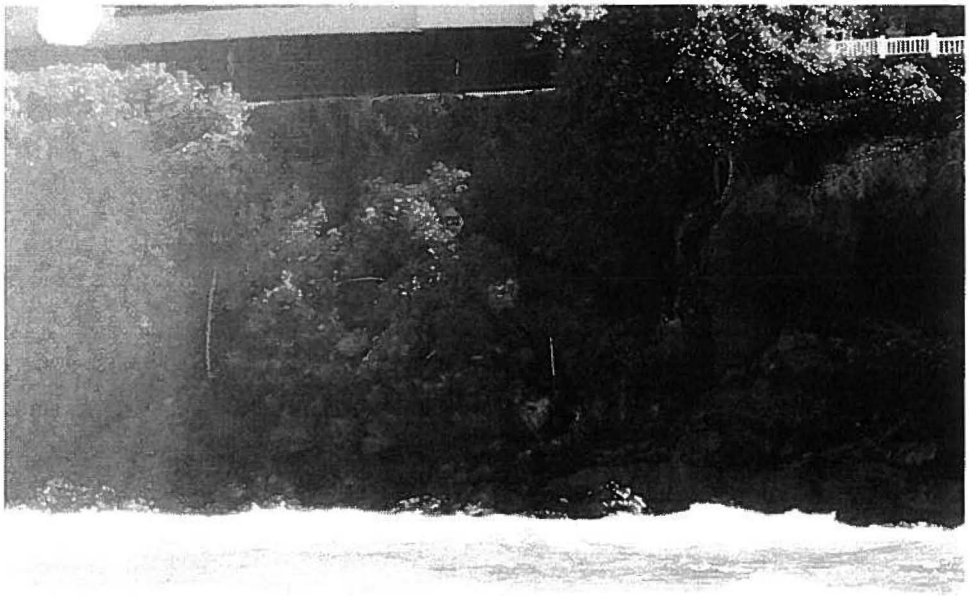
APPENDIX A: PHOTOGRAPHS OF THE SEAWALL COLLAPSE





Marcia Lucas Residence

Cultural Impact Assessment

for

11 Hale Malia Place
'Alaeloa, Maui, Hawai'i
TMK (2) 4-3-003:096

by

Jill Engledow
Historical Consultant
Wailuku, Maui

July 2009

Prepared for
Ms. Marcia Lucas

EXHIBIT 22

Marcia Lucas Residence
Cultural Impact Assessment
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FIGURES

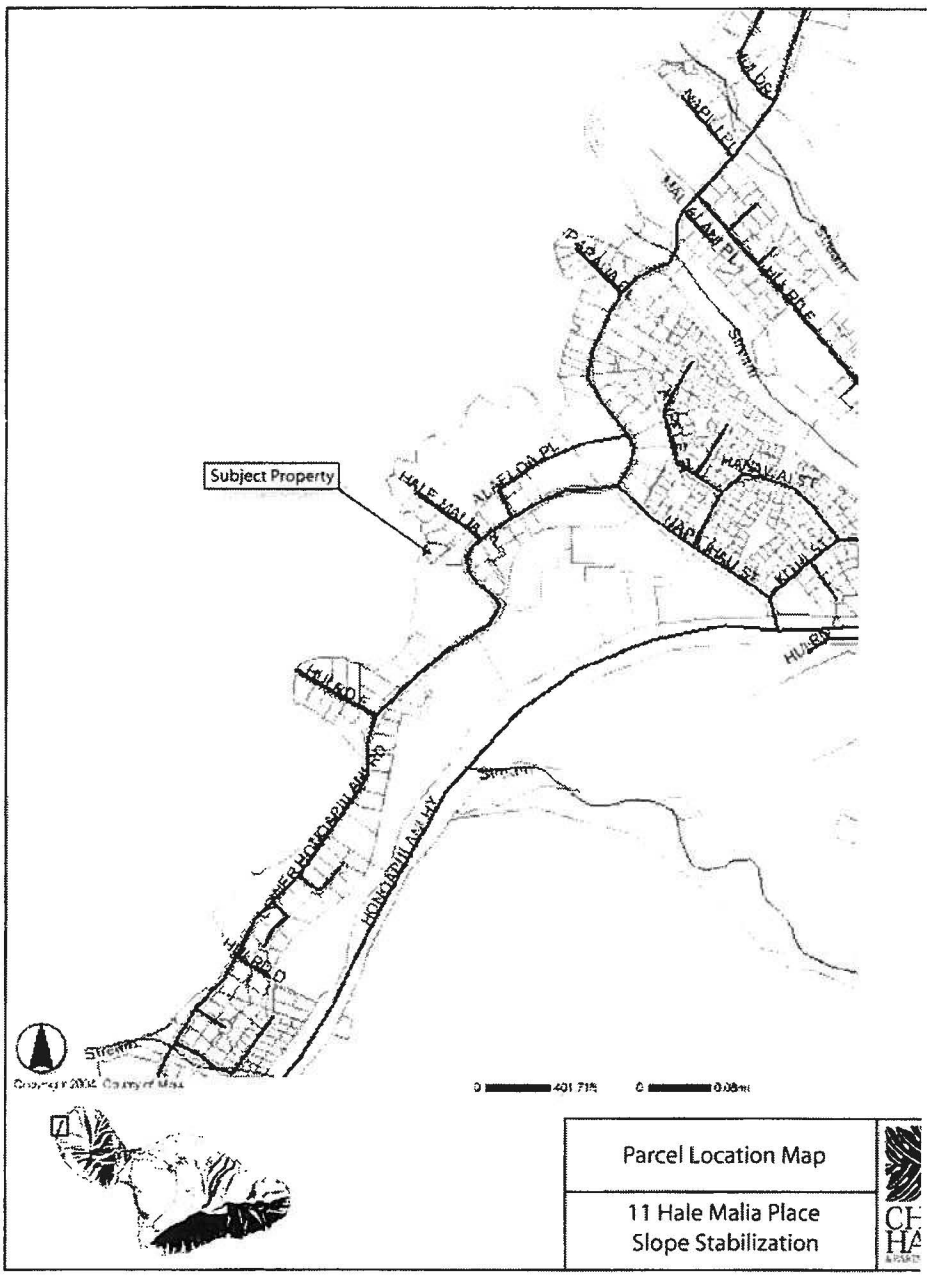

Fig. 1. Lucas Parcel Location Map

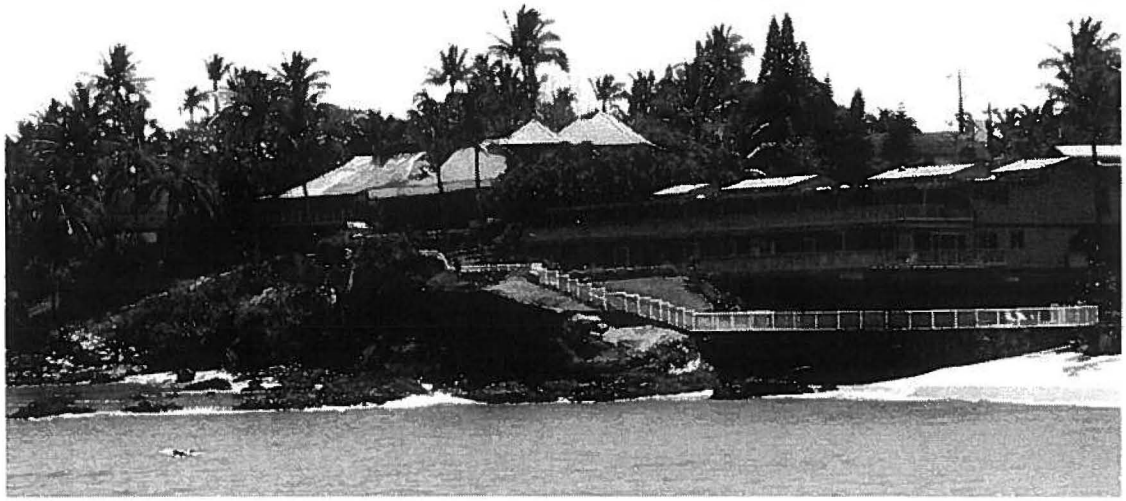

Fig. 2. Lucas residence, green rooftops to the left of Kahana Sunset. Engledow photo 4/09

Figure 3. Shoreline seen from Kahana Sunset property. Lucas property is just beyond white fence. Engledow photo 4/09

Figure 4. Crumbling cliff in front of Lucas property. Engledow photo 4/09

Fig. 5. Fishers on Haukoe Point, across the bay from the subject property. Engledow photo 4/09

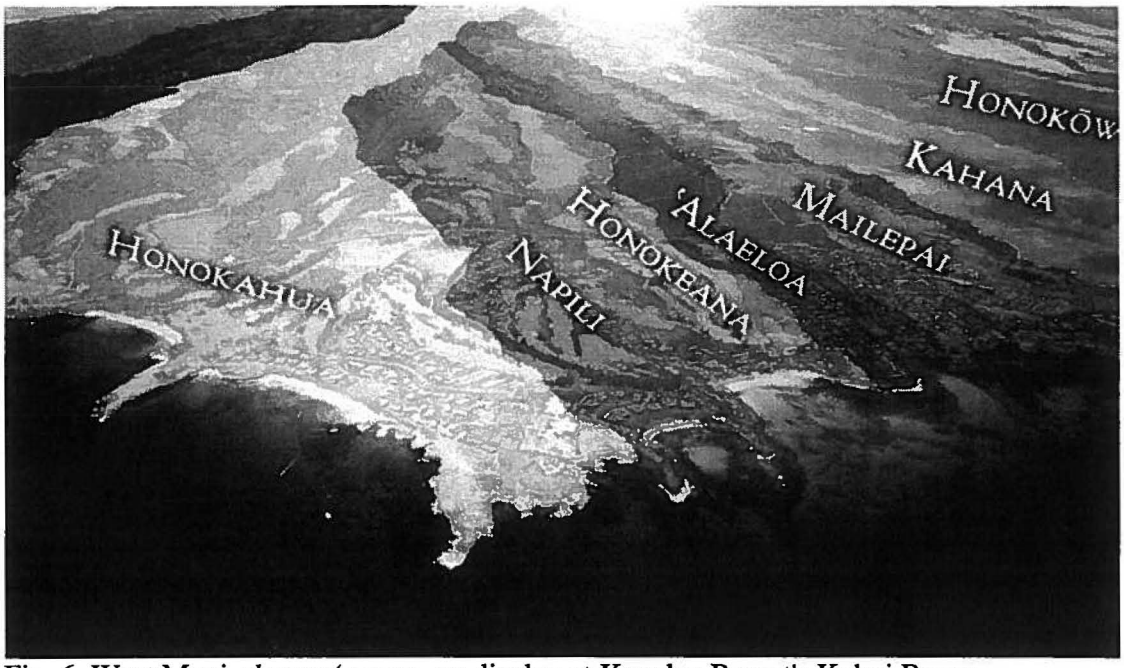

Fig. 6. West Maui *ahupua'a* map, on display at Kapalua Resort's Kukui Room.

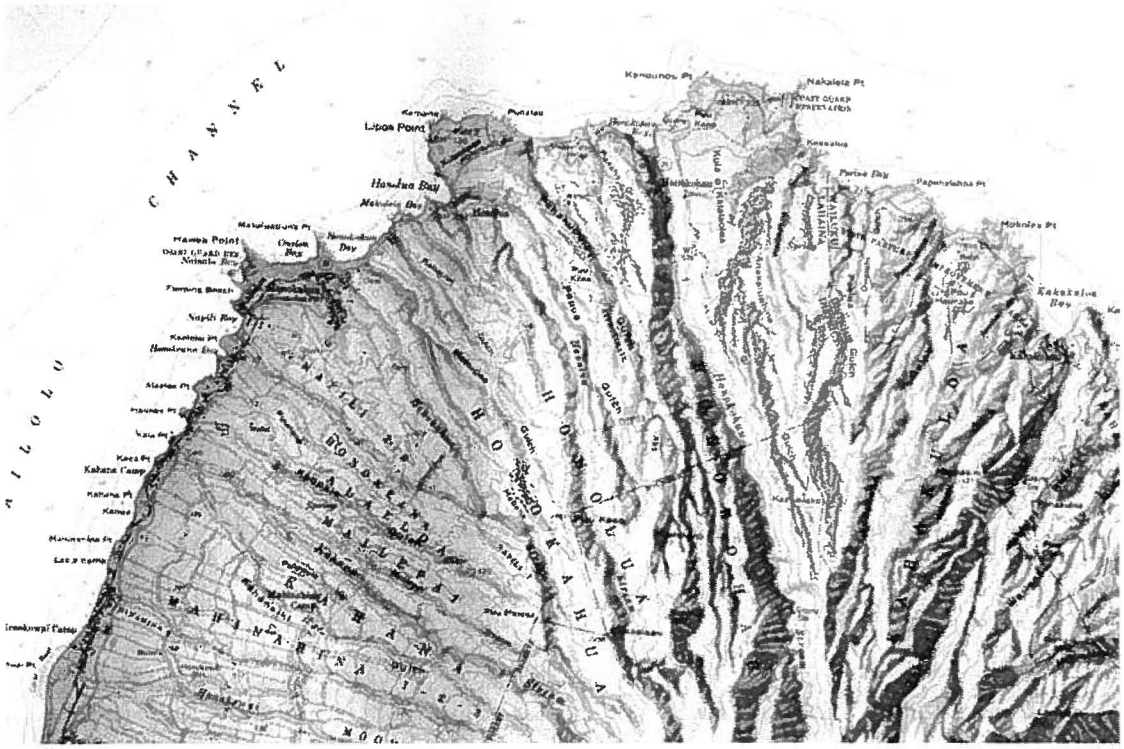

Fig. 7. Portion of U.S. Geological Survey map showing Ka'anapali District.

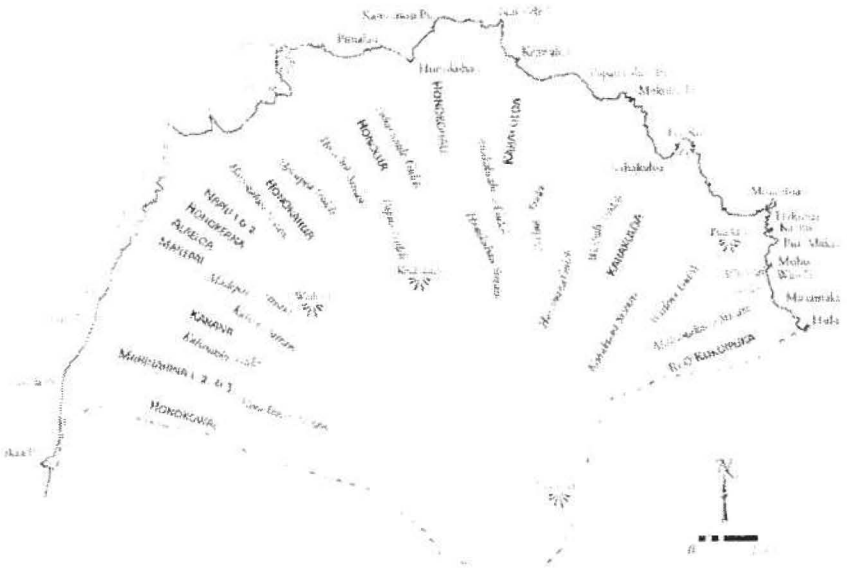

Fig. 8. West Maui *ahupua'a* and water courses. From *Sites of Maui* by Elspeth Sterling.

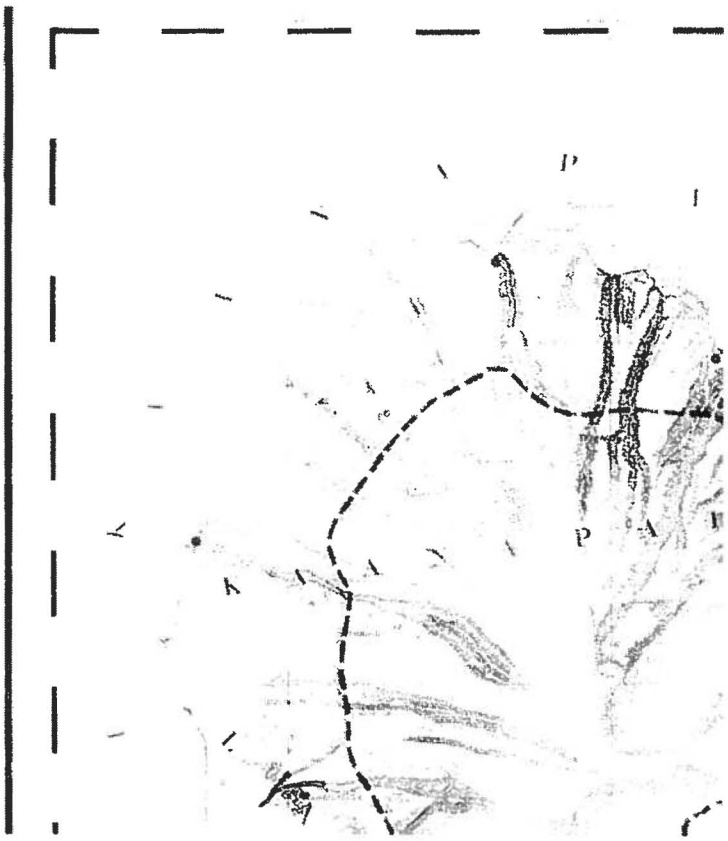

Fig. 9. Hawaiian Government Survey Map, 1885/1903. Yellow outline indicates grazing land.

Marcia Lucas Residence

Cultural Impact Assessment

I. Introduction

At the request of Chris Hart & Partners, Inc., researcher and writer Jill Engledow prepared this Cultural Impact Assessment of the property owned by Marcia Lucas at 11 Hale Malia Place, TMK (2) 4-3-003:096. This 12,623-square-foot property faces northwest on a cliff overlooking a small bay between Haukoe and Alaeloa Points. It is just north of the Kahana Sunset and flanked on either side by developed residential properties. The proposed action that requires this Cultural Impact Assessment is an application for a Chapter 343 Final Environmental Assessment, a Special Management Area Permit and a Shoreline Setback Variance to allow construction of a structurally engineered Shoreline Erosion Mitigation System. See project location in Figure 1.

The seawall is planned to replace an existing vertical seawall supporting the cliff upon which this property stands. The coastline on this cove has been eroding for some time, and the cliffs surrounding the cove are almost entirely lined with stone revetments.

