DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
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DEPUTY DIRECTOR

January 15, 2004

2003/ED-26(AM)
2003/SV-19(AM)

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

RECEIVED
04 JAN 15 P2:55
OFC. OF ENVIRONMENTAL QUALITY CONTROL

Dear Ms. Salmonson:

Shoreline Setback Variance
Chapter 343, Hawaii Revised Statutes
Environmental Assessment (EA)/Determination
Finding of No Significant Impact

Landowner/Applicant	:	Richard and Noreen Van Horn
Agent	:	Richard Van Horn
Location	:	46-035 Lilipuna Road - Kaneohe
Tax Map Key	:	4-6-1: 9
Request	:	Shoreline Setback Variance
Proposal	:	To retain two CRM walls and construct a third CRM wall mauka of an existing CRM retaining wall, and other various alterations within the shoreline setback area
Determination	:	A Finding of No Significant Impact is Issued

Attached and incorporated by reference is the Final EA prepared by the applicant for the project. Based on the significance criteria outlined in Title 11, Chapter 200, Hawaii 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 Final EA. Should you have any questions, please contact Ann Matsumura of our staff at 523-4077.

Sincerely yours,

for ERIC G. CRISPIN, AIA
Director of Planning and Permitting

EGC: cs
Enclosures

FINAL ENVIRONMENTAL ASSESSMENT

RECONSTRUCTION OF A FAILING RETAINING WALL AT 46-035 LILIPUNA ROAD Kaneohe, Oahu, Hawaii

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Prepared in Partial Fulfillment of the Requirements
of Chapter 343, Hawaii Revised Statutes; Title 11, Chapter 200,
Hawaii Administrative Rules, Department of Health, State of Hawaii;
Chapter 23 Shoreline Setbacks and Chapter 25 Special Management Area,
Revised Ordinances of Honolulu

Prepared for

Richard and Noreen Van Horn
46-035 Lilipuna Road
Kaneohe, HI 96744

Prepared by

Richard H. Van Horn, AIA, AICP
46-035 Lilipuna Road
Kaneohe, HI 96744

Draft Submitted September 2003
Final Submitted January 2004

(Note: Refinements to DEA as a result of communications
with consulted parties are shown in italics.)

SUMMARY INFORMATION

Proposed Action:	Request for Shoreline Setback Variance
Applicant:	Richard and Noreen Van Horn 46-035 Lilipuna Road Kaneohe, HI 96744
Approving Agency:	Department of Planning and Permitting City and County of Honolulu 650 South King Street Honolulu, HI 96744
Need for Assessment:	Any use within the shoreline area as defined in Section 205A-41, HRS (§11-200-6 (b)(C))
Tax Map Key:	4-6-001:009
Land Area:	24,431
Landowner	Richard and Noreen Van Horn
Existing Use:	CRM Retaining Wall
State Land Use Designation:	Urban District
Development Plan Area:	Residential
Land Use Map:	Residential
Zoning:	R-10 Residential District (LUO)
Special Management Area:	Within Special Management Area
Special District:	Not in Special District
Anticipated Determination:	Finding of No Significant Impact

TABLE OF CONTENTS

FIGURES

SECTION 1 DESCRIPTION OF THE PROPOSED ACTIVITY

Richard and Noreen Van Horn, owners of real property with a street address of 46-035 Lilipuna Road, are requesting an after-the-fact shoreline setback variance to permit the construction of:

- *Two already completed reliever walls and an additional reliever wall.*
- *A series of three 4 to 5' rise stairways integrated into the east end of the wall system.*
- *The replacement of an existing collapsed wall east of the stair system (the top stair and most of the collapsed wall are mauka of the 40' setback line).*
- *Complete removal of 20 feet of the west end of the existing wall so that it can be completely rebuilt to 6 to 7'. This is the portion of the wall with the poorest foundation conditions as revealed at the time of footing excavation while reinforcing the balance of the wall.*
- *Replacement of an existing concrete slab between the seawall and the repaired wall*

The thre reliever walls are behind an existing failing retaining wall (all within the 40' shoreline setback). The construction of the reliever walls allowed the reduction in height and reinforcement of a failing existing wall. The newly constructed reliever walls allowed the removal of 6' of embankment from behind the failing wall, greatly reducing the load on the remaining portion of the wall. This insured that 1) the failing wall would not drop the embankment it was retaining to fall into the ocean, and 2) that the embankment holding up the house (behind the shoreline setback line) will continue to be supported. The property bears TMK: 4-6-001: 009 encompassing an area of 24,431 square feet. A Location Map is below, Figure 1.

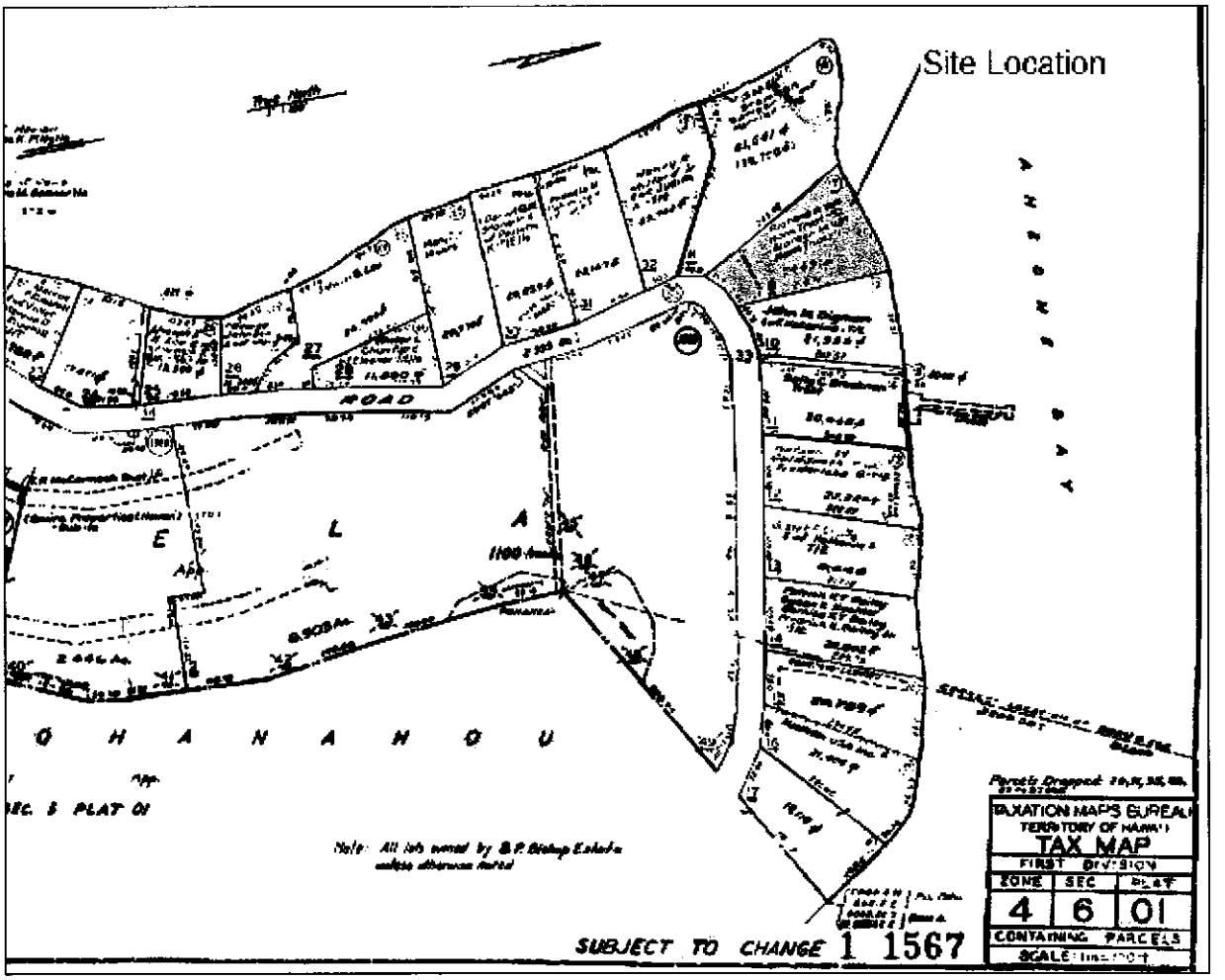


Figure 1:Tax Map and Location Plan

A. Shoreline Setback Variance Request

The original failing retaining wall is a cement rubble masonry (CRM) wall approximately 100 feet long and originally 12 feet in height (already substantially repaired and reduced to 6'). The wall is considered to be non-conforming because it was built prior to June 22, 1970, the inception date of the shoreline setback rules (Department of Planning and Permitting, 2002). This retaining wall is, therefore, a legal shoreline structure. This is verified by the dated RMT photograph (Figure 2), that clearly shows the wall.

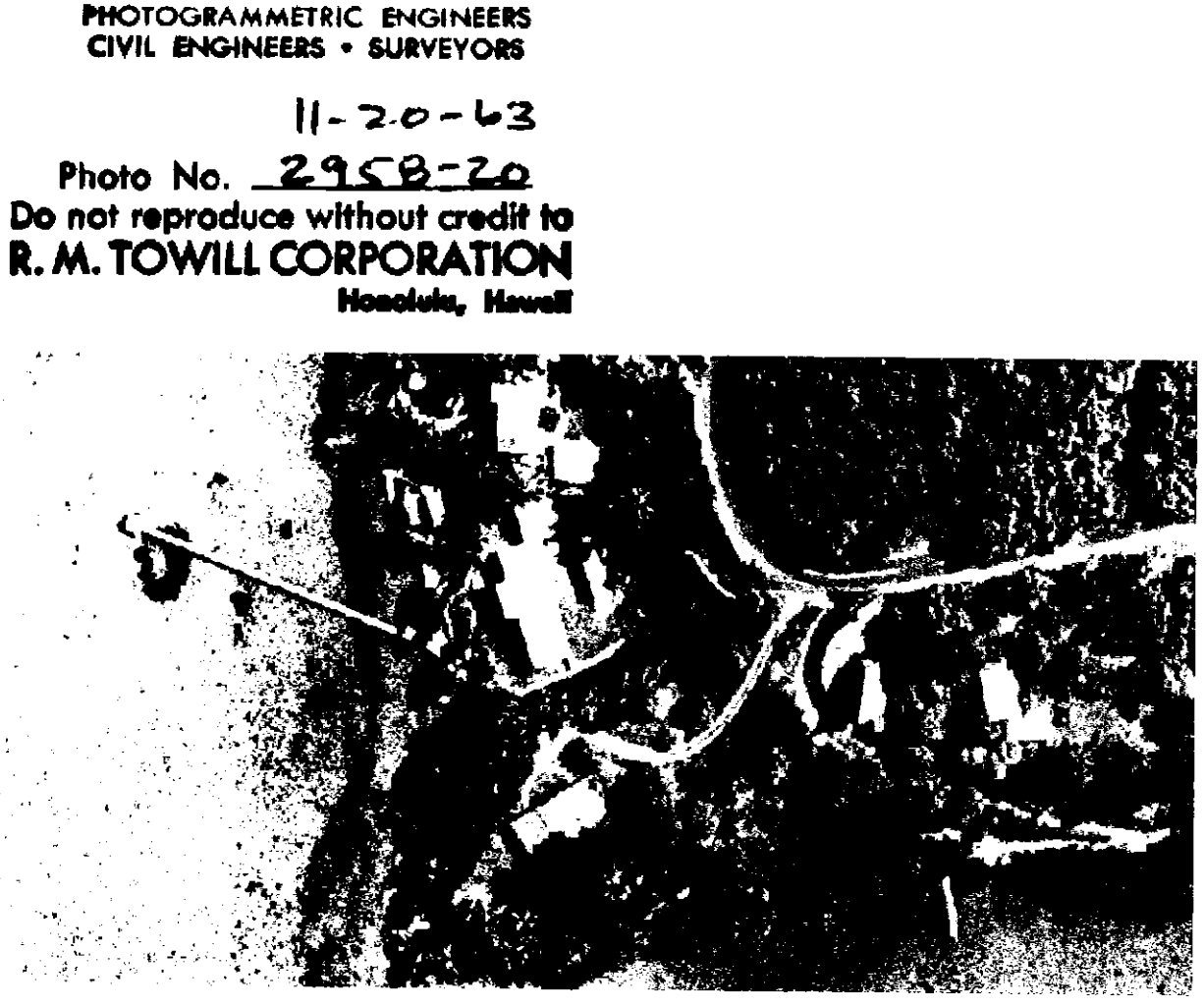


Figure 2: Aerial Photograph, dated 1963

The applicant desires to finish the reconstruction of the retaining wall system and is submitting this application for a shoreline setback variance to allow the wall to be reconfigured into a safe condition.

B. Description of the *Failing* Retaining Wall Prior to its Repair

The original wall was constructed as a retaining wall to prevent soil loss in the direction of the ocean, and to raise the lot to form a relatively level yard for the house, which is at Elevation 23 feet. Ground height on the upper side of the wall *in its original configuration varied* between 2 to 3 feet below the top of the wall.

The wall is constructed of rock set with cement mortar. Figure 3 shows the relationship of the walls to the ocean and 40' setback. The wall *in its original configuration* was measured at 12

feet in height with the top at 17-20 feet elevation, and was 24" wide at the top with an unknown foundation width.

The original failing wall is 10-15' from the ocean for the portion of the wall that runs parallel to the shoreline and then turns south and cuts into the hillside away from the shoreline.

