DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honoluludpp.org • CITY WEB SITE: www.honolulu.gov

KIRK CALDWELL
MAYOR

GEORGE I. ATTA, FAICP
DIRECTOR

ARTHUR D. CHALLACOMBE
DEPUTY DIRECTOR

2013/ED-7(ST)
2013/ELOG-1492

August 26, 2013

Ms. Genevieve Salmonson, Interim Director
Office of Environmental Quality Control
State Office Tower, Room 702
235 South Beretania Street
Honolulu, Hawaii 96813-2437

Dear Ms. Salmonson:

SUBJECT:	Chapter 343, Hawaii Revised Statutes Draft Environmental Assessment Shoreline Setback Variance
Project:	Retaining Walls After-the-fact Retaining Wall
Applicant:	Howard Green
Agent:	3E Advisory Services (John T. Harrison)
Location:	44-005 Aumoana Way - Kaneohe
Tax Map Key:	4-4-22: 13
Request:	After-the-Fact Shoreline Setback Variance
Proposal:	To retain two low concrete rubble masonry (CRM) retaining walls and landscaping within the 40-foot shoreline setback.

We respectfully request publication of the Draft Environmental Assessment (DEA) in the next edition of The Environmental Notice. We anticipate a finding of no significant impact for this shoreline setback variance to retain the existing structure and backfill in Kaneohe, Oahu.

Enclosed is a copy of the DEA document in pdf format on a compact disk, two hardcopies of the DEA, and the completed OEQC Publication Form. Simultaneously, these documents were also sent via electronic mail to your office.

If you have any questions, please contact Steve Tagawa of our staff at 768-8024.

Very truly yours,

for George I. Atta, FAICP
Director

GIA:nw
Attachments

APPLICANT ACTIONS
SECTION 343-5(C), HRS
PUBLICATION FORM (JANUARY 2013 REVISION)

Project Name: Howard Green low retaining walls (2) in the 40-foot shoreline setback
Island: Oahu
District: Kaneohe
TMK: (1)4-4-22: 13
Permits: After-the-fact Shoreline Setback Variance
Approving Agency: Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813
Steve Tagawa, (808)768-8024
Applicant: Howard Green, (808)521-2731
P.O. Box 3467
Honolulu, Hawaii 96801
Consultant: Starn O'toole Marcus & Fisher
733 Bishop Street, Suite 1900
Honolulu, Hawaii 96813
Stephanie E.W. Thompson, (808)537-6100

Status (check one only):

_X_ DEA-AFNSI — Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of DEA, a completed OEQC publication form, along with an electronic word processing summary and a PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov; a 30-day comment period ensues upon publication in the periodic bulletin.

__FEA-FONSI — Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and a PDF copy (send both summary and PDF to oeqchawaii@doh.hawaii.gov; no comment period ensues upon publication in the periodic bulletin.

__FEA-EISPN — Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov; a 30-day consultation period ensues upon publication in the periodic bulletin.

__Act 172-12 EISPN — Submit the approving agency notice of determination on agency letterhead, an OEQC publication form, and an electronic word processing summary (you may send the summary to oeqchawaii@doh.hawaii.gov. NO environmental assessment is required and a 30-day consultation period upon publication in the periodic bulletin.

__DEIS — The applicant simultaneously transmits to both the OEQC and the approving agency, a hard copy of the DEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the DEIS (you may send both the summary and PDF to oeqc@doh.hawaii.gov); a 45-day comment period ensues upon publication in the periodic bulletin.

__FEIS — The applicant simultaneously transmits to both the OEQC and the approving agency, a hard copy of the FEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the FEIS (you may send both the summary and PDF to oeqc@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.

__ Section 11-200-23 Determination — The approving agency simultaneous transmits its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS to both OEQC and the applicant. No comment period ensues upon publication in the periodic bulletin.

__Statutory hammer Acceptance — The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it failed to timely make a determination on the acceptance or nonacceptance of the applicant's FEIS under Section 343-5(c), HRS, and that the applicant's FEIS is deemed accepted as a matter of law.

__Section 11-200-27 Determination — The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is not required. No EA is required and no comment period ensues upon publication in the periodic bulletin.