II. Report Methodology/Resource Materials Reviewed

Sources sited in archival research are listed in the attached bibliography. Additional searches included the Internet and the indexes of a variety of books on Hawaiian culture and history which were searched for the words 'Alaeloa, Mailepai and Nāpili. A number of commonly used texts about Hawaiian history included no specific references to 'Alaeloa and very few to the surrounding area. Among the works consulted for these terms without success were:

- *The People of Old, The Works of The People of Old, Tales and Traditions of the People of Old* (all by Samuel M. Kamakau)
- *Nānā I Ke Kumu, Volumes 1* and *II* (Mary Kawena Pukui, E.W. Haertig, and Catherine A. Lee)
- *Hawaiian Antiquities* (David Malo)
- *Ke Alaloa O Maui* (Inez Ashdown)
- *Faith in Paradise* (Maggie Bunson)
- *Sugar Trains Pictorial* (Jesse C. Conde)

- *Sugar Water* (Carol Wilcox)
- *The Index to The Maui News* (Gail Bartholomew)
- *Hawaiian Almanac and Annual, 1875-1878* (Thomas G. Thrum)
- www.ulukau.org, which includes digital copies of old Hawaiian-language newspapers
- The Windley Files of the Lahaina Restoration Foundation
- The archives of Maui Historical Society

Engledow also conducted interviews with residents who remember uses in the area over the past 50 years.

III. Study Area Description

This site is a small residential parcel overlooking a small bay between 'Alaeloa and Haukoe Points. The coastline in this area is highly developed. Much of Lower Honoapi'ilani Highway is lined with walls and gates that limit public access to the shoreline. The Lucas residence is one of several private homes on the north side of the bay, which is dominated by the Kahana Sunset condominium. Except for ladders and steps leading down from various residential parcels, the bay's small beach is accessible to pedestrians only through the Kahana Sunset property, but a beach-access path on Hui Road E leads to Haukoe Point at the south end of the bay. This rocky point provides a platform for fishing. (Figure 3) The white sand beach fronting the Kahana Sunset has been called Keonenui, "the big sand," and later Yabui Beach (Young 1980:63) An 1885 Hawaiian Government Survey Map shows the place name "Kaalo" just south of the *ahupua'a* name "Alaeloa," but it is not clear what "Kaalo" refers to, and it is not listed in *Place Names of Hawai'i.*

While informant Alan Yabui recalls an intermittent stream that ran during Kona storms, a 1913 USGS drainage map reprinted in *Sugar Water* (Figure 7) shows no permanent waterway in this *ahupua'a.* Honokōhau Ditch (also known as Honolua Ditch) was completed in 1904 and rebuilt in 1913, but apparently did not tap any sources in the 'Alaeloa mauka area. The ditch, constructed by Honolua Ranch, supplied water to Pioneer Mill. (Rice 1996:126-130)

IV. Study Area History

The subject property is located within the *ahupua'a* of 'Alaeloa in the district once known as Kā'anapali, but now known as Lahaina. In the Civil Code of 1859, "the twelve ancient districts of the island of Maui were reduced to four by combining Kaanapali with Lahaina. . ." (King, quoted in Sterling 1998:3). Prior to this time, the district of Lahaina extended to Keka'a, in the area that now is the Kā'anapali Resort. The district of Kā'anapali extended from Keka'a around the north coast of West Maui, past Kahakuloa, to near Hulu Island. (Figure 6)

Two Hawaiian proverbs apply to this area of the Kā'anapali district. *Kā'anapali wāwae*

'ula'ula (red-footed Kā'anapali) is "a term of derision for the people of Kā'anapali. The soil there is red, and so the people are said to be recognizable by the red soles of their feet." A second seems to indicate that this was a productive area: *Ka ua leina hua o Kā'anapali* (the rain of Kā'anapali that leaps and produces fruit). (Pukui, *'Ōlelo No'eau* 1983:1280, 1581)

This area includes the famous Honoapi'ilani--the bays of Pi'ilani, including the major bays of Honokōwai, Honokeana, Honokahua, Honolua and Honokōhau. 'Alaeloa is just south of Honokeana. This name for the bays refers to the chief Pi'ilani, who controlled all of Maui Nui in the 15th century. While Pi'ilani is remembered for the peace and prosperity he brought to his kingdom, his sons, Lono-a-Pi'ilani and Kiha-a-Pi'ilani, fought each other, and succeeding generations fought battles in this West Maui neighborhood, some of which are described below.

Rich with fish, fed by streams that watered *lo'i kalo* in their valleys, the bays drew admiring attention in the song *Moloka'i Nui A Hina.* This song about Moloka'i, whose people view West Maui from across the channel, begins with the line *Ua nani nā hono a Pi'ilani:* How beautiful are the bays of Pi'ilani. These lovely bays are a symbol of Maui in other songs as well, such as *Maui Nani* by Johanna Koana Wilcox and *Lei Lokelani* by Charles E. King. Although the small coves of 'Alaeloa are not listed among the famous bays, they are certainly junior members of the family, tucked between Honokōwai and Honokeana.

The name 'Alaeloa translates as "distant mudhen," according to Pukui, but some contemporary informants related the word "*'alae"* to the area's red dirt. According to the *Hawaiian Dictionary, 'alaea* is "the water-soluble collodial ocherous earth used for coloring salt, for medicine, for dye and formerly in the purification ceremony called *hi'uwai."* (Pukui and Elbert 1974:16) Silla Kaina, cultural resources coordinator for Kapalua Land Company, grew up in Honolua, and remembers her grandmother (from Hāna) collecting red dirt from 'Alaeloa cliffs which she boiled to make an iron-rich tea. Ms. Kaina says the dirt from this *ahupua'a* is redder than that in other *ahupua'a.*

W.M. Walker, in his notes on *Archaeology of Maui*, describes a *heiau* "on bluff at south side of rocky cove between 'Alaeloa and Papaua Points." He says this simple structure is a "small rectangular enclosure measuring 50 x 66 ft. . . . Use unknown. Several people thought it was a cattle pen." (Walker, Maui Historical Society. See Figure)

Handy, in *Hawaiian Planter*, says that:

> On the south side of western Maui the flat coastal plain all the way from Kihei and Maalaea to Honokahua, in old Hawaiian times, must have supported many fishing settlements and isolated fishermen's houses, where sweet potatoes were grown in a sandy soil or red *lepo* near the shore. For fishing, this coast is the most favorable on Maui, and although a considerable amount of taro was grown, I think it reasonable to suppose that the large fishing population which presumably inhabited this leeward

> coast ate more sweet potatoes than taro with their fish. (Handy, quoted in Sterling 1998:17)

A 1985 archaeological study agrees with this opinion, finding few signs of irrigated *lo'i kalo* in the area near the subject parcel. The study, titled "Testing of Cultural Remains Associated with the Kahana Desilting Basin," says:

> An examination of the L.C.A. documents for the various *ahupua'a* of the general area, and field inspection of the gulch area immediately *mauka* of the project area strongly suggest that irrigation systems were not in use at Kahana. . . indeed for the three *ahupua'a* north of here, only two L.C.A. parcels with *lo'i* were recorded, and both were very small, presumably springfed, systems several miles inland . . . thus the Kahana settlement pattern in A.D. 1848 consisted of houselots, and at least one small fishpond, extending several miles inland along the banks of Kahana Stream. No houselots were claimed beyond a few hundred feet inland. This pattern also appears to hold for at least the next three *ahupua'a* to the north of Kahana--Mailepai, 'Alaeloa and Honokeana. (Walker and Rosendahl 1985:A-3)

However sparsely populated, the area around the subject parcel played its part in the great battles of the 1700s. Here is Sterling's summary of battles at Lahaina and Kā'anapali, taken from Fornander's *Account of the Polynesian Race:*

> *[Alapainui, on his return from Oahu, hears of the uprising of Kauhiaimokuakama against his brother Kamehamehanui. Kamehamehanui is defeated in Lahaina and flees with Alapainui to Hawaii.]*
>
> In the following year, say 1738, Alapainui returned to Maui with a large fleet, well-equipped, accompanied by Kamehamehanui. With headquarters at Lahaina, his forces extended from Ukumehame to Honokowai. . .
>
> [Kauhi sends to Peleioholani, moi of Oahu, for help] . . . which that restless and warlike prince accepted, and landing his fleet at Kekaha, encamped his soldiers about Honolua and Honokahua.
>
> It is said that Alapai proceeded with great severity against the adherents of Kauhi in Lahaina, destroying their taro patches and breaking down the watercourses out of the Kauaula, Kanaha, and Mahoma *[Kahoma]* valleys.
>
> *[Alapai reaches Lahaina before Peleioholani can get there from Oahu, and Kauhi retreats to the uplands and ravines behind Lahaina. Peleioholani lands and attacks Alapainui's forces in the hopes that he can form a junction with Kauhi's forces.]*

> To this effect Peleioholani advanced to Honokowai where he found a detachment of Alapai's army, which he overthrew and drove back with great loss to Keawawa. Here they rallied upon the main body of the Hawaii troops. The next morning Alapai had moved up his whole force, and a grand battle was fought between the Oahu and Hawaii armies. The fortune of the battle swayed back-and-forth from Honokowai to near into Lahaina . . . (Fornander, quoted in Sterling 1998:19)

Kamakau also describes this battle in *Ruling Chiefs*. He says that Alapa'i, in addition to drying up the streams in the Lahaina area, also "kept close watch over the brooks of Olowalu, Ukumehame, Wailuku and Honokowai." The hardest fighting, he says, "even compared with that at Napili and at Honokahua in Ka'anapali," took place at Pu'unēnē. (Kamakau 1961:74) It seems likely that, rather than the better-known Pu'unēnē on the Central Maui isthmus, this refers to Pu'unēnē *mauka* of 'Alaeloa, which can be seen on a U.S. Geological Survey map (Figure 6).

More than a century later, when Western contact had greatly changed Hawaiian society, 'Alaeloa as well as other *'āina* across the islands began a transition that eventually led to the resort/residential neighborhood it is today.

The subject property is part of Land Commission Award 4240 and Royal Patent No. 6384 to a claimant named Kau. The Māhele Database available through the website Waihona 'Āina lists four *'āpana* (piece, section) in this award. In his Land Commission petition in 1848, Kau asks for one *kihapai* (a cultivated garden or small farm) at Honokeana and one at 'Alaeloa. R.P. No. 6384 was not awarded until 1873, although claim number 04240 was filed with the Land Commission by Kau in January 1848. The patent awards four *'āpana* in 'Alaeloanui, 'Alaeloaiki and Honokeana *ahupua'a* to Kau. The parcel on which the subject property is located and several contiguous lots are shown in the County Property Tax Office Field Book for this TMK as L.C.A. 4240:3, indicating that these parcels were *'Āpana* 3. The Royal Patent document says *'Āpana* 3 included a house lot and an open field in the area identified as 'Alaeloanui, and the L.C.A. document identifies it as being "in the *ili* of Kamani."

Kau "received these lands from his ancestors in the days of Kamehameha I and his title has never been disputed,"" witness Kaaukea told the commission. In another comment the same witness says, "land was from Kau's parents at the time of Kamehameha I, no objections."

Kau is not mentioned in Kame'eleihiwa's lists of *ali'i* who received *Māhele l*ands or in Barrere's *The King's Mahele.* His neighbor, however, is better known. Before the *Māhele*, 'Alaeloa was part of a large piece of land controlled by Laura Kanaholo Konia (c. 1807-1857). Laura Konia held 22 *'āina* prior to the Māhele, almost all on Maui in the Kā'anapali district. She relinquished half to the king and was left with eleven, of which eight were on Maui. 'Alaeloa was among them. With neighboring lands of Mahinahina, Nāpili, Mailepai and a portion of Honokeana, it became part of Land Commission Award 5524 and later Royal Patent 1663. (Kame'eleihiwa 1992:228, 246)

When Laura Konia died in 1857, her daughter Bernice Pauahi inherited this land. Documents on file in the state Bureau of Conveyances show that, in June 1860, Bernice Pauahi and Charles Bishop deeded this land to a number of individuals. This was the *Hui 'Āina o Mailepai,* an early example of a system Native Hawaiians established in order to maintain their traditional lifestyle, with residents of an *ahupua'a* having access to the resources of a much larger area than the small homestead of a *kuleana* lot. (Stauffer 2004:2)

The Mailepai Hui had 106 owners (Watson, *Honolulu Star-Bulletin* 12/14/1932), and apparently wrapped around the smaller parcels owned by Kau. It is interesting to speculate about his status in that community and how much and in what way he interacted with his neighbors in the Hui next door.

Though detailed, comprehensive population figures are not available for Hawai'i in the 1800s, some figures survived for Honokowai. While these may not have included 'Alaeloa, they do give a glimpse of the population and lifestyle of the area. The mission census of 1832 found 490 individuals living in Honokowai. (Schmitt 1973:38) An 1878 Kingdom of Hawai'i census of Honokowai also survives. A total of 242 individuals lived in 32 *hale* visited by the enumerator, all but a couple listed as "native." Most were engaged in agriculture, either on their own *kuleana* or as plantation workers. (Kingdom census, Kahului Library)

The Mailepai Hui lands and much of this West Maui coast line were acquired in the late 1800s and early 1900s by Henry P. Baldwin and his companies, Honolua Ranch and later Baldwin Packers, the petitioner in the 1931 Mailepai Hui partition. This partition ended the hui and parceled out pieces to various owners, primarily Baldwin Packers. Henry Perrine Baldwin acquired most of the company's land (when it was known as Honolua Ranch) by the end of the 19th century through a series of land grants and purchases. (Cameron et. al 1987:7) Originally used for grazing, the ranch gradually switched over to planting various crops in the early 20th century. (Figure 8) A map in the book *Plantation Days* shows plantings of aloe vera, mangoes, avocados and lychees *mauka* of the subject property, across the road that would become Lower Honoapi'ilani Highway and railroad tracks that transported pineapple to the company's Lahaina cannery in the early 1900s. (Figure 9)(Cameron et al. 1987:5)

Pineapple was planted by manager David T. Fleming, hired by Baldwin in 1911 to oversee Honolua Ranch. Fleming, who experimented with many crops in addition to pineapple, also owned assorted parcels of land along this coast, including some in the neighborhood of the subject parcel. His granddaughter, Ginger Gannon, said he had a beach house at 'Alaeloa. In 1932, Fleming planted 10 acres of aloe (apparently the field depicted in Figure 9), which he attempted to develop as a marketable product. Though he was before his time, and the project was never commercially successful, Ginger Gannon recalls that "We always had creams and salves" made by her grandfather, and "they worked!" Possibly this field was the source for the aloe vera plants which are ubiquitous in home gardens all over Maui. Over the years, the ranch (renamed Baldwin Packers in

1924) gradually replaced its grazing land with pineapple plantings, which totaled 3,500 acres when *Plantation Days* was written in 1987. Baldwin Packers merged with Maui Pineapple Company in 1962, and the Honolua area which was its headquarters became the Kapalua Resort, while the land south of Honolua, including the Mailepai Hui land, was developed as a residential and resort neighborhood.

V. Oral Interviews

Methodology, Procedures, and Interviewee Biographical/Organizational Information

In addition to personal contact with individuals listed below, letters briefly outlining the development plans along with a map of the project site were sent to organizations whose jurisdiction includes knowledge of the area, asking for input on this report. A letter was sent to the Lahaina Hawaiian Civic Club. A legal ad in The Maui News requested information from anyone with knowledge of cultural practices around this parcel; no replies were received.

The Napili Canoe Club, which is headquartered in Kā'anapali at Hanaka'ō'ō Beach, does paddle along the shore as far north as this cove. Contacted by phone on May 11, 2009, club president Jeanne Gonzalez declined to comment, saying that the club does not take an official stand on anything political because it is a 501(c)3 organization, and they view anything having to do with development issues as political.

Several individuals were interviewed, two of whom actually lived in 'Alaeloa. Others lived in the general area and were able to talk about the lifestyle of this part of West Maui a generation ago.

One set of interviews were originally done for a Cultural Impact Assessment for a nearby property, across the bay from the Lucas parcel; the information obtained from these informants applies equally to the Lucas parcel. These interviews, with Gwen Lutey, Frances Kalua and Alan Yabui, are summarized below.

Joan McKelvey

Mrs. Joan McKelvey lived on the subject property from 1976 to 2000 in one of the first houses built around the bay in contemporary times. When they got the property, Mrs. McKelvey said, it was "sort of a wooded area," though they knew there had been some sort of post-contact dwelling there because there were steps going down to the beach. Next door lived George I. Brown, and on the north point was a beach house owned by Leighton Taylor. Mrs. McKelvey says the area was an old fishing village, and the McKelveys found artifacts such as broken poi pounders and bone fishhooks.

The McKelveys built the sea wall directly beneath their lot after part of the cliff fell in sometime in the 1980s. "We heard this great thud" and her husband, A.W. "Mac" McKelvey, went out to see what was happening. He backed away from the cliff just in time to avoid injury when another large chunk collapsed. The family tried to shore up

what was left of the cliff by building the sea wall, and also sealed a cave that was exposed by the erosion. The cave had been a small opening just above sea level before the cliff collapsed, but when the collapse opened it up, the McKelveys discovered that it went far back under their property. The family discovered there were bones in the cave, which they assumed were human remains. Mrs. McKelvey did not go into the cave herself, but does not believe that there were any grave goods or artifacts in the cave. She does not know how many remains were there. The family thought it best simply to seal up the cave with concrete so the bones would never be disturbed. The couple did not tell anyone what they had found. House guests sometimes would swear that there were ghosts in the house, but the McKelveys replied that, if there were ghosts, they were friendly.

Erosion has been an ongoing problem. Concrete and stone steps stood intact but separated from the cliff below the home of George Brown, perhaps washed away from the cliff by a tsunami. Mrs. McKelvey believes there was also a cave on the Brown property, but she is not sure what he did with it. The McKelveys had steps down to the beach that were wiped out by Hurricane Iwa.

Originally there was a sandy beach directly below this property, but Mrs. McKelvey said one neighbor built a sea wall and that took away the beach under their property.
The owners of these cliff-side properties belonged to the Hale Malia Association. They gated their community because "we were getting some unsavory characters down there," Mrs. McKelvey said, but anyone who called and asked for access to the bay for fishing was welcome. One neighbor in particular, the Fines, had a lot of local and Tongan friends who came down to fish.

The Lahaina Yacht Club used to have a picnic day once a month on the beach, sometimes accessing the beach through the McKelveys' property. Mrs. McKelvey does not remember what kind of fish people caught in the bay, but says that sometimes local ladies would come to take seaweed, and there were turtles in the bay.

For years, there was no lock on the McKelveys' door and no fence between them and the Kahana Sunset, which was built after their home was. Then the McKelveys began to find wallets in the bushes. They realized that thieves were going after tourists by using their property, and decided there should be a fence between them and the condominium.

Philomen Sadang

Philomen Sadang, age 66, was interviewed by telephone June 12, 2009. He and his family have been fishing in the cove fronting the subject property for as long as he can remember. Mr. Sadang lives down the coast in what he calls "the last fishing village" on the west side, between two condos, the Kahana Reef and the Kahana Outrigger. "I've seen this land go from chicken coops and pig pens to concrete and steel," he said. Mr. Sadang said he knows the subject property well, and is aware of the problem with the crumbling sea wall there. He says the damage is a result of rising ocean levels that are "eating up the land" on the west side. He said that directly in front of the subject property is "a very active fish house" where he often fishes, and his only concern about the

proposed project is the potential for runoff that might damage this fish population. He said he wonders what kinds of chemicals the builders will use. He doesn't want to say the project should not be done, because the cliff needs to be stabilized, but care should be taken that there is no runoff into the ocean during construction. Mr. Sadang said he has never seen the burial cave that Mrs. McKelvey described, but speculated that possibly it has been covered by the rising ocean levels and is therefore no longer visible.

