

LINDA CROCKETT LINGLE
Mayor



SEP 23 1994
BRIAN W. MISKAE
Director

GWEN Y. OHASHI
Deputy Director

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

September 6, 1994

Mr. Bruce Anderson, Interim Director
Office of Environmental Quality Control
220 South King Street, Fourth Floor
Honolulu, Hawaii 96813

Dear Mr. Anderson:

Re: Negative Declaration for a rock revetment at the Kahana
Outrigger Condominium, TMK: 4-3-5:20, 21, & 31, Lahaina,
Maui.

The County of Maui has reviewed the comments received during the 30-day public comment period which began on June 8, 1993. The agency has determined that this project will not have significant environmental effect and has issued a negative declaration. Please publish this notice in the September 23, 1994 OEQC Bulletin.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the final EA.

Should you have any questions, please contact Mr. Daren Suzuki at 243-7735.

Very truly yours,

A handwritten signature in cursive script, appearing to read "B. Miskae".

BRIAN MISKAE,
Planning Director

xc: Jim Tilley
Daren Suzuki
project file



1994-09-23-MA-~~FEA~~ Kahana Outrigger Condominiums
Rock Wall Revetment

BEFORE THE MAUI PLANNING COMMISSION
COUNTY OF MAUI
STATE OF HAWAII

In the Matter of the Application of)
)
MR. DANIEL DRIESSCHE on behalf of)
the Kahana Outrigger Condominium)
Association)
)
to Obtain an Environmental Assessment)
(EA) Determination for a rock revetment)
at the Kahana Outrigger Condominium,)
TMK: 4-3-5:20, 21 & 31, Lahaina, Maui.)

Docket #93/EA-008
Mr. Daniel Driessche

MAUI PLANNING DEPARTMENT'S REPORT
for the
Maui Planning Commission Meeting on
July 12, 1994

EA determination

Planning Department
County of Maui
250 S. High Street
Wailuku, HI 96793

BEFORE THE MAUI PLANNING COMMISSION
COUNTY OF MAUI
STATE OF HAWAII

In the Matter of the Application of)
MR. DANIEL DRIESSCHE on behalf of)
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MAUI PLANNING DEPARTMENT'S REPORT

APPROVING AGENCY

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

Attn: Daren Suzuki (808) 243-7735

THE APPLICANT

Kahana Outrigger AOAO
4521 L. Honoapiilani Road
Lahaina, HI 96761

Attn: Daniel Driessche (808) 242-5616

CONSULTANT

SKR - Robinson, Inc.
#115, 2550 Boundary Road
Burnaby, B.C. V5M 3Z3

Attn: Keith Robinson (604) 451-3397

THE APPLICATION

1. This matter arises from an application for an Environmental Assessment (EA) Determination filed on June 15, 1993. The application was filed pursuant to Chapter 343, Hawaii Revised Statutes; and Chapter 200, Environmental Impact Statement Rules of the Department of Health, State of Hawaii; by Daniel Driessche, on behalf of the Kahana Outrigger Condominium Association ("Applicant"), on approximately 55,512 sq. ft. of land, in the Lahaina District, situate at Kahana, Island of and County of Maui, identified as Maui Tax Map Key No.: 4-3-05:20, 21 & 31 ("Property").

2. The Applicant is requesting an EA Determination for a rock revetment which has been constructed in the shoreline setback area along the makai frontage of the Kahana Outrigger Condominium. The Applicant has also requested for a Shoreline Setback Variance and a Special Management Area Use Permit. These matters will be scheduled before the Maui Planning Commission after a determination is made on this subject application.

APPLICABLE REGULATIONS

3. Chapter 343, Hawaii Revised Statutes, establishes certain classes of action which subjects an applicant to an E.I.S. requirement, provided that approval of an agency will be required and that the agency finds that the proposed action may have significant environmental effects. The applicable geographical category is, "... (3) Any use within the shoreline area as defined in Section 205A-41 HRS..."

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

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

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

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

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

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

(5) Substantially affects public health;

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

(7) Involves a substantial degradation of environmental quality;

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

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

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

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

DESCRIPTION OF THE PROPERTY

6. The Property is located at the Kahana Outrigger Condominium, 4521 L. Honoapiilani Road, Kahana, Lahaina, Maui. The Property is currently developed with resort-type condominium units (exhibits 1 & 2).

7. The Land Use Designations for the Property are as follows:

- a. State Land Use District -- Urban
- b. Lahaina Community Plan -- Multi-Family
- c. Zoning -- A-1 Apartment District
- d. Other -- Special Management Area and Shoreline Setback area.

8. The Surrounding Land Uses are as follows:

- a. North -- County Beach access and Kahana Village Condominium
- b. East -- Lower Honoapiilani Road, single family use
- c. South -- Sadang Property; Single family residential
- d. West -- Ocean

9. Offshore from the site is a fringing reef. The terrain landward of this reef has been built up by successive layers of beach sand, dune sand, and recent alluvium. The surface of the backshore is relatively flat with a gentle seaward gradient from about elevation 10 feet MSL in the middle of the property, to an average elevation along the beach scarp of about 7 feet MSL.

10. The frontage of the property along the shoreline is about 200 feet in length. The northern half of the Property was protected by an old vertical seawall that was dilapidating and periodically repaired over the years. The southern half of the Property is sand beach. The beach sand slopes at about 5:1 (horizontal: vertical) initially down to 8:1 at high tide level. Below high tide level, the inshore surface slopes at between 10 to 30:1 and flatter for a distance of about 450 feet to the fringing reef. Intermittent ridges of cemented sand are visible between the shoreline and the reef.

BACKGROUND INFORMATION

11. On July 27, 1993, a little over a month from when this application was filed, there was significant shoreline erosion to the Property as a result of off-site runoff and high wave action. As such, on July 30, 1993, a Special Management Area Emergency Permit was granted to place temporary boulders along the shoreline of the Kahana Outrigger Condominium.

12. Shortly thereafter, a permanent revetment was constructed in accordance with the engineer's report K 203101/1, May 1993, submitted with the Special Management Area and Shoreline Setback Variance applications. The old seawall was removed at this time.

13. Upon observing this revetment over a period of several months, the Planning Department had concerns over the placement of the northern half of the structure. Since this section of the revetment was located approximately 30 feet makai of the southern section, and along the same line as the old seawall, there may be potential impacts on impeding lateral access, and flank erosion on adjacent properties (see letter dated November 4, 1993 attached as exhibit 3).

14. The Applicant's consulting engineer Keith Robinson, stated that in the past four months, the performance of the revetment has been good in terms of erosion protection against wave action and enhancement of beach developments. A considerable amount of sand has built up in front of the Property as well as in the neighboring properties to the north and south of Kahana Outrigger. The as-built alignment and grades of the rock revetment will offer long term harmony to the properties in the immediate area and be an improvement over the previous seawall that fronted the north half of the Property.

15. In order to address the Planning Department's concerns on lateral shoreline access, the Applicant has removed much of the small loose stones that were located makai of the revetment. By removing these stones, lateral access was not impeded as much, and provided for safer walking conditions.

16. Further, the Applicant has realized that during periods of high tides or high surf, lateral access may be restricted in this area. Therefore, the owners have agreed to provide a public access/walkway on the mauka side of the northern section of the revetment.

AGENCY REVIEWS

17. Department of Agriculture, Soil Conservation Service -- no comments (exhibit 4)

18. Department of Accounting and General Services, Survey Division -- no objections (exhibit 5)

19. Department of Land and Natural Resources, Division of Aquatic Resources (DAR) -- (exhibit 6)

a) DAR indicates that after the revetment was constructed and the seawall removed, sand appears to have accumulated along the shoreline.

b) Passage along the shore could be hazardous during high tides due to submerged rocks that are not visible to recreational shoreline users.

c) The temporary revetment along with the neighboring shorelines should be monitored for accretion and erosion. The gradual slope of the sandy beach provides safer access to the shoreline for public use than the rocks and boulders from this revetment. The use of dirt fill likely adds to the already silty turbid water. Sand should be used for fill material near the shoreline. Rocks and boulders fronting this property should be removed so a continuous sandy beach can be re-established, similar to neighboring shoreline beach areas.

d) A comparison of DAR's photographs from 1991 shows significant change in this area in the past 3 1/2 years. This beach is not stable and special effort should be made to make the shoreline compatible with surrounding areas. The safety of the public who will want access to the sandy beach and walk along the shoreline, should be addressed.

e) DAR also comments that the description of the rock revetment providing habitat for intertidal and supratidal species seems to indicate that the elevated shoreline will be allowed to remain and its function will be more like a sloped seawall. It appears that the existing specifications would be higher in elevation and be even less compatible with the adjoining shoreline areas. A height limit much less than the five feet for the revetment is recommended.

f) DAR opposes excavating seaward of the certified shoreline for the placement of this revetment. The revetment (including the toe) fronting the applicants' property, when completed, must be mauka of the property's certified shoreline.