There is a short wall 1-2' high approximately 2' in front of the 12' wall which will also have to be removed to allow reinforcement of the footing of *the original failing* wall. This has already been accomplished as far east as the existing wooden stair. *The wall was a partially collapsed 3 course CMU wall without grouting, reinforcement, or footing. Its original function appeared to be a seating area. In any case, the wall was removed to expose and reinforce the footing of the original retaining wall.*

The short CMU wall did not provide protection during high tide, the wall was above the high tide line as is the lowest level of the yard that is between the actual makai seawall and the newly reinforced retaining wall. In the current owners 20-year residency, the tide has never come above the makai seawall including storm waves from Hurricane Iniki. This portion of Kaneohe Bay is protected from wave energy by Coconut Island.

The continuation of the short wall from the stair to the property line behind cottage 46-035B has already collapsed and will be rebuilt as a part of this project. (*The majority of the replacement wall will be* outside the 40' setback.)

The 40' setback is shown in red on Figure 3 and is shown set *back* from *the certified shoreline document survey, dated July 10, 2003* submitted with this document. The majority of the shoreline is the seaward edge of an existing short seawall that *is a preexisting condition that has been in place since at least 1952.* The status of the variation of the seawall back and forth across the property line and the pier are the subject of a lease agreement approved by DLNR under the Kaneohe Bay Amnesty Program (File #OA-02-14)

The base of the seawall is approximately at +0.1 to +0.4 MSL. And follows a natural ledge line. The northeastern corner stake is well above sea level.

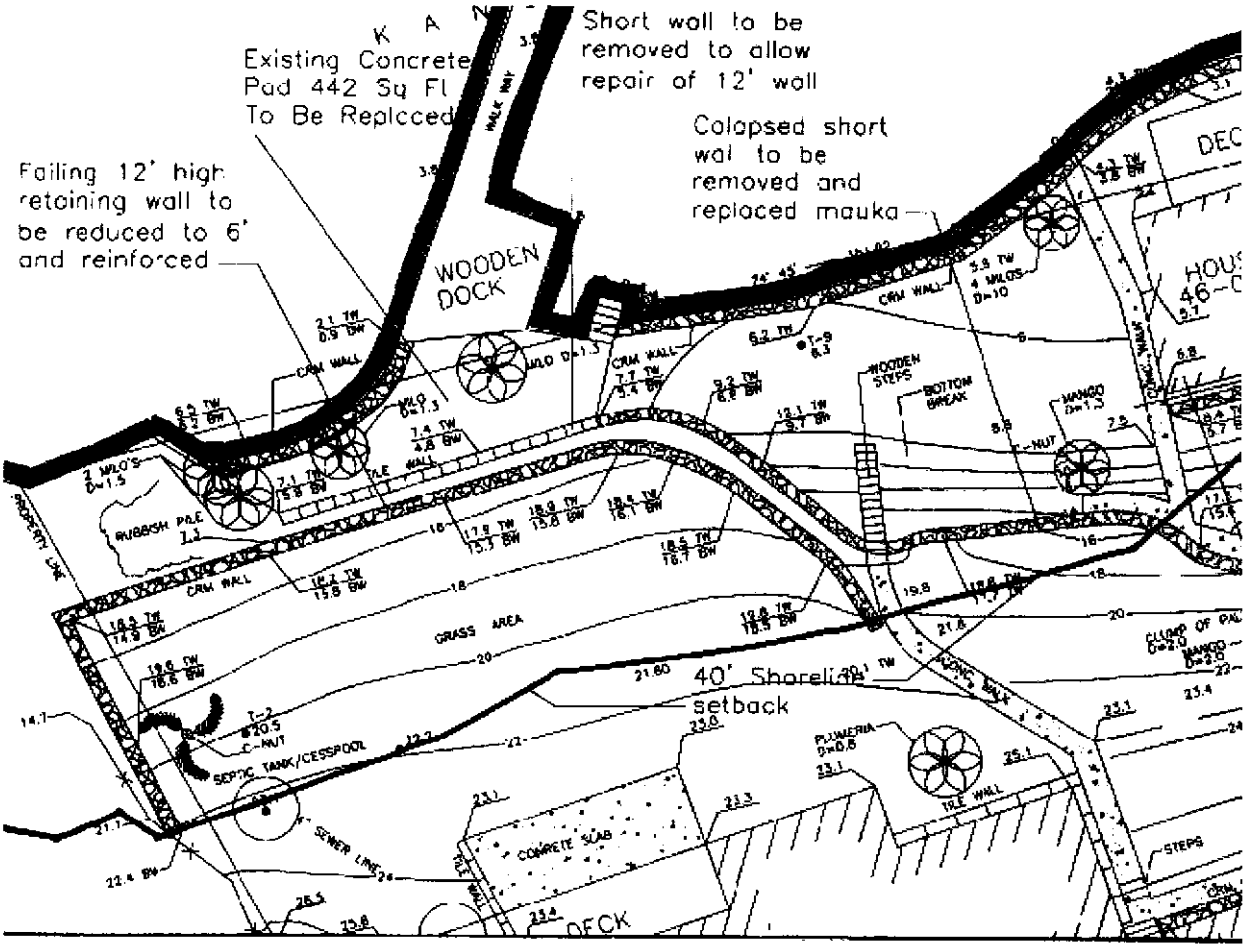


Figure 3 ***Revised*** **:** ***Original*** **Site Topographical Survey**

Figure 4 below shows the existing seawall in the foreground, the short CMU wall, and the 12' failing wall behind the milo trees (prior to its modification).

Figure 4: View of the Original Wall from Ocean
(Fall 2002, prior to reduction in height)

Field measurements confirm that the original wall was 12 feet in height measured from the base, 90 feet long, and 24" wide at the top. The bottom width cannot be determined without totally demolishing a portion of the wall but excavation during reinforcement shows a rock footing possibly an earlier wall on the eastern end and a dirt and rubble footing on the western end.

An on-site drainage system drains all of the site mauka of the house away from the wall area down a swale on the eastern edge of the property. Only the yard area, 50' x 80' or 4,000 sf. drains to the wall.

A wooden stairway at the eastern end of the wall provided access to the lower level area and ocean. *The steps have been partially removed.*

Inspection of the wall from the ocean side prior to partial removal revealed an outward lean of at least 12" and a number of cracks extending from the bottom of the wall to the top. See Figure 5, is a photo of a prominent crack and displacement at the intersection of the straight portion of the wall with the curved east end. Rocks *had* been dropping out of the wall with each heavy rain. See Figure 6 shows cracks and holes left by fallen rocks.

Figure 5:
Wall Crack and Slumped Portion (Eastern End)
(Fall 2002)

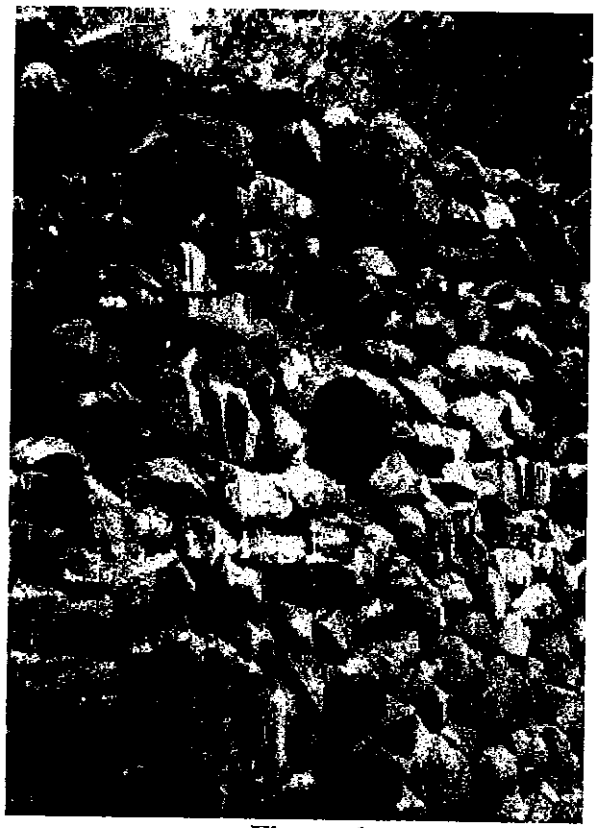


Figure 6:
Missing Rock Area (Western End)
(Fall 2002)

The lean in the wall + also increasing from very little 20 years ago (1982), when the current owners purchased the property, to 12" or more past vertical. The wall was shedding individual rocks and was in imminent danger of collapse. As the wall overlooks the public shoreline, approximately 10 feet to the north, it was a hazard to not only the residents but also to the public and fishermen who transit the area along the tidal flats.

Concerned over the safety and earth retention issues, the homeowner, in the summer of 2002, removed the top 3 feet of the wall in the most suspect 30 feet. (See Figure 7.) This effort somewhat abated the falling rock danger but the balance of the wall was still in danger of overturning.

Figure 7: Portion of Overhung Wall Removed by Homeowner (Fall 2002)

The homeowner then commissioned a design to reconstruct the wall into a less massive configuration of a series of simple gravity walls. Each wall is designed to retain 4 to 5' of soil and is be set back 8-10 feet from the original wall and from each other. (See Figure 8.) The stepped-back configuration of the reliever walls also required the removal of approximately 300 CY's of the existing yard from behind the upper portion of the existing wall. This relieved the weight of soil on the original wall and decreased the possibility of overturning. This also allowed the removal of the top 6' of the existing wall.

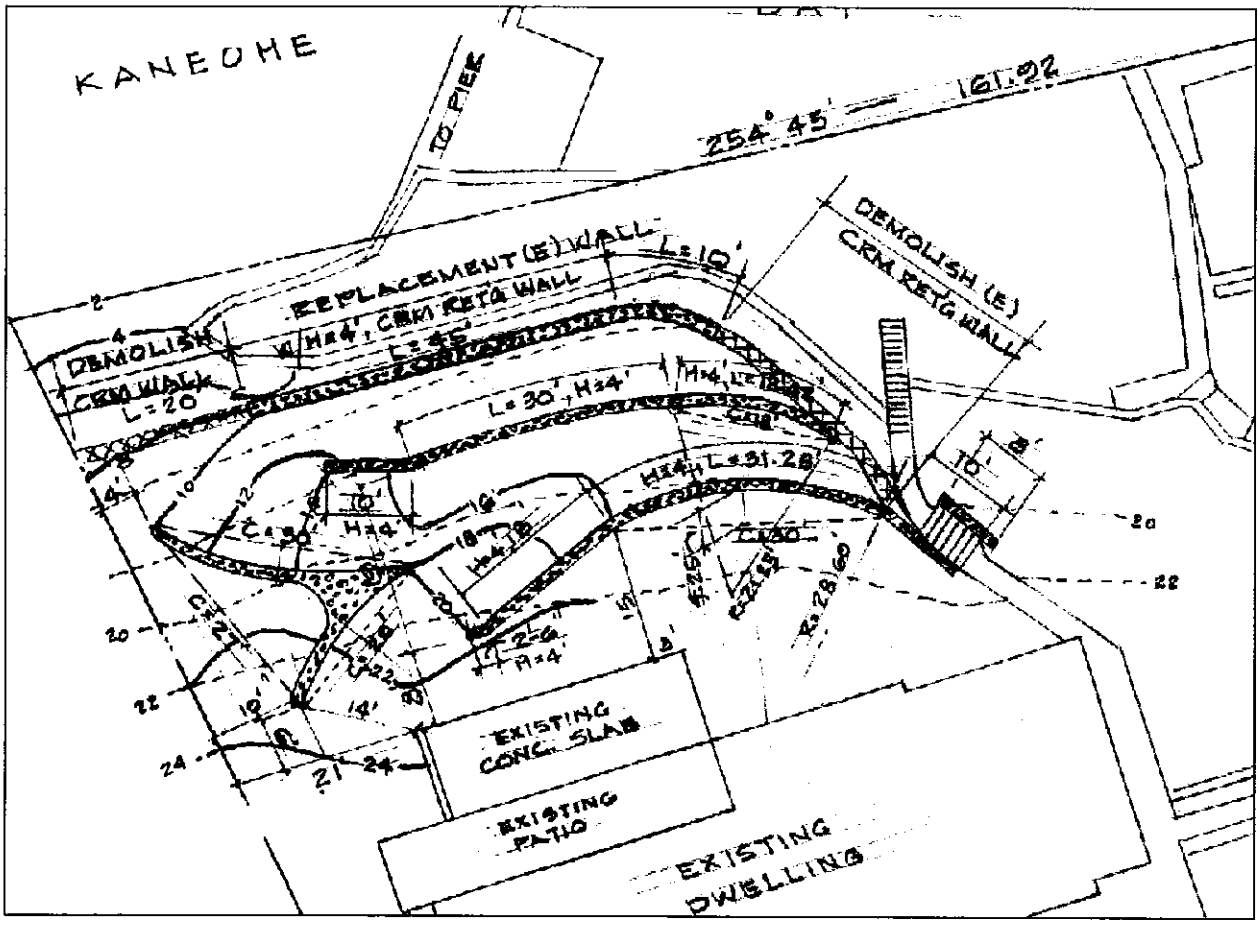


Figure 8: Original Engineering Design Plan

The initial design envisioned completely removing the existing wall and replacing it with a new 4' wall in the same location. (See Figure 9.)