__Withdrawal (explain)

Summary: The Applicant seeks an after-the-fact shoreline setback variance to retain two unauthorized concrete rubble masonry (CRM) retaining walls and backfill (landscaping) within the 40-foot shoreline setback area. The CRM retaining walls are under five (5) feet in height and run along the south, west and northwest boundaries of the property; about 31 linear feet along the left boundary; about 41 feet along the west boundary and about 24 feet along the northwest boundary. The walls retain about 4 to 4.5 feet of fill material and are built over an existing sewer easement which runs the length (south to north) of the shoreline setback area. The irregular shaped, 15,894-square-foot parcel is zoned R-10 Residential District, and is located at the end of cul-de-sac off Kaneohe Bay Drive. The parcel contains a single-family dwelling and slopes downward from the street, from an elevation of about 20 feet above mean sea level to the shoreline. The Kaneohe Yacht Club is immediately south of the site. The Department of Planning and Permitted issued the Applicant a Notice of Violation (No. 2011/NOV-10-161) on October 26, 2011, and a Notice of Order (No. 2011/NOO-291) on February 2, 2012, for the construction of the retaining walls without obtaining a building permit.

3E Advisory Services
Energy Ecology Environment

Landscaping and Construction Improvements Appurtenant To 44-005 Aumoana Way, Kaneohe, O'ahu (TMK 4-4-022:013)

Draft Environmental Assessment
July 31, 2013

Prepared on Behalf of

Howard Green, Applicant

Prepared by

3E Advisory Services

John T. Harrison Ph.D., Principal

3232 Kaohinani Drive, Honolulu, Hawai'i 96817
tel: (808) 780-1223; fax: (808) 595-5143
jth3@hawaii.rr.com

3E Advisory Services
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Landscaping and Construction Improvements Appurtenant To 44-005 Aumoana Way, Kaneohe, O'ahu (TMK 4-4-022:013)

Draft Environmental Assessment
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1. Introduction

The Applicant, Howard Green, seeks a Shoreline Setback Variance (SSV) from the City and County of Honolulu Department of Planning and Permitting (DPP) relating to certain improvements undertaken within the shoreline setback fronting the property. Notice of Certification of the Shoreline (File No. OA-1488) was most recently published in the OEQC Environmental Notice dated July 8, 2012.

This report is prepared in compliance with provisions of Chapter 343, Hawai'i Revised Statutes, and Title 11, Chapter 200 Department of Health Administrative rules in support of the application for the Shoreline Setback Variance.

2. Identification of Applicant

Howard Green
44-005 Aumoana Way
Kaneohe, HI 96734

3. Identification of Approving Agency

City and County of Honolulu
Department of Planning and Permitting

4. Identification of Consulted Agencies, Citizen Groups, and Individuals

Prior to undertaking landscaping improvements, the Applicant consulted with the City and County of Honolulu Department of Design and Construction to verify the location of the existing sewer easement and to ensure that proposed actions met design requirements relative to the easement. In addition, the Applicant invited members of the Aumoana Community Association to visit the site and to comment on the project. Many neighbors have been supportive, and none has indicated opposition. The Applicant specifically consulted with the neighboring landowner to the east, who expressed approval that the project would result in removal of unwanted trees that blocked her view. The neighbor to the north also was consulted, and he approved of the added stability to the hillside conferred by the proposed retaining walls. Architectural and design specifications for the subject landscaping improvements were prepared by Reynaldo Rios AIA.

5. General Description of the Subject Landscape Improvements

Figure 1. Subject property aerial view.

Figure 1 shows a plan view of the subject property and its approximate property boundaries. The western property boundary abuts the shoreline of Kaneohe Bay, and the southern property line runs along a City and County of Honolulu drainage easement. The property is adjoined to the north and east by other residential properties, and to the south by the marina facilities and grounds of the Kaneohe Yacht Club.

Figure 2. View looking west from below the house.

Major improvements to the parcel include the residential structure, a carport, and various masonry and landscaping features. Two recently constructed rock retaining walls delineate a terrace lawn, providing both a visual open space leading towards the shoreline and positive stabilization of both foundational soils for the residential structures and for the lawn itself. The lower wall abuts the drainage easement to the south proceeding makai towards the shoreline, then turns ~ 60° towards the north-northwest. Although the wall is straight, irregularities in the certified shoreline result in variable distance measurements between the wall and the shoreline. At the drainage easement, the wall is 7' 6" from the designated shoreline; at the midpoint of the wall, it is 11' 4" to the shore, and at its northern end, the wall is 9' 8" from the shoreline. The principal function of this wall is to retain soils comprising the lawn terrace from erosion into either the drainage easement or the shoreline areas while preserving open space for access along the shoreline itself.

Marina facilities of the Kaneohe Yacht Club to the west of the drainage easement include a graded and paved parking and boat storage and service area with a vertical seawall serving as the landward boundary of the dredged boat harbor. The western margin of the drainage easement at the shoreline abuts an artificial groin constructed from dredge spoils excavated at the time of the harbor construction that sits on top of the former fringing reef and serves as foundational material for a pier that extends seaward ~895 feet, terminating near the natural reef margin (see Figure 1).