Gwen Lutey and Frances Kalua

Two women who formerly lived in the Nāpili area shared memories of the lifestyle they enjoyed during their youth. Gwen Lutey and Frances Kalua were interviewed in an informal meeting at the Hale Mahaolu Eono senior housing in Lahaina March 31, 2009. The interview was conducted during research for a Cultural Impact Assessment for a property on the other side of this cove. Also present was historical author Katherine Smith.

Frances Kalua lived in Nāpili. Her family had lived in the area for generations. Her grandfather, August Reimann, had a little ranch, with a windmill to draw water from a well for the animals. [August Reimann and other family members are listed in the Mailepai partition document and in census documents of the area from 1900.] Ms. Kalua does not recalls hearing that there used to be a fishing village in the area, and no one talked much about it. In her childhood, her aunt was the *kilo i'a,* watching from above Honolua Bay to find schools of fish. This aunt was adept at making throw nets. People would lay net and share the fish they caught. There was also plenty of the *limu* known as *lipe'e*. The shellfish known as *pipipi* were big and plentiful. They were boiled and then picked out of their shells with a pin, a process Ms. Kalua said was tedious but worth it because the *pipipi* were tasty. Another shellfish, the *kupe'e*, lived in the sand and could be found only on starry nights, and people went down to the beach to catch sand crabs as well. Her aunt delivered mail in the area, and picked up goods from Lahaina for anyone in the neighborhood who asked, dropping them off when she delivered the mail.

Gwen Amaral Lutey grew up on Nāpili Bay. Like Ms. Kalua, she remembered a rural, traditional cooperative lifestyle, in which families lived off the land. They raised chickens, pigs and ducks and shared with others. Her grandmother made 300 loaves of bread at a time and the family worked together to make and sell the bread. David Fleming loved fishing, and set up a commercial operation to catch the large schools of *akule* in Honolua Bay, where the best fishing was. Some of the fish were divided among families, who would take them home to eat or dry.

Native plants were used to some extent. *Noni* was easily available, and Ms. Kalua and her brothers used to ride horses to collect *ko'oko'olau* and pick mountain apples. Both Ms. Kalua and Mrs. Lutey recalled seeing *akualele* [defined in Pukui's *Hawaiian Dictionary* as meteors] during the day and night.

Both women praised David Fleming, saying that he sold parcels in the lower portion of Mailepai Hui to local families for $500. "He never forgot the people," Mrs. Lutey said.

Asked about potential cultural impacts of the proposed project (across the bay from the Lucas project), Ms. Kalua commented that she believes putting a stone retaining wall along the cliff desecrates the area.

Alan Yabui

Mr. Alan Yabui, interviewed April 13, 2009, by telephone, spent some of his childhood living at the site of the present Kahana Sunset. This interview also was originally conducted for a Cultural Impact Assessment on a neighboring property. Mr. Yabui reviewed and offered some additions to an e-mailed summary of the phone conversation, and his additions are included in the summary below. Mr. Yabui is now a resident of Bothell, Washington, where he teaches classes in Hawaiian history, inter-cultural communication and history of the Japanese internment camps. He and his wife visit Maui often.

Mr. Yabui's grandfather, Yoshimatsu Yabui, was the Lahaina Cannery supervisor, and his son Yoshihara Yabui (Alan's father) also worked as a cannery supervisor. Yoshimatsu Yabui was a good friend of D.T. Fleming, who often visited the Yabui family home to relax with his friend under a *hau* tree. Because this home was on the site of the current Kahana Sunset, Keonenui Beach is often called Yabui Beach. Mr. Fleming also gave his friend a piece of land (less than an acre) in exchange for Mr. Yabui allowing Baldwin Packers to remove some sand from the dunes on his property in order to make a concrete floor for an expansion at the Lahaina Cannery in the space now occupied by the ABC Store and the *mauka* space with several stores, a restaurant, and Starbucks.

Mr. Yabui said his grandfather brought this property in 1939 from a Chinese merchant in Lahaina who had decided to go back to China. The Mailepai Hui partition document includes Allotment 16 to Ah Cheen of Lahaina, with a boundary description that seems to match that of the Yabui property. Mr. Yabui said he remembers that the name began with the letter "C." Mr. Yabui thinks there must have been a Hawaiian village there at one time--rocks that his grandfather dug up, now used in the walls around the Kahana Sunset, were weathered when his grandfather found them, so they might have come from that village. Some of the rocks were dark-blue basalt, adze-quality stone. His grandfather planted ti plants and mango trees that are still growing on the Kahana Sunset property. His grandfather also had poi pounders and *'ulu maika* stones, but Mr. Yabui is not sure whether his grandfather found these artifacts or whether David Fleming gave them to him.

The tsunami of April 1, 1946, turned a neighbor's home near Yoshimatsu Yabui's family home on the Lahaina shoreline (now the parking lot near the entrance to Lahaina L'au) upside down, so Mr. Yabui's grandfather bought the house structure and moved it to Alaeloa and fixed it up over the next four years.

Alan's mother contracted TB in 1943 was sent to Kula Sanatorium (before penicillin, to recover) and he was raised by his grandparents and lived with them after the April 1,

1946, tidal wave in a house in "Cannery Camp," now the location of the Lahaina Lū'au. Later, after 1946, his grandparents moved to another house in "Cannery Camp," which is now the site of the main performance stage at Lahaina Lū'au. His grandfather retired in 1950 and at age 10 he moved to the site that is now Kahana Sunset. He lived there until he left for college at age 18.

One well-known neighbor was Maui hula teacher Emma Sharpe and her husband, David. [Mrs. Sharpe's mother, Annie Farden, is mentioned in the Mailepai Hui partition document.] David Sharpe used a World War II-era landing boat to spread fishing nets with Hawaiian residents in the Kahana area. Mr. Yabui and his father helped in a hukilau-type fishing event near Kahana Sunset.

Mr. Yabui said there was a stream that ran intermittently; a dip in the road crossing the stream bed, that flowed when heavy Kona rain came onshore from the ocean side. He used to go up into the valley above his home, walking on the pineapple field roads, where some native plants still grew. In those days, however, "Hawaiian culture was submerged," he said, and there was little discussion or practice of native cultural matters.

VII. Confidential information withheld; Conflicts in information or data

No confidential information was withheld. There were no conflicts in information or data within the reports consulted for this Cultural Impact Assessment.

VIII. Conclusion

After making site inspections, interviewing knowledgeable people of the area and conducting documentary research on the subject property and the area around it, it appears that, providing proper care is taken in the construction process, the proposed action does not interfere with any known Hawaiian or non-Hawaiian gathering, practices, protocols or access.

Because this section of coastline has long been developed, with little provision made for beach access when it was built up decades ago, there is essentially no public access to this beach area except from the sea. Philomen Sadang, a member of a longtime west-side fishing family, does fish in the waters off the subject property, and expressed no opposition to the project except for concern that runoff be carefully controlled to avoid damaging sea life. Other than one negative opinion from Frances Kalua, armoring of the cliff below the property does not seem to be a cultural issue with anyone interviewed for this report. It is instead an environmental issue, and decisions about the impact of that action are more properly addressed by experts on the health of the shoreline. It may be that stabilizing the cliff will actually increase the protection of shoreline waters by preventing erosion from washing soil into the ocean.

Former resident Joan McKelvey reported that there may be a burial cave in the cliff below the property, where the wall stabilization project will take place. A follow-up visit

from an archaeologist failed to locate this cave, as did examination from the ocean by the writer of this Cultural Impact Assessment, and Mr. Sadang said he has never observed the cave during his fishing expeditions. Possibly the work done to cover it up when the cave was first exposed has successfully camouflaged it, or it may have been submerged by rising sea levels, as Mr. Sadang suggested. Whatever the explanation, it would seem that the cave has been successfully protected and is best left untouched.

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Appendices

AFFIDAVIT OF PUBLICATION

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

Rhonda M. Kurohara being duly sworn deposes and says, that she is in 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 ordered publication as to

Information Wanted for Cultural Impact Assessment

of which the annexed is a true and correct printed notice, was published 2 times in THE MAUI NEWS, aforesaid, commencing on the 17th day of May, 2009, and ending on the 19th day of May, 2009, (both days inclusive), to-wit: on

May 17, 19, 2009

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

This 1 page Information Wanted dated May 17, 19, 2009, was subscribed and sworn to before me this 19th day of May, 2009, in the Second Circuit of the State of Hawaii, by Rhonda M. Kurohara

Notary Public, Second Judicial Circuit, State of Hawaii
LEILA ANN L. LEONG
My commission expires 11-23-1[illegible]

Information Wanted for Cultural Impact Assessment

Maui Island Press requests information on cultural resources or activities on or near this parcel in [illegible], Maui TMK (2) 4-3-003:098. Please contact MIP within 30 days at (808) 242-5459
[illegible] 17, 19, 2009)

Ad published in The Maui New seeking information on subject parcel.

Royal Patents Documents

Royal Patent Number(RP)	**6384**	LCA Number:	**04240**
Patentee:	**Kau**	Book::	**24**
Island	**Maui**	Page	**139**
District:	**Kaanapali**	TMK	**2-4-3-01, 03**
Ahupua'a	**Alaeloanui**	Miscellaneous	
Ili			

No. 6384, Kau, Alaeloanui, Alaeloaiki & Honokeana Ahupuaa, District of Kaanapali, Island of Maui, Volume 24, pps. 139-140 [RP Reel 13, 00115-00116.tif]

[Great Seal]

HELU 6384

PALAPALA SILA NUI
A KE ALII, MAMULI O KA OLELO A KA POE HOONA KULEANA.

NO KA MEA, ua hooholo na Luna Hoona i ua kumu kuleana aina i ka olelo, he kuleana oiaio ko Kau, Kuleana Helu 4240 ma ke Ano Alodio iloko o kahi i oleloia malalo

Nolaila, ma keia Palapala Sila Nui, ke hoike aku nei o ~~Kamehameha V~~, Lunalilo, ke Alii nui a ke Akua i kona lokomaikai i hoonoho ai maluna o ko Hawaii Pae Aina, i na kamaka a pau, i keia la nono iho, a no kona mau hope alii ua haawi aku oia ma ke Ano Alodio ia Kau, i kela wahi a pau loa ma Kaanapali Alaeloanui ma ka mokupuni o Maui, penei na mokuna.

Apana 1. Kula uwala.
E hoomaka ma ke kihi Hema Komohana, a e holo
Akau 37 3/4° Hikina 1.61 kaulahao ma ko Kaleiopu aina
Akau 34° Hikina 4.20 kaulahao ma ka Pali
Akau 85° Hikina 3.58 kaulahao ma ka Pali
Hema 13 3/4° Komohana 2.98 kaulahao ma ko Manuwai
Akau 89 1/2° Komohana 1.57 kaulahao ma ko Kapali
Hema 37 3/4° Komohana 3.48 kaulahao ma ko Kapali
Akau 78° Komohana 2.16 kaulahao ma ko Kapali a hiki i kahi i hoomakai.
Ili 1 3/4 Eka.

Apana 2. Alaeloaiki. Kula Uwala.
E hoomaka ma ke kihi Akau Komohana, a e holo

Hema 46 1/2° Komohana 2.03 kaulahao ma ko Kaaukea
Hema 47 1/2° Hikina 7.47 kaulahao ma ko Konohiki
Akau 25 3/4° Hikina 2.52 kaulahao ma ko Kaaukea
Akau 49 1/4° Komohana 6.44 kaulahao ma ko Konohiki a hiki i ke kihi mua.
Ili 1 57/100 Eka.

Apana 3. Pahale & Kula. Alaeloanui.
E hoomaka ma ke kihi Hema, a e holo
Akau 43° Hikina 3.33 kaulahao ma ka Pohaku
Akau 25 1/2° Hikina 6.00 kaulahao ma ka Pohaku i Kaleiopu
Akau 80° Komohana 7.06 kaulahao ma ko Kaleiopu
Hema 28° Komohana 4.25 kaulahao ma Kahakai
Hema 39 1/2° Hikina 6.86 kaulahao ma Kahakai a hiki i kahi i hoomakai.
Ili 4 73/100 Eka.

Apana 4. Kula ma Honokeana.
E hoomaka ma ke kihi Hema Komohana, a e holo
Hema 38° Hikina 5.61 kaulahao ma ko Konohiki
Hema 27° Hikina 3.71 kaulahao ma ko Konohiki
Akau 57 1/2° Hikina 4.42 kaulahao ma ko Konohiki
Akau 29 1/2° Komohana 5.74 kaulahao ma ko Konohiki
Akau 36 1/4° Komohana 4.84 kaulahao ma ko Konohiki
Hema 40 1/4° Komohana 4.60 kaulahao ma ko Konohiki a hiki i kahi i hoomakai
Ili 4 36/100 Eka.

[Page 140]

Maloko o keia mau Apana -- 12 41/100 -- Eka a oi iki aku, a emi iki mai paha. Ua koe nae i ke aupuni na mine minerela a me na metela a pau.

No Kau ua aina la i haawiia ma ke Ano Alodio a no kona mau hooilina, a me kona waihona; ua pili nae ku auhau a ka Poe Ahaolelo e kau like ai ma na aina alodio i kela manawa i keia manawa.

A I MEA E IKEA AI, ua kau wau i ko"u inoa, a me ka Sila Nui o ko Hawaii Pae Aina ma Honolulu i keia la 17 o June 1873

By the King, Lunalilo R. [Rex]
The Minister of the Interior, Edwin O. Hall

[Royal Land Patent No. 6384, Kau, Alaeloanui, Alaeloaiki & Honokeana Ahupuaa, District of Kaanapali, Island of Maui, 4 apana, 12.41 Acres, 1873]

Royal Patent Including Subject Parcel, from Waihona.com

DRAINAGE REPORT AND BEST MANAGEMENT PRACTICES

FOR

LUCAS RESIDENCE

LOT 6, HALE MALIA SUBDIVISION

ALAELOA, NAPILI, MAUI, HAWAII

TAX MAP KEY: (2) 4-3-03:96

PREPARED FOR:

MS. MARCIA LUCAS
11 HALE MALIA PLACE
LAHAINA, HAWAII - 96761

PREPARED BY:

Tanaka
ENGINEERS, INC.
CIVIL ENGINEERING • LAND SURVEYING • CONSTRUCTION MANAGEMENT & INSPECTIONAL SERVICES

871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII - 96793
JOB 08-019

SEPTEMBER 2008
Revised: SEPTEMBER 18, 2009

EXHIBIT 23

TABLE OF CONTENTS

I. PURPOSE:

The purpose of this report is to investigate the drainage conditions at the existing residential lot. This report will present a brief description of the existing conditions and provide required drainage improvements to prevent runoff discharge into the shoreline in compliance with the requirements of the SMA Emergency Use Permit issued for the slope stabilization of the shoreline bluff fronting the property. It will also include proposed measures to control soil erosion during site construction.

II. PROPOSED PROJECT:

The proposed site improvements are essentially the installation of a drainage system consisting of subsurface drainage retention basins and appurtenant grated drain inlets and underground drain pipes. The drainage improvements are to be installed in conjunction with the construction of the slope stabilization system for the existing shoreline bluff fronting the property. The site work also includes re-landscaping portions of the open spaces of the property.

The planned drainage improvements is shown in Figure 6.

III. LOCATION:

The project site is located in Alaeloa, Napili, Maui, Hawaii. It is about 1½ miles north of Kapalua Airport and is particularly situated on the makai side of Lower Honoapiilani Road. Refer to Figures 1 and 2.

IV. EXISTING SOILS:

The U.S. Department of Agriculture Soil Conservation Service's Soils Survey of the Island of Kauai, Oahu, Maui, Molokai and Lanai [2], classifies the soils within the project site as Kahana Silty Clay (KbC) (Figure 3). KbC is characterized as having moderately rapid permeability, slow to medium runoff and slight to moderate erosion hazard.

KbC belongs to Kahana soil series that consist of well-drained soils on uplands on the island of Maui that were developed in material weathered from basic igneous rock.

V. FLOODING HAZARD:

The site is located within Panel 15003-0138B (June 1, 1981), of the Flood Insurance Rate Map for the County of Maui [5]. The site falls in Zone C where minimal flooding is expected. Refer to Figure 4.

VI. TOPOGRAPHY:

The existing topography of the project site is shown on Figure 5. The lot essentially contains a residence pool, landscape and grassed lawns. The ocean frontage of the residential property consists of rocky shoreline and a rocky and vegetated bluff about 20 feet high.

VII. EXISTING DRAINAGE CONDITIONS:

Generally, storm runoff generated by the residential property discharges into the shoreline fronting the property either by sheet flow or by existing drain

pipe outlets. The roof runoff and driveway are collected by the existing drainage system(s) that conveys the runoff to the shoreline bluff via underground pipes. The landscaped areas along the sides of the residence and the grassed (lawn) area behind the building drain into the shoreline bluff by surface flow.

This Report's drainage calculations indicate that the existing residence and grassed/landscaped areas can generate 1.0 and 1.1 cubic feet per second (cfs) for 10-year and 50-year storm, respectively.

VIII. STORM RUNOFF QUANTITIES:

Hydrologic calculations are given in Appendix A - Drainage Calculations.

Briefly, the existing residence is anticipated to generate the following 1-hour storm runoff:

10-year Storm:

Peak Rate = 1.0 cfs

Volume = 702 cf

50-year Storm:

Peak Rate = 1.1 cfs

Volume = 791 cf

The 50-year volume will be the minimum quantity to be retained onsite in order to prevent adverse effect of a 50-year intensity storm on the shoreline slope and near shore waters.

IX. DRAINAGE PLAN:

The planned drainage system is laid out in Figure 6. The main feature of the proposed system is the installation of subsurface retention basins that is sized to retain the 50-year, 1-hour storm runoff volume that will be generated by the existing residence. Storing the anticipated runoff volume will mitigate significant adverse drainage effects by the 50-year intensity storm on the shoreline.

The proposed subsurface retention basins will consist of perforated pipes enveloped in crushed rocks (refer to Appendix "A" for typical sections). It will consist 30 feet of combined 48" and 24" and 30 feet of single 24" perforated pipes. The cumulative capacity of the proposed basins is about 933 cf which is greater than the expected 50-year, 1-hour storm volume of 791 cf resulting in a reduction of about 142 cf.

Aside from the subsurface retention basins, the drainage system will also include grated drain inlets and drainage pipes. Lawn runoff will be collected by the grated drain inlets while the PVC drain pipes will collect and convey roof runoff to the retention basins.

Existing drainage pipe outlets that directly discharge into the shoreline bluff will be removed and/or intercepted to empty into the retention basin.