20. Department of Land and Natural Resources, Division of Land Management (DLM) --

a) All work on this proposed project shall be performed mauka of the certified shoreline.

b) At no time during construction shall any equipment and/or materials be placed makai of the certified shoreline.

c) No contaminants, pollutants, petroleum products, construction materials, etc. shall be allowed to be mixed in the sand and water makai of the certified shoreline.

d) An inspection of the subject site on August 30, 1993, revealed that the emergency work performed in August 1993 appeared to be encroaching beyond the certified shoreline on the north boundary of the property. The dirt fill is blended into the sandy beach area and appears to be a major contributor to the dirty ocean water that has existed in the Kahana area for approximately two (2) weeks. If the revetment construction is approved, it is recommended that the cap wall be extended along the vertical property boundary lines that are adjacent to the beach area and that any dirt or rocks encroaching makai of the certified shoreline be removed.

e) That prior to construction, stakes be placed along the certified shoreline and verified by DLM.

21. Department of Land and Natural Resources, Office of Conservation and Environmental Affairs (OCEA) --

a) Shoreline Setback Variances are ~~not~~ exempt from the environmental impacts statement regulations, Title 200, Chapter 11, Hawaii Administrative Rules, and Chapter 343, Hawaii Revised Statutes.

b) The report transmitted does not appear to fulfill the requirements of a Draft Environmental Assessment, nor was it published in the Office of Environmental Quality Control's (OEQC) Bulletin for review and comment, pursuant to Act 241, SLH 1992.

c) OCEA suggests that OEQC be consulted on these requirements prior to any action being taken on this matter.

d) In addition, OCEA suggests it be consulted on any activities which may be conducted within areas makai of the certified shoreline.

22. Department of Land and Natural Resources, Division of Boating and Ocean Recreation -- no objections.

23. Department of Land and Natural Resources, Historic Preservation Division -- (exhibit 7) The area appears to have been disturbed by the construction of the condominium so it is highly unlikely that historic sites still exist on the surface. It is possible however, that remains of historic sites exist below the fill. Therefore, for the proposed revetment to have "no adverse effect" on historic sites, we recommend that the following conditions be attached to the permit, if approved:

- a) A qualified archaeologist shall monitor all excavations. The archaeologist shall be allowed time to collect all significant information such as the stratigraphy, descriptions of features, collection of all artifacts, and samples of other cultural remains. A final monitoring report shall be submitted to the State Historic Preservation Division for review and acceptance.
- b) In compliance with Chapter 6E-43.6, if burials are inadvertently discovered, all work must stop in the vicinity of the find, the remains must not be moved and must be protected from further damage, and the State Historic Preservation Division (SHPD) must be notified (578-0047) immediately. The applicant shall execute the appropriate mitigation measures, as determined by SHPD.

24. Department of the Army -- (exhibit 8) The proposed project will require a DA permit. The required applications for obtaining a DA permit are being forwarded to the Applicant. Further, according to the enclosed Federal Emergency Management Agency's Flood Insurance Rate Map panel number 150003-0151B dated June 1, 1981, the proposed project is located in Zone C (areas of minimal flooding); Zone A4 (areas inundated by the 100-year flood with a base flood elevation of 15 to 17 feet); and Zone V24 (areas inundated by the 100-year coastal flood with velocity hazards and a base flood elevation of 16 feet).

25. Department of Public Works and Waste Management, Engineering Division -- (exhibit 9).

a) The certified shoreline date be verified. The report and construction plan dates differ with April 1990 and April 1993, respectively. We request that the plans be resubmitted for review with an updated shoreline map if the current plans are based on a certified shoreline of April 1990.

b) The steep slope of the revetment and the close proximity of the cap wall to the shoreline may affect the accumulation of sand along the beach. We do not expect guarantees for sand accumulation but do expect assurances that the proposed design enhances beach sand build-up.

c) The design considerations for the rock dimensions and weights should be provided for review.

d) An analysis of similar wall installations on Maui or within the islands shall be submitted for our review. The location, date of construction and impact analysis should be included in the report.

26. Department of Public Works, Wastewater Reclamation Division -- No comments.

27. Department of Public Works, Solid Waste Division -- Alternative means of disposal of grubbed material and rock shall be utilized other than disposed of at the County landfills.

28. Department of Public Works, Land Use and Codes Administration --

a) The tax map parcel involved in this application is inconsistent with the site description noted in the report. It appears that parcels 21 and 31 should be included in the application request.

b) The subject project is within an area of the 100 year coastal flooding with velocity (wave action) and with a base flood elevation at 16 feet mean sea level, as such, the development is required to conform to Chapter 19.62 of the Maui County Code (1993) pertaining to flood hazard areas. In addition, an analysis shall be provided with supporting calculations that the proposed revetment will not increase potential flood damage to the subject and adjacent properties.

c) A plan should be implemented to monitor the impact of the revetment on the adjacent properties. The plan should include but not be limited to a detailed survey of the current shoreline in the vicinity (several properties on both sides of project) of the revetment, subsequent surveys at designated time intervals, analysis and mitigation if shoreline areas appear to be affected.

d) The consultant report should analyze the shoreline/revetment location differential of approximately 30 feet and the hardening of shoreline, and its impact on the alongshore transport of sand.

29. Department of Health -- no comments (exhibit 10)

30. Department of Water Supply -- The Applicant should be advised to use low water use planting and irrigation where landscaping is intended (exhibit 11).

DESCRIPTION OF THE PROPOSED DEVELOPMENT

31. The Applicant wishes to obtain a Special Management Area Use Permit and a Shoreline Setback Variance for a rock revetment located on the makai end of the Kahana Outrigger Property. This revetment was constructed for emergency measures in order to protect the Property from shoreline erosion. Again, it should be noted that an SMA Emergency permit was granted by the County.

32. All construction and construction activities occurred mauka of the certified shoreline survey (April 1993), and was in general accordance with plans and specifications of the engineering report K 203101/1, May 1993. It should be noted that since the revetment was constructed as a result of an emergency, no building permit was obtained.

33. A rock revetment would provide the required protection for the upper northern half of the property and building at the existing seawall position, and protection to the southern half at a recessed position behind the certified shoreline during periods of erosion. Because it is a replacement for a more severe vertical seawall and is generally above the level of natural coastal processes, a revetment would have less impact than currently exists and would not significantly interfere with the natural processes. In addition, as designed, the proposed revetment would mostly lie below the normal beach level, particularly for the southern half. Even during periods of extreme erosion, a revetment of this design would not unduly impede the longshore transport of sand past the revetment.

34. The location and exterior slopes of the revetment are designed to be placed below the normal profile of the foreshore and backshore to the degree possible. The outer slope of the revetment is designed to minimize disruption of existing wave run-up and longshore drift patterns while minimizing the impact on useable land. Further, all material excavated during construction other than clays, if encountered, would be used to cover the revetment.

35. The design wave height of 5 feet has been used to calculate both the required weight of rock to be used on the revetment as well as the anticipated depth of scour under design conditions. To achieve the required design configuration it would be necessary to excavate to elevation -4 feet MSL for the toe of the revetment. The face of the revetment would be a 2:1 (horizontal:vertical) slope that would provide run-up control and energy dissipation. The slope is partly governed by the location of the certified shoreline and the need to preserve a useable landscaped backslope area (approx. 20 in the northern section).

36. The rock sizes to be used in the revetment have been calculate based on the exterior slope of the revetment and the design wave. One zone of rock is planned. Rather than designing for uniform rock sizes, we have prepared the design for rock that is graded between minimum and maximum size limits. The main purposes of this approach are to reduce the void sizes between the rock fragments (better interlocking) and to reduce the requirements for processing the rock. The irregular shape of the boulders will disperse energy and encourage sand to stay on the face.

37. A filter fabric is recommended for placement on the base of the excavation prior to placing any rock. The purpose of the filter fabric is to prevent loss of foundation support by migration of underlying beach sediments into the rockfill.

38. The crest of the revetment would be constructed to elevation +6 feet MSL. It is recommended that an 18-inch high cap wall be provided, and the mauka side of the cap wall be backfilled to original site grade for landscaping, with the filter fabric wrapped around the top of the rock fill to stop topsoil from washing into the rock. The cap wall should be tied into the rock fill with gunite and reinforcing steel.