Note: The staggered pattern of reliever walls is necessary to allow construction equipment access to each of the terraces formed and to the area between the existing wall and the ocean. This portion of the site *was* landlocked with no *heavy* equipment access.

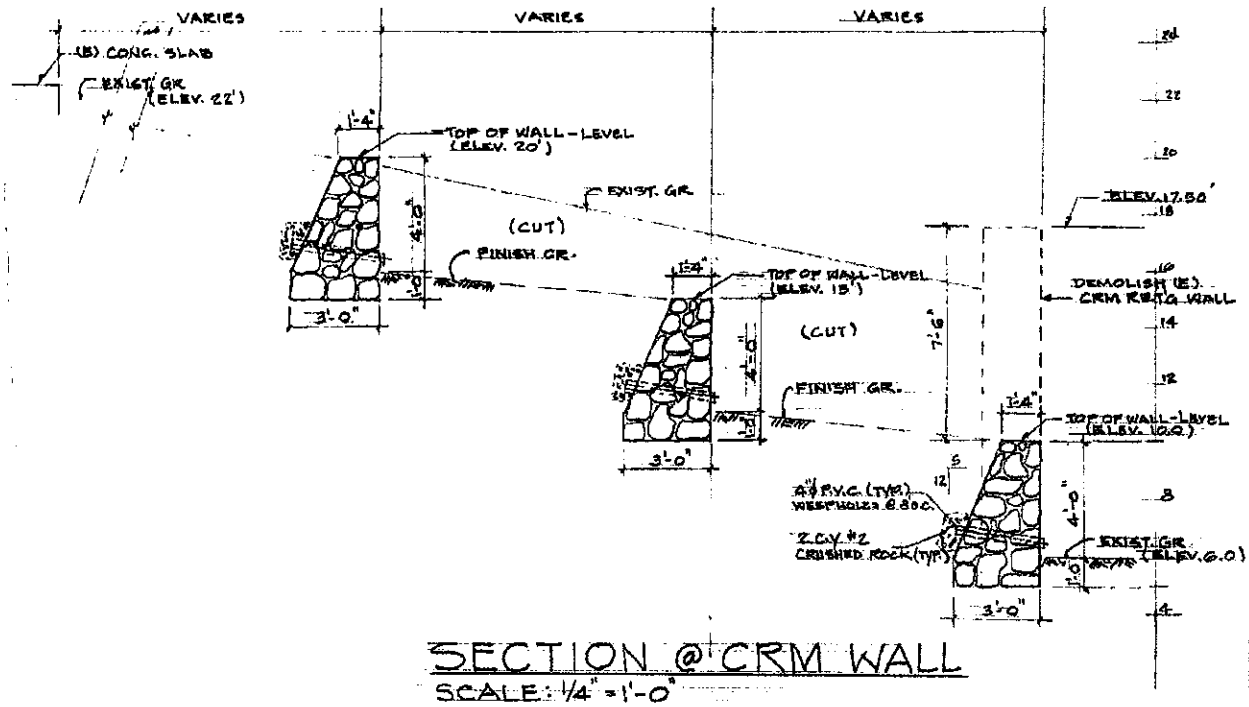


Figure 9: Original Engineering Design Section

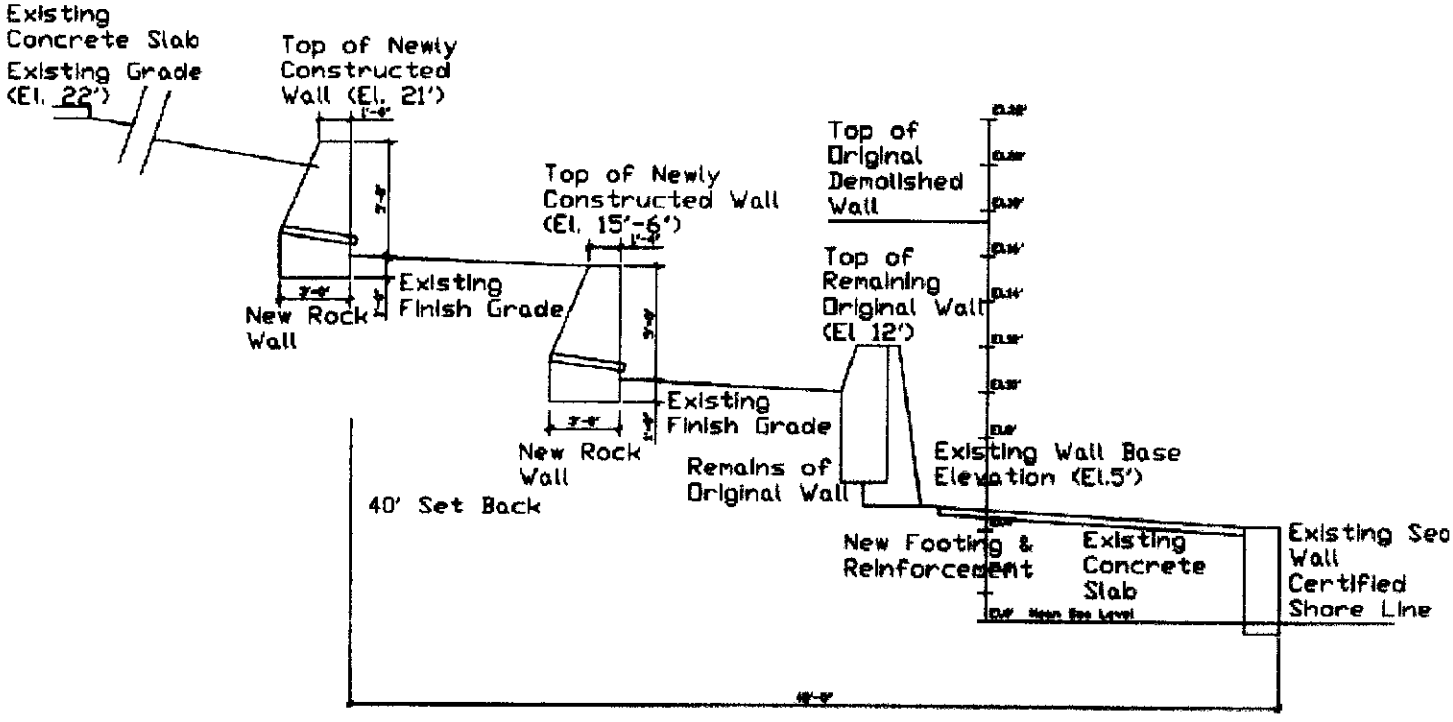


Figure 9A: *Current Site Section*

A building permit was then requested by *Contractor* Litani Tuiono and his associate structural engineer, Brad Nago, based on the above engineering plan (application #A2002-10-0785). In the interest of safety (rainy season was nearing) the contractor started the job several days after submitting the request for permit. Unfortunately the permit was not forthcoming due to the

additional shoreline set back application requirements. By the time this was clarified, the two primary reliever walls had been constructed and the top 6' of most of the existing wall was removed and most of the grading was done.

There was discussion with the Department of Planning and Permitting regarding difficulties in obtaining the original permit in a short time frame. DPP advised that a building permit to reduce and repair the existing wall to not less than 50% of its original configuration was allowable without going through the time consuming shoreline setback variance process. Thus, it was decided to request a separate building permit to reduce and reinforce the existing wall rather than replace it.

Permit BP #541985 and Grading Permit GP2002-10-0663 allowed the removal of 6 to 8 feet of soil from behind the original wall and allowed removal of the top 6 feet of the existing wall, greatly reducing the danger posed by wall collapse. About 80% of the front edge of the wall footing was then exposed and reinforced with an additional new footing on the down hill side. The wall was refaced to match the new walls. See Figure 10 below.

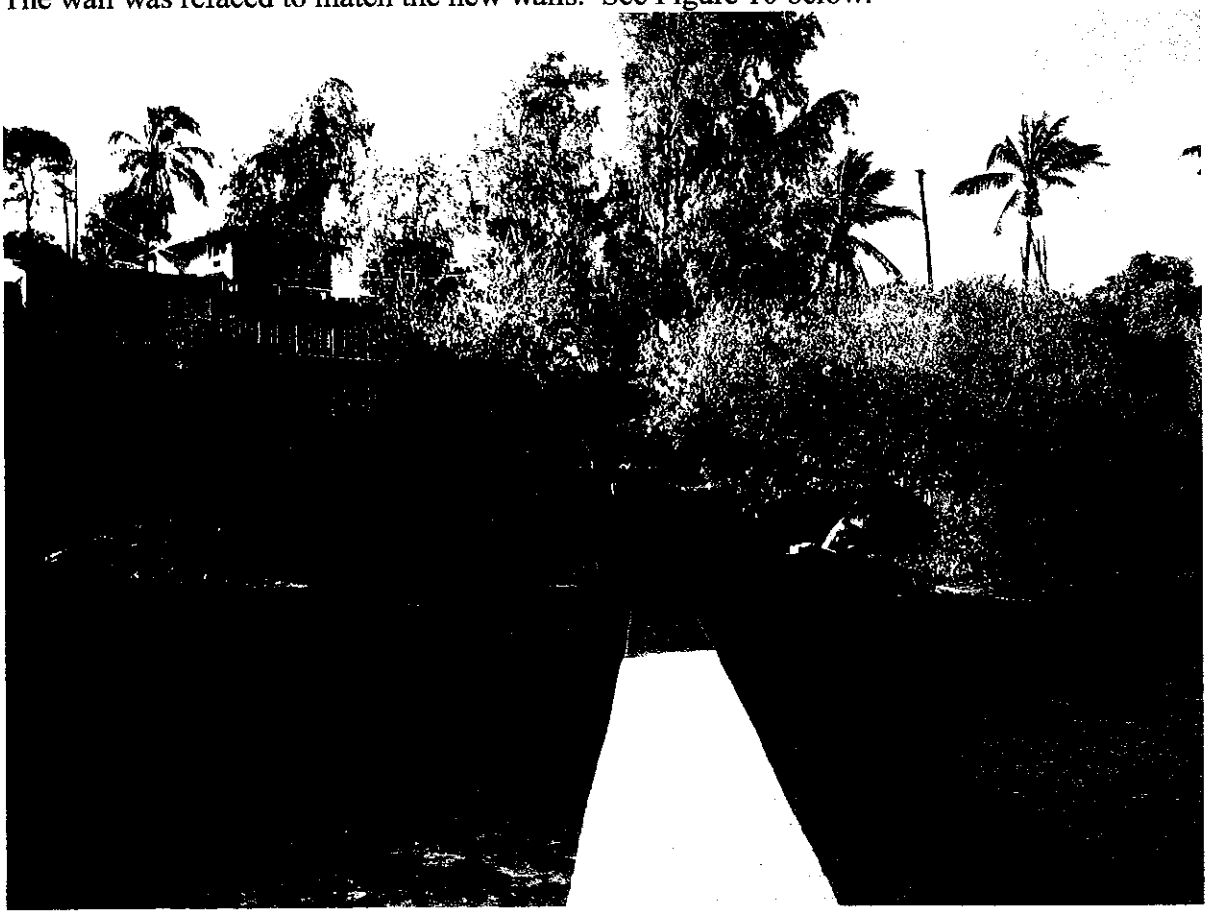


Figure 10: View of the recently reduced height wall and mauka retaining walls

Therefore, this application is to seek approval of:

- Two already completed reliever walls and an additional reliever wall.
- A series of three 4 to 5' rise stairways integrated into the east end of the wall system.

- The replacement of an existing collapsed wall east of the stair system (the top stair and most of the collapsed wall are mauka of the 40' setback line).
- Complete removal of 20 feet of the west end of the existing wall so that it can be completely rebuilt to 6'. This is the portion of the wall with the poorest foundation conditions as revealed at the time of footing excavation while reinforcing the balance of the wall.

In summary, as shown in Figure 11 below:

- Grading has been substantially completed under permit GP2002-10-0663
- Reduction in height and reinforcement of 80% of the existing wall has been completed under building permit BP #541985
- Approval of two constructed walls, one additional reliever wall, three 4' stair sections, replacement of a collapsed wall, any complete replacement of a 20ft. section of the existing wall is requested under this shore setback variance.

