June 9, 1995

The Honorable Gary Gill, Director
Office of Environmental Quality Control
220 South King Street, 4th Floor
State of Hawaii
Honolulu, Hawaii 96813

Dear Mr. Gill:

CHAPTER 343, HRS
Environmental Assessment/Determination
Negative Declaration

Recorded Owner/ Applicant/Agent: Kaneohe Yacht Club
Location : 44-503 Kaneohe Bay Drive
Tax Map Key : 4-4-22: 32
Request : Shoreline Setback Variance
Proposal : Construction of a riprap retaining wall to stabilize the bank of an existing drainage channel
Determination : A Negative Declaration is Issued

Attached and incorporated by reference is the Final Environmental Assessment (EIA) prepared by the applicant for the project. Based on the significance criteria outlined in Chapter 200, State Administrative Rules, we have determined that preparation of an Environmental Impact Statement is not required.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the FEA. If you have any questions, please contact Ardis Shaw-Kim of our staff at 527-5349.

Very truly yours,

PATRICK T. ONISHI
Director of Land Utilization

PTO: am
Enclosures
q: Sckycsv6_aaa
FINAL
ENVIRONMENTAL ASSESSMENT
FOR
KANEHOE YACHT CLUB
SOUTH EASEMENT BANK STABILIZATION PROJECT

Revised: May 3, 1995
ATTACHMENT "A"

FINAL
ENVIRONMENTAL DESCRIPTION AND PROJECTED ENVIRONMENTAL ASSESSMENT AT KANEHOE YACHT CLUB SOUTH DRAINAGE EASEMENT BANK STABILIZATION PROJECT

The proposed work is to stabilize the erosion which is occurring along the north slope of an existing intermittent drainage channel which passes through the southern side of the Kaneho Yacht Club property. As a side benefit, the intended work will restore the drainage capacity of this existing storm drain to near original conditions.

It is the intend that the north side slope of this drainage easement be mechanically shaped utilizing a backhoe or equivalent equipment. This slope shall then be stabilized using a commercially available filter fabric cloth mat intended for this purpose. To secure the cloth, a layer of 0.5 to 300 pound rip rap stone would be placed over the top of the fabric. This stone would be commercially quarried stone free from any organic matter or other contaminates.

The existing vegetation will be cleared to the minimum extend necessary to permit the work to be accomplished. Approximately 100 cubic yards of accumulated alluvial silt is to be removed during the slope preparation and restoration of the original construction of the drainage easement. The drainage channel depth has been reduced due to accumulation of silty material from storm drain run off from neighboring off-site locations mauka of the property and the erosion of the unlined drainage channel slopes. The drainage channel has not been restored since it was originally constructed in the mid 1970's for the C&C of Honolulu.

The drainage channel bottom is a silty bottom and devoid of life other than occasional invertebrates who swim up the channel during periods of high tides.

The material removed will be initially spoiled in a retained stockpile located mauai of the restoration site and within the Kaneho Yacht Club property. The location of this area is downwind of any residential area and will not cause any adverse affect to neighboring properties. After a reasonable amount of drainage has occurred, the dredged material shall be truck-hauled and disposed at the Kapaa landfill site, or other suitable and approved landfill site. A copy of our proposed Settling Basin Construction details are attached for your reference.

Immediate environmental impact will be negligible other than temporarily increased turbidity in the immediate areas. However, the turbidity will be much less than that which is chronically experienced due to storms and fresh-water run off caused during heavy rains discharging through this channel. There should be no long-term adverse impact. Sea life that currently inhabit the drainage easement would re-established themselves very quickly since there will be little change in the physical environment that currently exists. All such sea life are extremely plentiful in the shoreline areas around Kaneho Bay. There are no rivers or streams within 2,000 feet of this site.
An engineer's design report will be prepared during the final design for construction permits. To minimize redesign costs, all comments made by regulatory and permitting agencies will be incorporated into the final project design. Design of the lined slopes, sizes of stone and layer thickness, bedding materials, functional and structural ability and life expectancy will be in accordance with accepted hydraulic design standards of the U.S. Army Corps. of Engineers as contained in Engineer Manual 1110-2-1601.

The following non-structural Best Management Practices will be implemented during construction.

a. No excavation will occur during heavy rainfall - run off periods. This will mitigate the transportation of silt laden waters down the drainage channel to the ocean.

b. To the maximum extend practical, earthwork will be limited to low or incoming tidal periods.

c. Excavated materials will be stockpiled and dewatered on land prior to transportation to a permanent land based disposal site. Dewatering will pass through existing grass and vegetation to filter out suspended materials to maximum extent practicable. Surrounding berms and weirs will permit settlement prior to returning to ocean waters via the existing storm drain to the bay.

d. Construction is planned for the dry season between May to December when flow down the drainage channel is minimal.