The shorelines of adjacent properties to the east of the subject parcel all are hardened with vertical seawalls, with dredged areas immediately seaward of the walls that provide access to the properties for small boats (see Figure 3).

Figure 3. View northeast from subject parcel corner, showing shoreline hardening and dock construction on neighboring parcel.

Figure 4. Unconfined makai slope of the parcel to the east of the subject property.

Mauka of the shoreline of the neighboring parcels, the coastal terrace extends to a slope created by displaced fill from grading and leveling activities during construction of the Aumoana subdivision in the early 1950s (Figure 4). A view of the shoreline setback area fronting the subject parcel appears in Figure 5.

Figure 5. Retaining wall and shoreline setback fronting the subject parcel.

5. Summary Description of the Affected Environment

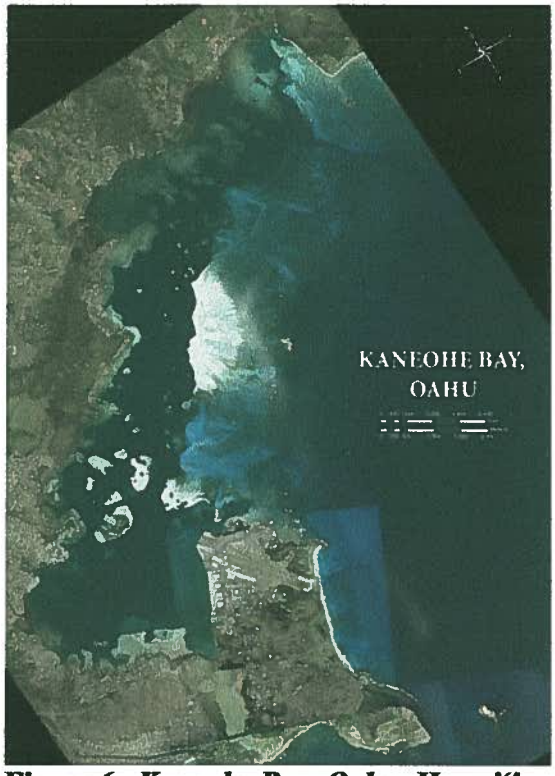

Figure 6. Kaneohe Bay, Oahu, Hawai'i

Kaneohe Bay (Figure 6) is a well-described estuarine and coral reef ecosystem on the windward coast of Oahu (Banner, 1974[1]; Cox, 1973[2]; Jokiel et al., 1991[3], etc.). With the exception of shoreline areas closest to the open coastal ocean fronting the marginal areas at the northern and easternmost parts of the Bay, the remaining shoreline areas of Kaneohe are well protected from ocean wave dynamic forces. Much of the Bay, and in particular, the margin adjacent to the heavily urbanized southeast sector, has been modified extensively by coastal and marine development. Shoreline alterations, including seawalls, harbors, groins, channels, and other structures characterize 88% of the South Kaneohe Bay coastal shoreline area (Hunter, 1993[4]).

Coral reefs of the Bay include three general reef structures. A barrier reef extending from Mokapu Peninsula to the Kualoa headlands separates the Bay from the surrounding open

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[1] Banner, A. H. 1974. Kaneohe Bay, Hawaii... urban pollution and a coral reef ecosystem. Proc. 2nd Intl. Coral Reef Symp., Brisbane 2: 685.

[2] Cox, D. C. 1973. The Kaneohe area. *In* Estuarine pollution in the State of Hawaii. Part II. Kaneohe Bay study. Univ. Hawaii Water Resources Research Center Tech. Rep. 31: 9-19.

[3] Jokiel, P. L., R. H. Titgen and Chun Smith. 1991. Guide to the marine environment of Kaneohe Bay, Oahu. Report to State of Hawaii Dept. Land Nat. Resources. 50 p.

[4] Hunter, C. L. 1993. Living Resources of Kaneohe Bay. Habitat evaluation. Final Report.Main Hawaiian Islands Resource Investigation. Hawaii Dept. Land Nat. Resources, Div. Aquatic Res. 62 p.

ocean. Within the inner Bay there are frequent patch reefs, or coral shallows surrounded on all sides by deeper water. Along the landward margin and surrounding Coconut Island are more or less continuous fringing reef flats, with outer edge slopes colonized by various hermatypic corals, and the inner portions largely comprised of sand and mud sedimentary depositional terraces (Banner, 1968[5]). Other than dredged channels, the seven major and the five minor stream systems that empty into the Bay cause the only major interruptions of the fringing reef flats. Deep lagoon areas comprise only about 50% of the inner bay area, and these areas hold most of the depositional sediments transported to the Bay in the course of geologic weathering in the Bay watershed (Bathen, 1968[6]).