39. At each end of the revetment, the rock fill should be wrapped to the east to provide about a 25 to 30 foot eastward return to key into the backshore.

IDENTIFICATION AND SUMMARY OF MAJOR IMPACTS, ALTERNATIVES, AND MITIGATION MEASURES

40. Alternatives: The measures involving work on the foreshore include breakwaters, jetties, groins, and artificial construction and maintenance of sand beaches. Foreshore construction is generally environmentally disruptive and is difficult to permit. Procedures involving placement of movement of sand to replace erosion losses are limited by availability of acceptable sources of sand and the economic feasibility of undertaking beach maintenance in perpetuity. Consequently, shoreline protection measures involving work on the foreshore are not considered reasonable solutions for this site

41. Shoreline protection measures involving the backshore include seawalls, bulkheads and revetments. As a class, seawalls and bulkheads are vertical structures designed to protect the backshore from further erosion. The major disadvantages of this class of structure are substantially increased erosion along the toe and flanks, and a tendency to be more easily over-topped by waves and spray.

42. No action alternative would provide no impact to coastal processes. However, during periods of high tides and high surf, private property would be unprotected, and existing structures would be prone to damage.

43. The preferred solution involves construction of a rock revetment along the alignment of the existing seawall. This type of protection has the least impact on the maintenance of a sand beach. The location and exterior slopes of the revetment are designed to be placed below the normal profile of the foreshore and backshore to the degree possible. The outer slope of the revetment is designed to minimize disruption of existing wave runup and longshore drift patterns while minimizing the impact on usable land. The face of the revetment would be a 2:1 (horizontal: vertical) slope that would provide run-up control and energy dissipation.

44. Anticipated long term impacts: The Applicant states that wave action beyond the ends of a revetment could continue to erode the beach scarp on adjacent properties which are not protected. However, the beach on either side of the existing seawall appears to be relatively stable and the proposed revetment should not significantly aggravate the existing conditions. Wave erosion on adjacent unprotected properties is largely restricted to attack of the beach scarp. Localized erosion at the ends of a protected section of beach often occurs at a faster rate and could be more severe than that occurring along a broad front of beach. However, because the existing seawall has been placed for many years and the proposed revetment has a more beneficial impact on beach maintenance, the overall effect would be an improvement for encouraging sand buildup, during periods of natural accretion, in front of the revetment and on either side.

45. During periods of severe erosion, there would be little or no sand beach fronting the northern half of the revetment. It is possible that, during part of the year, the accretion of sand along the shoreline could be greater than without the revetment due to dissipation of wave energy on the open rocky face of the revetment. Some beach sand could return as a result of revetment construction. However, there are no guarantees.

46. Long term stabilization of the beach scarp would be expected to minimize siltation to nearshore waters by reducing the erosion of terrigenous materials from backshore areas. Minimizing siltation should, therefore, be in the best interests of long-range reef maintenance, management, and protection.

47. There is no indication that construction of the proposed rock revetment would pose any additional threat to the nearshore marine habitat than that which it is exposed to from natural events.

48. A rock revetment would provide habitat for intertidal and supratidal species, if and when not covered by sand.

49. Based on the aforementioned findings provided by the Applicant, the Planning Department, the Department of Land and Natural Resources, and the Department of Public Works have concerns over the location of the northern section of the revetment and its affects on shoreline access and alongshore transport of sand. The old seawall has hindered the natural beach processes as indicated by the receded shorelines of the immediate adjacent parcels. Since the revetment is located along the same line as this old seawall, consideration should be given to re-locate the revetment so it runs along a continuous line with the southern section and the adjacent Kahana Village property. It should be noted that the southern section of the structure is usually below the beach profile for the most part,

and the northern section exposes approximately 4 feet of rock at any given time.

50. In order to somewhat encourage lateral access, the Applicant has removed much of the small loose stones that were located makai of the revetment, and has agreed to provide a public access/walkway on the mauka side of the northern section of the revetment.

51. Since the revetment design would have less impacts than the vertical seawall, and there will be no significant topographical changes in property shape, it would not significantly interfere with the prior shoreline processes at this time. As such, mitigation measures for lateral beach access and affects of alongshore sand transport may be addressed in greater detail during subsequent review of the Special Management Area (SMA) and Shoreline Setback Variance (SSV) applications.

52. Short term impacts: Minor siltation of inshore waters could be associated with the construction phase of the revetment. Because most of the excavated soil below tide level consists of relatively clean sand, this problem should be minor. In addition, siltation would represent a short-term event, occurring during construction and for a short period following construction. Because of the proposed shallow total depth of the revetment, siltation should be less than at some other shoreline projects on the Island. Prevailing nearshore currents would rapidly dilute and disperse silt plumes and would represent only a minor water quality disturbance. This siltation should be less than flashflood conditions that result in clay soils discoloring the near-shore water for extended periods.

53. The mobilization and movement of heavy equipment, as well as site preparation and construction activities, would generate noise and air pollution which would constitute a short-term nuisance to adjacent property users and beach recreationists. Beach usage would likely have to be curtailed during the construction phase of the project because of the presence of heavy equipment and the dangers inherent in moving large pieces of armor stone. Construction activities are, therefore, likely to resist passage along the beach. After construction, the proposed revetment would not affect public access to and along the beach. Neither would it restrict public views to and along the shoreline. Because construction is estimated to last only a few weeks, the impacts of construction are considered minimal.

ANALYSIS

54. Pursuant to Chapter 200 of the Department of Health Rules and Regulations, the following criteria have been established in order to determine where an action will have a

significant affect on the environment. In most instances, an action shall be determined to have a significant effect on the environment if it:

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

The revetment has been designed to protect private property from the effects of shoreline erosion while having minimal adverse impacts to natural coastal processes. The selected alternative should result in little, if any, loss of existing public beach area.

As discussed earlier, there were concerns from various agencies on shoreline access and effects on alongshore sand transport for the northern half of the revetment. Since the revetment will not significantly alter the prior shoreline condition (of the vertical seawall), mitigative measures to address these concerns such as relocating the structure, providing safe lateral access, and providing a monitoring plan, may be implemented during the SMA and SSV review.

The Applicant states that there are no known historical or archaeological sites associated with the proposed project site. Therefore, the proposed revetment should have no impact on natural or man-made historic resources on the coastal zone.

According to the Department of Land and Natural Resources, Historic Preservation Division, it is possible that remains of historic sites exist below the fill. Therefore, for the proposed revetment to have "no adverse effect" on historic sites, they recommend that certain mitigative conditions be attached as conditions of approval.

Since these comments were received after the revetment was constructed, these mitigative conditions cannot be incorporated as a conditions of approval. However, the Applicant stated that during construction and excavation, only silty sand, gravel with occasional cobbles were encountered.

2) Curtails the range of beneficial uses of the environment

The proposed action would not significantly impede existing access to and along the shoreline provided mitigative measures are incorporated as part of the SMA and SSV review. Thus, the action would not curtail public use of the area.

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

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

The action would not conflict with Chapter 344, HRS. As mentioned earlier, the revetment will help protect private property from shoreline erosion, and have minimal adverse impacts to existing natural coastal processes. The selected alternative should result in little, if any, loss of existing public beach area.

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

The action is limited in scope and would have negligible social or economic affects to the community or state.

Being that the project has already been completed, any impacts which it may have had on the local economy through employment of construction workers was short term and has already been felt. Beyond that, the subject revetment should have no impact upon population or the local economy.

5) Substantially affects public health:

Construction activities would generate some air, noise and water pollution. These would occur only over the short term and would be negligible compared to existing background levels. Thus, the project would not have any substantial affect on public health.

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

Due to the limited and confined scope of the project, it would not result in substantial secondary impacts to population, existing public facilities, streets, drainage, sewage and water systems, and pedestrian walkways.

7) Involves a substantial degradation of environmental quality:

As discussed earlier, there will be short term impacts to environmental quality during construction. The Department of Health had no comments on environmental quality.

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

Shoreline protection structures have the potential to exacerbate erosion on adjacent properties, leading the neighboring property owner no choice but to construct a similar structure. The Applicant states that the alignment and grades of the revetment will offer long term harmony to the properties in the immediate area and be an improvement over the previous seawall that fronted the north half of the property. Since there should be no difference in impact on alongshore transport, the revetment should not aggravate the existing conditions. Thus, a decision by the neighboring property owner to construct a shoreline protection structure would not be as a result of this revetment.