Alternative actions are as follows:

a. No Action: Erosion of the existing banks will continue. Eroded materials will be deposited in ocean waters, seaward of the storm drain outlet. Eventually existing structures and roadways will be endangered. The only effective solution is some form of bank stabilization.

b. Vertical Concrete Walls: This option would require far more excavation to provide adequate footing foundations and vertically cut slopes. The cost of this option would be prohibitive. Also depending upon the foundation, would greatly expand the depth of the drainage channel and therefore the opposite bank.

c. Vertical Steel Sheet Piling: Cost is beyond means. Sheet piling could be installed at the landward edge of the property slope; however, increased drainage velocities would cause erosion of remanding channel materials, which would be deposited in the ocean waters.

To date, we have received favorable responses from all other agencies. This includes other City and County agencies, the U.S. Army Corp. of Engineers, and State of Hawaii review agencies. Full Approvals have been received from the following agencies:
Costal Zone Management Planning: Approval Received 2/3/94
General Permit, Corp of Eng.: Approval Received 1/11/94
Dept. of Public Works, C&C of Honolulu: Approval Received 12/23/93
Section 401 State of Hawaii, Dept of Health: Approval Pending (See * below)

* Note: No unfavorable comments received. Our application was set out by the State to the engineering firm of Engineering Concepts to make a review of our application. This review was completed in November, 1994 with no unfavorable comments.

We are not proposing construction of a new drainage channel. The existing channel was constructed by the City and County of Honolulu in conjunction with private/public development improvements in the vicinity. No maintenance has been performed by the C&C of Honolulu since initial construction. During periods of heavy rainfall/run off, increased drainage velocities have scoured the original channel slope and is eroding adjacent lands belonging to Kaneohe Yacht Club. Without the project, erosion will continue and further damages will occur to an existing boat storage shed, a concrete slab, bituminous pavement, a concrete bulkhead and chain link fencing in the vicinity. The proposed revetment will protect these structures, and will provide advantageous to C&C of Honolulu by eliminating erosion of the unlined drainage channels.

To contain costs, full scale drawings were not contemplated for this minor project. All pertinent information is contained on the sketches submitted with our applications. Minor design changes which may result from final design calculations will be incorporated into the final construction permit plans.

Estimated cost for this project is expected to be less than $25,000. Work would commence within 6-months of receipt of all permits and authorizations and will be completed within 60 days thereafter. However, since it is desirable to do as much of this work as possible during the dry season, we're limited to the months of June - November for the construction period.
PROPOSED SLOPE REPAIRS

HEIGHT VARIES (3'-4')

FILTER CLOTH

.05 TO .300 LB. STONE (LAYERED)

EXIST. GRO1

SHORELINE PROTECT
KANEHOE YACHT C;
KANEHOE BAY, OAHU, HI

SHEET 2 OF 3
CORRECTION

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

HEIGHT VARIES (3-4"

EXIST. GROIN

FILTER CLOTH

.05 TO 300 LB. STONE (LAYERED)

NO SCALE
May 3, 1995

City & County of Honolulu
ATTN: Mr. Patrick T. Onishi, Director
Department of Land Utilization
650 South King Street
Honolulu, HI 96813

RE: 95-01482(DT) 94/SV-006
Kaneohe Yacht Club Bank
Stabilization Shoreline Variance

Dear Mr. Onishi,

In reply to your letter of April 24, 1995 please note the following additional information
as requested:

1. The Cost of the entire project, including the portions outside of the 40-foot
shoreline set back is conservatively estimated at $25 to $30,000. No work will be
conducted outside of these areas, except for temporary storage of excavated materials
prior to permanent disposal.

2. Construction will commence within 6 months of receipt of all permits and
authorizations, and will be completed within 60 days there of. On this basis,
construction is estimated to occur in September - November, 1995.

3. An engineer's design report will be prepared during final design for construction
permits. To minimize redesign costs, all comments made by regulatory and permitting
agencies will be incorporated into the final project design. Design of the lined slopes,
sizes of stone and layer thickness, bedding materials, functional and structural ability
and life expectancy will be in accordance with accepted hydraulic design standards
of the U.S. Army Corps. of Engineers as contained in Engineer Manual 1110-2-1601.

4. We have received favorable responses from all other agencies to date. This
includes other City and County agencies, the U.S. Army Corp. of Engineers, and State
of Hawaii review agencies. Full Approvals have been received from the following
agencies:

Telephone (808) 247-4121 - Fax (808) 235-8180
Costal Zone Management Planning: Approval Received 2/3/94
General Permit, Corp of Eng.: Approval Received 1/11/94
Dept. of Public Works, C&C of Honolulu: Approval Received 12/23/93
Section 401 State of Hawaii, Dept of Health: Approval Pending (See * below)

*Note: No unfavorable comments received. Our application was set out by the State
to the engineering firm of Engineering Concepts to make a review of our application.
This review was completed in November, 1994 with no unfavorable comments.

5. As noted in the third paragraph of our FEA, the total excavated earthwork is
estimated at 100 cubic yards or less. Of this amount, less than 15% of this earthwork
will be removed from within the 40' set back area.