The region between fringing reef flat margins and the adjacent land is a depositional environment of coral rubble, sand, and terrigenous soils in varying proportions. Isolated, small coral colonies may occur in shallow water with increasing frequency towards the makai portions of the fringing reef flat in the less urbanized central and north sectors of the Bay. However, periodic delivery of muddy sediments and fresh water to shallow coastal regions in the South Bay has virtually eliminated live coral in this region. Various burrowing annelids and arthropods (principally alpheid shrimp) may colonize the nearshore reef flats, but these faunal populations are subject to periodic extinction in the wake of major storm events that fully immerse the reef flats in fresh water from land runoff (Banner, 1968[7]). In recent history, severe storms in 1965 and 1987 led to significant mortality of these nearshore benthic organisms, and episodic fresh water "kills" such as these appear to play a substantial role in the community structure of Kaneohe Bay coral reef ecosystems (Hunter and Evans, 1995[8]).

Deposits of mud and debris from land runoff are greatest in the vicinity of stream mouths and other drainage outlets. The immediate shoreline of the subject parcel, which borders a drainage easement that carries runoff from mauka lands in the area, is typical of a reef flat margin adjacent to a drainage channel (Figure 7). In addition to sedimentary materials, the area is interspersed with deposited flotsam, including pieces of wood planking, sticks, and refuse from the land. Land vegetation in this shoreline area is almost entirely comprised of two highly aggressive and invasive species: pickleweed (*Batis maritima*) and red mangrove (*Rhizophora mangle*) (see Figures 5 & 7). Both of these salt-tolerant species are common throughout Kaneohe Bay and other estuarine systems in Hawai'i, and they have been targets of concerted removal efforts (Rauzon and Drigot, 2002[9]).

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[5] Banner, A. H. 1968. A fresh-water "kill" on the coral reefs of Hawaii. Hawaii Inst. Mar. Biol. Tech. Rep. No. 15. 29 p.

[6] Bathen, K. H. 1968. A descriptive study of the physical oceanography of Kaneohe Bay, Oahu, Hawaii. Hawaii Inst. Mar. Biol. Tech. Rep. No. 14. 353 p.

[7] Banner, *op. cit.*

[8] Hunter, C. L. and C. W. Evans. 1995. Coral reefs in Kaneohe Bay, Hawaii: two centuries of western influence and two decades of data. Bull. Mar. Sci. 57(2): 501-515.

[9] Rauzon, M. J. and D. C. Drigot. 2002. Red mangrove eradication and pickleweed control in a Hawaiian wetland, waterbird responses, and lessons learned. Pages 240-248 *in* Veitch, C. R. and Clout, M. N. (eds.) Turning the tide: the eradication of invasive species, Proceedings of the International Conference on Eradication of Island Invasives. Occasional Paper of the IUCN Species Survival Commission No. 27.

Figure 7. Shoreline at the subject parcel at mid tide.

6. Summary of Impacts and Alternatives Considered

The upper and lower retaining rock walls evident in Figure 2 are part of recent landscape work completed by the parcel owner. Prior to this work, the fronting lawn area descended in a slope to the shoreline terrace, similar to the neighboring parcel frontage shown in Figure 4. The intent of these landscape modifications was twofold: to create a level, open lawn that enhances the viewplane from the property, and to create a barrier to soil erosion both into the drainage easement and towards the shoreline.

Figure 7 illustrates the drainage easement immediately to the south of the subject property. This drainage channel receives runoff from the southern portion of the Aumoana subdivision and from the paved parking and service area of the Kaneohe Yacht Club. In addition, during extended storm events, additional overland flow from mauka areas in the immediate watershed bounded to the east by the Kalaheo hills ridgeline is delivered to the Bay through this channel.

Figure 7. Drainage easement alongside subject property.

Sediments and debris carried in runoff from the area have created a depositional fan in the shoreline where the channel meets the Bay, as shown in Figure 8. Mud and litter of this alluvial deposit field cover the rubble and marine benthos typical of the less disturbed reef flat that lies seaward of the fan. However, terrigenous sediments form a significant component of the reef flat material as well, due to the high volume transport of suspended soil particles in runoff and the resuspension and advection of these materials in turbulent

Figure 8. Deposition at the mouth of the drainage easement.

sought to prevent additional soil loss by covering the eroded area with a tarp and stretching a silt barrier below the erosion scarp. Soil lost from the hillside was carried

Figure 10. Gullies and soil transport due to erosion.

down the slope towards the shoreline, where suspended particles would be entrained into the Bay's surface waters and transported across the living face of the reef margin and ultimately deposited in the lagoon depths. Although the heavy rains resulted in significant soil loss from the neighbor's property, the leveled terrain and the barrier retaining wall at the makai side of the subject property lawn terrace effectively prevented any similar soil loss. Figure 10 clearly demonstrates the contrasting responses of the adjacent properties to the storm event. Loose soils deposited below the lawn terrace of the subject property originated from the neighbor's landslide, as evidenced by soil residues on lower rocks of the boundary wall.