As discussed earlier, the Department of Public Works and Waste Management and the Department of Land and Natural Resources had a concern over monitoring the property as well as adjacent shorelines for accretion and erosion. By implementing a monitoring plan, the revetment could be redesigned and reworked to reduce or mitigate the impacts should there be changes to the shoreline processes.

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

There are no known rare, threatened, or endangered species or its habitat within the project area.

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

As discussed earlier, construction activities would result in short term nuisance to adjacent property owners and beach goers. There is currently no long term impacts to air or water quality.

The Department of Land and Natural Resources stated that the use of dirt fill likely adds to the already silty turbid water. Sand should be used for fill material near the shoreline. Stabilizing the beach slope with a filter cloth and boulders of various sizes is expected to have a beneficial effect of minimizing siltation to nearshore waters in the long term. The Department of Health had no comments.

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

The Department of Public Works states that the subject project is within an area of the 100 year coastal flooding with velocity (wave action) and with a base flood elevation at 16 feet mean sea level, as such, the development is required to conform to Chapter 19.62 of the Maui County Code (1993) pertaining to flood hazard areas. In addition, an analysis shall be provided with supporting calculations that the proposed revetment will not increase potential flood damage to the subject and adjacent properties.

The proposed project will require a Department of the Army (DA) permit. Further, the proposed project is located in Zone C (areas of minimal flooding); Zone A4 (areas inundated by the 100-year flood with a base flood elevation of 15 to 17 feet); and Zone V24 (areas inundated by the 100-year coastal flood with velocity hazards and a base flood elevation of 16 feet).

Inasmuch as the revetment has already been constructed through the provisions of the SMA Emergency permit procedures, an after-the-fact building permit to address flood hazards, and DA permit should be obtained.

Furthermore, the proposed revetment would not affect existing public access to and along the beach. Neither would it restrict public views to and along the shoreline.

The proposed action would not substantially affect other environmentally sensitive areas.

PUBLIC TESTIMONY

55. Although the 30 day review period for an anticipated negative declaration for this project ended on June 22, 1994, the Planning Department received one letter (received June 29, 1994) in opposition to the issuance of a negative declaration (exhibit 14). The letter states that the location and the effects on adjacent properties needs to be considered.

MITIGATION MEASURES

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

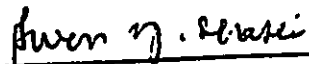
CONCLUSION OF LAW

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

DETERMINATION

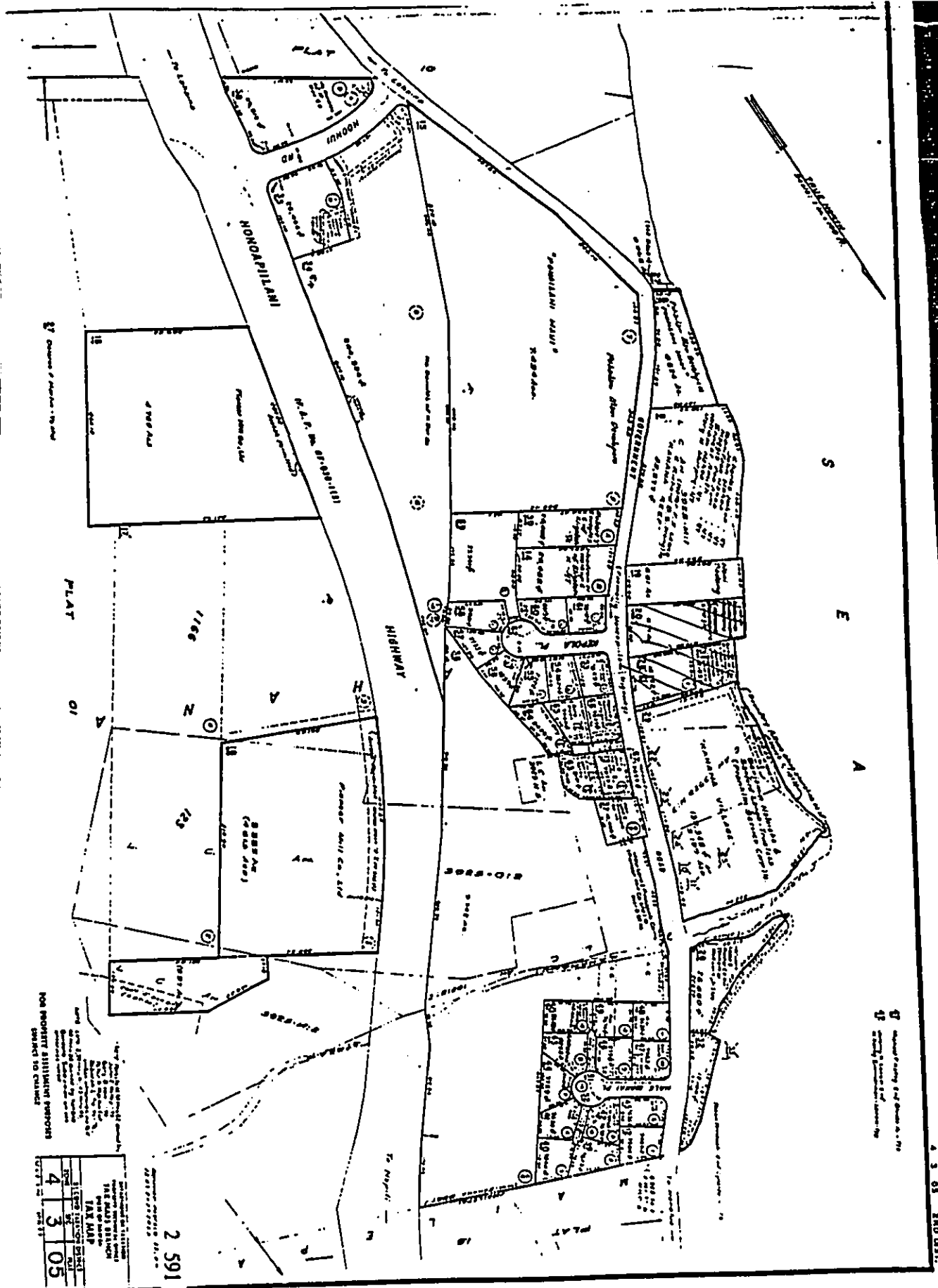
58. Pursuant to SS 11-200-11(C) of the Environmental Impact Statement Rules, the Director's Report is hereby adopted as a Negative Declaration for the referenced project.

APPROVED:



BRIAN MISKAE
Planning Director

DOCUMENT CAPTURED AS RECEIVED



4 3 03 and o/r.

EXHIBIT

The shoreline as located and certified and delineated in red is hereby confirmed as being the actual shoreline as of OCT 24 1977

W. H. ...
Chairman, Board of Land and Natural Resources
K. B. ...

O C E A N

Shoreline boundary follows along Highwater Mark and Tile Wall
Surveyed: September 19, 1977

206°06'24" - 100.81 208°42'37" - 99.73

Highwater Mark

Tile Wall

1663

TOTAL AREA = 53,512 Sq. Ft.

5524

27°06'

260.00

HONOAPIILANI

HIGHWAY

EXHIBIT 2

A CROCKETT LINGLE
Mayor



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

November 4, 1993

Mr. Daniel Driessche
Box 331024
Kahului, HI 96732

Dear Mr. Driessche:

Re: ~~Kahana Overigger, TMK: 4-3-5-20, Labaina, Maui.~~

Please be advised that we have reviewed your applications for an Environmental Assessment Determination, a Shoreline Setback Variance, and a Special Management Area Use Permit, and have the following concerns:

The high water mark on parcels 20 and 31 were running almost continuously parallel to the ocean (certified shoreline survey as of October 24, 1977). Currently, the high water mark for parcel 20 runs approximately 28 feet inland from the adjacent parcel 31 with shoreline hardening (certified shoreline survey as of February 25, 1993). Based on this comparison, it appears that over the years, shoreline erosion has occurred, and the shoreline hardening may have attributed to flank erosion on adjacent parcels (parcel 20 and Kahana Village property). Although the seawall may have protected the subject property from erosion, it could be determined that it has hindered the natural beach erosion process as reflected on the adjacent "un-hardened" parcels.

According to photographs of the property in 1978, the lateral access fronting the property appears unobstructed. Also, the high water mark of parcel 20 seemed in line with the high water mark of parcel 31. Based on site visits by myself and planner Daren Suzuki, the upper reaches of waves are currently striking the foot of the emergency approved wall during high tide, thus impeding lateral access fronting parcel 31. It should be noted that the majority of the sand beach fronting parcel 20 after the emergency wall was constructed has returned (see enclosed photo taken 10/1/93).