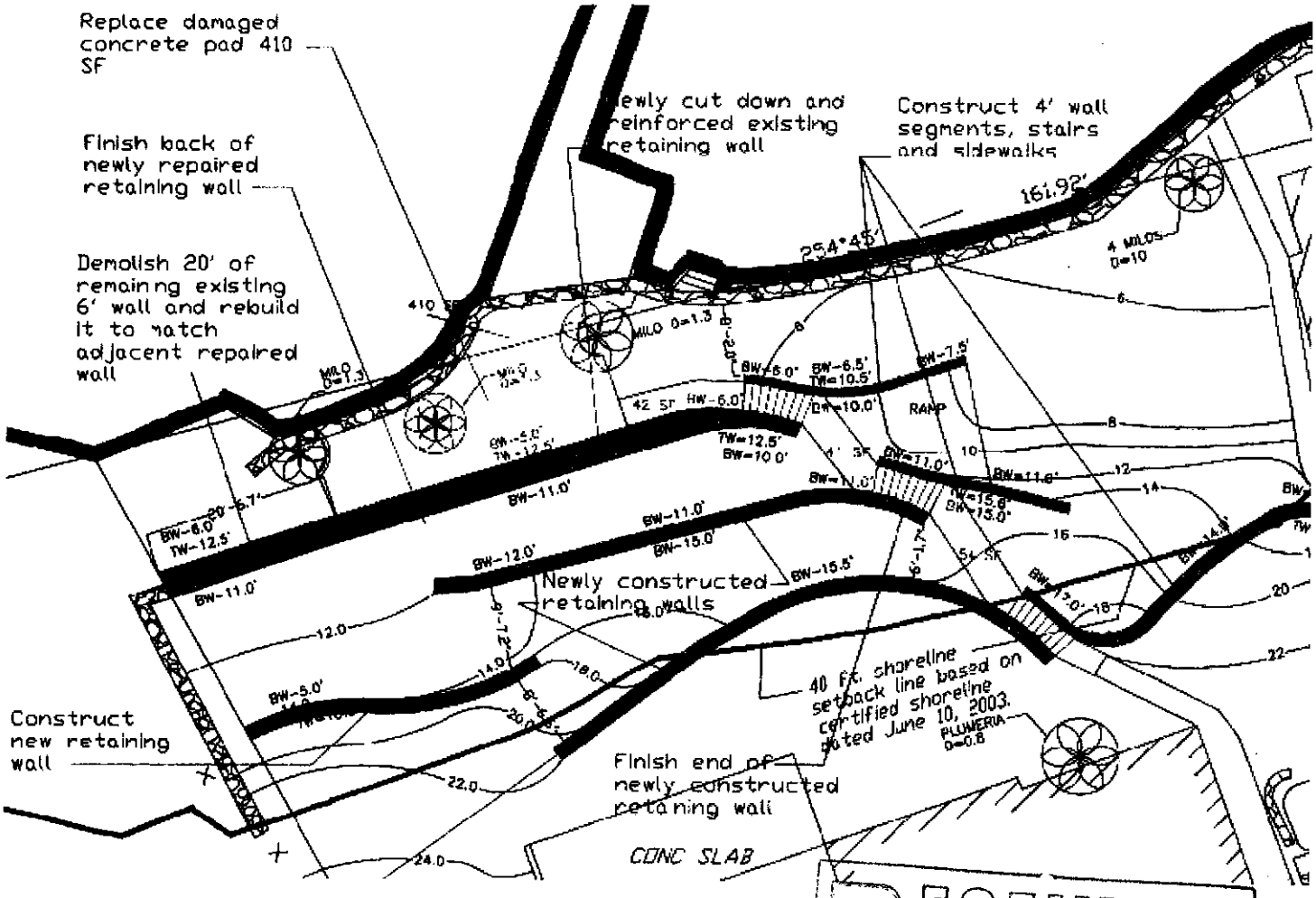


Figure 11: ***Revised Site Plan***

SECTION 2 DESCRIPTION OF THE AFFECTED ENVIRONMENT

The Van Horn property is located in a well-established residential neighborhood on the makai side of Lilipuna Road on the slopes of Puu Pahu in Kaneohe Bay. Steeply sloping large residential lots, single-family dwellings, and established landscaping characterize the neighborhood. The area features a mix of old residential homes with a few newer dwellings.

The wedge shaped property is approximately 230' deep and tapers from 60' at the road to 162' at the ocean. Access to the parcel is from a driveway on the Lilipuna Road at the high end of the lot.

There are three single-family dwellings on the grounds--a full-size home and two cottages. All three buildings are shown as dimensioned sketches in the tax records and are under a single building permit (#37979, dated 11-16-46).

A large relatively new residence, constructed in 1992, borders the property to the east and a single-family dwelling and small cottage to the west. A chain link fence extending from Lilipuna Road to the ocean separates the property from the neighboring property to the east. A corrugated roofing fence separates the property from the west neighbor.

Ground elevation falls from a high of 72 feet on the mauka end of the lot to 0' at the ocean.

During the already completed grading, it was noted that in some places, broken pieces of concrete, crumbled bits of asphaltic concrete, and building rubble were mixed into the fill material removed from behind the existing wall.

The Flood Insurance Rate Map for the area classifies the property as Zone X, which is defined as "areas determined to be outside 500-year flood plain"

There are no mauka to makai public **rights of the way** to the shore. The nearest public right-of-way to the beach is Coconut Island pier located to the east. Although there is not public access to the shore over the property, there is lateral access along the shoreline in the coastal shallows along the front of the property used by fishermen and others.

There is no sand beach per se fronting the property, which is typical of lots fronting Kaneohe Bay. However, there is an extensive sandy/silty tidal flat off shore that is popular with local fisherman.

The property is sheltered by Coconut Island and the Kaneohe reef and is not exposed to storm waves and high surf. The lot is not located within a coastal high hazard zone and not susceptible to large waves. The ocean bottom is a limestone reef with sand and sand deposits immediately offshore. The limestone reef extends seaward for about 300 to 400 feet.

In this area, the shallow water, fringing reef, and generally calm waters are conducive to a range of ocean recreation activities such as pole fishing, torch fishing, throwing net, and swimming.

No part of the shoreline or near shore along the subject parcel is in view from Lilipuna Road due to the location of the house and trees. Figure 12 the photo below is taken in the seaward direction from Lilipuna Road at the top of the subject parcel driveway. (The photo is taken slightly on the property to better show the view past the driveway retaining wall.)

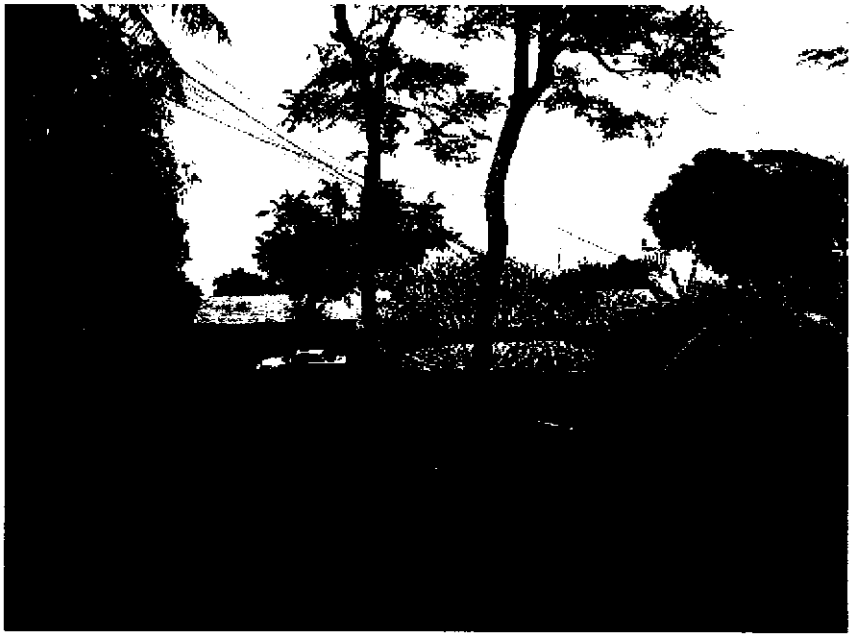


Figure 12: Photo Of The Shoreline From Lilipuna Rd.

SECTION 3 POTENTIAL ENVIRONMENTAL IMPACTS AND MEASURES TO MITIGATE ADVERSE EFFECTS

A. Description of the Assessment Process

The scope of the activity was discussed with the staff of the Department of Planning and Permitting. Time was spent in the field noting site conditions and conditions in the vicinity of the subject property. These conditions include:

- The property is in residential use – 3 units;
- There are no rare, threatened, or endangered flora or fauna on the property;
- There are no historic resources on the property;
- The property is not an identified visual resource;
- The property is located in Flood Zone X;
- The property is not located in a coastal high hazard zone;
- The property does not front on a sand beach;
- The subject retaining wall is setback 10-12 feet from the property's north (ocean) boundary; (See Shoreline Survey)
- The wall reconfiguration does not interfere with shoreline processes, coastal recreation opportunities, and lateral public access along the shoreline. It will improve the view from the ocean by removing half of the height of the existing wall and will make public use of the ocean adjacent to the wall safer by eliminating falling rock hazards.

B. Short Term Impacts

Construction grading (substantially completed) is largely behind the existing wall which forms a barrier to the ocean. *All landscaping in the immediate area of the construction has been disrupted by grading with exception of the three milo trees along the ocean. Prior to construction landscaping consisted of grass and rose plants along the mauka side of the existing wall.*

C. Long Term Impacts

Long-term adverse impacts are not anticipated. The reconfigured wall system will:

- provide safety to the public by reducing the height and reinforcing the existing failing wall,
- continue to retain the embankment under the primary house, and
- improve the visual and aesthetic qualities of the shoreline through reduction in height of the forward retaining wall and by landscaping between the walls.

As was stated earlier, the original retaining wall was built prior to the inception of shoreline setback rules and the establishment of the 40-foot setback area.

SECTION 4 ALTERNATIVES

A. No Action

A No Action Alternative would have resulted in 1) the imminent collapse of the wall resulting in possible injury to passers-by, 2) release of the fill material and wall components(rocks) into the ocean, and 3) possible failure of support for the primary house on the site. *No action was not an option, as it would have resulted in a 12-foot rock wall and a quantity of retained soil falling into the ocean resulting in disruption to the marine environment in the area. Our primary concern, however, was the possible injury to the residents and/or passersby. No action would invoke the hardship standard A-ii "unique circumstances" as stated in paragraph B above. The resulting failure would cause an unacceptable risk to the public and to the ocean environment.*

B. Simple Reconstruction

Simple reconstruction would have been the preferred option if it were possible. However the original 12-foot wall was built from the mauka side and then backfilled from the mauka side. The wall was located and configured in such a way that it was not possible to bring equipment to the exposed (makai) face of the wall. It is landlocked by the steep slopes and isolated nature of the site. Additionally, the wall was so close to the ocean that there was not storage space for the rock resulting from the hand disassembly of the wall – some 120 cy (assuming 2 feet wide on top, 4 feet wide at the footing, 12 feet high and 90 feet long). Nor was there anyway to retain the falling embankment behind the wall if the wall was removed. (The embankment was pushing over the wall).

The simple reconstruction is not possible and would also invoke the Hardship Standard A-ii "unique circumstances". It is not physically possible to simply reconstruct the wall without unreasonably impacting the ocean environment. There is no access or space to work on the wall from the mauka side. Nor is there enough space between the wall and the ocean to construct a 12-foot reinforcing gravity wall between the existing wall and the ocean. The rule of the thumb for gravity wall base thickness is 60% of the height. Therefore a 12-foot high wall would be at least 7 feet thick at the base. Nor, as stated above, is there any access way to the face of the wall for equipment access or material delivery.

C. *Alternatives to supporting the main house*

The main house appears to have been constructed partially on fill that was placed behind the original retaining wall. (There are no known records.) However the regrading process established that the area was backfilled with relatively unconsolidated construction debris and trash as well as soil. This didn't leave much option to maintaining support for the area other than by way of the installation of a system of replacement retaining walls prior to reducing and reinforcing the failing wall. If the soil slid out from under a portion of the house as a result of the impending wall collapse there weren't any feasible ways to support the house other than by possibly driving sheet piling on the makai side of the house. This was not considered feasible, as there is no path or support for pile driving equipment. The vibration might well have hastened the collapse of the retaining wall. The sheet piling would not have helped hold up the failing wall or have retained the soil makai of the piling.

Simple reconstruction of the original wall would have been the preferred option if it were possible. However the original 12-foot wall was built from the mauka side and then backfilled from the mauka side. The wall was located and configured in such a way that it was not possible to bring equipment to the exposed (makai) face of the wall. It was landlocked by the steep slopes and isolated nature of the site. Additionally, the wall was so close to the ocean that there was not storage space for the rock resulting from the hand disassembly of the wall – some 120 cy (assuming 2 feet wide on top, 4 feet wide at the footing, 12 feet high and 90 feet long). Nor was there anyway to retain the embankment behind the wall from falling if the wall was removed. (The embankment was pushing over the wall).

In any case, the house is now securely retained by the new short walls. See Figure 13 the photo below of the new wall system.

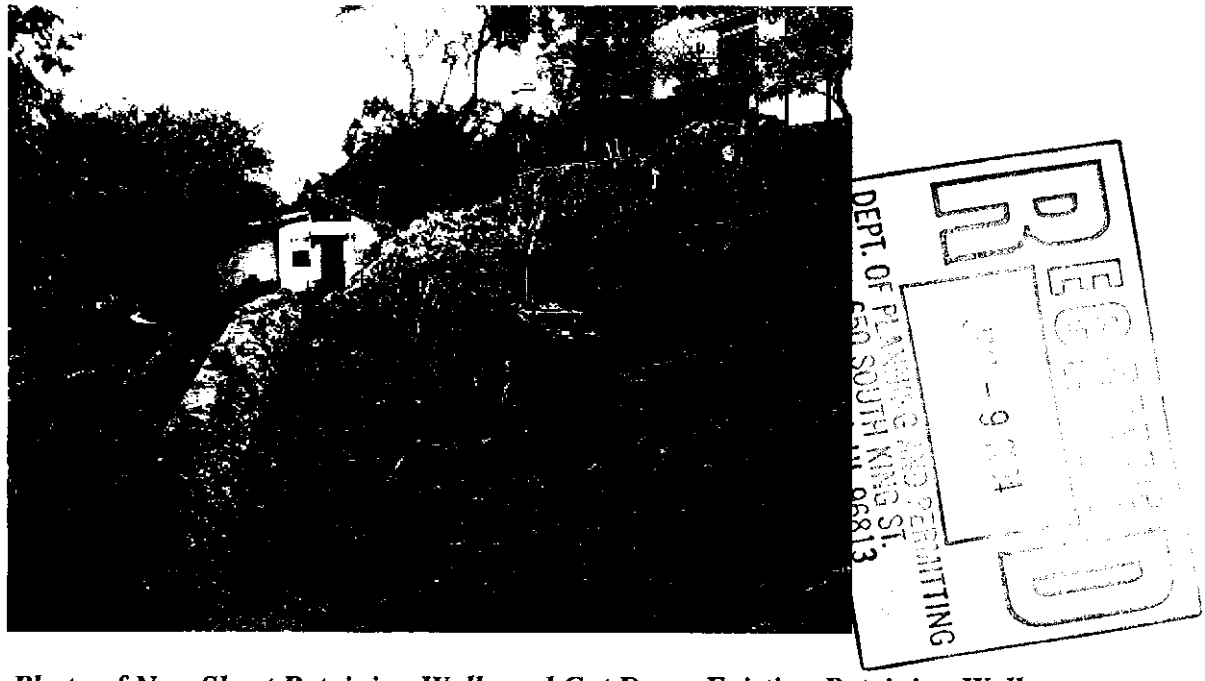


Figure 13: Photo of New Short Retaining Walls and Cut Down Existing Retaining Wall

D. Remove Wall

If the wall were to be removed there would be no measure in place to retain soil on the property under the existing primary house.