This analysis and the accompanying photographs illustrate major beneficial effects of the recently accomplished landscape amendments:

1. Soils from the property that would otherwise have been in danger of being washed into the Bay are both stabilized by terracing and physically prevented from transport to the ocean by the retaining wall.

2. Maintenance of substantial open space along the shoreline enhances lateral public access and benefits coastal views.

3. Constructing the retaining wall at a distance of 7 to 12 feet from the shoreline ensures that the structure does not affect dynamic processes associated with land-sea interfaces. Because this is a protected coastline where wave and tidal influences are minimal, the distance between the structure and the water is such that the highest wash of waves will not come into contact with the wall.

In summary, the newly installed retaining walls have demonstrably positive impacts on the Kaneohe Bay shoreline fronting the subject property. They in no way establish an artificial shoreline, but rather serve to preserve the natural shoreline processes by preventing the entry of additional terrigenous soils. Finally, the overall landscape design offers tangible public benefits in creating an accessible, open coastal space with no visual obstructions.

In addition to the no action alternative, different approaches to shoreline management considered included placement of the retaining wall directly at the shoreline, in effect creating a continuation of the rock wall shoreline interface seen in the abutting property to the north. While this would have accomplished the same objective of stabilizing the terraced land to the west of the residence, it would also have arguably affected shoreline processes, artificially established a shoreline, and created a significant impediment to shoreline access in the area. For these reasons, this alternative was rejected. Another considered alternative was to locate the makai wall further from the shoreline. However, to do so would have created an encroachment on an existing sewer easement across the front of the property, and the chosen alignment of the makai wall reflects this constraint.

7. Proposed Mitigation Measures

In view of the overall beneficial effects of the accomplished landscape improvements on the stability and protection from erosion runoff to the bay waters fronting the project, there are no detrimental effects of the recent construction that require focused mitigation. The Applicant has expressed an interest in cooperating with ongoing efforts to control and eradicate invasive shoreline plants as noted in referenced studies. However, any such mitigation activity will require assurance that replacement of invasive shoreline vegetation with endemic plants will have no effect on shoreline processes.

8. Anticipated Agency Determination

The Applicant anticipates that the City and County of Honolulu Department of Planning and Permitting will issue a Finding of No Significant Impact (FONSI) after consideration of the foregoing analysis.

9. Findings and Reasons Supporting the Agency Anticipated Determination

Pursuant to § 11-200-12 Hawai'i Administrative Rules, an action is considered to have a significant effect on the environment if it:

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

Improvements to the subject parcel constitute no present or future threat of loss or destruction of the natural or cultural integrity of the existing shoreline.

Curtails the range of beneficial uses of the environment;

Improvements to the subject parcel enhance the range of beneficial uses of the environment by improving public access to the site.

Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders;

Improvements to the subject parcel are not in conflict with HRS Chapter 344, nor do they conflict with relevant court decisions or executive orders.

Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;

Improvements to the subject parcel have no effect on economic or social welfare, nor do they affect cultural practices of the community or the State.

Substantially affects public health;

Improvements to the subject parcel have no effect on public health.

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

Improvements to the subject parcel will have no secondary or cumulative impacts on Kaneohe Bay and its surrounding communities.

Involves a substantial degradation of environmental quality;

By preventing erosion of soil from the subject property, landscape improvements will contribute to an enhancement of the environmental quality of the adjacent bay ecosystem.

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

Improvements to the subject parcel constitute a discrete management action pertinent to protection of coastal waters immediately adjacent to the parcel, and they have no extended, cumulative effect, nor do they necessitate any action on a larger scale.

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

No rare, threatened, or endangered species inhabit the subject parcel.

Detrimentally affects air or water quality or ambient noise levels;

By preventing erosional runoff, the improvements to the subject parcel improve water quality of the adjacent bay. Neither air quality nor ambient noise levels are altered in any way by the action.