6. The following non-structural Best Management Practices will be implemented
during construction.

   a. No excavation will occur during heavy rainfall - run off periods. This will
      mitigate the transportation of silt laden waters down the drainage channel to the
      ocean.

   b. To the maximum extent practical, earthwork will be limited to low or
      incoming tidal periods.

   c. A silt screen will be employed during earthwork and revetment placement
      operations to minimize transportation of silt to ocean waters.

   d. Excavated materials will be stockpiled and dewatered on land prior
      transportation to a permanent land based disposal site. Dewatering will pass
      through existing grass and vegetation to filter out suspended materials to the
      maximum extent practicable. Surrounding berms and weirs will permit
      settlement prior to returning to ocean waters via the existing storm drain to the
      bay.

   e. Construction is planned for the dry season between May to December when
      flow down the drainage channel is minimal.

7. Alternatives considered are:

   a. No Action: Erosion of the existing banks will continue. Eroded materials will
      be deposited in ocean waters, seaward of the storm drain outlet. Eventually
      existing structures and roadways will be endangered. The only effective
      solution is some form of bank stabilization.

   b. Vertical Concrete Walls: This option would require far more excavation to
      provide adequate footing foundations and vertically cut slopes. The cost of this
      option would be prohibitive. Also depending upon the foundation would greatly
expand the depth of the drainage channel and therefor the opposite bank.

c. Vertical Steel Sheet Piling: Cost is beyond means. Sheet piling could be installed at the landward edge of the property slope; however, increased drainage velocities would cause erosion of remaining channel materials, which would be deposited in the ocean waters.

8. We are not proposing construction of a new drainage channel. The existing channel was constructed by the City and County of Honolulu in conjunction with private/public development improvements in the vicinity. No maintenance has been performed by the C&C of Honolulu since initial construction. During periods of heavy rainfall/run off, increased drainage velocities have scarred the original channel slope and is eroding adjacent lands belonging to Kaneohe Yacht Club. Without the project, erosion will continue and further damages will occur to an existing boat storage shed, a concrete slab, bituminous pavement, a concrete bulkhead and chain link fencing in the vicinity. The proposed revetment will protect these structures, and will provide advantageous to C&C of Honolulu by eliminating erosion of the unlined drainage channels.

To contain costs, full scale drawings were not contemplated for this minor project. All pertinent information is contained on the sketches submitted with our applications. Minor design changes may result from final design calculations.

Again, please do not hesitate to contact me if you have any questions!

Sincerely,

Allen Schildknecht
Project Chairman, KYC
Kaneohe Yacht Club
44-503 Kaneohe Bay Drive
Kaneohe, Hawaii 96744

ATTACHMENT "D-1"

SCOPE OF WORK

AT KANEHOE YACHT CLUB SOUTH DRAINAGE EASEMENT

The proposed work is to stabilize the erosion which is occurring along the north slope of the drainage channel which passes through the southern side of the Kaneohe Yacht Club property. As a side benefit, the intended work will restore the drainage capacity of this existing storm drain to near original conditions.

It is the intent that the north side slope of this channel be mechanically shaped utilizing a backhoe or equivalent equipment. This slope shall then be stabilized using a commercially available filter fabric cloth mat intended for this purpose. To secure the cloth, a layer of 0.5 to 300 pound rip rap stone would be placed over the top of the fabric. This stone would be commercially quarried stone free from any organic matter of other contaminates. This material will comply with Section 11-54-03 of the Hawaii Administrative Rules.

The existing vegetation, which is primarily Hale Koa will be cleared to the minimum extent necessary to permit the work to be accomplished. Approximately 100 cubic yards of accumulated alluvial silt is to be removed during the slope preparation and restoration of the original construction of the drainage channel. The drainage channel depth has been reduced due to accumulation of silty material from storm drain run off from neighboring off-site locations mauka of the property and the erosion of the unlined drainage channel slopes. The drainage channel has not been restored since it was originally constructed in the mid 1970's for the C&C of Honolulu. A siltation fence will be constructed at the outlet of the drainage basin to minimize the siltation flowing into the bay during construction.

The immediate environmental impact will be negligible other than temporarily increased turbidity in the immediate areas. However, the turbidity will be much less than that which is chronically experienced due to storms and fresh-water run off caused during heavy rains discharging through this channel. There should be no long-term adverse impact.

Telephone (808) 247-4121 - Fax (808) 235-8180
ATTACHMENT D-3

MONITORING PROGRAM

There is no indication that the alluvial silty bottom of the drainage ditch contains any contamination. Previous tests of the siltation within yacht club harbor show the silt within this area to also be free of contamination. However, during the construction should additional tests of the discharge waste be required, the club will have these tests made as requested.

Visual inspection of the discharge will be maintained throughout the excavation process of both the spoils and the turbidity of the water within the drainage ditch and the immediate areas of the Kaneohe Bay where the ditch drains into.

Please refer to our attached siltation containment drawings for additional information.

Prior to removal of the dried spoils, the spoils will again be examined and will be truck hauled to a suitable landfill site on Oahu. It is our intent not to have any ocean discharge of the spoils.
OVERSIZED DRAWING/MAP

PLEASE SEE 35MM ROLL

0062