E. *Hardship*

Explanation of the Conditions of Hardship
Hardship is mentioned in our application as possible grounds for the variance due to the emergency nature of the collapsing wall situation. There doesn't seem to be an "emergency" category to allow quick remediation of possible catastrophic failure. In any case, the safety issues have been resolved.

However, the entire project may fall into hardship standards A(ii) "Unique Circumstances." It is a series of unique circumstances that led to the actions taken and contemplated.

1. *The original wall was in place prior to the shoreline variance rules and was therefore considered legal.*
2. *The wall was failing and in danger of falling into the ocean and/or injuring someone.*
3. *An over zealous contractor applied for a permit and then started the job without approval.*
4. *The owner, on realization that there was no permit halted the job and explored the options with DPP which led to legally removing 2/3's of the soil behind the failing wall, reducing its height and reinforcing it.*

How the slab, stair and wall system meet hardship conditions

The slab on the seaward side of the retaining wall is an existing condition and provides some stability for the makai seawall and dock base. However, it was broken up in several areas from milo tree roots and further damaged during reconstruction of the retaining wall by bobcat traffic. We wish to repair (replace if necessary) the slab to its original condition. SeeFigure 14 the photo below.

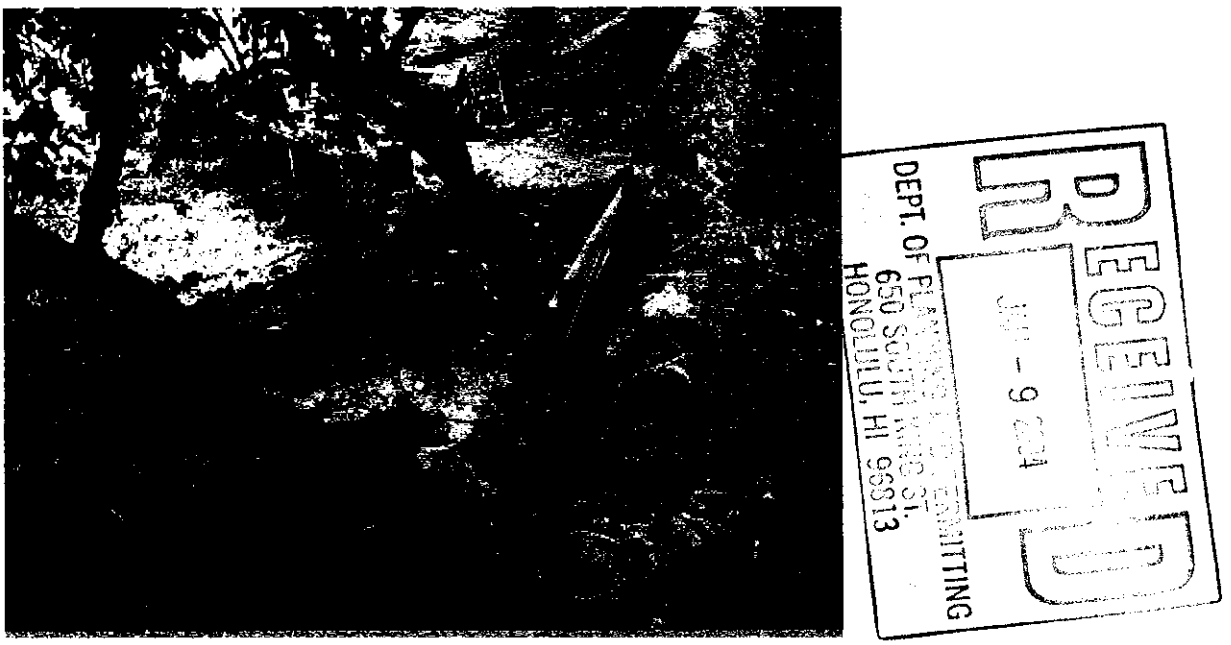


Figure 14: Photo of Slab Seaward of The Repaired Retaining wall

Although the wooden stair was originally in good condition when the EA was originally drafted in 2002, regrading of the area required the removal of the top 1/3 of the stair. The bobcat also struck and damaged the bottom section. The stair and wall sections in the design are attempts to construct a less visual but integrated system. These stairs are on a diagonal and in 3 short sections vs. the visually prominent 20-foot straight run (from the ocean) raised wooden stair.

The ocean side slab could be considered a hardship if it is not replaced as it serves to provide some stabilization to the makai seawall. The stair system is more related to providing a more

visually sensitive and durable design rather than a hardship. In any case, the previously existing access to the lower yard should be replaced in some sense. SeeFigure 15 the photo below.

Figure 15: Photo of Remaining Portion of The Original Stair

F. The Reconstruction Option Selected

The selected option essentially deconstructed the failing wall in the same sequence that it was constructed.

a. Remove the fill material from behind the upper portion of the failing wall. (Completed)

b. Provide short retaining walls to hold up the remaining material mauka of the failing wall. The first two walls were built with new rock. (Partially completed.)

c. Remove the exposed top 6 feet of the failing wall in the mauka direction and stock pile the removed rock (there are currently four stock piles of recovered rock that will be reused in the additional walls and stairs.)

d. The stepped and staggered pattern of the new reliever walls is designed to provide a path for a bobcat (5-foot bucket) to access each of the new walls and to the failing wall at a reasonable grade). We basically built our way down the hill.

e. With the failing wall cut down to approximately 6 feet and the retained soil down to approximately 4 feet and access provided to the face of the remaining wall. The footing was partially excavated and reinforced and the wall was refaced.

The last 20 feet of the wall (the worst portion structurally) has not been reinforced. We would like to replace this portion of the wall to match the repaired portion of the wall if excavation of

the footing during the next portion of the effort shows the wall is beyond repair. Otherwise, we will repair it as the balance has been repaired.

f. Finish the last retaining wall in the setback area on the western side of the site.

g. Construct two short rise 4-5 foot stair segments and their retaining walls in the setback area on the eastern side of the construction area to provide safe access to the shore.

h. Replace a collapsed wall and construct a 4-5 foot stair segment on the eastern edge of the side mauka of the shoreline setback area.

i. Replace the 442 SF concrete slab between the existing ocean edge retaining wall and the base of the reinforced existing retaining wall. This slab has been severely damaged by the construction activities to reinforce the existing wall.

j. Construct three short segments of side walk between each set of stairs and the concrete slab.

The selected reconfiguration of the wall is the most reasonable approach possible also under Hardship Standard A(ii)- Unique Circumstances given the lack of options to the selected construction sequence described above

SECTION 5 PERMITS AND APPROVALS

Permit	Approving Authority
Granted Permits	
Building Permit BP #541985	Department of Planning and Permitting
Grading PermitGP2002-10-0663	Department of Planning and Permitting
Shoreline Certification Dated July 10, 2003	Department of Land and Natural Resources
Requested Permits	
Shoreline Setback Variance (Requested)	Department of Planning and Permitting

Permits That Will Be Requested if The Shoreline Setback Variance is Granted

Building Permit (for Completed walls & walls yet to be built)
Department of Planning and Permitting

Grading Permit (for minor grading associated with walls not yet built)
Department of Planning and Permitting

SECTION 6 AGENCIES AND ORGANIZATIONS CONSULTED

County

Informal communication with Department of Planning and Permitting

Correspondence (See Appendix A)

Date	From	Subject
10/27/03	DPP	To applicant acknowledging receipt of Shoreline Setback Variance Application and requesting additional information.
11/03/03	Applicant	Response to DPP letter of 10/27/03
11/03/03	DPP	Four copies of DEA sent to the Office of Environmental Quality Control (No response required.)
11/12/03	US Army Engineer Dis.	To DPP explaining retaining wall not in their jurisdiction. (No response required.)
11/17/03	DLNR	To DPP. "No historic properties affected." (No response required.)
11/28/03	DLNR	To DPP. Reviewed by five DEA Divisions, comments from Engineering Division.
01/6/04	Applicant	Response to DLNR letter of 11/28/03
12/30/03	DPP	To applicant with comments
01/06/04	Applicant	Response to DPP letter of 12/30/03

SECTION 7 DETERMINATION OF SIGNIFICANCE

Chapter 200 (Environmental Impact Statement Rules) of Title 11, Administrative Rules of the State Department of Health, establishes criteria for determining whether an action may have significant effects on the environment (§11-200-12). The relationship of the proposed project to these criteria is discussed below.

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

   Natural or cultural resources will not be lost.

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

   The wall reconfiguration does not curtail the 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 decisions or executive orders;**

   The wall reconfiguration does not conflict with long-term environmental policies, goals, and guidelines of the State of Hawaii. The original wall was constructed before 1967 and before the inception of shoreline rules and regulations.

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

   Economic and social welfare of the community will not be affected.

5) **Substantially affects public health;**

   The wall reconfiguration will eliminate a potential threat to the public.

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

   Substantial secondary impacts are not anticipated.

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

   A possible environmental degradation to the ocean will be avoided by reconfiguration of the wall.

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

   Permitting the wall to be reconfigured will not result in significant adverse short and long-term environmental impacts or involve a commitment to a larger action.

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

Plant materials growing on the premises are primarily Milo and Hau trees, common coastal varieties found throughout the State of Hawaii.

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

Air and water quality and noise levels will not be affected.

11) **Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.**

The wall is located in Flood Hazard Zone X.

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

The reconfigure wall will improve views from the ocean in the vicinity by reducing the visual mass of the wall by reducing its height and setting the reliever walls back from the ocean.

13) **Requires substantial energy consumption.**

Not Applicable.3

APPENDIX A Communications to and from Consulted Parties

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

JEREMY HARRIS
MAYOR

ERIC G. CRISPIN, AIA
DIRECTOR

BARBARA KIM STANTON
DEPUTY DIRECTOR

2003/SV-19(AM)
2003/ED-26

October 27, 2003

Mr. and Mrs. Richard Van Horn
46-035 Lilipuna Road
Kaneohe, Hawaii 96744

Dear Mr. and Mrs. Van Horn:

SUBJECT: SHORELINE SETBACK VARIANCE APPLICATION NO. 2003/SV-19

Project:	After-the-fact request to allow (retain) two, 4-foot high retaining ("reliever") walls; construct one additional 4-foot high retaining ("reliever") wall; demolish a portion (20 feet) of an existing retaining wall and rebuild to match adjacent repaired wall; construct three, 4-foot wall segments, stairs and sidewalks; replace existing, damaged concrete pad; remove approximately 300 cubic yards of soil from behind the existing, repaired retaining wall; and replace an existing collapsed wall east of the stair system, within the shoreline setback area.
Location:	46-035 Lilipuna Road – Kaneohe
Tax Map Key:	4-6-1: 9
Received:	October 6, 2003

This is to acknowledge receipt of your Shoreline Setback Variance application, including a site plan and certified shoreline survey dated July 10, 2003, and Draft Environmental Assessment (EA) for the above-referenced project. Please be informed that a completed environmental assessment and finding of no significant impact must be filed by the Director pursuant to Chapter 343, Hawaii Revised Statutes (HRS) prior to acceptance of the SV application. We will continue to process the Draft Environmental Assessment pursuant to the procedural and content requirements of the Environmental Impact Statement (EIS) regulations of Chapter 343, HRS.

In addition to the application materials submitted, please provide the following:

1. An expansion of your narrative on how the conditions of hardship as specified in Section 23-1.8, Revised Ordinances of Honolulu (ROH), attached, are met. Also, please discuss the alternatives that were considered, such as no action, simple reconstruction and the proposed alteration and describe these alternatives in relation to the three standards of hardship specified in Section 23-1.8, ROH.

November 3, 2003

Eric G. Crispin, AIA
Director of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, HI 96813

Subject: Shoreline Setback Variance Application 2003/SV-19

Gentlemen:

This letter is in response to your letter 2003/SV-19(AM) of October 27, 2003. Before I address your concerns, let me clarify that:

1. The mass grading has been completed under Grading Permit #GP2002-10-0663. Approximately 300 cubic yards of material has been removed from the site. Only minor fine grading work remains that is related to footing preparations and final trimming for the unfinished walls. This work will not involve adding or removing material from the site.