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;

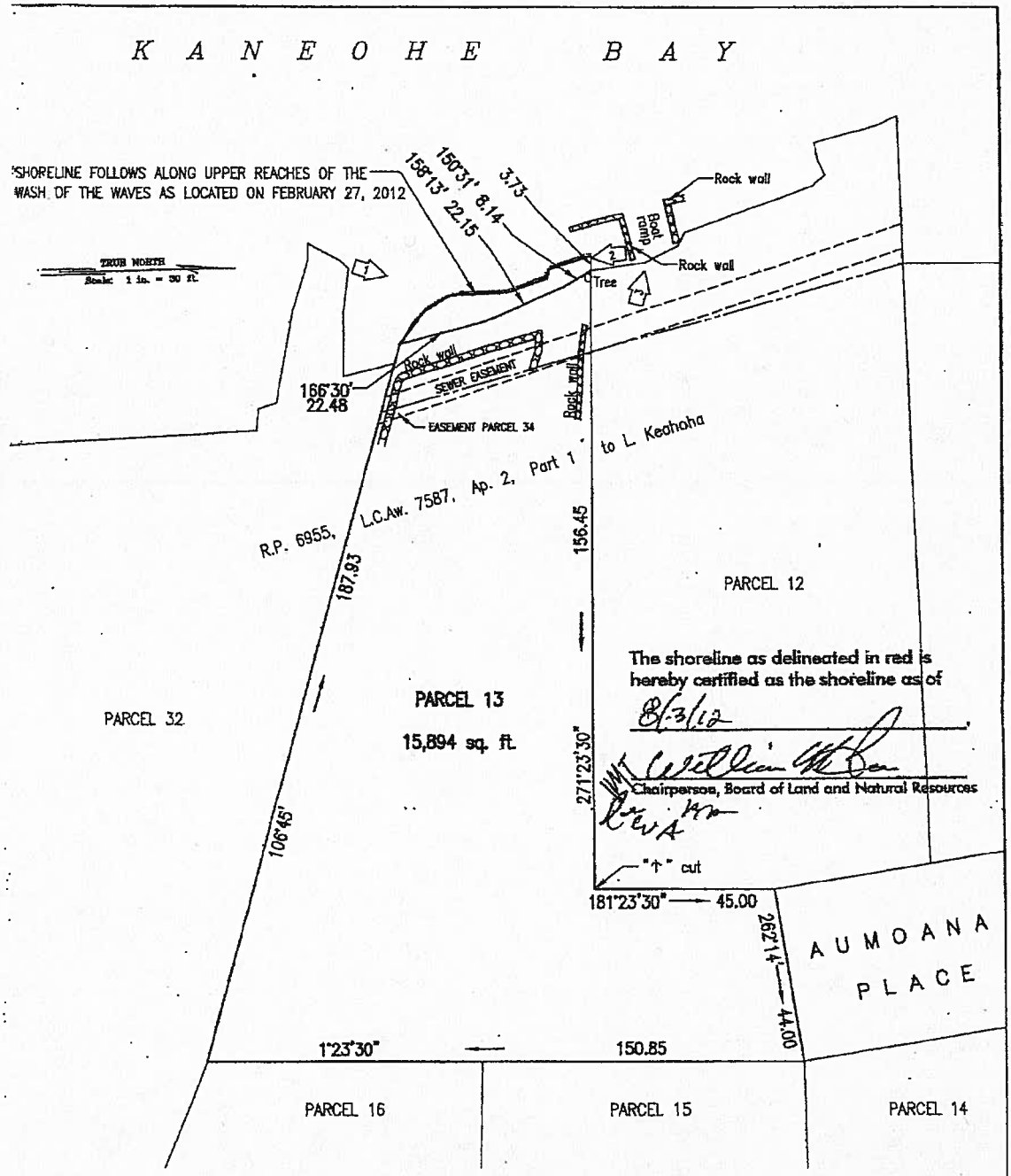
Improvements to the subject parcel are located in an environmentally sensitive coastal area, but they act to stabilize erosion-prone lands in order to mitigate soil loss experienced on adjacent properties.

Substantially affects scenic vistas and viewplanes identified in county or state plans or studies;

Improvements to the subject parcel have no effect on scenic viewplanes identified in county or State plans.

Requires substantial energy consumption.

Improvements to the subject parcel are entirely energy-neutral.



SHORELINE MAP

PARCEL 13

Being a portion of Royal Patent 6955,
Land Commision Award 7587, Apana 2, Part 1 to L. Kealoha
Being also the filled land of Kaneohe Bay conveyed to the
State of Hawaii by Trustees of Trust Estate created
by Articles Fifth and Eighth of the Will of Harold
K. L. Castle, Deceased and Iolani School by deed
dated July 3, 1980
Puahuula, Kaneohe, Koolaupoko, Oahu, Hawaii
Date: February 27, 2012
Tax Map Key: (1)4-4-22:13
Owner: Howard Green