X. OPERATION AND MAINTENANCE PLAN:

The operation and maintenance of the onsite drainage system will be handled by the Owner. The recommended operation and maintenance activities will include, but not limited to:

A. Inspection of the drainage facilities annually and after major storms. Repair damages, if any. Remove debris, if any, at grated drain inlets to permit unimpeded flow.

B. Periodic inspection of the drainage system. Remove debris and sediment build-up, as required, specifically inside grated drain inlets upstream of the subsurface retention basins.

C. Preventing grass and landscape cuttings from entering the drainage system.

D. Maintaining healthy growth of grass lawns and landscaping to prevent soil erosion; thereby, reducing sediments that might enter the drainage system.

XI. GRADING AND BEST MANAGEMENT PRACTICES:

The lot is already developed, hence, massive site grading is not expected. Grading work will essentially involve the excavation for the subsurface retention basins and backfilling portion of the shoreline bluff for slope restoration and stabilization that are allowed under the SMA Emergency Use Permit.

Requirements for the temporary control of soil erosion and dust during construction are shown on Figure 7. Some of the requirements are as follows:

1. Control dust by sprinkling the exposed areas.
2. Graded areas shall be thoroughly watered (but not overwatered to cause water runoff to the shoreline) after construction activity has ceased for the day and for weekends and holidays.

3. All exposed areas shall be paved, grassed, or permanently landscaped as soon as finished grading is completed.
4. Divert storm runoff away from graded areas to natural ground during construction by means of gravel bag berms or other approved methods.
5. Minimize time of construction.
6. Only clear areas that are needed for new improvements.
7. Early construction of drainage control features.
8. Excavation of pit for proposed subsurface retention basins prior to grading. Use pit as temporary sediment catchment during construction.
9. Installation of dust control fence surrounding the project area.
10. Installation of silt fence, gravel bag berms or other approved sediment trapping devices at the downstream side of the grading area and sediment pit.
11. Temporary control measures shall be in place and functional prior to construction and shall remain operational throughout the construction period or until permanent controls are in place.

The Contractor will also be required to submit a satisfactory soil erosion control plan to minimize soil erosion prior to an issuance of a grubbing and grading permit. Best Management Practices shall be in compliance with Section 20.08.035 of the Maui County Code (Ord. No. 2684) and "Construction Best Management Practices (BMPs) for the County of Maui" of the Department of Public Works & Waste Management, May 2001.

X. REFERENCES:

1. Rules for the Design of Storm Drainage Facilities in the County of Maui, Title MC-15, Department of Public Works and Waste Management, County of Maui, Chapter 4, adopted April 14, 1995.

2. Soil Survey of Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii, prepared by U. S. Department of Agriculture, Soil Conservation Service, August 1972.

3. Erosion and Sediment Control Guide for Hawaii, prepared by U. S. Department of Agriculture, Soil Conservation Service, March 1981.

4. Rainfall-Frequency Atlas of the Hawaiian Islands, Technical Paper No. 43, U. S. Department of Commerce, Weather Bureau, 1962.

5. Flood Insurance Rate Maps for the County of Maui, June 1981.

APPENDIX A

DRAINAGE CALCULATIONS

I. Reference: Rules for the Design of Storm Drainage Facilities in the County of Maui, 1995

II. Recurrence Interval:

A. 10-Year, 1-Hour:

1-Hr. Rainfall Value = 2.4"

B. 50-Year, 1-Hour: for design of retention basin

1-Hr. Rainfall Value = 2.7"

III. Runoff Quantity:

A. Runoff Discharge Rate & Volume:

1. Methodology:

Rational Method, $Q = CIA$

Where Q = Flow rate in cubic feet per second (cfs)

C = Runoff Coefficient

I = Rainfall intensity in inches per hour for a duration equal to the time of concentration

A = Drainage Area in Acres

Calculations employing this method were performed on computer using hydrologic software "Hydraflow Hydrographs 2004" by Intelisolve.

2. Runoff Coefficient, C:

Lawn Area = 0.07 Ac. (C = 0.22)

Roof, Concrete, etc. = 0.17 Ac. (C -0.95)

$$\text{Weighted C} = \frac{0.07 \times 0.22 + 0.17 \times 0.95}{0.24}$$

$$= \frac{0.177}{0.24}$$

$$= 0.74$$

3. Time of Concentration, Tc:

Length of Flow = 105 ft. (Longest)

Average Slope = 5%

T_c = 8 min. (Poor Grass)

4. Runoff Peak Rate and Volume (1-Hour Rainfall):

(See Hydrology Plots)

10–Year Storm:

Q_{Peak} = 1.0 cfs

Volume = 702 cf

50–Year Storm:

Q_{Peak} = 1.1 cfs

Volume = 791 cf (Minimum volume to be retained onsite to prevent drainage adverse effect on the seashore)

IV. Subsurface Retention Basin:

In accordance with the County Drainage Standards, the subsurface retention basins shall have a cumulative storage capacity to at least equal to the anticipated

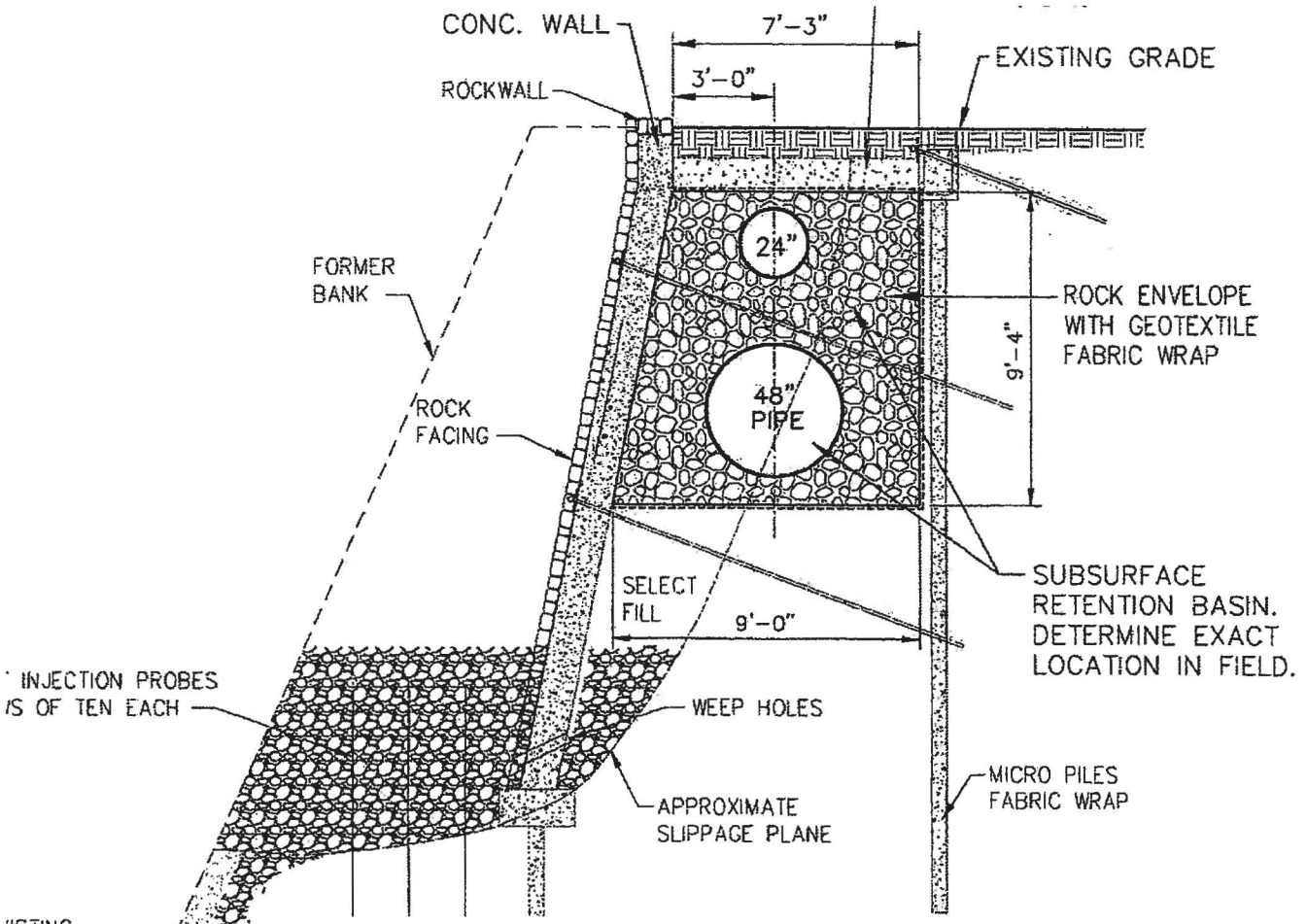
50-year storm volume increase generated by developments with areas less than 100 acres. However, in compliance with the requirements of the SMA Emergency Use Permit, the total calculated 50-year runoff volume generated by the existing residence will be retained onsite.

Typical sections of the proposed retention basin is shown on the attached drawing while the location is schematically shown on Figure 6. In keeping with the County Drainage Standards, the storage capacity of the retention basins were determined without taking into account the soil percolation and that only 50% of the void volume of the rock envelope will be included.

Proposed basin capacity versus volume is as follows:

Proposed Basin:

Capacity	= 786 (Section A) + 147 (Section B)
	= 933 cf
V_{50}	= 791 cf
Extra Cap.	= 142 cf



Determine Holding Capacity:

Stone Void Ratio = 35%

A. Capacity per Linear Foot:

Pipe Capacity = $3.1416 \times (1^2 + 2^2)$
= 3.1416×5
= 15.7 cf

Stone Void Volume = $\left(\frac{7.25+9.0}{2} \times 9.33-15.7\right) \times 35\%$
= $(75.8 - 15.7) \times 35\%$
= 21.0 cf

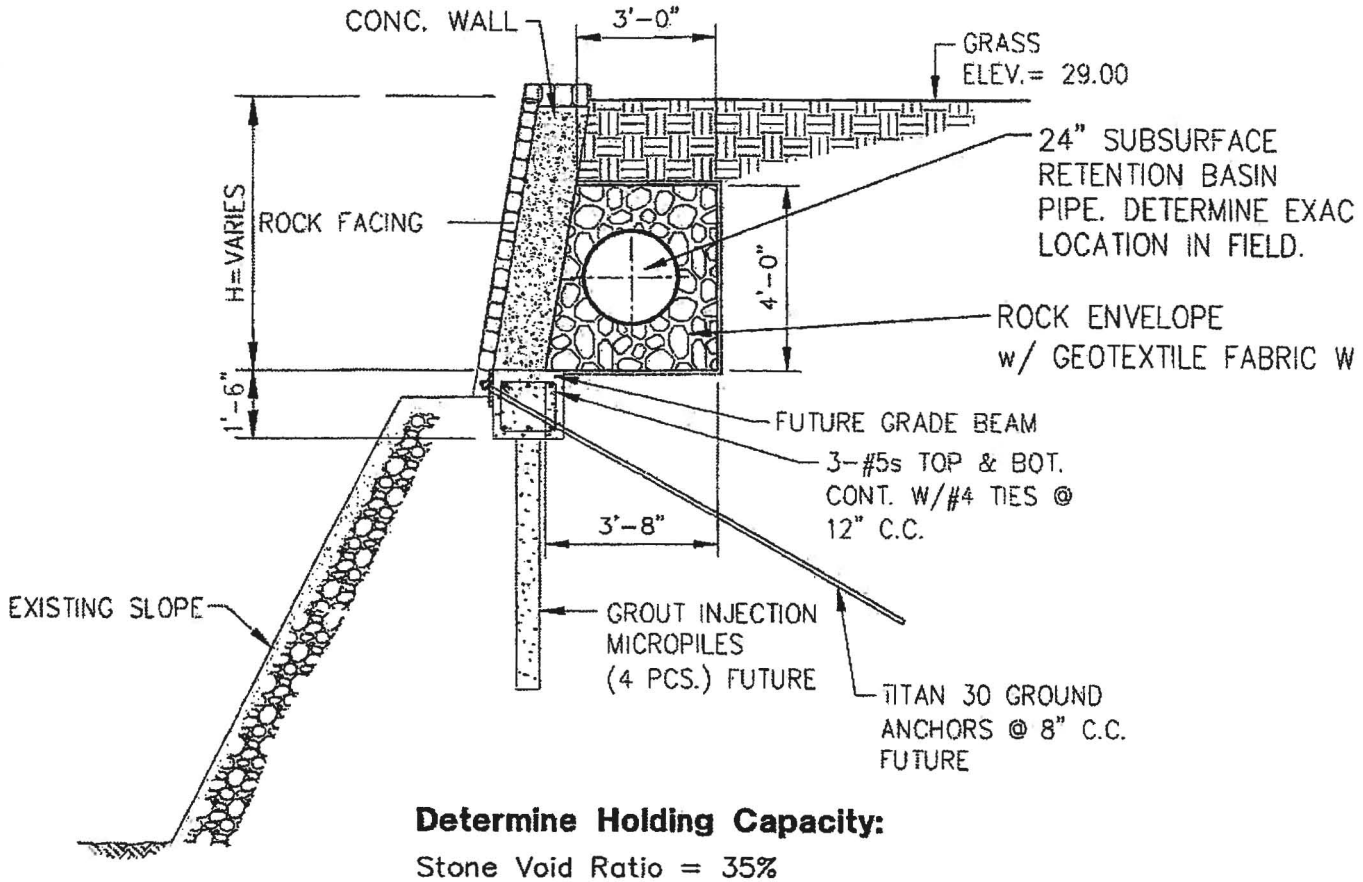
Effective Stone Capacity = $21.0 \times 50\%$
= 10.5 cf

Capacity/LF = 15.7 + 10.5
= 26.2 cf

B. Total Capacity:

Total Capacity = 26.2 x Length
= 26.2 x 30
= 786 cf

SECTION A



Determine Holding Capacity:

Stone Void Ratio = 35%

A. <u>Capacity per Linear Foot:</u>

Pipe Capacity = $3.1416 \times R^2$
= 3.1416×1.00^2
= 3.1 cf

Stone Void Volume = $\left(\frac{3.0 + 3.7}{2} \times 4.0 - 3.1\right) \times 35\%$
= $(13.4 - 3.1) \times 35\%$
= 3.6 cf

Effective Stone Capacity = $3.6 \times 50\%$
= 1.8 cf

Capacity/LF = 3.1 + 1.8
= 4.9 cf

B. <u>Total Capacity:</u>

Total Capacity = 4.9 x Length
= 4.9 x 30'
= 147 cf

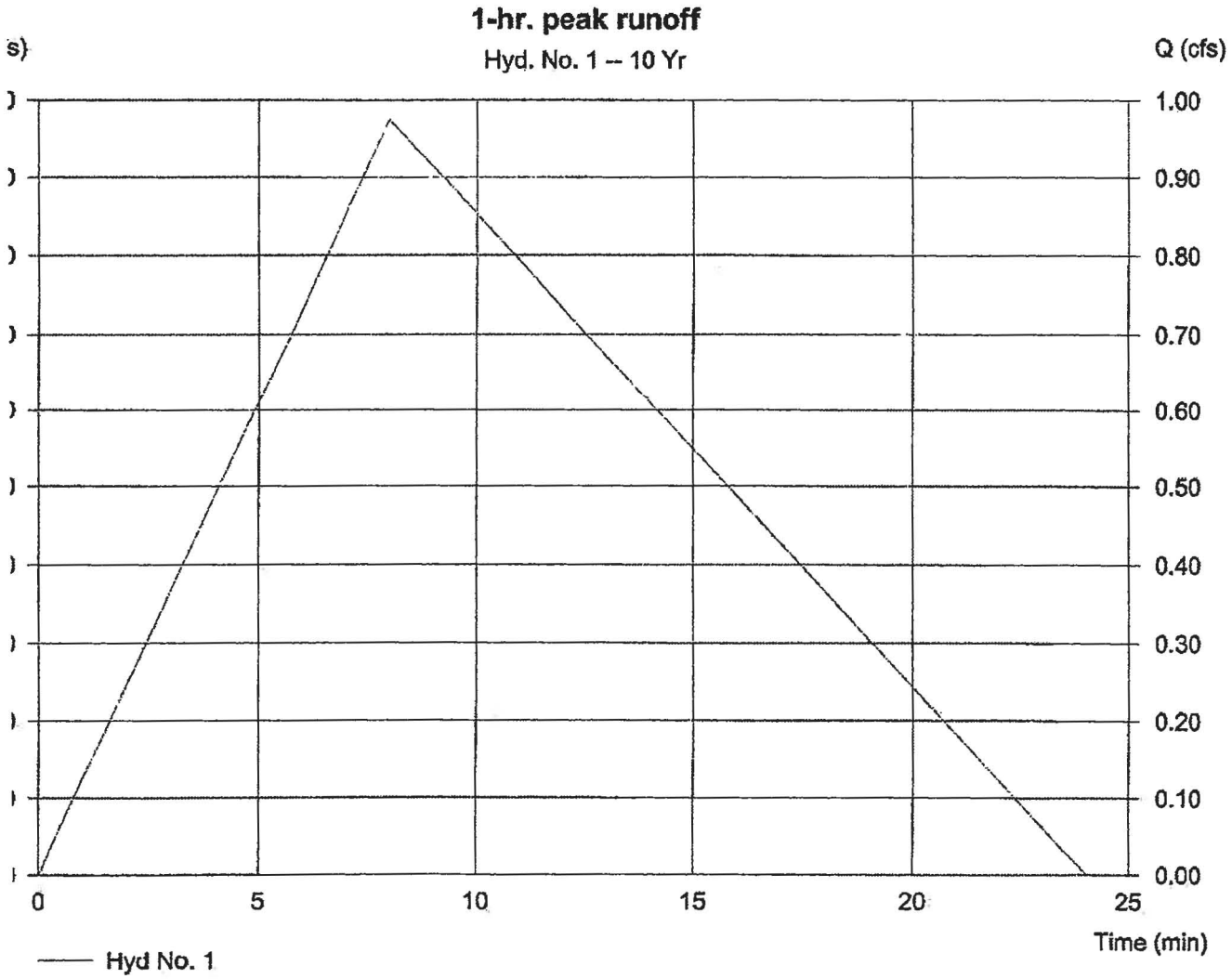
SECTION B

d. No. 1

: peak runoff

lrograph type	= Rational	Peak discharge	= 0.97 cfs
rm frequency	= 10 yrs	Time interval	= 1 min
inage area	= 0.240 ac	Runoff coeff.	= 0.74
nsity	= 5.489 in/hr	Tc by User	= 8.00 min
Curve	= Lucas 08-019.IDF	Asc/Rec limb fact	= 1/2