2. The last item on the project description, "replace an existing collapsed wall east of the wall system" is mauka of the 40'shoreline setback line as is the mauka most stair segment and may not be subject to a shoreline setback variance.

A. Explanation of the Conditions of Hardship
Hardship is mentioned in our application as possible grounds for the variance due to the emergency nature of the collapsing wall situation. There doesn't seem to be an "emergency" category to allow quick remediation of possible catastrophic failure. In any case, the safety issues have been resolved.

However, the entire project may fall into hardship standards A(ii) "Unique Circumstances." It is a series of unique circumstances that led to the actions taken and contemplated.

1. The original wall was in place prior to the shoreline variance rules and was therefore considered legal.
2. The wall was failing and in danger of falling into the ocean and/or injuring someone.
3. An over zealous contractor applied for a permit and then started the job without approval.
4. The owner, on realization that there was no permit halted the job and explored the options with DPP which led to legally removing 2/3's of the soil behind the failing wall, reducing its height and reinforcing it.

B. Alternatives Considered (See Section 4 of the draft EA)

1. No Action

No action was not an option, as it would have resulted in a 12-foot rock wall and a quantity of retained soil falling into the ocean resulting in disruption to the marine environment in the area. Our primary concern, however, was the possible injury to the residents and/or passersby. No action would invoke the hardship standard A-ii "unique circumstances" as stated in paragraph B above. The resulting failure would cause an unacceptable risk to the public and to the ocean environment.

2. Simple Reconstruction

Simple reconstruction would have been the preferred option if it were possible. However the original 12-foot wall was built from the mauka side and then backfilled from the mauka side. The wall was located and configured in such a way that it was not possible to bring equipment to the exposed (makai) face of the wall. It is landlocked by the steep slopes and isolated nature of the site. Additionally, the wall was so close to the ocean that there was not storage space for the rock resulting from the hand disassembly of the wall – some 120 cy (assuming 2 feet wide on top, 4 feet wide at the footing, 12 feet high and 90 feet long). Nor was there anyway to retain the falling embankment behind the wall if the wall was removed. (The embankment was pushing over the wall).

The simple reconstruction is not possible and would also invoke the Hardship Standard A-ii "unique circumstances". It is not physically possible to simply reconstruct the wall without unreasonably impacting the ocean environment. There is no access or space to work on the wall from the mauka side. Nor is there enough space between the wall and the ocean to construct a 12-foot reinforcing gravity wall between the existing wall and the ocean. The rule of the thumb for gravity wall base thickness is 60% of the height. Therefore a 12-foot high wall would be at least 7 feet thick at the base. Nor as stated above is there any access way to the face of the wall for equipment access or material delivery.

3. The Reconstruction Option Selected

The selected option essentially deconstructed the failing wall in the same sequence that it was constructed.

a. Remove the fill material from behind the upper portion of the failing wall. (Completed)

b. Provide short retaining walls to hold up the remaining material mauka of the failing wall. The first two walls were built with new rock. (Partially completed.)

c. Remove the exposed top 6 feet of the failing wall in the mauka direction and stock pile the removed rock (there are currently four stock piles of recovered rock that will be reused in the additional walls and stairs.)

d. The stepped and staggered pattern of the new reliever walls is designed to provide a path for a bobcat (5-foot bucket) to access each of the new walls and to the failing wall at a reasonable grade). We basically built our way down the hill.

e. With the failing wall cut down to approximately 6 feet and the retained soil down to approximately 4 feet and access provided to the face of the remaining wall. The footing was partially excavated and reinforced and the wall was refaced.

   The last 20 feet of the wall (the worst portion structurally) has not been reinforced. We would like to replace this portion of the wall to match the repaired portion of the wall if excavation of the footing during the next portion of the effort shows the wall is beyond repair. Otherwise, we will repair it as the balance has been repaired.

f. Finish the last retaining wall in the setback area on the western side of the site.

g. Construct two short rise 4-5 foot stair segments and their retaining walls in the setback area on the eastern side of the construction area to provide safe access to the shore.

h. Replace a collapsed wall and construct a 4-5 foot stair segment on the eastern edge of the side mauka of the shoreline setback area.

i. Replace the 442 SF concrete slab between the existing ocean edge retaining wall and the base of the reinforced existing retaining wall. This slab has been severely damaged by the construction activities to reinforce the existing wall.

j. Construct three short segments of side walk between each set of stairs and the concrete slab.

The selected reconfiguration of the wall is the most reasonable approach possible also under Hardship Standard A(ii)- Unique Circumstances given the lack of options to the selected construction sequence described above.

C. The square footage of the damaged concrete pad in its original configuration was 442 sf. (See Figure 1) The proposed replacement of 410 sf (Figure 2) is a bit shorted and a bit wider than the original and has open areas around each of the three existing milo trees.

D. Mass grading is completed under GP 2002-10-0663 grading permit. There is no additional mass grading required for the stair segments. Fine configuration will be required but no material will be added to or removed from the site.

E. All landscaping in the immediate area of the construction has been disrupted by grading with exception of the three milo trees along the ocean. Prior to construction landscaping consisted of grass and rose plants along the mauka side of the existing wall.

F. Attached as requested are four each of 11" x 17" sized copies of:

- Plot plan
- Certified shoreline survey
- Improvements plan

If you should have any questions, please contact me at 521-5361 (work) or 235-3329 (home)

Sincerely,

Richard Van Horn
46-035 Lilipuna Road
Kaneohe, HI 97844

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

JEREMY HARRIS
MAYOR

ERIC G. CRISPIN, AIA
DIRECTOR

BARBARA KIM STANTON
DEPUTY DIRECTOR

2003/SV-19(AM)
2003/ED-26(AM)

November 3, 2003

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

Dear Ms. Salmonson:

Shoreline Setback Variance
Chapter 343, Hawaii Revised Statutes
Draft Environmental Assessment (EA)

Landowner/Applicant	:	Richard and Noreen Van Horn
Agent	:	Richard Van Horn
Location	:	46-035 Lilipuna Road - Kaneohe
Tax Map Key	:	4-6-1: 9
Request	:	Shoreline Setback Variance
Proposal	:	To retain two CRM walls and construct an additional CRM wall mauka of an existing CRM retaining wall, and other various alterations within the shoreline setback area

Attached, please find four (4) copies of the above-referenced Draft EA submitted pursuant to Chapter 343, Hawaii Revised Statutes. We request publication of a notice of this document in The Environmental Notice. The Department of Planning and Permitting anticipates a Finding of No Significant Impact determination.

Post-it® Fax Note 7671		Date 11/19/03	# of pages ▶
To Mr. Dick Van Horn		From Ann	
Co./Dept.		Co. DPP	
Phone #		Phone # 523-4077	
Fax # 538-7819		Fax #	

If you have any questions, please call Ann Matsumura of our staff at 523-4077.

Sincerely yours,

for ERIC G. CRISPIN, AIA
Director of Planning
and Permitting

EGC:cs
Attachments

Doc254622r1

OEQC BULLETIN PUBLICATION FORM

1 Project Name: Van Horn Shoreline Setback Variance

Type of Document *(circle one)* (Draft EA) Final EA EIS prep notice draft EIS final EIS NEPA
check if applicable ___ revised document ___ supplemental document

Legal Authority: State law (Chapter 343, Hawaii Revised Statutes)
Agency determination: Finding of No Significant Impact

Applicable sections:
___ use of state or county lands or funds
___ use of conservation district lands
X use of shoreline area
___ use of historic site or district
___ use of land in the Waikiki district
___ amendment to county general plan
___ reclassification of conservation lands
___ construction or modification of helicopter facilities

2 Island: Oahu
Judicial District: Kaneohe
Tax Map Key Number: 4-6-1: 9

3 Applicant or proposing agency: Richard and Noreen Van Horn

Address: 46-035 Lilipuna Road
Kaneohe, Hawaii 96744

Contact: Richard Van Horn Phone: 521-5361

4 Approving Agency (EAs) or Accepting Authority (EISs): Department of Planning and Permitting

Address: Honolulu Municipal Building
650 S. King Street, 7th Floor
Honolulu, Hawaii 96813

Contact: Ann Matsumura Phone: 523-4077

5 Consultant: Not applicable

Address:

Contact: Phone:

6 Public Comment Deadline: December 23, 2003

7 Permits required prior to implementation: Shoreline Setback Variance

8 Project Summary (name of file): vanhorn.doc

9 Public Library Copy: Kaneohe Public Library

10 This form was prepared by: Ann Matsumura Phone: 523-4077

Doc. No. 254623

Project Summary for 2003/SV-19

The 24,431 square-foot shoreline property is developed with three dwelling units and is zoned R-10 Residential District.

The applicants are requesting to retain (allow) two, 4-foot high Concrete Rubble Masonry (CRM) walls and construct an additional 4-foot high CRM wall mauka of an existing, 100-foot long retaining wall. The existing retaining wall is failing and has already been substantially repaired and reduced in height from 12 feet to 6 feet. Approximately 20 feet of the west end of the failing wall will be removed and rebuilt to a height of 6 feet. Each of the three CRM walls is designed to retain 4 feet of soil and are set back 8 to 10 feet from the original retaining wall and from each other. The stepped-formation of the proposed three CRM walls will require the removal of approximately 300 cubic yards of existing yard. Reinforcement of the footing of the failing retaining wall will require the removal of an one- to two-foot high wall approximately two feet seaward of the failing wall.

The applicant also proposes to construct a series of three, 4-foot rise stairways and wall segments integrated into the eastern end of the CRM walls, replace an existing concrete slab seaward of the failing retaining wall, and replace an existing, collapsed wall east of the stair system.

The majority of the property's shoreline is the seaward edge of an existing seawall. The status of the seawall and the pier are the subject of a lease agreement approved by Department of Land and Natural Resources under the Kaneohe Bay Amnesty Program.

The proposed alterations lie within the 40-foot shoreline setback area and will require a Shoreline Setback Variance. The applicants have provided a Certified Shoreline Survey approved by the Board of Land and Natural Resources on July 10, 2003.

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

REPLY TO
ATTENTION OF

November 12, 2003

Regulatory Branch

Mr. Eric G Crispin, AIA
Director of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Crispin:

This letter responds to your request for comments on the Draft Environmental Assessment (EA) for Reconstruction of a Failing Retaining Wall at 46-035 Lilipuna Road, dated November 3, 2003. Based on the information you provided I have determined that the retaining wall is above the Higher High Tide Line and therefore not in our jurisdiction. A Department of the Army (DA) permit will not be required for this project. This does not relieve the land owner from obtaining other authorizations from the State of Hawaii or the City and County of Honolulu.

If you have any questions concerning this determination, please contact William Lennan of my staff at 438-6986 or FAX 438-4060, and reference File No. 200400045.

Sincerely,

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

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

ERNEST Y.W. LAU
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

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

HAWAI`I HISTORIC PRESERVATION
DIVISION REVIEW

November 17, 2003

Log #: 2003.2317
Doc #:0311EJ15
Date Received: November 4, 2003

Applicant/Agency: Eric G. Crispin, Director
Address: Department of Planning and Permitting
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

SUBJECT: Chapter 6E-42 Historic Preservation Review –Shoreline Setback Variance DEA for Richard and Noreen Van Horn, 46-035 Lilipuna Road
Ahupua`a: Kane`ohe
District, Island: Ko`olaupoko, O`ahu
TMK: (1) 4-6-001:009

1. ____ This project has not gone through the historic preservation review process. Please submit documentation _____

2. _____ This project has already gone through the historic preservation preview process.
_____ a. mitigation has been completed
_____ b. other

3. ✓ We have not been consulted on this undertaking, however we believe there are no historic properties present, because:
____ a) intensive cultivation has altered the land
____ b) residential development/urbanization has altered the land
____ c) previous grubbing/grading has altered the land
____ d) an acceptable archaeological assessment or inventory survey found no historic properties
✓ e) other: This is an after-the-fact shoreline setback variance. No historic properties were reported to found during grading which has been mostly completed or during the removal and reconstruction of the existing seawalls.

✓ Thus, we believe that "no historic properties will be affected" by this undertaking.

Aloha,

P. Holly McEldowney

P. Holly McEldowney, Acting Administrator
State Historic Preservation Division

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

JEREMY HARRIS
MAYOR

ERIC G. CRISPIN, AIA
DIRECTOR

BARBARA KIM STANTON
DEPUTY DIRECTOR

2003/ED-26(AM)
2003/SV-19

December 30, 2003

Mr. Richard Van Horn
46-035 Lilipuna Road
Kaneohe, Hawaii 96744

Dear Mr. Van Horn:

CHAPTER 343, HAWAII REVISED STATUTES (HRS)
DRAFT ENVIRONMENTAL ASSESSMENT (DEA)

Project Name	:	Van Horn Shoreline Setback Variance
File No.	:	2003/SV-19
Location	:	46-035 Lilipuna Road - Kaneohe
Tax Map Keys	:	4-6-1: 9

In accordance with the procedural provisions of Chapter 343, Hawaii Revised Statutes (HRS), all comment letters received during the 30-day comment period, which began with the initial publication of a notice of availability of the DEA in The Environmental Notice on November 23, 2003, require a response addressed directly to the commenter. The final EA must include all comment letters and responses to the letters, as well as appropriately revised text. Herewith, for your information and appropriate action are comments from several State and Federal agencies regarding the subject draft environmental assessment. These agencies are:

State: State Historic Preservation Division, Land Division and Engineering Division of the DLNR.

Federal: Department of the Army.

