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County of Hawai'i
PLANNING DEPARTMENT

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March 14, 2014

FILE COPY

APR 08 2014

OFFICE OF ENVIRONMENTAL QUALITY CONTROL

14 MAR 18 P 1:47

RECEIVED

Jessica Wooley, Interim Director
Office of Environmental Quality Control
Department of Health, State of Hawai'i
235 S. Beretania Street, Room 702
Honolulu, Hawai'i 96813

Dear Ms. Wooley:

**SUBJECT: Final Environmental Assessment-Finding of No Significant Impact (FONSI) for
Robinson Swimming Pool in Shoreline Setback Area
TMK: (3) 7-5-005:024; Lanihau, North Kona, Hawai'i**

With this letter, the Hawai'i County Planning Department hereby transmits the final environmental assessment and finding of no significant impact (FEA-FONSI) for the proposed Robinson swimming pool to be constructed in the shoreline setback area situated at TMK: (3) 7-5-005:024 in the North Kona District on the island of Hawai'i for publication in the next available edition of the Environmental Notice.

The County of Hawai'i Planning Department has included copies of public comments and the corresponding responses from the applicant that were received during the 30-day public comment period on the draft environmental assessment and anticipated finding of no significant impact (DEA-AFONSI).

Enclosed is a completed OEQC Publication Form, two copies of the FEA-FONSI, an Adobe Acrobat PDF file of the same and the publication form.

Jessica Wooley, Interim Director
Office of Environmental Quality Control
Department of Health, State of Hawai'i
Page 2
March 14, 2014

Please call Daryn Arai of the Hawai'i County Planning Department at (808) 961-8142 or Ron Terry at (808) 969-7090 should there be any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Duane Kanuha", with a long, sweeping horizontal stroke extending to the right.

DUANE KANUHA
Planning Director

DSA:mad

RobinsonPoolFEAFONSIPub
Enclosures

cc: Ron Terry, Principle, Geometrician Associates
Planning Department - Kona

**APPLICANT ACTIONS
SECTION 343-5(C), HRS
PUBLICATION FORM (JULY 2012 REVISION)**

Project Name: ROBINSON SWIMMING POOL IN THE SHORELINE SETBACK AREA

Island: Hawai'i

District: North Kona

TMK: (3rd) 7-5-005:024

Permits:

County of Hawai'i

- **Shoreline Setback Variance,**
- **Special Management Area Permit or Exemption**
- **Plan Approval**

State of Hawai'i

- **National Pollutant Discharge Elimination System Permit (if dewatering necessary)**

Received
MAR 18 2014

Approving Agency:

Hawai'i County Planning Department

101 Aupuni Street, Suite 3

Hilo HI 96720

Daryn S. Arai 808-961-8142

Applicant:

Jim Robinson

75-5492 Kona Bay Drive

Kailua-Kona, HI 96745

Consultant:

Geometrician Associates

PO Box 396

Hilo HI 96721

Ron Terry 808-969-7090

Status (check one only):

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 simultaneously 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.
<input type="checkbox"/> 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.
<input type="checkbox"/> 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.
<input type="checkbox"/> Withdrawal (explain)	

Summary:

Jim Robinson proposes to build a 15 by 30-foot saltwater swimming pool and related improvements between his home and a wall that forms the makai boundary of his Kona Bay Estates property and is the certified shoreline. The proposed location mauka of the wall is the only available site on this small lot for a pool. The improvements also include a 7.5-foot diameter spa at grade, a tile pool deck and a 4-foot high pool security fence set back 5 feet from the existing rock wall.

The Kona Bay Estates subdivision has a public access plan with two 10-foot-wide mauka-makai access points and a lateral shoreline access for hikers, sunbathers and fishers along the top of a low rock wall on the makai edge of all the oceanfront properties. The shoreline fronting the subdivision was certified in 1984 at between 22 feet and 42 feet seaward of the makai property line of the parcels. This allowed many neighboring lots to utilize the area behind the wall for structures, including swimming pools without a shoreline setback variance. There are currently 20 swimming pools similarly positioned on the subdivision's 32 lots. There do not appear to have been any adverse impacts on shoreline processes or ecosystems as a result of these having pools on the mauka side of the subdivision wall, and lateral shoreline access has been carefully maintained along the wall. No sensitive biological, hydrological, archaeological, cultural or other important resources are present on the lot. As such, the Robinsons' proposed pool has little potential to cause long-term adverse impacts.

Construction activities would produce short-term impacts to noise, air quality, access and scenery. Implementation of standard construction Best Management Practices are proposed as Shoreline Setback Variance conditions to ensure that construction-related damage is avoided or minimized.

**FINAL ENVIRONMENTAL ASSESSMENT
ROBINSON SWIMMING POOL IN THE
SHORELINE SETBACK AREA**

**TMK (3rd) 7-5-005:024
Lanikai, North Kona District, Island of Hawai'i, State of Hawai'i**

March 2014

**Hawai'i County Planning Department
101 Pauahi Street, Suite 3
Hilo HI 96720**

**FINAL ENVIRONMENTAL ASSESSMENT
ROBINSON SWIMMING POOL IN THE
SHORELINE SETBACK AREA**

TMK (3rd) 7-5-005:024
Lanihau, North Kona District, Island of Hawai'i, State of Hawai'i

APPLICANT:

Jim Robinson
75-5492 Kona Bay Drive
Kailua-Kona, HI 96745

**ACCEPTING
AGENCY:**

Hawai'i County Planning Department
101 Pauahi Street, Suite 3
Hilo HI 96720

CONSULTANT:

Ron Terry Ph.D.
PO Box 396
Hilo HI 96721

CLASS OF ACTION:

Action in Shoreline Setback Area

This document is prepared pursuant to:
the Hawai'i Environmental Protection Act,
Chapter 343, Hawai'i Revised Statutes (HRS), and
Title 11, Chapter 200, Hawai'i Department of Health Administrative Rules (HAR).