The Department of Land and Natural Resources has certified the shoreline in 1993 fronting parcel 31 at virtually the same location as the 1977 certified shoreline. However, we feel that the certification should have run along the top of the eroded bank as depicted in the February 25, 1993 certified shoreline. The bank also shows how erosion would occur with an unprotected shoreline.

EXHIBIT 3

Mr. Driessche
November 4, 1993
page -2-

In summary, shoreline erosion has occurred over the years, and the shoreline hardening constructed prior to 1977 has protected the property from the natural beach erosion processes.

Upon analyzing the aforementioned, we find that there may be potential impacts on impeding lateral access, and flank erosion on adjacent properties. Therefore, we believe that the proposed revetment location would be contrary to the objectives set out in the Coastal Zone Law.

It is suggested that the portion of the revetment on parcel 31 be re-located inland of its proposed location so the base of the revetment would run along the line of the eroded bank. In the long run, we feel that this relocation would result in a much greater community benefit.

If you are in agreement with this proposed change, please submit revised plans accordingly. Should you wish to discuss this matter further, please contact Mr. Daren Suzuki of my staff at (808) 243-7735.

Very truly yours,


BRIAN MISKAE
Planning Director

encl.
xc: DLNR Land Mgt.
Keith Robinson
Kahana Outrigger AOA
Bill Byrne

UNITED STATES
DEPARTMENT OF
AGRICULTURE

SOIL
CONSERVATION
SERVICE

70 S. HIGH STREET, RM. 215
WAILUKU, HAWAII
96793

'93 AUG 25 P12:12

Date: August 24, 1993
DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

Mr. Brian Miskae, Planning Director
Maui Planning Department
250 S. High Street
Wailuku, Hawaii 96793

Dear Brian,

RE: Kahana Outrigger, Rock Revetment; TMK: 4-3-05:20
I.D. No. 93/EA-08, 93/SM1-33, 93/SSV-04

Rasmussen Seawall; TMK: 2-6-04:17
I.D. No. 93/EA-09, 93/SSV-05, 93/SM1-25

Edmundson Shoreline Revetment Wall; TMK: 4-3-15:03
I.D. No. 93/EA-004, 93/SSV-003

On the above subjects, I or my agency does not have any
expertise to comment on the proposed seawall construction.
Thank you.

Sincerely,

Neal S. Fujiwara
Neal S. Fujiwara
District Conservationist

DEPT OF PLANNING	
Deputy Dir.	<input type="checkbox"/> Assign
Secretary	<input type="checkbox"/> Rush
Current Div.	<input checked="" type="checkbox"/> See Me
Long Range	<input type="checkbox"/> Comments
Energy Div.	<input type="checkbox"/> Draft
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	<input type="checkbox"/> recycle
Today's date	8/26
Date Due	
By	

EXHIBIT 4

JOHN WAIHEE
GOVERNOR



93 AUG -9 P12:27

ROBERT P. TAKUS
KUSIKO'SCHMIGGG
COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING
AND GENERAL SERVICES
SURVEY DIVISION
P. O. BOX 118
HONOLULU, HAWAII 96810

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

FILE NO. _____

August 5, 1993

TRANSMITTAL

TO: Mr. Brian Miskae, Director
ATTN.: Mr. Daren Suzuki
SUBJECT: I.D. No.: 93/EA-08, 93/SML-33, 93/SSV-04
TMK: 4-3-05:20
Project Name: Kahana Outrigger, Rock Revetment
Applicant: AOA Kahana Outrigger

REMARKS:

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

Stanley T. Hasegawa
STANLEY T. HASEGAWA
Acting State Land Surveyor

DEPT OF PLANNING		
Deputy Dir.	<input type="checkbox"/>	Assign <input type="checkbox"/>
Secretary	<input type="checkbox"/>	Rush <input type="checkbox"/>
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Date Due		
By		

EXHIBIT 5

JOHN WAHNEE
GOVERNOR OF HAWAII



STATE OF HAWAII

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

REF: OCEA: SKI
DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

SEP 14 1993

FILE NO: 94-060
DOC. NO: 3441

KEITH W. AHUE, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
JOHN P. KEPPeler, II
DONAL L. MANAIKE

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

The Honorable Brian W. Miskae, Director
Planning Department
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Deputy Dir.	<input type="checkbox"/>	Assign
Secretary	<input type="checkbox"/>	Rush
Current Div.	<input checked="" type="checkbox"/>	See Me
Long Range	<input type="checkbox"/>	Comments
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		Recycle
Today's date	9/15	
Date Due		
By:		

Dear Mr. Miskae:

Subject: Proposed Rock Revetment at the Kahana Outrigger Condominiums, (93/EA-08, 93/SML-33, 93/SSV-04), Kahana, Maui, TMK: 4-3-05: 20

We have reviewed the revetment design and environmental consideration report information for the proposed project transmitted by your memorandum dated July 26, 1993, and have the following comments:

Brief description:

The Kahana Outrigger Condominiums (KOC) consist of two wooden two-story four unit structures located approximately 7 miles north of Lahaina. The KOC Association proposes to construct a rock revetment along the northern portion of this shorefront property where an existing damaged seawall is located.

According to the Revetment Design and Environmental Considerations report, this revetment would begin at the boundary of their April, 1993 Certified Shoreline.

Division of Aquatic Resources

The Division of Aquatic Resources (DAR) comments that their Maui biologist reports that construction of the revetment was apparently initiated on or about August 16, 1993, under emergency measures approved by a Maui County Planner.

EXHIBIT 6

Hon. B. Miskae

DAR'S inspection of the property found that a stonewall had been removed and a temporary type of revetment was established. Their inspection also indicated that construction lasted about a week and had apparently contributed to the discoloring of nearshore waters from storm runoff of about a month ago. DAR also indicates that within a week after the removal of the wall, sand appears to have accumulated along the shoreline.

DAR reiterates their concerns raised back in January of 1991, that passage along the shore could be hazardous during high tides due to submerged rocks and other debris from the broken seawall that is not visible to recreational shoreline users. Since the rubble from the wall is on State land within the Conservation District, liability may be involved if action is not taken to resolve this issue.

The temporary revetment along with the neighboring shorelines should be monitored for accretion and erosion. The Kahana Outrigger property has been allowed to keep its shoreline and elevated property and the rest of the sandy shoreline has been allowed to naturally recede. The gradual slope of the sandy beach provides safer access to the shoreline for public use than the rocks and boulders which appeared to have been previously coming from the rock wall, and now comes from this temporary revetment. The use of dirt fill likely adds to the already silty turbid water. Sand should be used for fill material near the shoreline. Rocks and boulders fronting this property should be removed so a continuous sandy beach can be re-established, similar to neighboring shoreline beach areas.

A comparison of DAR'S photographs from 1991 shows significant change in this area in the past 3 1/2 years. This beach is not stable and special effort should be made to make the shoreline compatible with surrounding areas. The safety of KOC guests who will want access to the sandy beach and the safety of the public, who may want to walk along the sandy shoreline, should be addressed.

DAR also comments that the description of the rock revetment providing habitat for intertidal and supratidal species seems to indicate that the elevated shoreline will be allowed to remain and its function will be more like a sloped seawall. It appears that the existing specifications would be higher in elevation and be even less compatible with the adjoining shoreline areas. A height limit much less than the five feet for the revetment is recommended.

DAR opposes excavating seaward of the certified shoreline for the placement of this revetment. The revetment (including the toe) fronting the applicants' property, when completed, must be mauka of the property's certified shoreline.

Division of Land Management

The Division of Land Management (DLM) comments that:

1. All work on this proposed project shall be performed mauka of the certified shoreline;
2. At no time during construction shall any equipment and/or materials be placed makai of the certified shoreline;
3. No contaminants, pollutants, petroleum products, construction materials, etc. shall be allowed to be mixed in the sand and water makai of the certified shoreline;
4. An inspection of the subject site on August 30, 1993, revealed that the emergency work performed in August 1993 appeared to be encroaching beyond the certified shoreline on the north boundary of the property. The dirt fill is blended into the sandy beach area and appears to be a major contributor to the dirty ocean water that has existed in the Kahana area for approximately two (2) weeks. If the revetment construction is approved, it is recommended that the cap wall be extended along the vertical property boundary lines that are adjacent to the beach area and that any dirt or rocks encroaching makai of the certified shoreline be removed;
5. That prior to construction, stakes be placed along the certified shoreline and verified by DLM.