Hydrograph Volume = 702 cuft

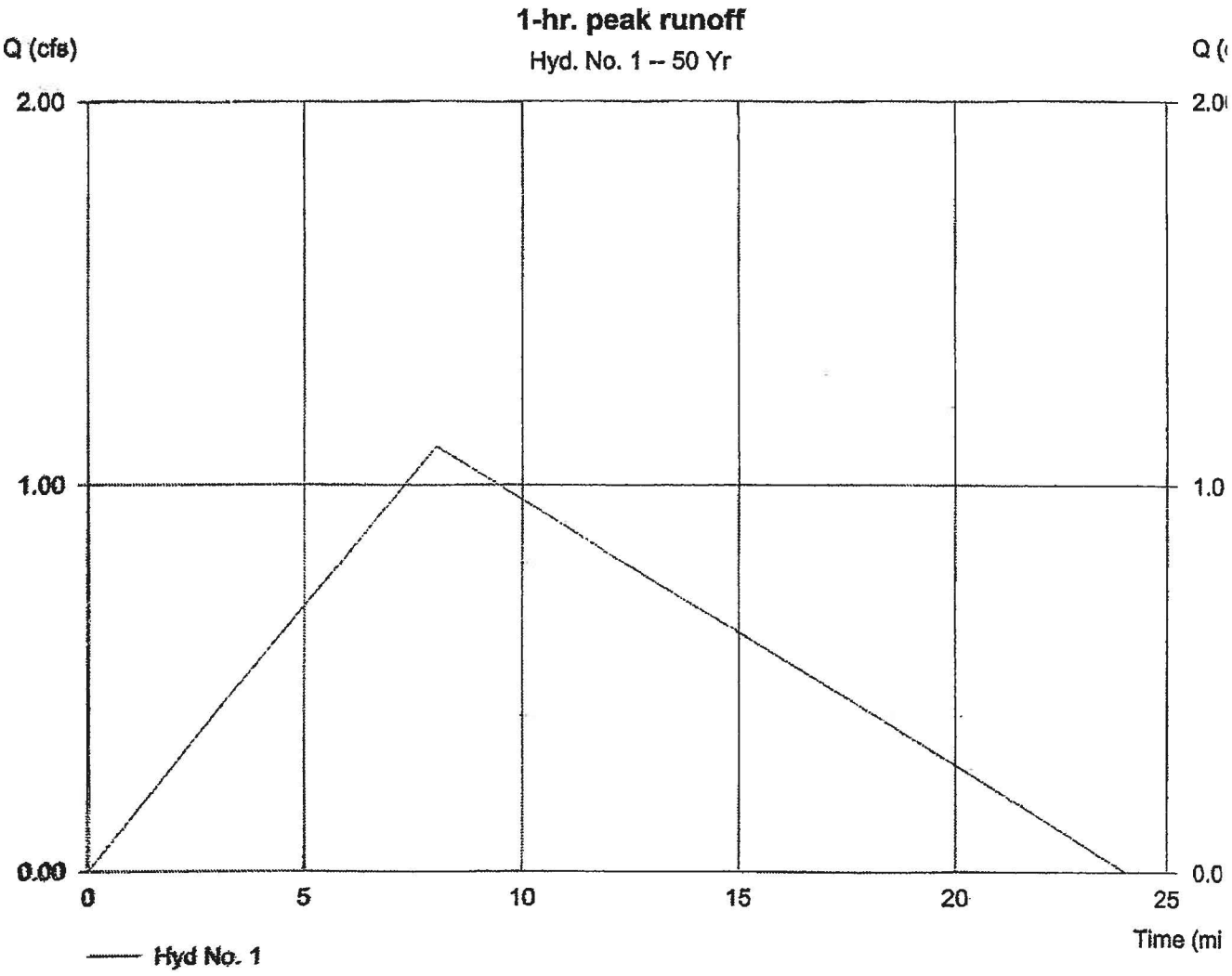


Hyd. No. 1

1-hr. peak runoff

Hydrograph type	= Rational	Peak discharge	= 1.10 cfs
Storm frequency	= 50 yrs	Time interval	= 1 min
Drainage area	= 0.240 ac	Runoff coeff.	= 0.74
Intensity	= 6.186 in/hr	Tc by User	= 8.00 min
IDF Curve	= Lucas 08-019.IDF	Asc/Rec limb fact	= 1/2

Hydrograph Volume = 791 cu



Period (Yrs)	B	D	E	(N/A)
1	0.0000	0.0000	0.0000	--------
2	0.0000	0.0000	0.0000	--------
3	0.0000	0.0000	0.0000	--------
5	0.0000	0.0000	0.0000	--------
10	32.7922	10.0000	0.6184	--------
25	0.0000	0.0000	0.0000	--------
50	40.7916	11.2000	0.6383	--------
100	0.0000	0.0000	0.0000	--------

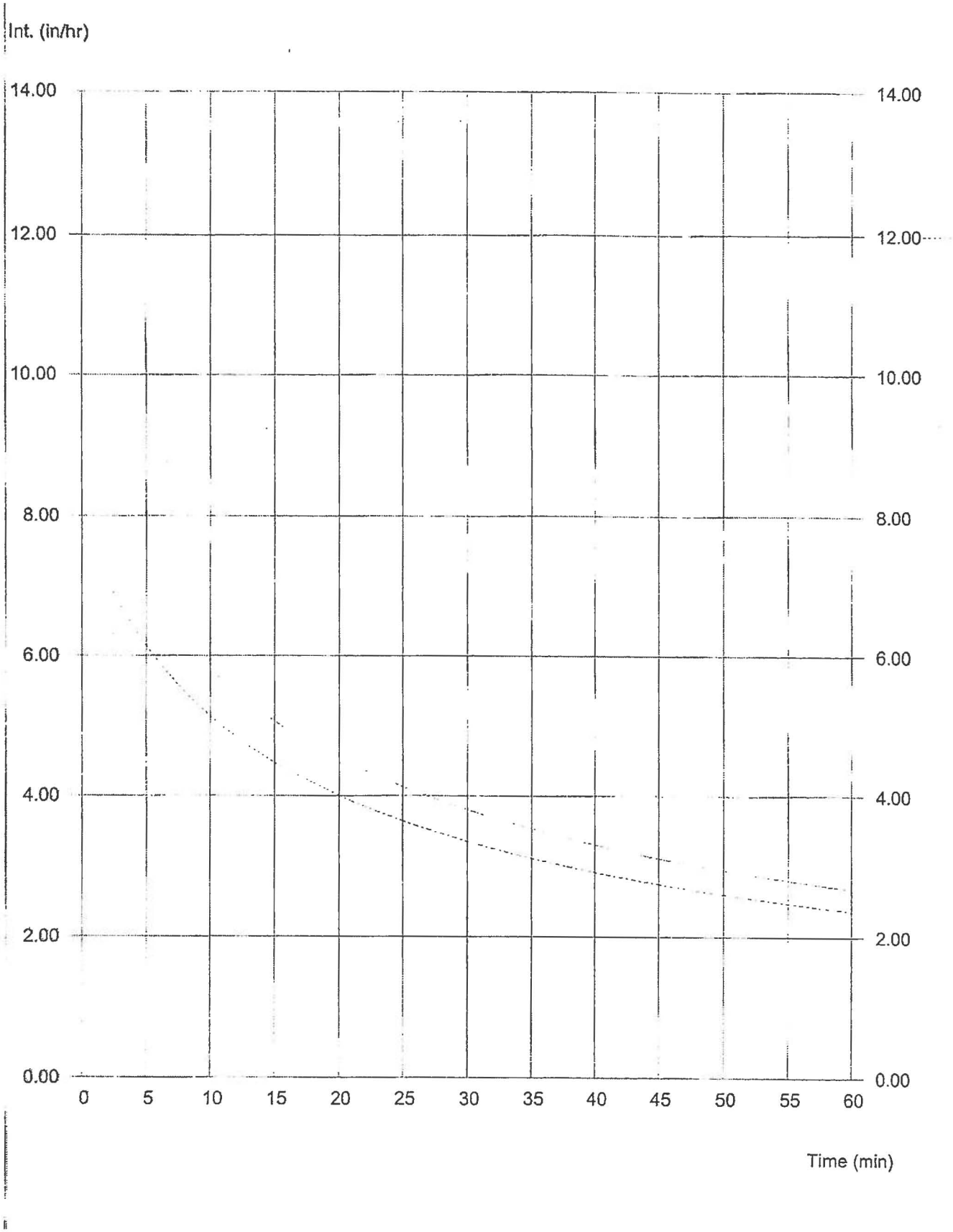
:\Lucas 08-019.IDF

ntensity = B / (Tc + D)^E

Return Period	Intensity Values (in/hr)											
(Yrs)	5 min	10	15	20	25	30	35	40	45	50	55	60
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	6.14	5.14	4.48	4.00	3.64	3.35	3.11	2.92	2.75	2.61	2.48	2.37
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	6.90	5.81	5.07	4.54	4.13	3.80	3.53	3.31	3.12	2.95	2.81	2.68
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

:=time in minutes

6.14 TAKEN FROM PLATE 2


Int. (in/hr)
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0
5
10
15
20
25
30
35
40
45
50
55
60
Time (min)

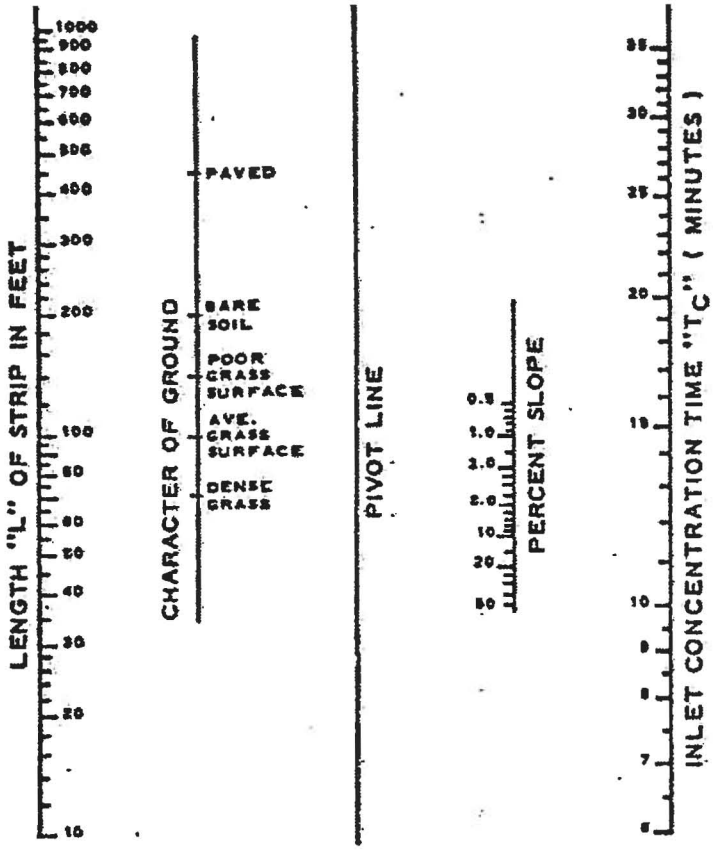
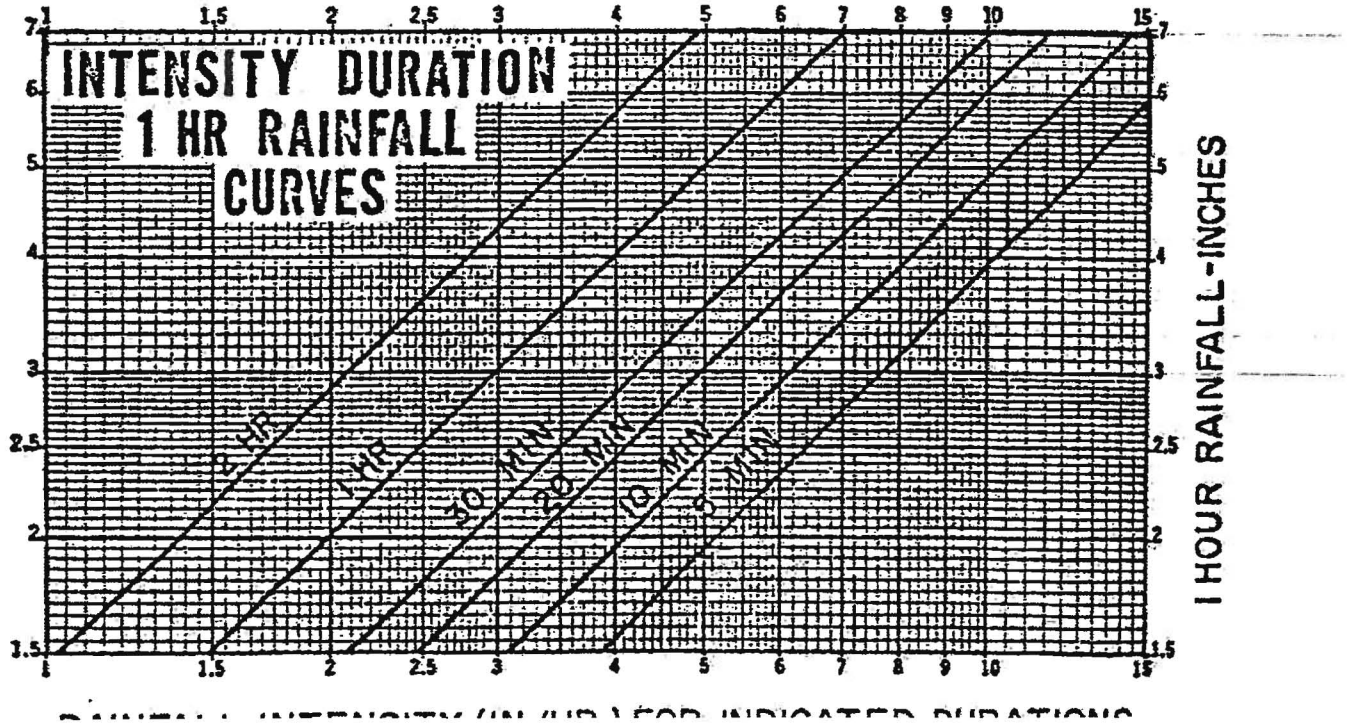


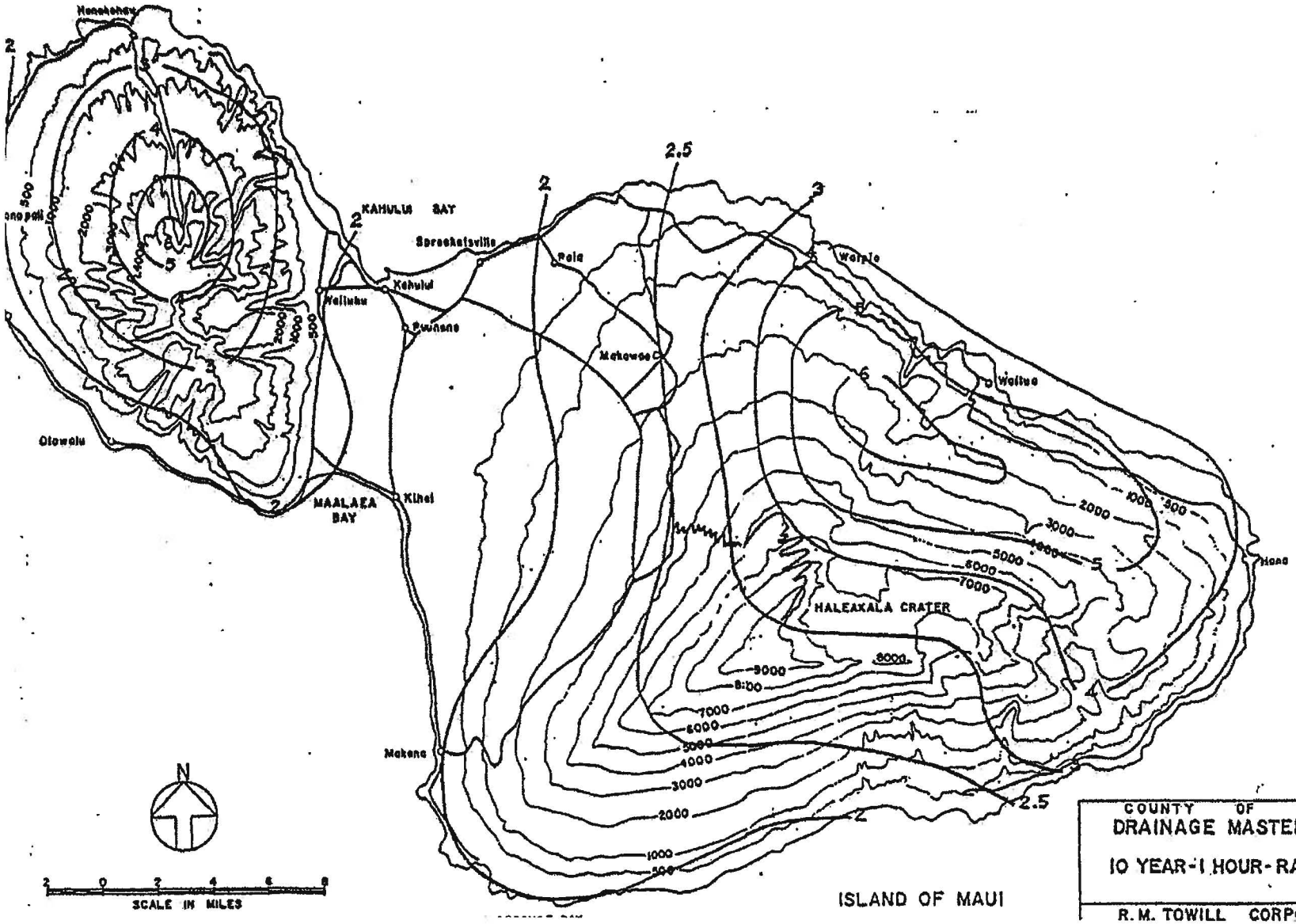
Plate 1

Overland Flow Chart

Plate 2



RAINFALL INTENSITY (IN /HR.) FOR INDICATED DURATIONS


KAHULUI BAY
Spreckelsville
Pala
Waiale
Kahului
Wailuku
Puunene
Makawao
Wailua
Olowalu
MAALAEA BAY
Kihei
HALEAKALA CRATER
Hana
Makena
N
2 0 2 4 6 8
SCALE IN MILES
ISLAND OF MAUI
COUNTY OF MAUI
DRAINAGE MASTER PLA
10 YEAR-1 HOUR-RAINFAL
R. M. TOWILL CORPORATI