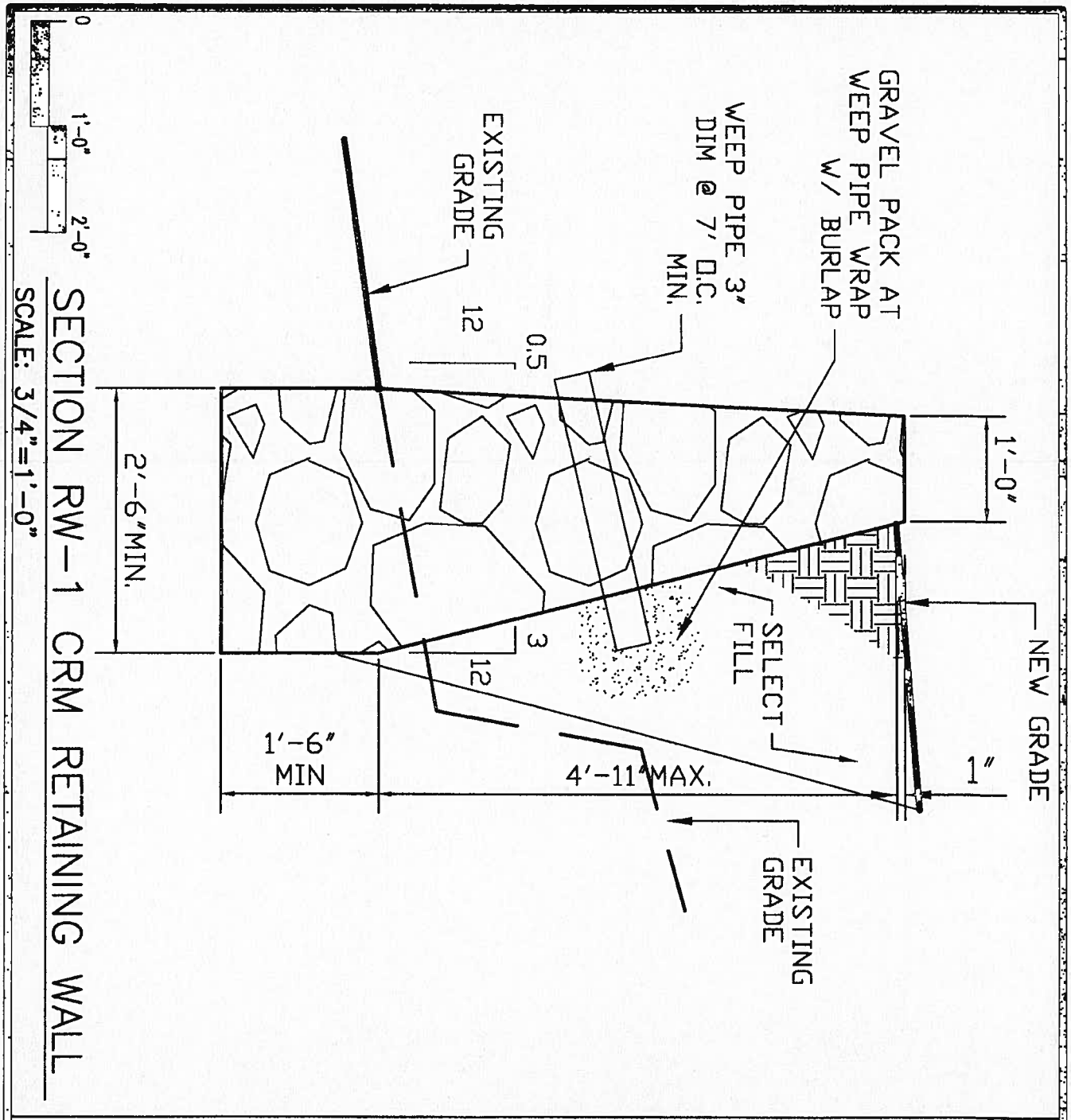
WESLEY T. TENGAN
LICENSED PROFESSIONAL LAND SURVEYOR
No. 6958
HAWAII, U.S.A.

This work was prepared by me or under my supervision

EXP. 4/14
WESLEY T. TENGAN
LICENSED PROFESSIONAL LAND SURVEYOR
Certificate Number 6958

Notes:

1. All property corners are marked with 1/2" pipes unless otherwise noted
2. [1] denotes position and direction of photograph



SECTION RW-1 CRM RETAINING WALL

SCALE: 3/4"=1'-0"

This work was prepared by me or under my supervision. Construction of this project will be under my observation.

Signature

Expiration Date: April 30, 2014

REF:

PROJECT NO: 1109

DATE:

CAD DWG FILE: MSS-1 SITE PLAN [illegible]

DRAWN BY: RDR

CHK'D BY: RDR

REYNALDO D. RIOS
LICENSED PROFESSIONAL ARCHITECT
No. 6489
HAWAII, U.S.A.