Office of Conservation and Environmental Affairs

The Office of Conservation and Environmental Affairs comments that Shoreline Setback Variances are not exempt from the environmental impacts statement regulations, Title 200, Chapter 11, Hawaii Administrative Rules, and Chapter 343, Hawaii Revised Statutes.

The Report transmitted does not appear to fulfill the requirements of a Draft Environmental Assessment, nor was it published in the Office of Environmental Quality Control's (OEQC) Bulletin for review and comment, pursuant to Act 241, SLH 1992.

OCEA suggests that OEQC be consulted on these requirements prior to any action being taken on this matter.

In addition, OCEA suggests it be consulted on any activities which may be conducted within areas makai of the certified shoreline.

Hon. B. Miskae

- 4 -

File No.: 94-060

Division of Boating and Ocean Recreation

The Division of Boating and Ocean Recreation has no objections to the proposed project.

We reiterate the comments of our Historic Preservation Division (enclosed), which were forwarded in their letter dated August 18, 1993.

Thank you for the opportunity to comment on this matter.

Please feel free to contact Steve Tagawa at our Office of Conservation and Environmental Affairs, at 587-0377, should you have any questions.

Very truly yours,


KEITH W. AHEUE

Enclosure

WAM

93 AUG 23 P4:10



DEPT OF PLANNING STATE OF HAWAII
COUNTY DEPARTMENT OF LAND AND NATURAL RESOURCES
RECEIVED

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 8TH FLOOR
HONOLULU, HAWAII 96813

KEITH ABUE, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCE

DEPUTIES

JOHN P. KEPPELEN II
DONA L. HANAKE

AQUACULTURE DEVELOPMENT
PROGRAM

AQUATIC RESOURCES
CONSERVATION AND

ENVIRONMENTAL AFFAIRS
CONSERVATION AND
RESOURCES ENFORCEMENT

CONVEYANCES

FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
DIVISION

LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

August 18, 1993

LOG NO: 9058
DOC NO: 9308AG31

Mr. Brian Miskae, Director
Maui Planning Department
50 South High Street
Hailuku, Maui, Hawaii 96793

Dear Mr. Miskae:

SUBJECT: County of Maui, Historic Preservation Review of the
Proposed Revetment at Kahana Outrigger (93/EA-08,
93/SM1-33, 93/SSV-04)
Kahana, Lahaina, Maui
TMK: 4-3-05: 20

Thank you for the opportunity to comment on the proposed
construction of a rock revetment along the shoreline of the
Kahana Outrigger Condominiums property.

Our review of our records indicates the absence of known historic
sites on this property. However, no archaeological study has
been conducted so we are uncertain whether sites are present or
absent. The area appears to have been disturbed by the
construction of the condominium so it is highly unlikely that
historic sites still exist on the surface. It is possible,
however, that remains of historic sites exist below the fill.
For this EA, two test pits were dug to examine the subsurface
conditions. Unfortunately, no archaeologist examined the test
pits in the field. The test pit logs in Figure 5 indicate the
presence of possible subsurface cultural deposits. Layers of
dark gray clayey silt, dark silty sand with shells in Test Pit 1
and a layer of light gray sand with lenses of black fine sand in
Test Pit 2 are likely indications of buried occupation layers.
Therefore, for the proposed revetment to have "no adverse effect"
on historic sites, we recommend that the following conditions be
attached to the permit, if approved:

EXHIBIT 7

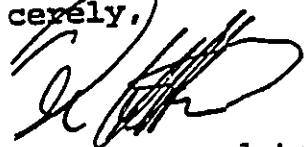
Brian Miskae, Director
2

A qualified archaeologist shall monitor all excavations. The archaeologist shall be allowed time to collect all significant information such as the stratigraphy, descriptions of features, collection of all artifacts, and samples of other cultural remains. A final monitoring report shall be submitted to the State Historic Preservation Division for review and acceptance.

In compliance with Chapter 6E-43.6, if burials are inadvertently discovered, all work must stop in the vicinity of the find, the remains must not be moved and must be protected from further damage, and the State Historic Preservation Division (SHPD) must be notified (587-0047) immediately. The applicant shall execute the appropriate mitigation measure, as determined by SHPD.

Would you have any questions about these comments, please contact Ms. Angie Griffin at 587-0013.

Sincerely,



HIBBARD, Administrator
State Historic Preservation Division

lll



DEPARTMENT OF THE ARMY
 U. S. ARMY ENGINEER DISTRICT, HONOLULU
 BUILDING 230
 FT. SHAFTER, HAWAII 96858-5440

August 13, 1993

'93 AUG 16 P1:19

REPLY TO
 ATTENTION OF:

Planning Division

DEPT OF PLANNING
 COUNTY OF MAUI
 RECEIVED

Mr. Daren Suzuki, Planner
 County of Maui
 Planning Department
 250 South High Street
 Wailuku, Maui 96793

Dear Mr. Suzuki:

Thank you for the opportunity to review and comment on the Project Plans for the Kahana Outrigger Condominiums at Lower Honoapiilani Highway, Kahana, Maui (TMK 4-3-5: 20). The following comments are provided pursuant to Corps of Engineers authorities to disseminate flood hazard information under the Flood Control Act of 1960 and to issue Department of the Army (DA) permits under the Clean Water Act; the Rivers and Harbors Act of 1899; and the Marine Protection, Research and Sanctuaries Act.

a. The proposed project will require a DA permit. The required applications for obtaining a DA permit are being forwarded to Mr. Mark McDonald, President of the Kahana Outrigger Condominiums. Please contact our Operations Division at 438-9258 for further information and refer to file number P093-075.

b. According to the enclosed Federal Emergency Management Agency's Flood Insurance Rate Map panel number 150003-0151B dated June 1, 1981, the proposed project is located in Zone C (areas of minimal flooding); Zone A4 (areas inundated by the 100-year flood with a base flood elevation of 15 to 17 feet); and Zone V24 (areas inundated by the 100-year coastal flood with velocity hazards and a base flood elevation of 16 feet).

Should you require additional information, please contact Ms. Jessie Dobinchick at 438-7008.

DEPT OF PLANNING

Sincerely,


 Thomas Ushijima, P.E.

Acting Director of Engineering

EXHIBIT 8

City Dir.	<input type="checkbox"/>	Assign	<input type="checkbox"/>
Secretary	<input type="checkbox"/>	Rush	<input type="checkbox"/>
Current Div.	<input checked="" type="checkbox"/>	See Me	<input type="checkbox"/>
Long Range	<input type="checkbox"/>	Comments	<input type="checkbox"/>
Energy Div.	<input type="checkbox"/>	Draft	<input type="checkbox"/>
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Enclosure	<input type="checkbox"/>		
Today's date	8/16		
Date Due			
By			

LINDA CROCKETT LINGLE
Mayor
GEORGE N. KAYA
Director
CHARLES JENCKS
Deputy Director
AARON SHINMOTO, P.E.
Chief Staff Engineer



93 AUG 31 P227

DEPT OF PLANNING AND WASTE MANAGEMENT
COUNTY OF MAUI
RECEIVED
LAND USE AND CODES ADMINISTRATION
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793
August 30, 1993

RALPH NAGAMINE, L.S., P.E.
Land Use and Codes Administration
EASSIE MILLER, P.E.
Wastewater Reclamation Division
LLOYD P.C.W. LEE, P.E.
Engineering Division
DAVID WISSMAR, P.E.
Solid Waste Division
BRIAN HASHIRO, P.E.
Highways Division

Deputy Dir.	<input type="checkbox"/>	Assign	<input type="checkbox"/>
Secretary	<input type="checkbox"/>	Rush	<input type="checkbox"/>
Current Div.	<input checked="" type="checkbox"/>	See Me	<input type="checkbox"/>
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Today's date	9/6		
Date Due			

MEMO TO: Brian W. Miskae, Planning Director
F R O M: George N. Kaya, Director of Public Works
Done Okay

SUBJECT: Special Management Area Permit and Shoreline Setback
Variance Application
KAHANA OUTRIGGER, ROCK REVETMENT
TMK: 4-3-5:20
93/EA-08, 93/SM1-33, 93/SSV-04

We reviewed the subject application and have the following comments:

1. Comments from the Engineering Division:

- a. The certified shoreline date be verified. The report and construction plan dates differ with April 1990 and April 1993, respectively. We request that the plans be resubmitted for review with an updated shoreline map if the current plans are based on a certified shoreline of April 1990.
- b. The steep slope of the revetment and the close proximity of the cap wall to the shoreline may affect the accumulation of sand along the beach. We do not expect guarantees for sand accumulation but do expect assurances that the proposed design enhances beach sand build-up.
- c. The design considerations for the rock dimensions and weights should be provided for review.
- d. An analysis of similar wall installations on Maui or within the islands shall be submitted for our review. The location, date of construction and impact analysis should be included in the report.