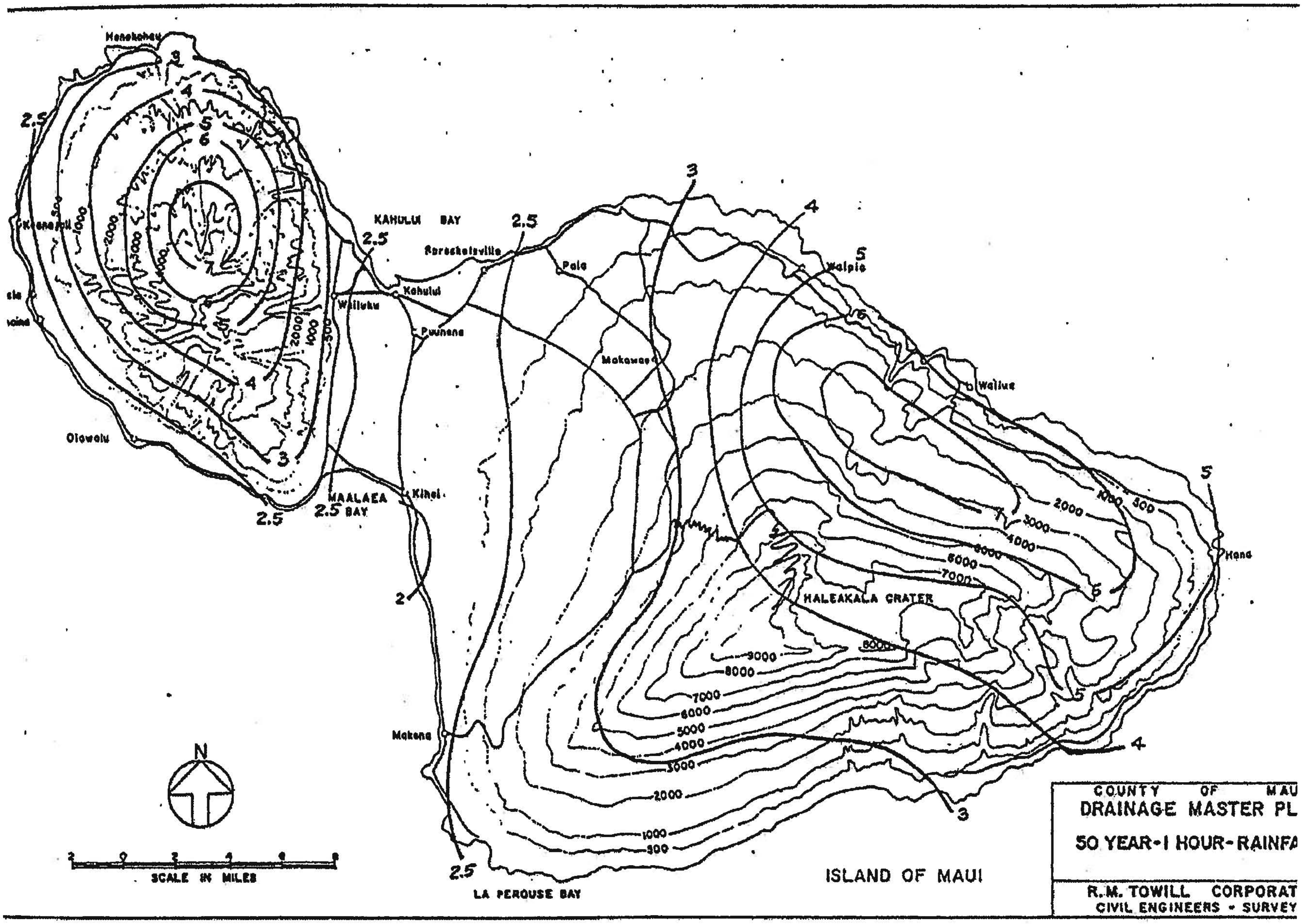
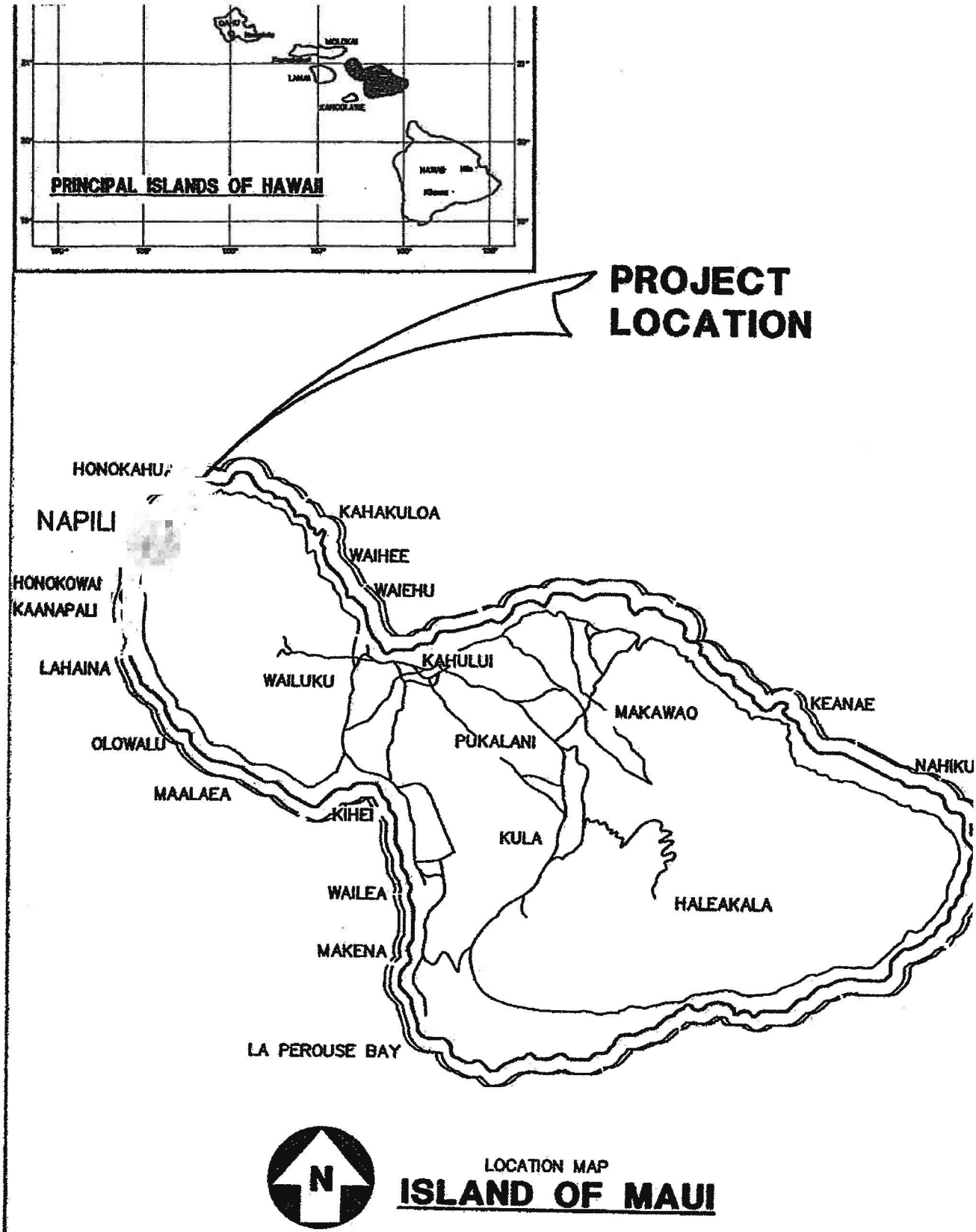
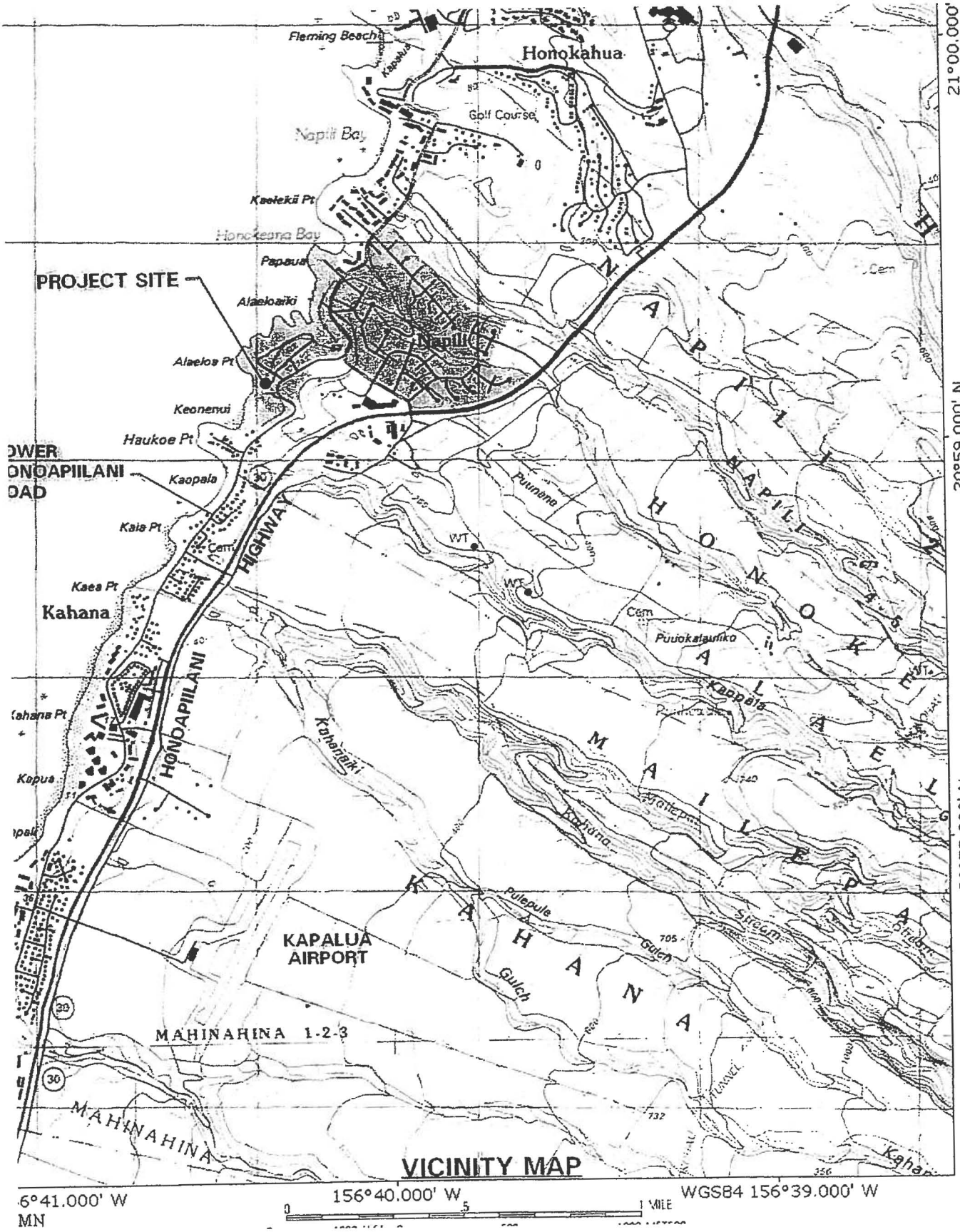
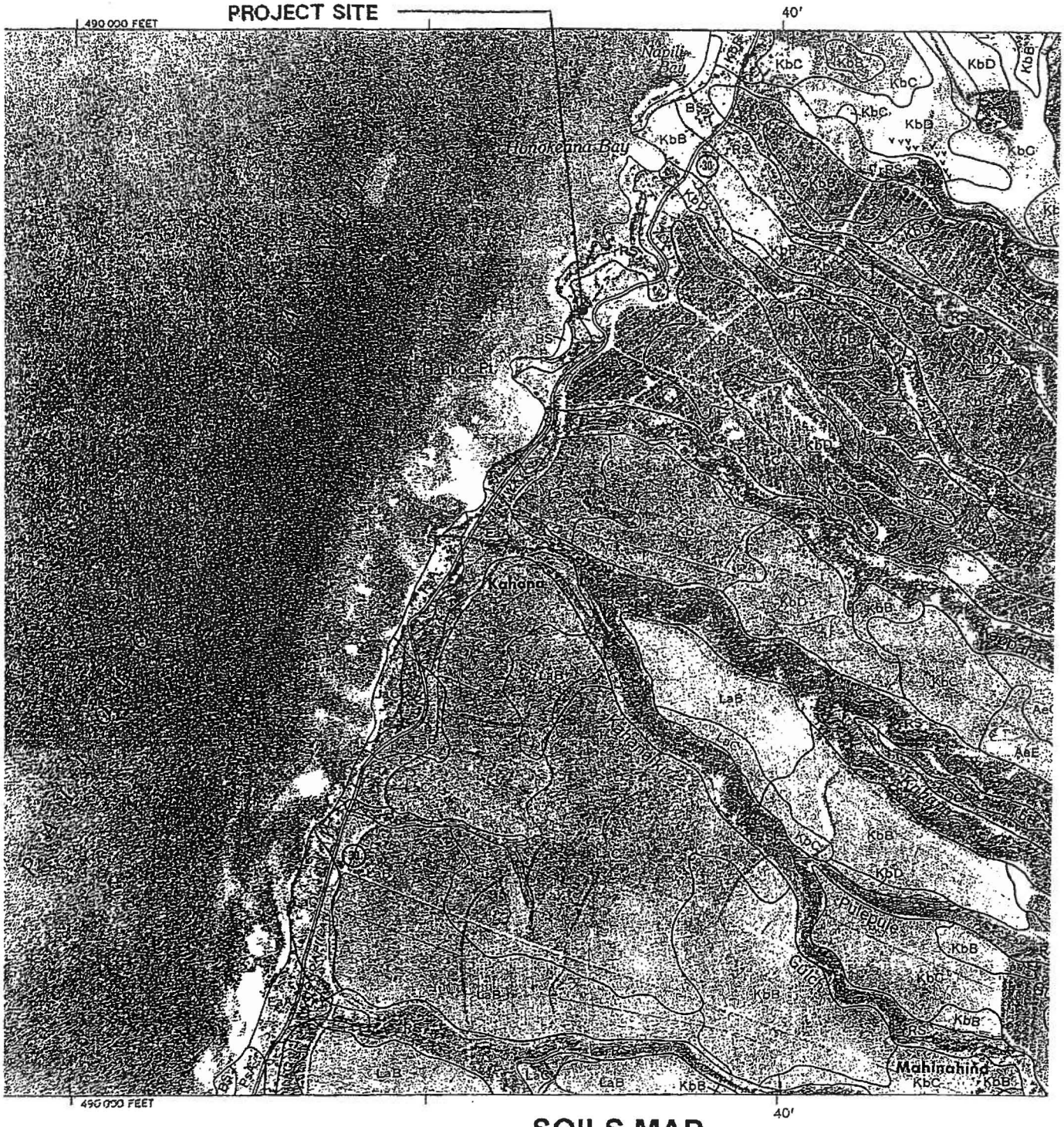

COUNTY OF MAU
DRAINAGE MASTER PL
50 YEAR-1 HOUR-RAINFA
R.M. TOWILL CORPORAT
CIVIL ENGINEERS - SURVEY
ISLAND OF MAUI
SCALE IN MILES
N
KAHULUI BAY
MAALAEA BAY
LA PEROUSE BAY
HALEAKALA CRATER
Honokohau
Olowalu
Wailuku
Kahului
Puunene
Kihei
Makena
Spreckelsville
Paia
Makawao
Waipio
Wailua
Hana

Plate 4

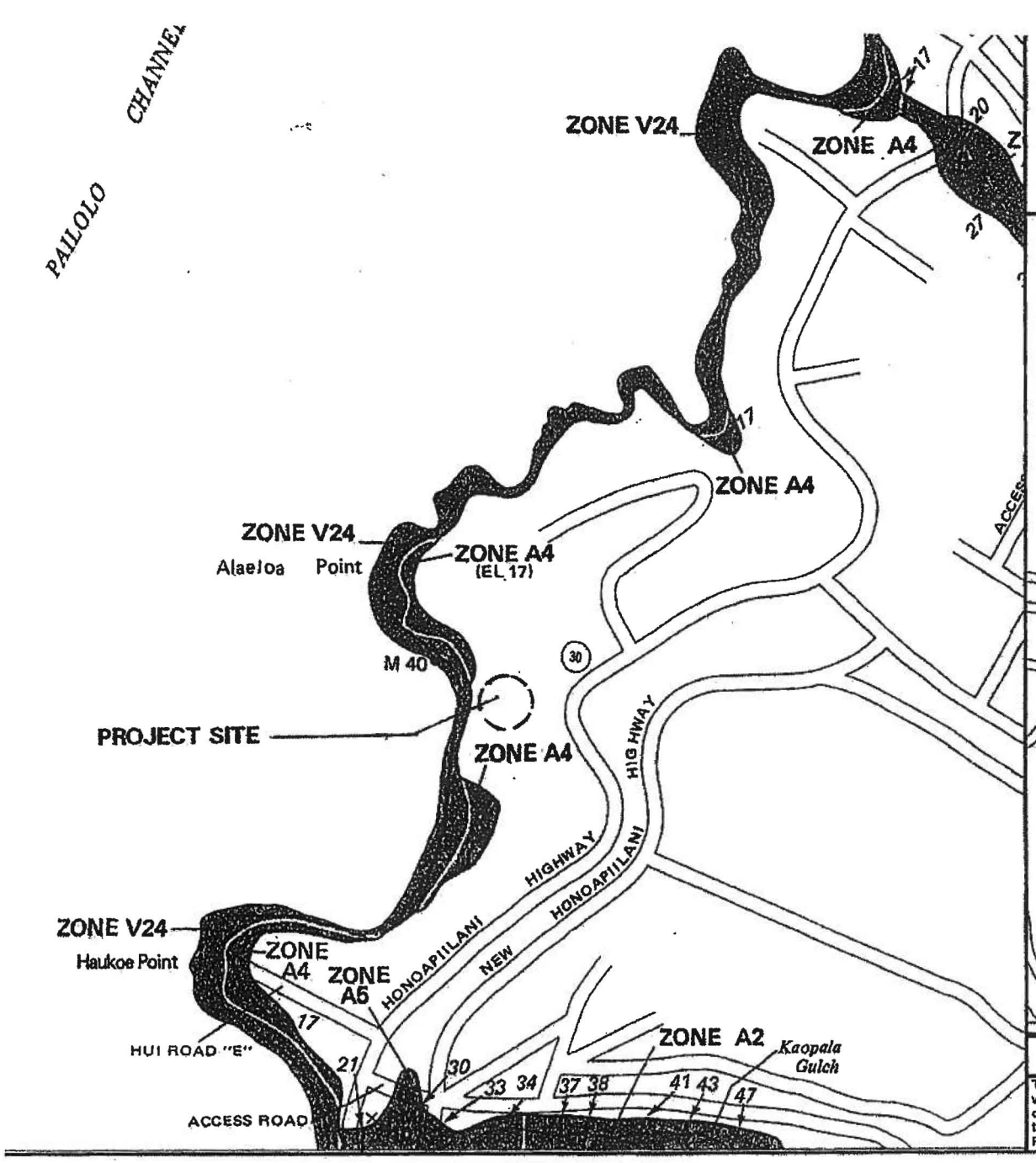

PRINCIPAL ISLANDS OF HAWAII
PROJECT LOCATION
HONOKAHUA
NAPILI
KAHAKULOA
WAIHEE
WAIEHU
HONOKOWAI
KAANAPALI
LAHAINA
WAILUKU
KAHULUI
KEANAE
MAKAWAO
OLOWALU
PUKALANI
NAHIKU
MAALAEA
KIHEI
KULA
WAILEA
HALEAKALA
MAKENA
LA PEROUSE BAY
N
LOCATION MAP
ISLAND OF MAUI