SHEET TITLE

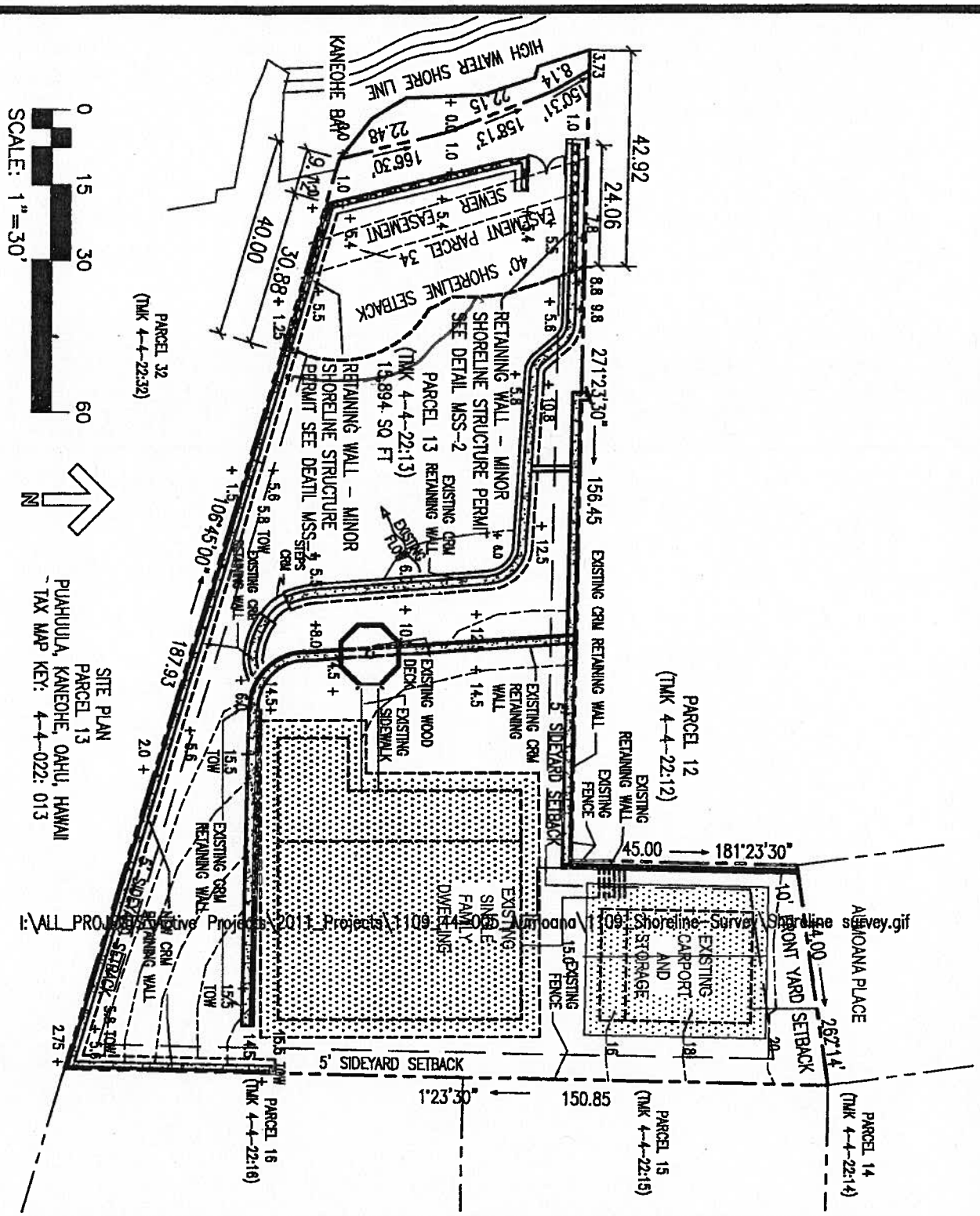
SECTION CRM RETAINING WALL

PROJECT

MINOR SHORELINE STRUCTURES PERMIT

DRAWING

MSS-2



This work was prepared by me or under my supervision. Construction of this project will be under my observation.

Signature

Expiration Date: April 30, 2014

REYNALDO D. RIOS
LICENSED PROFESSIONAL ARCHITECT
No. 6489
HAWAII, U.S.A.

REF:	
PROJECT NO:	1109
DATE:	
CAD DWG FILE:	MSS-1 SITE PLAN MINOR SHORELINE SETBACK.DWG
DRAWN BY:	RDR
CHK'D BY:	RDR

SHEET TITLE
SITE PLAN MINOR SHORELINE SETBACK

PROJECT
MINOR SHORELINE STRUCTURES PERMIT

DRAWING
MSS-1