EXHIBIT 9

r. Brian Miskae
Page 2 of 3
August 30, 1993
MK: 4-3-5:20
93/EA-08, 93/SM1-33, 93/SSV-04

e. In reference to the Liability and Risk portion of the report, we request that documentation be submitted that the proposed design is based on current engineering standards for the profession. In addition, the consultant's statement that SRKR must be held harmless and be indemnified against any claims, legal costs, etc. relative to the construction of the revetment is not reasonable. Some responsibility must be borne by the designer.

The applicant is requested to contact the Engineering Division at 243-7745 for additional information.

2. Comments from the Wastewater Reclamation Division:

a. No comments.

3. Comments from the Solid Waste Division:

a. Alternative means of disposal of grubbed material and rock shall be utilized other than disposed of at the County landfills.

The applicant is requested to contact the Solid Waste Division at 243-7875 for additional information.

4. Comments from the Land Use and Codes Administration:

a. The tax map parcel involved in this application is inconsistent with the site description noted in the report. It appears that parcels 21 and 31 should be included in the application request.

b. The subject project is within an area of the 100 year coastal flooding with velocity (wave action) and with a base flood elevation at 16 feet mean sea level, as such, the development is required to conform to Chapter 19.62 of the Maui County Code (1993) pertaining to flood hazard areas. In addition, an analysis shall be provided with supporting calculations that the proposed revetment will not increase potential flood damage to the subject and adjacent properties.

Mr. Brian Misake
Page 3 of 3
August 30, 1993
TMK: 4-3-5:20
93/EA-08, 93/SML-33, 93/SSV-04

- c. A plan should be implemented to monitor the impact of the revetment on the adjacent properties. The plan should include but not be limited to a detailed survey of the current shoreline in the vicinity (several properties on both sides of project) of the revetment, subsequent surveys at designated time intervals, analysis and mitigation if shoreline areas appear to be affected.
- d. The consultant report should analyze the shoreline/revetment location differential of approximately 30 feet and the harding of shoreline, and its impact on the alongshore transport of sand.

The applicant is requested to contact the Land Use and Codes Administration at 243-7373 for additional information.

RMN:ey
1293f:Page 23-25

xc: L.U.C.A.
Engineering Division
Solid Waste Division
Wastewater Reclamation Division



DEPARTMENT OF WATER SUPPLY
 COUNTY OF MAUI
 P.O. BOX 1108
 WAILUKU, MAUI, HAWAII 96793-7108

93 SEP 23 P1:03

DEPT OF PLANNING
 COUNTY OF MAUI
 RECEIVED

September 20, 1993

Mr. Brian Miskae, Director
 DEPARTMENT OF PLANNING
 COUNTY OF MAUI
 Wailuku, Hawaii 96793

93/EA-08
 93/SSV-04
 93/SM1-23
 PL 93-55

Dear Mr. Miskae:

Re: KAHANA OUTRIGGER ROCK REVETMENT - REQUESTS FOR ACCEPTANCE
 OF ENVIRONMENTAL ASSESSMENT, SHORELINE SETBACK VARIANCE,
 AND SPECIAL MANAGEMENT AREA USE PERMIT APPROVALS
 TMK 4-3-05:020, LAHAINA

The applicant should be advised to use low-water-use planting and irrigation where landscaping is intended. Guidance may be found in the attached document or in the Maui County Planting Plan.

Sincerely,

David R. Craddick
 David R. Craddick
 Director
 DDS:ab
 Enclosure

DEPT OF PLANNING		
Deputy Dir.	<input type="checkbox"/>	Assign <input type="checkbox"/>
Secretary	<input type="checkbox"/>	Rush <input type="checkbox"/>
Current Div.	<input checked="" type="checkbox"/>	See Me <input type="checkbox"/>
Long Range	<input type="checkbox"/>	Comments <input type="checkbox"/>
Energy Div.	<input type="checkbox"/>	Draft <input type="checkbox"/>
Admin.	<input type="checkbox"/>	Handle <input type="checkbox"/>
	<input type="checkbox"/>	File <input type="checkbox"/>
	<input type="checkbox"/>	FYI <input type="checkbox"/>
Copy to:	<input type="checkbox"/>	CIRCULATE <input type="checkbox"/>
		Recycle <input type="checkbox"/>
Today's date	9/27	
Date Due		
By		

EXHIBIT 10

"By Water All Things Find Life"

Printed on recycled paper

JOHN WAIHEE
GOVERNOR OF HAWAII



JOHN C. LEWIN, M.D.
DIRECTOR OF HEALTH

93 AUG 16 P354

RONALD METLER, M.D.

Acting DISTRICT HEALTH SERVICES ADMINISTRATOR (M.D.)

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793
DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

August 16, 1993

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

Dear Mr. Miskae:

Subject: 93/EA-08, 93/SM1-33, 93/SSV-04, Kahana Outrigger, Rock Revetment,
TMK: 4-3-05: 20, Kahana, Maui, Hawaii

Thank you for the opportunity to review and comment on the subject application. We have no comments to offer at this time.

Sincerely,

David H. Nakagawa
DAVID H. NAKAGAWA
Chief Sanitarian, Maui

DEPT OF PLANNING	
Asst. Dir.	<input type="checkbox"/> Assign
Secretary	<input type="checkbox"/> Rush
Current Div.	<input checked="" type="checkbox"/> See Me
Long Range	<input type="checkbox"/> Comments
Energy Div.	<input type="checkbox"/> Draft
Admin.	<input type="checkbox"/> Handle
	<input type="checkbox"/> File
	<input type="checkbox"/> ...
Copy to:	<input type="checkbox"/> ...
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By	