In addition, enclosed herein are the Department of Planning and Permitting's comments on the DEA.

Department of Planning and Permitting:

1. The 40-foot shoreline setback line depicted in Figure 3 "Site Topographical Survey" on page 8 of the DEA is inaccurate. Please revise the drawing to reflect that **every point** of the shoreline setback line is at least the required distance from **every point** at the shoreline as stipulated in Section 13-1 "Distance from the shoreline" of the department's rules relating to shoreline setbacks and the special management area (e.g., the setback line should not be so "angular").

2. Please address coastal/shoreline views from Lilipuna Road under Section 2, Description of the Affected Environment of the DEA.

3. It is not clear whether the grades depicted in Figure 9 "Engineering Design Section" of the DEA are grades as they currently exist or as they previously existed prior to the mass grading work (e.g., does the "existing grade" reflect the grade that currently exists?). We recommend two separate section drawings: one depicting previous conditions (before mass grading) and the other depicting existing conditions.

4. It is noted on page 7 of the DEA that a short wall, one to two feet in height, seaward of the partially reconstructed retaining wall will have to be removed in order to reinforce the footing of the retaining wall. Please clarify the function of the short wall. Does the short wall function as a shore protection structure during high tide?

5. Please address in Section 4 "Alternatives" on page 17 of the DEA, how the proposed reconstruction of the concrete slab seaward of the retaining wall and the stair and wall system meet the conditions of hardship as specified in Section 23-1.8, Revised Ordinances of Honolulu. It is noted in the DEA on page 9 that the wooden stairway at the

eastern end of the wall that provides access to the lower level area and ocean is in good condition. What is the feasibility of retaining this stairway rather than constructing a new stair and wall system?

6. It is mentioned on page 17 of the DEA that if the retaining wall were to be removed, there would be no measure in place to retain soil on the property under the existing primary house. Please discuss in detail. Were other alternatives considered (e.g., reinforcing the foundation of the existing dwelling) such that would not warrant a shoreline setback variance?

If you have any questions, please contact Ann Matsumura of our staff at 523-4077.

Sincerely yours,

Barbara A. Moon
for ERIC G. CRISPIN, AIA
Director of Planning
and Permitting

EGC:pl
Enclosures

cc: Office of Environmental Quality Control

doc266027r1

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809
November 28, 2003

2003-SV-19.RCM
LD-NAV

Honorable Eric G. Crispin, AIA
Director, Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Crispin:

SUBJECT: Review: Draft Environmental Assessment
Application: Shoreline Setback Variance
Applicant: Richard and Noreen Van Horn
Property: 46-035 Lilipuna Road, Kaneohe, Oahu
Project: Construct CRM Wall Within Setback
File No.: 2003-SV-19

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 the subject DEA to the following DLNR Divisions for their review and comment:

- Division of Aquatic Resources
- Engineering Division
- Division of Boating and Ocean Recreation
- Office of Conservation and Coastal Lands
- Land-Oahu District Land Office

Enclosed please find a copy of the Oahu District Land Office and Engineering Division comments.

The Department of Land and Natural Resources has no other comment to offer on the subject matter.

Should you have any questions, please contact Nicholas A. Vaccaro of the Land Division Support Services Branch at 587-0384.

Very truly yours,

DIERDRE S. MAMIYA
Administrator

Post-it® Fax Note 7671	Date 12/8/03	# of pages ▶
To Mr. Van Horn	From Ann	
Co./Dept.	Co. OEP	
Phone #	Phone # 523-4077	
Fax # 538-7819	Fax #	

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 10, 2003

02od-284

MEMORANDUM

To: Dierdre S. Mamiya
Administrator

From: Al Jodar, Land Agent

Attention: Nick Vaccaro, Land Agent

Subject: Review of Draft Environmental Assessment
File No.: 2003-SV-19- TMK: (1) 4-6-01:09
Applicant: Richard and Noreen Van Horn

On page 7, paragraph 5, the statements regarding the seawall being "grand fathered" by the DLNR and the "Kaneohe Bay Amnesty Program" should be revised. The applicant is applying to purchase or acquire an easement for the seawall and fill land. The encroachment portion is not "grand fathered". The DLNR, Land Division is processing a grant of easement for the seawall and fill land. (The Office of Conservation and Coastal Lands staff has no objections to the issuance of an easement as stated in their letter under File #OA-02-14.) (The Kaneohe Bay Piers Amnesty Program is a separate issue from the seawall and fill land for which a pier lease will be issued.)

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LA/NAV

Ref.: 2003-SY-19-CMT

COMMENTS

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

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

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) 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 Sumimoto at (808) 523-4254 or Mr. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) 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 Mr. Eric Yuasa of the Planning Branch at 587-0254.

Signed: _____
ERIC T. HIRANO, CHIEF ENGINEER

Date: 11/10/03

January 6, 2004

Dierdre S. Mamiya, Administrator
Al Jodar, Land Agent
Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96809

Subject:	Review:	Draft Environmental Assessment
	Application:	Shoreline Setback Variance
	Applicant:	Richard and Noreen Van Horn
	Property:	46-035 Lilipuna Road, Kaneohe, Oahu
	Project:	Construct CRM Wall Within Setback
	File No.:	2003-SV-19

Dear Ms. Mamiya and Mr. Jodar:

Thank you for your comments on the subject EA.

We will change the wording on Page 7, Paragraph 5 regarding the seawall being "grandfathered" by DLNR to "a short seawall that is a preexisting condition that has been in place since at least 1952. The status of the variation of the seawall back and forth across the property line and the pier are the subject of a lease agreement approved by DLNR under the Kaneohe Bay Amnesty Program (File #OA-02-14)."

Thank you for your assistance in this matter.

Regards,

Richard Van Horn

Cc: Eric Crispin, Dirrector of DPP

January 6, 2004

Eric G. Crispin, AIA
Director of Planning and Permitting
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Subject: Shoreline Setback Variance #2003/SV-19

Dear Mr. Crispin:

This letter is in response to your letter #2003/ED-20(AM). Thank you for your review of our Draft Environmental Assessment dated September 2003. Our response to your comments on our DEA is as follows:

1. "The 40 ft. shoreline setback line in the DEA is inaccurate,"
   The basis of the setback line in the DEA was to move the approved "surveyed" shoreline in the mauka direction 40 ft. This included the irregularities in the shoreline survey line as it was drawn around various protrusions into the ocean. We have smoothed out these protrusions to hold at least 40 feet from all points as stipulated. See attached exhibit Revised Figure 3. This will replace Figure 3 in the final EA.

2. "The coastal/shoreline views from Lilipuna Road"
   No part of the shoreline or near shore along the subject parcel is in view from Lilipuna Road due to the location of the house and trees. Enclosed is a photo taken in the seaward direction from Lilipuna Road at the top of the subject parcel driveway. (The photo is taken slightly on the property to better show the view past the driveway retaining wall.)

3. "Clarify the grading shown on Figure 9."
   You are correct. The grading lines shown on the engineering section shows the existing grading prior to the start of the project and the intended finished grading. Circumstances have evolved since this design was drawn, i.e., the upper two walls were built, the existing wall was reduced in height and reinforced, and the soil was removed. Therefore, the finish grade shown on the drawing is now the existing grade. See attached Figure 9A. We will keep the original Figure 9 as the original engineering concept and add a figure 9A as the existing condition showing completed work and grades.

4. "The function of the short wall seaward of the partially reconstructed retaining wall"
   The wall was a partially collapsed 3 course CMU wall without grouting, reinforcement, or footing. Its original function appeared to be a seating area. In

any case, the wall was removed to expose and reinforce the footing of the original retaining wall.

With regard to protection during high tide, the wall was above the high tide line as is the lowest level of the yard that is between the actual makai seawall and the newly reinforced retaining wall. In our 20-year residency, the tide has never come above the makai seawall including storm waves from Hurricane Iniki. This portion of Kaneohe Bay is protected from wave energy by Coconut Island.

5. "How the slab, stair and wall system meet hardship conditions."

The slab on the seaward side of the retaining wall is an existing condition and provides some stability for the makai seawall and dock base. However, it was broken up in several areas from milo tree roots and further damaged during reconstruction of the retaining wall by bobcat traffic. We wish to repair (replace if necessary) the slab to its original condition. (See attached photo.)

Although the wooden stair was originally in good condition when the EA was originally drafted in 2002, regrading of the area required the removal of the top 1/3 of the stair. The bobcat also struck and damaged the bottom section. The stair and wall sections in the design are attempts to construct a less visual but integrated system. These stairs are on a diagonal and in 3 short sections vs. the visually prominent 20-foot straight run (from the ocean) raised wooden stair.

The ocean side slab could be considered a hardship if it is not replaced as it serves to provide some stabilization to the makai seawall. The stair system is more related to providing a more visually sensitive and durable design rather than a hardship. In any case, the previously existing access to the lower yard should be replaced in some sense.

6. "Alternatives to supporting the main house"

The main house appears to have been constructed partially on fill that was placed behind the existing retaining wall. (There are no known records.) However the regrading process established that the area was backfilled with relatively unconsolidated construction debris and trash as well as soil. This didn't leave much option to maintaining support for the area other than by way of a system of replacement retaining walls prior to reducing and reinforcing the failing wall. If the soil slid out from under a portion of the house as a result of the impending wall collapse there weren't any feasible ways to support the house other than by possibly driving piles on the makai side of the house. This was not considered feasible, as there is no path or support for pile driving equipment. The vibration might well have hastened the collapse of the retaining wall.

Simple reconstruction of the original wall would have been the preferred option if it were possible. However the original 12-foot wall was built from the mauka side and then backfilled from the mauka side. The wall was located and configured in such a way that it was not possible to bring equipment to the

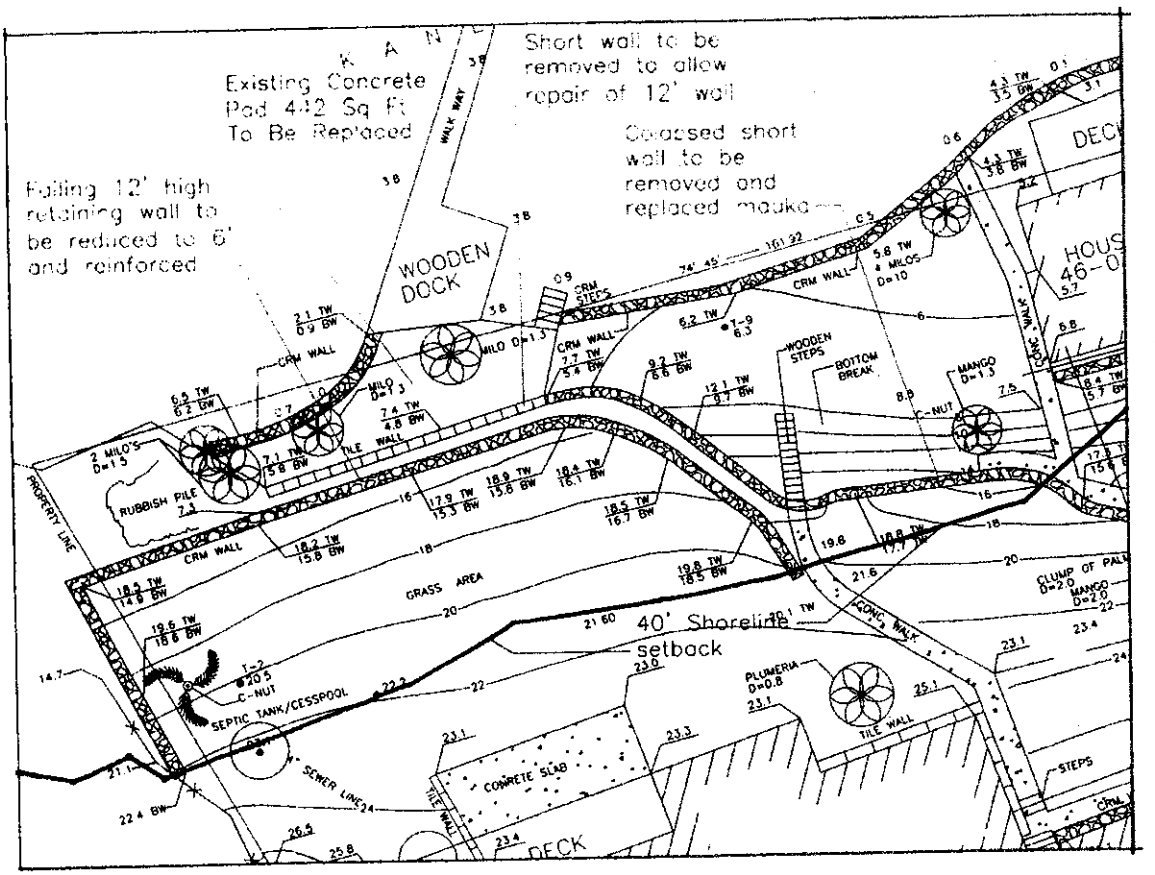
exposed (makai) face of the wall. It was landlocked by the steep slopes and isolated nature of the site. Additionally, the wall was so close to the ocean that there was not storage space for the rock resulting from the hand disassembly of the wall – some 120 cy (assuming 2 feet wide on top, 4 feet wide at the footing, 12 feet high and 90 feet long). Nor was there anyway to retain the embankment behind the wall from falling if the wall was removed. (The embankment was pushing over the wall).

In any case, the house is now securely retained by the new short walls. See the enclosed photo of the new wall system.