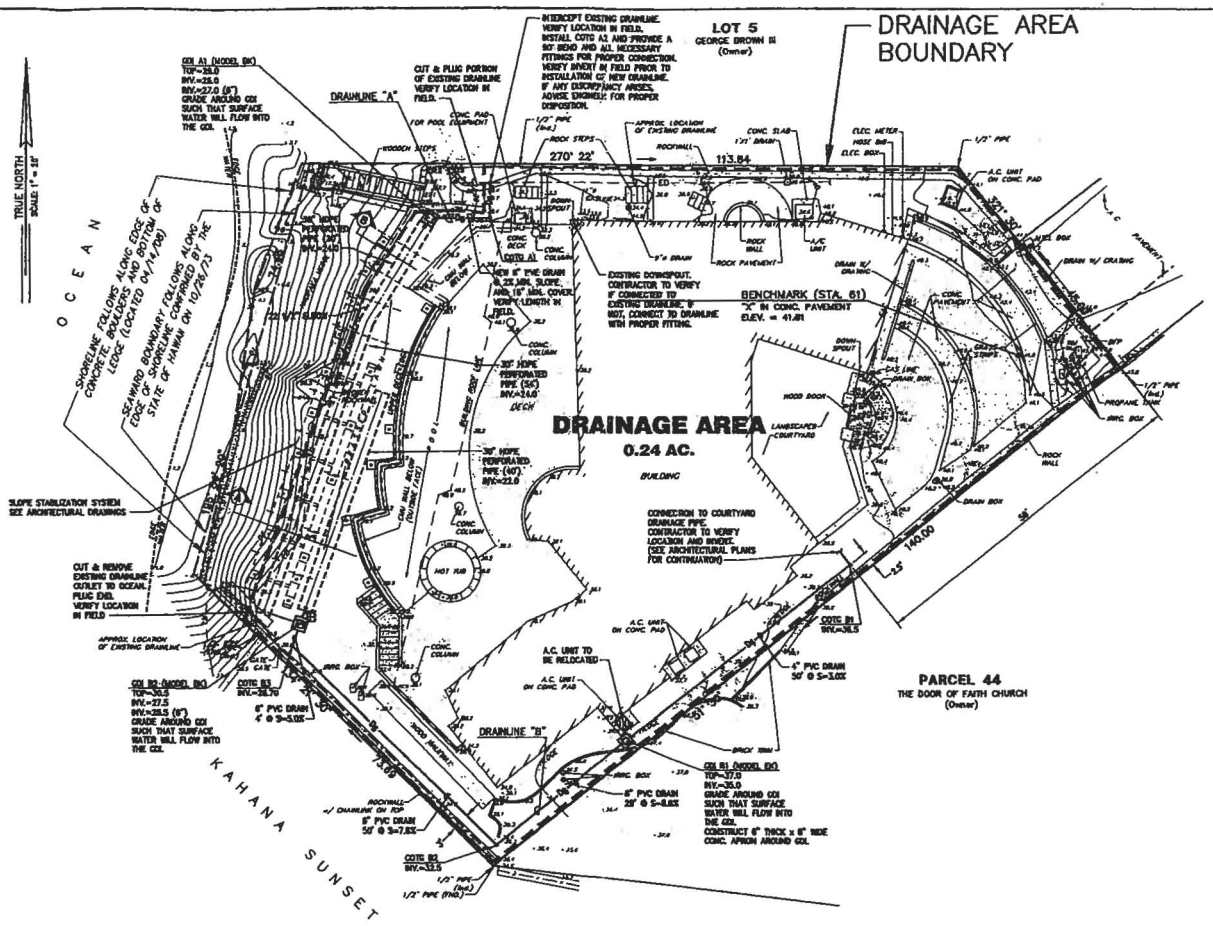

PROJECT SITE
Honokahua
Napili Bay
Kaeleka Pt
Honokeana Bay
Papaua
Alaeloaiki
Napili
Alaeloa Pt
Keonenui
Haukoe Pt
Kaopala
Kala Pt
Kaea Pt
Kahana
Kahana Pt
Kapua
HONOAPIILANI HIGHWAY
Kahaniaiki
Puunana
Puuokalaunuiko
Kapaia
Kahana
Pulepule
Gulch
KAPALUA AIRPORT
MAHINAHINA 1-2-3
MAHINAHINA
VICINITY MAP
21°00.000'
20°59.000' N
20°58.000' N
156°41.000' W
156°40.000' W
WGS84 156°39.000' W
0 5 1 MILE



SOILS MAP

Scale: 1 in. = 2,000 ft.


PAILOLO CHANNEL
ZONE V24
ZONE A4
17
20
27
ZONE A4
17
ZONE V24
Alaeloa Point
ZONE A4
(EL 17)
M 40
30
PROJECT SITE
ZONE A4
HIGHWAY
HONOAPIILANI
NEW HONOAPIILANI HIGHWAY
ZONE V24
Haukoe Point
ZONE A4
ZONE A5
HONOAPIILANI
17
HUI ROAD "E"
21
30
33 34
37 38
41 43
47
ZONE A2
Kaopala Gulch
ACCESS ROAD
APPROXIMATE SC
500
0
NATIONAL FLOOD INSURANCE PR
FIRM
FLOOD INSURANCE RATE
MAUI COUNTY, HAV
PANEL 138 OF 400
(SEE MAP INDEX FOR PANELS NOT PR
COMMUNITY-PANEL NU
150003 01
EFFECTIVE
JUNE 1,
federal emergency management
federal insurance administra
This is an official copy of a portion of the above referenced flood
was extracted using F-MIT On-Line. This map does not reflect c
or amendments which may have been made subsequent to the
title block. For the latest product information about National Flo
Program flood maps check the FEMA Flood Map Store at www.



HYDROLOGY MAP

SCALE: 1"=20'

10 5 0 10 20

GRAPHIC SCALE IN FEET

NOTES:

1. CGI's:
   PRE-CAST CONCRETE DROP INLET W/STANDARD FRAME AND GRATE AS MANUFACTURED BY SANTA ROSA CAST PRODUCTS CO.
   MODEL BK: 12"x12" INLET OPENING
   MODEL BKC 18"x18" INLET OPENING

2. CONNECTION OF HOUSE DOWNSPOUTS/HOUSE PERIMETER DRAIN
   CONTRACTOR TO CONNECT EXISTING (UNLESS REMOVED) AND NEW DOWNSPOUTS AND HOUSE PERIMETER DRAIN OUTLET (IF OCCURRING) TO NEW DRAINLINES. PROVIDE PROPER FITTINGS AND ADAPTERS AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF NEW DOWNSPOUTS AND HOUSE PERIMETER DRAIN OUTLETS. VERIFY LOCATION OF EXISTING DOWNSPOUTS AT JOBSITE.

Tanaka Engineering, Inc.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
871 KOLU STREET
SUITE 201
WAILUKU, MAUI, HAWAII
PHONE No.: 242-8881

CONSTRUCTION PLANS FOR
LUCAS RESIDENCE DRAINAGE IMPROVEMENTS
LOT 6, HALE MALIA SUBDIVISION
AT ALAE'LOA, MAUI, HAWAII

HYDROLOGY MAP

KIRK T. TANAKA
LICENSED PROFESSIONAL ENGINEER
No. 9990-C
STATE OF HAWAII
LICENSE EXPIRES 04-30-10

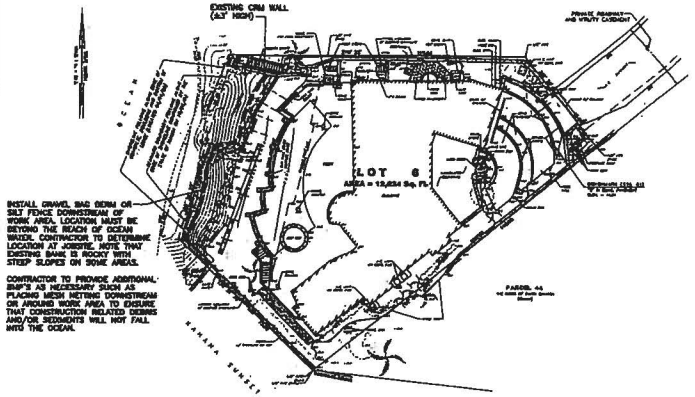
THESE PLANS WERE PREPARED BY ME OR UNDER MY SUPERVISION, AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY SUPERVISION.

DATE: _____

REVISIONS:

T.M.K.:(2)4-3-23: 98	
SCALE: AS NOTED	
DESIGNED BY: R.M.	
CHECKED BY: K.T.	
DRAWN BY: R.J.M./J.E./K.D.	
DATE: SEPT. 08, 2008	
JOB No.:08-019	

FIGURE 8

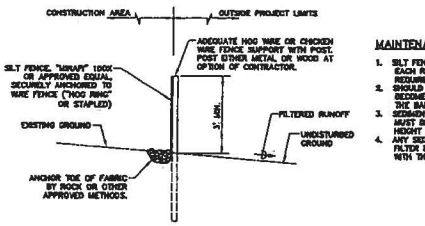


BMP PLAN

SCALE: 1"=20'

20 10 0 20 40

GRAPHIC SCALE IN FEET

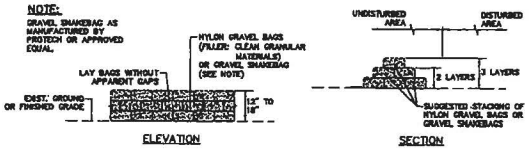


TYPICAL INSTALLATION - SILT FENCE

NOT TO SCALE

MAINTENANCE NOTES:

1. SILT FENCES OR FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. SHOULD THE FABRIC ON THE SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.



PLACEMENT OF TEMPORARY GRAVEL BAG BERM

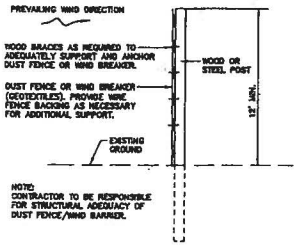
NOT TO SCALE

GRADING NOTES:

1. CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE DEVELOPMENT SERVICES ADMINISTRATION TWO (2) WEEKS PRIOR TO COMMENCEMENT OF ANY GRADING OR GRUBBING.
2. CONTRACTOR SHALL BE REQUIRED TO SUBMIT A SATISFACTORY GRADING WORK METHOD TO MINIMIZE DUST POLLUTION BEFORE A GRADING PERMIT IS ISSUED.
3. ALL GRADING OPERATIONS SHALL CONFORM WITH APPLICABLE PROVISIONS OF THE "WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS" CONTAINED IN THE STATE OF HAWAII PUBLIC HEALTH REGULATIONS, STATE DEPT. OF HEALTH ON WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS AND THE COUNTY GRADING ORDINANCE.
4. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE AT ALL TIMES, INCLUDING WEEKENDS AND HOLIDAYS. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATION OF THE STATE DEPARTMENT OF HEALTH AND GRADING ORDINANCE.
5. THE CONTRACTOR SHALL REMOVE ALL SILTS AND DEBRIS RESULTING FROM HIS WORK. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE DIRECTOR OF DPWEM (COUNTY OF MAUI) SHALL BE PAYABLE BY THE CONTRACTOR.
6. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPROPRIATE SITE. THE CONTRACTOR SHALL INFORM THE DIRECTOR OF DPWEM OF THE LOCATION OF THE DISPOSAL SITES. THE DISPOSAL SITE SHALL ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE.
7. APPROXIMATE:
   EXCAVATION = _____ C. Y.
   EMBANKMENT = _____ C. Y.
   AREA = _____ ACRES
   FOR GRADING PERMIT PURPOSES ONLY

UTILITY LINES, PIPES, SERVICES AND APPURTENANCES:

1. THE EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE ONLY APPROXIMATE AND WERE DETERMINED FROM AVAILABLE PLANS WITHIN THE PROJECT AREA. THEREFORE, THE LOCATION AND/OR DEPTH OF THESE UTILITIES ARE NOT GUARANTEED BY THE CONSULTANTS NOR BY THE OWNER. THE CONTRACTOR SHALL VERIFY THESE INFORMATION BY TOUCH, HANDDIGGING, ETC. PRIOR TO STARTING EXCAVATION WORK. IN ADDITION, THE CONTRACTOR SHALL CONTACT AND COORDINATE WORK INVOLVING OR AFFECTING THE EXISTING UTILITIES WITH THE PROPER AUTHORITIES, BOTH PUBLIC AND PRIVATE, TO MINIMIZE DAMAGES AND DISRUPTION TO SERVICE. THE CONTRACTOR SHALL SEE TO IT THAT HIS WORKMEN OR OPERATORS SHALL BE APPRAISED OF THE UTILITIES EXISTENCE AND LOCATION.
2. ANY UTILITIES, WHETHER SHOWN OR NOT ON THE CONTRACT PLANS, THAT THE CONTRACTOR ENCOUNTERS DURING THE PROGRESS OF THE WORK, SUCH AS TELEPHONE DUCTS, ELECTRIC DUCTS, WATER LINES, SEWER LINES, ELECTRIC LINES, GAS LINES AND DRAINAGE PIPES, SHALL NOT BE DISTURBED OR DAMAGED UNLESS OTHERWISE INSTRUCTED IN THE PLANS AND SPECIFICATIONS. IN THE EVENT THE UTILITIES ARE DAMAGED OR DISTURBED BY THE CONTRACTOR, THE CONTRACTOR SHALL BE HELD LIABLE FOR THE DAMAGED OR DISTURBED UTILITIES. THE CONTRACTOR SHALL REPAIR THE DAMAGED OR DISTURBED UTILITIES TO THE EXISTING CONDITIONS AT NO COST TO THE OWNER. ANY DAMAGE CLAIMS DUE TO THE DISRUPTION OF SERVICE CAUSED BY THE UTILITIES BEING DAMAGED SHALL BE PAID BY THE CONTRACTOR WHO SHALL SAVE HARMLESS THE OWNER AND CONSULTANTS FROM ALL SUITS, ACTIONS OR CLAIMS OF ANY CHARACTER BROUGHT ON ACCOUNT OF SUCH DAMAGES.
3. THE CONTRACTOR SHALL CONTACT THE VARIOUS UTILITY COMPANIES PRIOR TO START OF CONSTRUCTION TO COORDINATE THE WORK TO BE DONE BY THE UTILITY'S OWN FORCES IN ORDER THAT THESE WORKS MAY PROCEED IN A REASONABLE MANNER AND WILL NOT DELAY THE PROGRESS OF THE CONSTRUCTION. ALSO, TO OBTAIN FROM THEM ANY INFORMATION PERTAINING TO EXISTING UTILITIES THAT WILL EITHER SUPPLEMENT THE INFORMATION SHOWN ON THE PLANS OR WILL CORRECT ANY SUCH INFORMATION THAT MAY BE IN ERROR.
4. THE CONTRACTOR SHALL VERIFY THE LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL STRUCTURES, UTILITIES, ETC., PRIOR TO START OF ANY WORK. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ANY CHANGES SHALL BE MADE IN ACCORDANCE WITH HIS INSTRUCTIONS. STARTING WORK ON THE PARTICULAR ACTIVITY SHALL BE CONSTRUED TO MEAN THAT THE CONTRACTOR AGREES THAT THE EXISTING LOCATION ARE ESSENTIALLY CORRECT AS SHOWN.



MATERIALS AND CONSTRUCTION FOR WIND BREAKER AND DUST FENCE TO BE IN ACCORDANCE WITH NORMAL CONSTRUCTION PRACTICES.

TYPICAL INSTALLATION DUST FENCE/ WIND BREAKER

NOT TO SCALE

NOTE:
CONTRACTOR TO DETERMINE IN THE FIELD THE EXACT LOCATION OF DUST FENCE AND WIND BREAKER TO PROVIDE MAXIMUM PROTECTION.

SOIL EROSION AND DUST CONTROL NOTES:

A. PERMITTEE NOTES TO CONTROL DRAINAGE AND SOIL EROSION:

1. CONTROL DUST BY MEANS OF WATER TRUCKS OR BY INSTALLING TEMPORARY SPRINKLER SYSTEMS OR BOTH IF NECESSARY.
2. GRADED AREAS SHALL BE THOROUGHLY WATERED AFTER CONSTRUCTION ACTIVITY HAS CEASED FOR THE DAY AND FOR THE WEEKEND AND HOLIDAYS.
3. ALL EXPOSED AREAS SHALL BE PAVED, GRASSED, OR PERMANENTLY LANDSCAPED AS SOON AS FINISHED GRADING IS COMPLETED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN AND PAY FOR THE WATER NECESSARY FOR DUST CONTROL AND IRRIGATION PURPOSES.
5. CONTRACTOR TO CONSTRUCT TEMPORARY DIVERSION DITCHES OR SWALES AWAY FROM GRADED AREAS TO NATURAL GROUND OR DRAINAGEWAYS DURING CONSTRUCTION.
6. CONTRACTOR SHALL SUBMIT A SATISFACTORY SOIL EROSION CONTROL PLAN TO MINIMIZE SOIL EROSION PRIOR TO AN ISSUANCE OF A GRADING PERMIT. EROSION CONTROL MEASURES SHALL BE IN COMPLIANCE WITH SECTION 20.08.035 OF THE MAUI COUNTY CODE (ORD. NO. 2696). SEE ALSO GRADING NOTES NO. 2.
7. THE FOLLOWING ADDITIONAL MEASURES SHALL BE TAKEN TO CONTROL SOIL EROSION DURING THE SITE DEVELOPMENT PERIOD:
   a. MINIMIZE TIME OF CONSTRUCTION.
   b. RETAIN EXISTING GROUND COVER UNTIL LATEST DATE TO COMPLETE CONSTRUCTION.
   c. EARLY CONSTRUCTION OF DRAINAGE CONTROL FEATURES.
   d. USE TEMPORARY AREA SPRINKLERS IN NON-ACTIVE CONSTRUCTION AREAS WHEN GROUND COVER IS REMOVED.
   e. STATION WATER TRUCK(S) ON SITE DURING CONSTRUCTION PERIOD TO PROVIDE FOR IMMEDIATE SPRINKLING, AS NEEDED, IN ACTIVE CONSTRUCTION ZONES (WEEKENDS AND HOLIDAYS INCLUDED).
   f. ALL GRADED AREAS, UNLESS TO PAVED, SHALL BE PROVIDED WITH SOIL EROSION CONTROL MATTING AND BE SODDED OR PLANTED IMMEDIATELY AFTER GRADING WORK HAS BEEN COMPLETED.
   g. INSTALLATION OF SILT AND DUST CONTROL FENCE. SILT FENCE CAN BE AUGMENTED BY PROVIDING CRUSHED ROCK BERMS WRAPPED IN GEOTEXTILE FABRIC.
8. THE CONTRACTOR IS THE SOLE PARTY RESPONSIBLE FOR THE ADEQUACY OF ALL TEMPORARY CONTROL MEASURES TO PROTECT THE WORK FROM THE EFFECTS OF DUST AND EROSION. HE SHALL BE RESPONSIBLE FOR RESPONDING TO COMPLAINTS FROM NEIGHBORING PROPERTIES AND WILL PROVIDE ADDITIONAL MITIGATION MEASURES AS NECESSARY AT NO ADDITIONAL COST TO OWNER.
9. OIL OR PETROLEUM-BASED PRODUCTS SHALL NOT BE USED FOR DUST CONTROL.
10. STORM WATER CONTROL MEASURES SHALL BE IN PLACE AND FUNCTIONAL PRIOR TO CONSTRUCTION AND SHALL REMAIN OPERATIONAL THROUGHOUT THE CONSTRUCTION PERIOD OR UNTIL PERMANENT CONTROLS ARE IN PLACE.
11. DISCHARGES ASSOCIATED WITH THE OPERATION AND MAINTENANCE OF EQUIPMENT SHALL BE FIELD MONITORED BY THE CONTRACTOR. ANY MECHANICAL AND HYDRAULICS FLUID LEAKAGE SHALL BE REPAIRED AS SOON AS IT IS IDENTIFIED AND LOCATED. LEAKAGE OF MECHANICAL FLUIDS SHALL BE CONTAINED, PROPERLY DISPOSED AND NOT ALLOWED TO IMPACT THE OCEAN.
12. PRIOR TO ISSUANCE OF THE GRADING PERMIT, THE CONTRACTOR SHALL MEET WITH THE DEVELOPMENT SERVICES ADMINISTRATION AND PROVIDE INFORMATION ON THE SOURCE OF WATER FOR DUST CONTROL AND JUSTIFY THE NUMBER OF WATER TRUCKS TO BE USED FOR THE CLEARING, GRUBBING AND LOADING OPERATIONS.
13. IF THE CONTRACTOR IS NOT ABLE TO SATISFACTORILY CONTROL DUST EMISSIONS FROM THE PROJECT SITE, ALL CONSTRUCTION WORK SHALL CEASE EXCEPT FOR WATERING AND OTHER STABILIZATION EFFORTS.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATELY CLEANING THE ROADWAY OF MUD OR SILT TRACKED FROM THE PROJECT SITE.