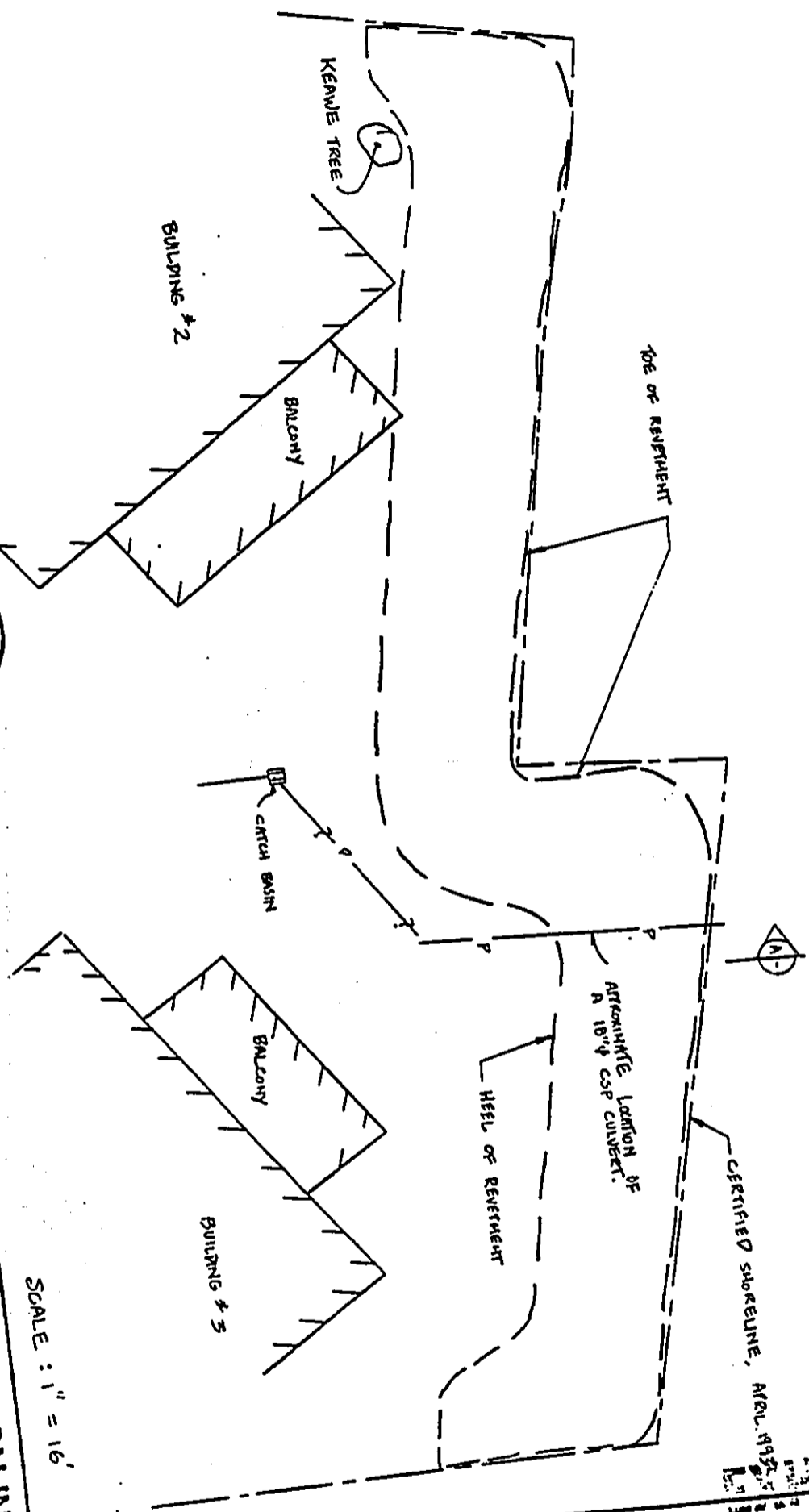
EXHIBIT 11

REGISTERED
 PROFESSIONAL
 ENGINEER
 No. 12185
 HAWAII, U.S.A.
 LOUIS W. H. LUI

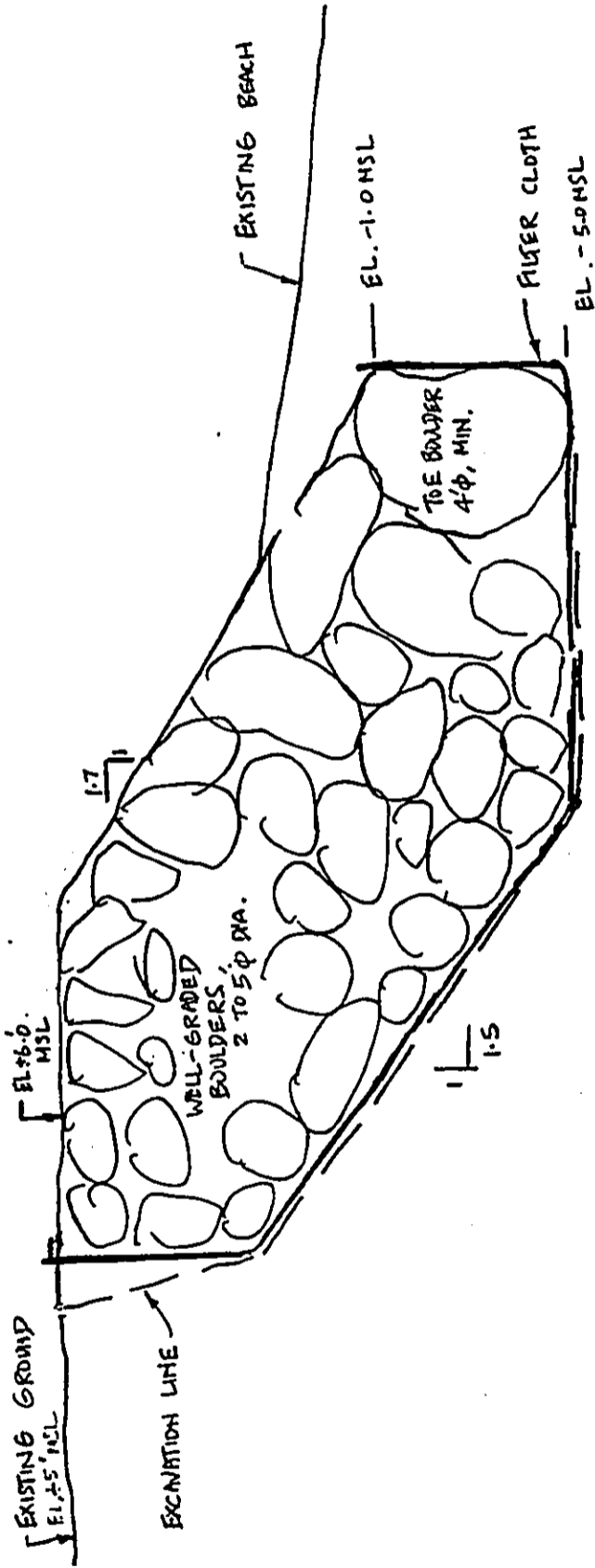
THIS WORK WAS PREPARED BY
 ME OR UNDER MY SUPERVISION

PROJECT No.	K 203101
PROJECT	ROCK RETAINMENT, KAHANA CURRIGGER
LOCATION	KAHANA, MAUI
SPK-ROBINSON INC.	
DATE	JAN 11, 14
SITE PLAN	
DRAWN BY	W
FIGURE No.	01

SCALE : 1" = 16'



PROJECT NO. K 203101
 DATE JAN 11, 14
 DRAWN BY W
 FIGURE NO. 01



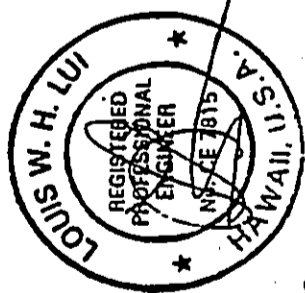
SCALE: 1" = 4'

SRK-ROBINSON INC.

CROSS SECTION, REVETMENT

DATE: JAN 11, 94
DRAWN BY: W
FIGURE NO.: 02

PROJECT No. K203 101
PROJECT: ROCK REJETMENT
KAHANA OUTRIGGER
LOCATION: KAHANA, MAUI



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
JGL 11/94

13

STEPHEN J. PITT
459 Laulea Place
Paia, Hawaii 96779
Telephone: (808) 871-8689
Fax: (808) 871-7488

'94 JUN 29 P1:51

DEPT OF PLANNING
CE

June 27, 1994

Maui Planning Commission
c/o Maui Planning Department
250 South High Street
Wailuku, HI 96793

Attention: Daren Suzuki

RE: Comment on Environmental Assessment
submitted by the Kahana Outrigger AOAO
Lahaina, Maui
TMK: (2) 4-3-5:20

MAUI
PLANNING
DEPT
COMMUNITY
DEVELOPMENT
DIVISION
6/29/94

COMMENTS
DATE
BY
6/29/94

Dear Mr. Suzuki:

I am requesting that you not issue a negative declaration and insist instead on a full Environmental Impact Statement for the subject project. My reason for this request is based on the following:

1. Based on past experience and published reports, it is highly likely that an ocean rock revetment with a steep face slope of 2:1 will have an adverse effect on adjacent properties as well as the inshore environment.
2. The proposed design wave height of 5 feet may be too small. (I used a 6-foot design wave for the design of the Mahana Condominium seawall revetment -- a figure given to me by Ocean Engineering, Inc., a coastal engineering firm on Oahu.)
3. The location of the wall needs to be carefully considered. I would recommend a "split pitch" wall with face slopes of 5:1 horizontal:vertical) and an upper wall width of 3:1 or 2:1 slope. If the Certified Shoreline limits the placement of such a split pitch wall, then either:

EXHIBIT 14

Maui Planning Commission
June 27, 1994
Page 2

- a. The applicant should apply for a lease of State land to place at least the low slope section of wall;
- OR b. Another solution(s) should be investigated.

I followed the permitting and construction of the Sugar Cove Seawall in Spreckelsville. This wall has now been constructed, and it appears similar to what is being proposed by this applicant. The Sugar Cove wall was not constructed according to approved plans and was not the wall type originally detailed in their Environmental Assessment and presented at public hearings. In my opinion, it has serious design flaws and should never again be duplicated in Hawaii.

The attached copy of the December 1993 issue of *Environment Hawaii* summarizes the permitting and construction history for the Sugar Cove Seawall, and poses some serious questions for any future seawall permit applications.

I have designed (as structural engineer) several seawall revetments in Hawaii, the most notable of them being the Mahana seawall revetment. This project is perhaps the most successful of the rock revetments in Hawaii (the whole structure essentially lying beneath the sand).

I urge all reviewing agencies to review this proposed project, and all others, with extreme diligence.

Sincerely,


STEPHEN J. PITT, P.E.

Enclosure

cc: Daniel Driessche, KAHANA OUTRIGGER AOA, Applicant
Keith Robinson, SRK - ROBINSON, INC., Consultant
Bruce S. Anderson, Ph.D., Interim Director, OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

SJP:kw
planning.ltr