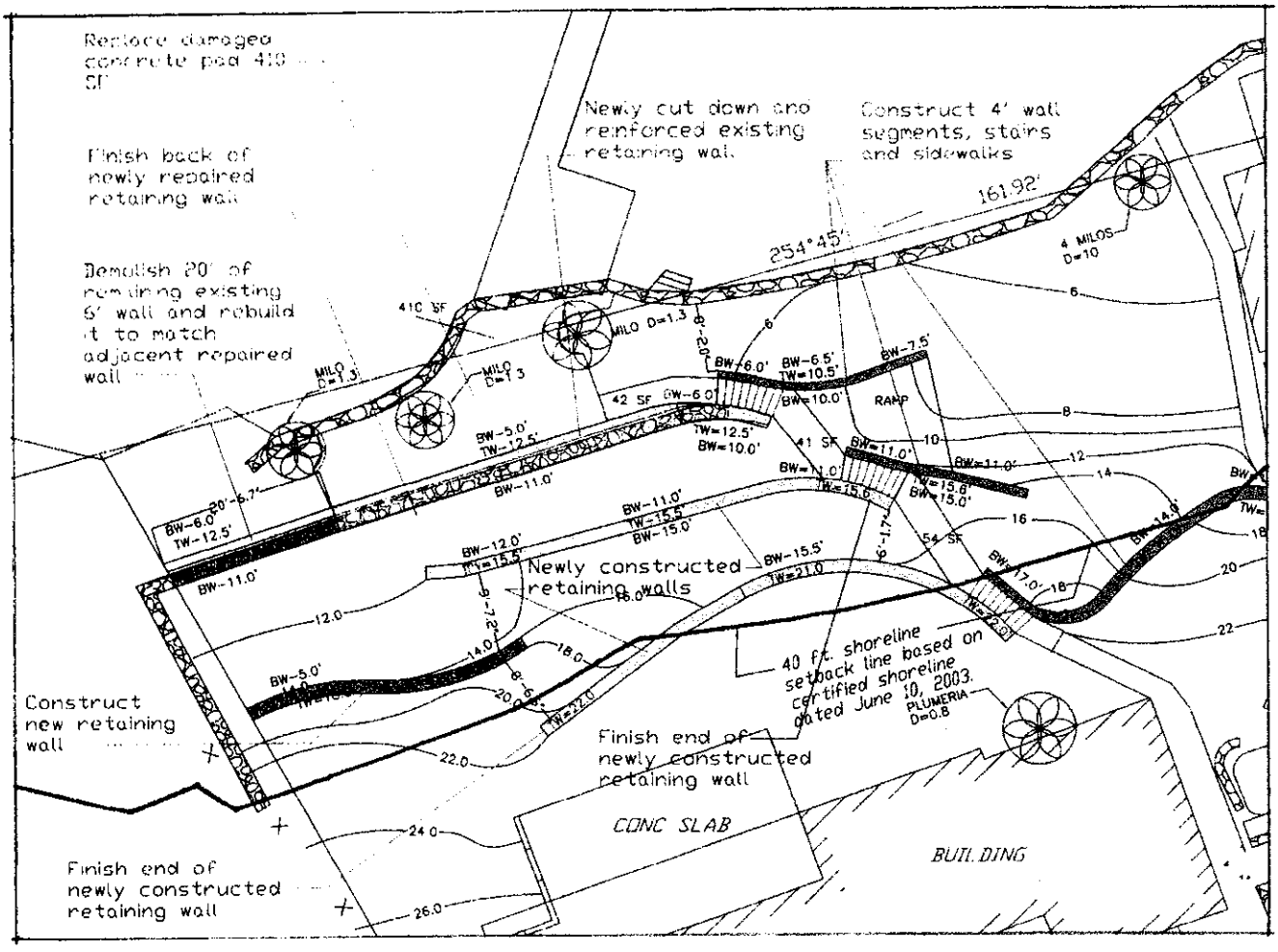
Thank you for your assistance in this matter.

Sincerely,

Richard H. Van Horn



REVISED FIGURE 3
ORIGINAL SITE PLAN & TOPO
SHOWING REVISED 40' SETBACK.

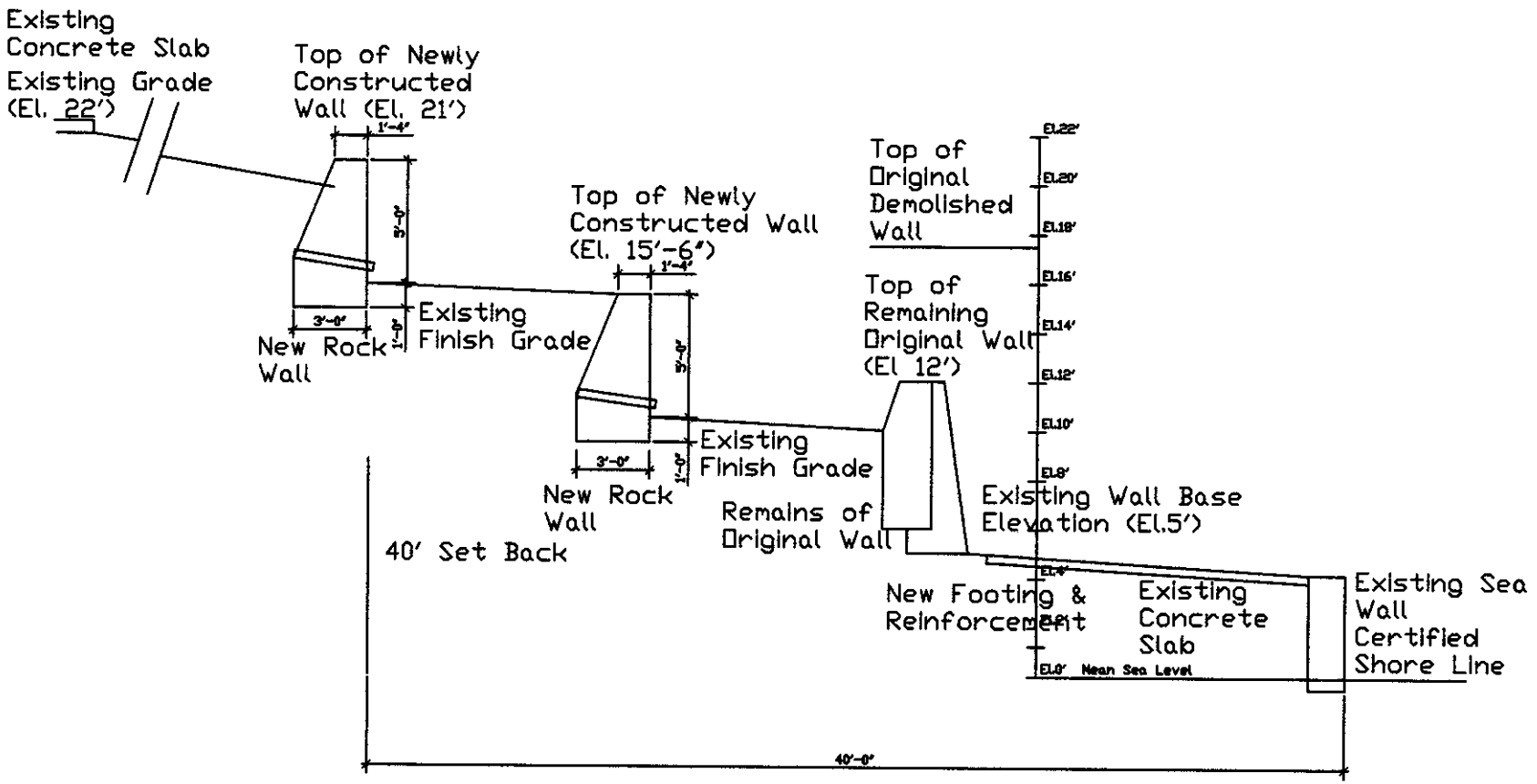


REVISED FIGURE 11

PROPOSED FINAL SITE PLAN

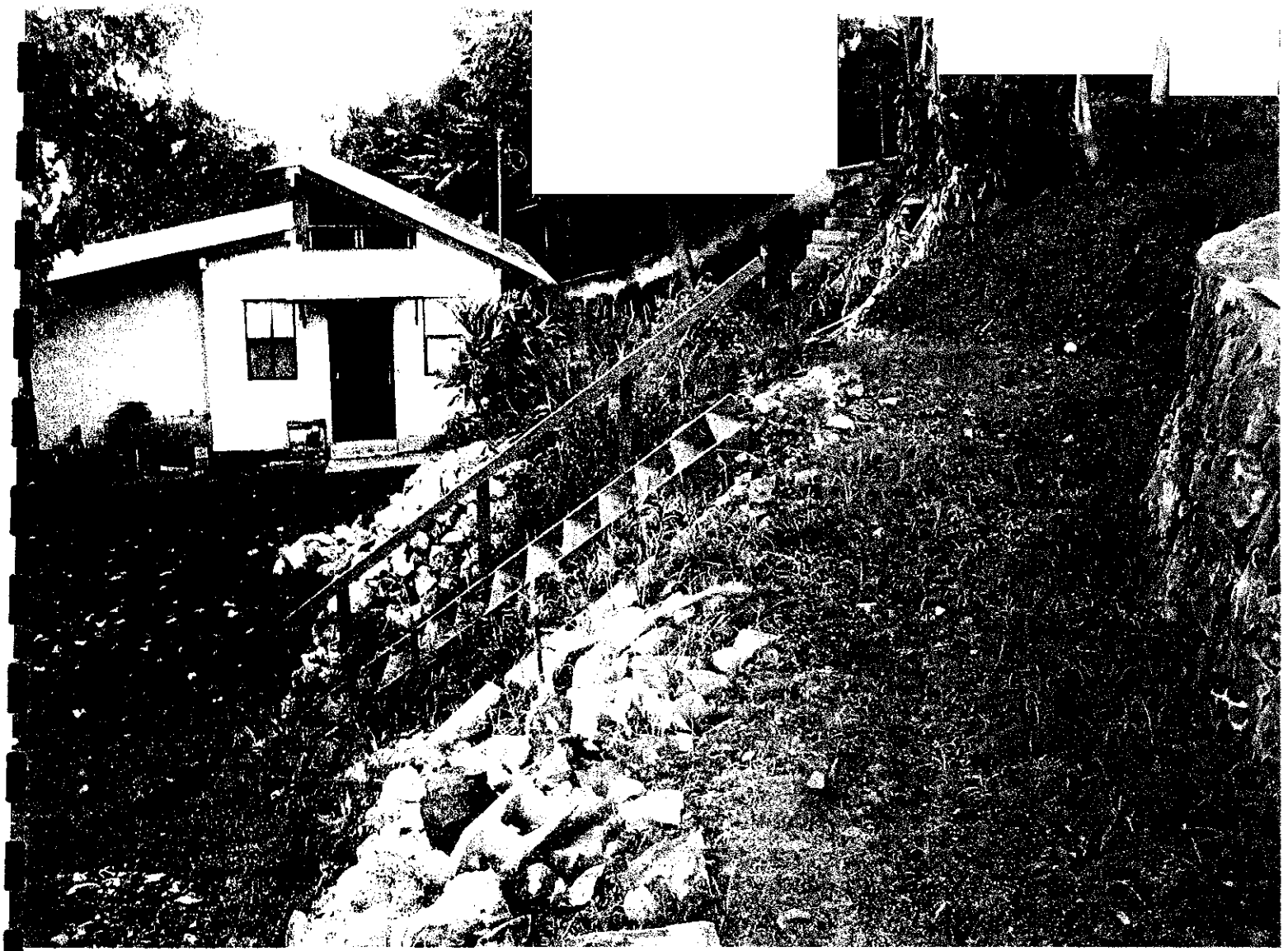
SHOWING REVISED 40' SETBACK

COASTAL/SHORELINE VIEW
FROM LILIPUNA RD.



Section Showing Current Existing Conditions

EXISTING SLAB SEAWARD OF
THE REMAINED RETAINING WALL



REMAINING PORTION OF
THE ORIGINAL STAIR

NEW STONE RETAINING WALLS
REINFORCED AND CUT DOWN
EXISTING RETAINING WALL
AND NEW GRADING.

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

JEREMY HARRIS
MAYOR

ERIC G. CRISPIN, AIA
DIRECTOR

BARBARA KIM STANTON
DEPUTY DIRECTOR

January 15, 2004

2003/ED-26(AM)
2003/SV-19(AM)

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

Dear Ms. Salmonson:

Shoreline Setback Variance
Chapter 343, Hawaii Revised Statutes
Environmental Assessment (EA)/Determination
Finding of No Significant Impact

Landowner/Applicant	:	Richard and Noreen Van Horn
Agent	:	Richard Van Horn
Location	:	46-035 Lilipuna Road - Kaneohe
Tax Map Key	:	4-6-1: 9
Request	:	Shoreline Setback Variance
Proposal	:	To retain two CRM walls and construct a third CRM wall mauka of an existing CRM retaining wall, and other various alterations within the shoreline setback area
Determination	:	A Finding of No Significant Impact is Issued

Attached and incorporated by reference is the Final EA prepared by the applicant for the project. Based on the significance criteria outlined in Title 11, Chapter 200, Hawaii 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 Final EA. Should you have any questions, please contact Ann Matsumura of our staff at 523-4077.

Sincerely yours,

for ERIC G. CRISPIN, AIA
Director of Planning and Permitting

EGC: cs
Enclosures