B. RECOMMENDED GENERAL SCHEDULE FOR IMPLEMENTING BMP's:

1. CONSTRUCT TEMPORARY GRAVEL ACCESS ON EXISTING ACCESS EASEMENT 1.
2. ERECT SILT AND DUST FENCE.
3. CONSTRUCT DRAINAGE BASIN AND OTHER TEMPORARY SILTING PONDS WHERE FEASIBLE.
4. CONSTRUCT TEMPORARY DRAINAGE SWALES AND BERMS TO DIRECT STORM RUNOFF AWAY FROM GRADED AREAS TO NATURAL DRAINAGEWAYS OR GROUND OR TO DRAINAGE BASIN AND TEMPORARY SILTATION PONDS.
5. INSTALL DRAINAGE FACILITIES. PROVIDE SEDIMENT BARRIERS ON NEW CO's.
6. GRADE PROJECT AREA AS PLANNED.
7. GRASS GRADED AREAS UNLESS TO BE PAVED. PROVIDE BIODEGRADABLE SOIL EROSION CONTROL MATTING AS REQUIRED.

C. NOTES FOR BMP's:

THE CONTRACTOR SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE "CONSTRUCTION BEST MANAGEMENT PRACTICES (BMP's) FOR THE COUNTY TO MAUI" MAY 2001 (STD. BMP's) TO EXTENT POSSIBLE DURING THE DEVELOPMENT OF THIS PROJECT. CONTROL OF EROSION, SEDIMENT AND CONSTRUCTION WASTE MANAGEMENT WILL BE IN ACCORDANCE WITH, BUT NOT LIMITED TO, THE FOLLOWING SECTIONS OF THE STANDARD BMP's.

SECTION 6.10 SEEDING
SECTION 6.30 MATS, NETS AND BLANKETS
SECTION 6.31 MULCHING
SECTION 6.32 PRESERVATION OF EXISTING VEGETATION
SECTION 6.33 PROTECTION OF STOCKPILES
SECTION 6.62 SEDIMENT FENCE (SILT FENCE)
SECTION 6.70 DUST CONTROL
SECTION 6.71 GOOD NEIGHBOR BARRIERS
SECTION 6.81 SOLID WASTE MANAGEMENT
SECTION 6.82 CONCRETE WASTE MANAGEMENT
SECTION 6.83 VEHICLE FUEL AND MAINTENANCE MANAGEMENT

NOTE REGARDING DISCOVERIES OF ARCHAEOLOGICAL INTEREST:

SHOULD HISTORIC SITES SUCH AS WALLS, PLATFORMS, PAVEMENTS AND MOUNDS, OR FEATURES SUCH AS ARTIFACTS, BURIALS, CONCENTRATION OF CHARCOAL OR SHELLS ARE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, WORK SHALL CEASE IN THE IMMEDIATE VICINITY OF THE FIND AND THE FIND SHALL BE PROTECTED FROM FURTHER DAMAGE. THE CONTRACTOR AND/OR LANDOWNER SHALL IMMEDIATELY CONTACT THE STATE HISTORIC PRESERVATION DIVISION (243-5168, MAUI OR 692-8023, OAHU), WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND AN APPROPRIATE MITIGATION MEASURE, IF NECESSARY.

Tanaka Engineers
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
871 KOLU STREET SUITE 201
WAILUKU, MAUI, HAWAII
PHONE No.: 242-6861

CONSTRUCTION PLANS FOR
LUCAS RESIDENCE DRAINAGE IMPROVEMENTS
LOT 6, HALE MALIA SUBDIVISION
AT ALAELOA, MAUI, HAWAII

CONSTRUCTION NOTES & BMP PLAN

KIRK T. TANAKA
LICENSED PROFESSIONAL ENGINEER
No. 9446-C
WAILUKU, HAWAII
LICENSE EXPIRES: 04-30-10

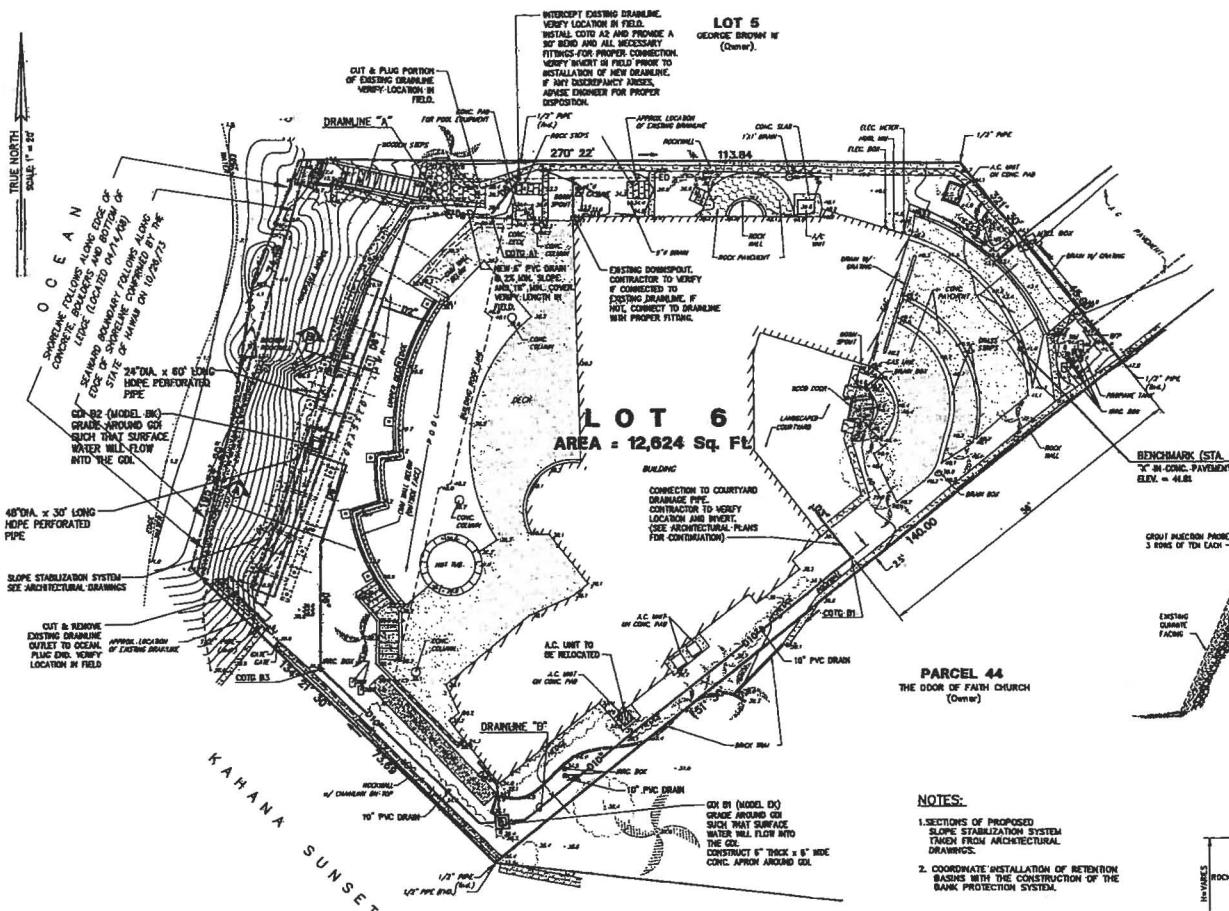
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND ACCEPTANCE OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

DATE: _____

REVISIONS:

T.M.K.:(2)4-3-03: 98
SCALE: AS NOTED
DESIGNED BY: R.H.
CHECKED BY: K.T.
DRAWN BY: R.M./J.E./N.D.
DATE: SEPT. 08, 2008
JOB No.:08-019

FIGURE 7

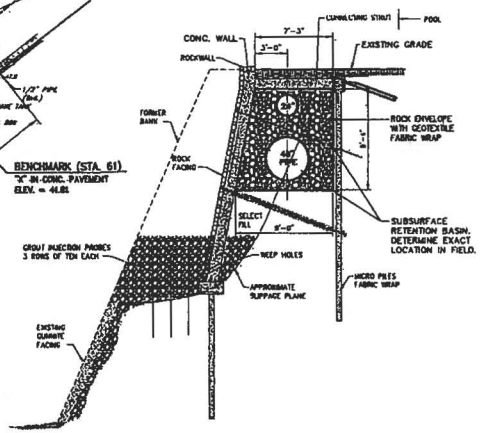


DRAINAGE PLAN
SCALE: 1"=20'

GRAPHIC SCALE IN FEET (20 10 0 20 40)

NOTES:

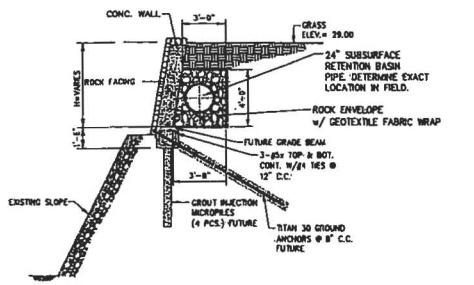
1. WORK:
   PRE-CAST CONCRETE DROP INLET W/STANDARD FRAME AND GRATE AS MANUFACTURED BY SANTA ROSA CAST PRODUCTS CO.
   MODEL BK: 12"x12" INLET OPENING
   MODEL BK: 16"x16" INLET OPENING
2. CONNECTION OF HOUSE DOWNSPOUTS/HOUSE PERIMETER DRAIN
   CONTRACTOR TO CONNECT EXISTING (UNLESS REMOVED) AND NEW DOWNSPOUTS AND HOUSE PERIMETER DRAIN OUTLET (IF OCCURRING) TO NEW DRAINLINES. PROVIDE PROPER FITTINGS AND ADAPTERS AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF NEW DOWNSPOUTS AND HOUSE PERIMETER DRAIN OUTLETS. VERIFY LOCATION OF EXISTING DOWNSPOUTS AT JOBSITE.



SECTION A
SCALE: 3/32"=1'-0"

NOTES:

1. SECTIONS OF PROPOSED SLOPE STABILIZATION SYSTEM TAKEN FROM ARCHITECTURAL DRAWINGS.
2. COORDINATE INSTALLATION OF RETENTION BASINS WITH THE CONSTRUCTION OF THE BANK PROTECTION SYSTEM.



SECTION B
SCALE: 1/8"=1'-0"

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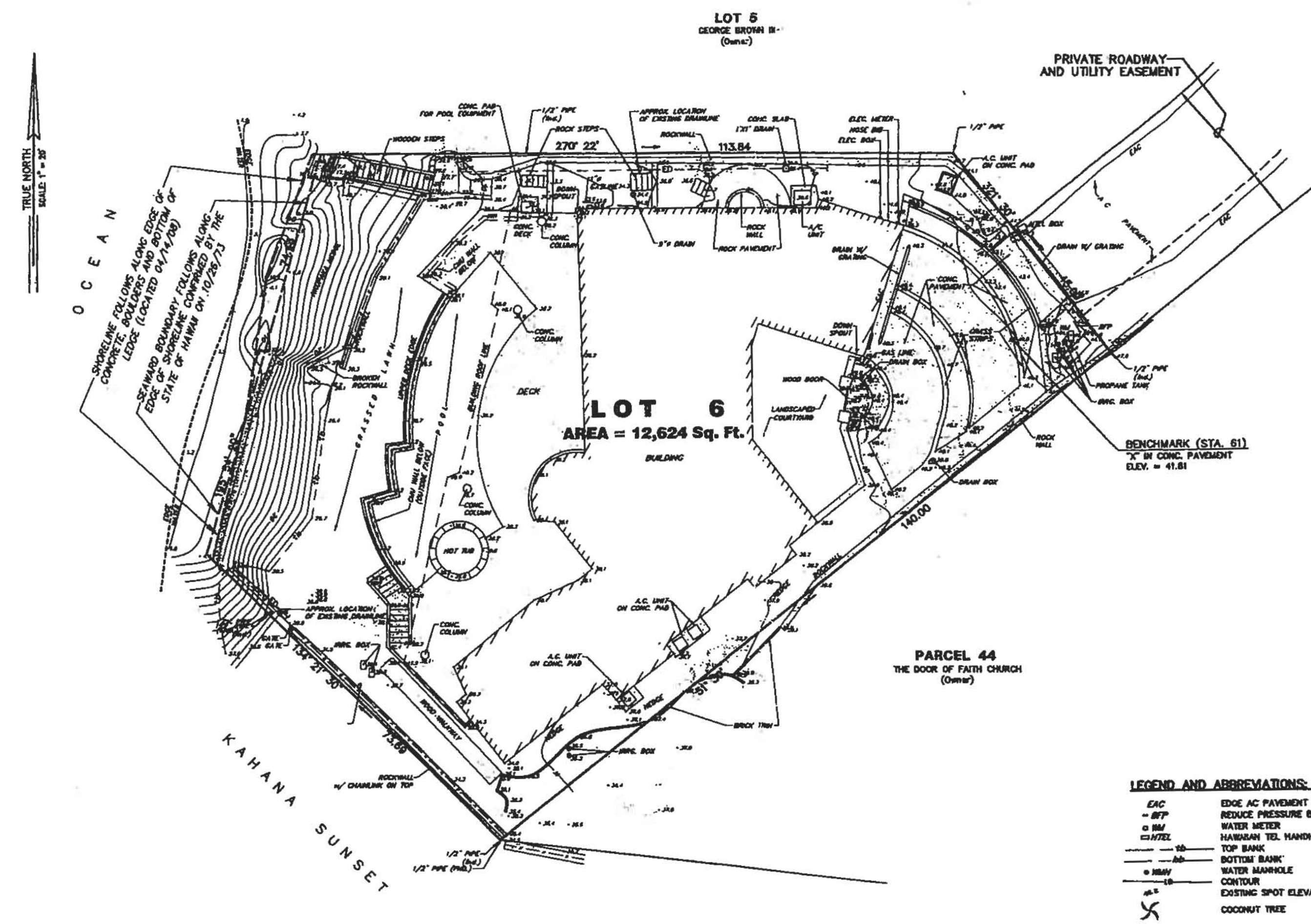
CONSTRUCTION PLANS FOR
LUCAS RESIDENCE DRAINAGE IMPROVEMENTS
LOT 6, HALE MALIA SUBDIVISION
AT ALAELOA, MAUI, HAWAII
DRAINAGE PLAN

RICK T. TANAKA
LICENSED PROFESSIONAL ENGINEER
No. 9848-C
HAWAII, U.S.A.

REVISIONS:
08-18-08 REVISE DRAINA
PLAN & SECTI

T.M.K.:(2)4-3-03: 9
SCALE: AS NOTED
DESIGNED BY: R.H.
CHECKED BY: K.T.
DRAWN BY: J.E.
DATE: SEPT. 18, 2008
JOB No.:08-019

FIGURE 6



EXISTING TOPOGRAPHY

SCALE: 1"=20'

GRAPHIC SCALE IN FEET

LEGEND AND ABBREVIATIONS:

EAC	EDGE AC PAVEMENT
BFP	REDUCE PRESSURE BACKFLOW PREVENTER
WM	WATER METER
HTEL	HAWAIIAN TEL HANDHOLE
tb	TOP BANK
bb	BOTTOM BANK
WMH	WATER MANHOLE
10	CONTOUR
	EXISTING SPOT ELEVATION
	COCONUT TREE

NOTES FOR TOPOGRAPHIC FEATURES:

1. ELEVATION DATUM = MEAN SEA LEVEL.
2. ALL VISIBLE UTILITY STRUCTURES HAVE BEEN LOCATED IN THE FIELD. HOWEVER, CONNECTION OF UNDERGROUND UTILITY LINES AS SHOWN ARE UNVERIFIED AND COMPILED FROM EXISTING DATA. UNDERGROUND UTILITIES SHOWN HEREON ARE FOR INFORMATION ONLY, HAVING BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES, BUT FROM OTHERS NOT CONNECTED WITH THIS COMPANY. THEREFORE, NO GUARANTEE IS MADE ON THE ACCURACY OR COMPLETENESS OF SAID INFORMATION.

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CONSTRUCTION PLANS FOR
LUCAS RESIDENCE DRAINAGE IMPROVEMENTS
LOT 6, HALE MALIA SUBDIVISION
AT ALAELOA, MAUI, HAWAII

EXISTING TOPOGRAPHY

KIRK T. TANAKA

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

DATE:

REVISIONS:

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CHECKED BY: K.T.
DRAWN BY: R.J.M./J.E./N.D.
DATE: SEPT. 08, 2008
JOB No.: 06-018

FIGURE 5