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SUMMARY OF PROJECT, ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Jim Robinson proposes to build a 15 by 30-foot saltwater swimming pool and related improvements between his home and a wall that forms the *makai* boundary of his Kona Bay Estates property. The wall itself was certified as the shoreline on September 13, 1999. The lot is 13,324 square feet, and the proposed location *mauka* of the wall is the only available site on his lot for a pool.

When the Kona Bay Estates subdivision was developed in 1984, the developer implemented a public access plan with two 10-foot-wide *mauka-makai* access points and a lateral shoreline access for hikers, sunbathers and fishers along the top of a low rock wall on the *makai* edge of all the oceanfront properties. The shoreline fronting the subdivision was certified in 1984 at between 22 feet and 42 feet seaward of the *makai* property line of the parcels. This allowed many neighboring lots to utilize the area behind the wall for structures, including swimming pools. There are currently 20 swimming pools similarly positioned on the subdivision's 32 lots. There do not appear to have been any adverse impacts on shoreline processes or ecosystems as a result of these land uses on the *mauka* side of the subdivision wall, and lateral shoreline access has been carefully maintained along the wall. No sensitive biological, hydrological, archaeological, cultural or other important resources are present. As such, the Robinsons' proposed pool has little potential to cause long-term adverse impacts.

The swimming pool would use a cartridge filter system that does not require any back-washing. The pool would require draining only very infrequently. The pool water will be drained into a lava sump that will be specified on the engineered plans for the building permit for the pool, in conformance with all State and County of Hawai'i laws and regulations. No water will be discharged into the ocean or into the groundwater. The improvements also include a 7.5-foot diameter spa at grade, a tile pool deck and a 4-foot high pool security fence set back 5 feet from the existing rock wall, in compliance with the Covenants, Conditions and Restrictions (CC&Rs) of the subdivision.

Construction activities would produce short-term impacts to noise, air quality, access and scenery. Implementation of standard construction Best Management Practices are proposed as Shoreline Setback Variance conditions to ensure that construction-related damage is avoided or minimized.

PART 1: PROJECT DESCRIPTION

1.1 Project Description and Location

Jim Robinson (the “applicant”) proposes to build a 15 by 30-foot saltwater swimming pool and related improvements in a narrow corridor between his home and a wall that forms the *makai* boundary of his Kona Bay Estates property (Owner: Jimmy Rex Robinson Family Trust) in Kailua-Kona, TMK 7-5-005:024 (Figures 1-4). The lot is 13,324 square feet, and the proposed location just *mauka* of the wall is the only available site on his lot for a pool. The wall was certified as the shoreline on September 13, 1999, meaning that construction here requires an Environmental Assessment (EA) and a Shoreline Setback Variance, an application for which can be filed upon completion of the EA process.

When the Kona Bay Estates subdivision was developed in 1984, the developer was required to develop a public access plan as part of Special Management Area Use Permit conditions. This plan included two 10-foot-wide *mauka-makai* access points and a lateral shoreline access along the top of a two-foot-wide low rock wall that was built near the *makai* edge of all the oceanfront properties. The shoreline fronting the subdivision was certified in 1984 when the subdivision was developed. At that time, the shoreline was considered to be located between 22 feet and 42 feet below the *makai* property line of the subdivision parcels. This allowed many neighboring lots to utilize the area behind the wall for structures, including swimming pools. There are currently 20 swimming pools similarly positioned on the subdivision’s 32 lots, some of which are visible in the airphoto in Figure 1. There do not appear to have been any adverse impacts on shoreline processes or ecosystems as a result of these land uses on the *mauka* side of the subdivision wall, and lateral shoreline access has been carefully maintained along the wall. As such, the Robinsons’ proposed pool would generally appear to have little potential to cause adverse impacts, and Mr. Robinson believes that use of this setback area for a swimming pool and related improvements is a reasonable use.

About a decade ago the previous owners of the property excavated for a pool without obtaining the necessary permits for use within the Shoreline Setback. After being informed by the County of the violation of the rules regarding activities in the shoreline setback, they settled the violation by filling it in with concrete, leaving a grass planter in the shape of a pool filled with concrete.

The proposed saltwater swimming pool would use a cartridge filter system that does not require any back-washing.¹ The pool would require only very infrequent draining. The pool water will be drained into an adjacent lava sump that will be specified on the engineered plans for the building permit for the pool, in conformance with all State and County of Hawai‘i laws and regulations.

¹The typical saltwater pool, including the one proposed here, does not obtain saltwater from the sea. It simply uses dissolved salt as a store for the chlorination system. The salinity is typically 1,800–6,000 ppm, or roughly one-tenth the salinity of seawater. The chlorinator uses electrolysis to break down the salt, producing hypochlorous acid (HOCl) and sodium hypochlorite (NaClO), the same agents that conventional swimming pools use. Although a saltwater pool is not free of chlorine, it avoids chloramines, which produce the stinging eyes and chlorine smell of conventional swimming pools.

Figure 1
Project Location

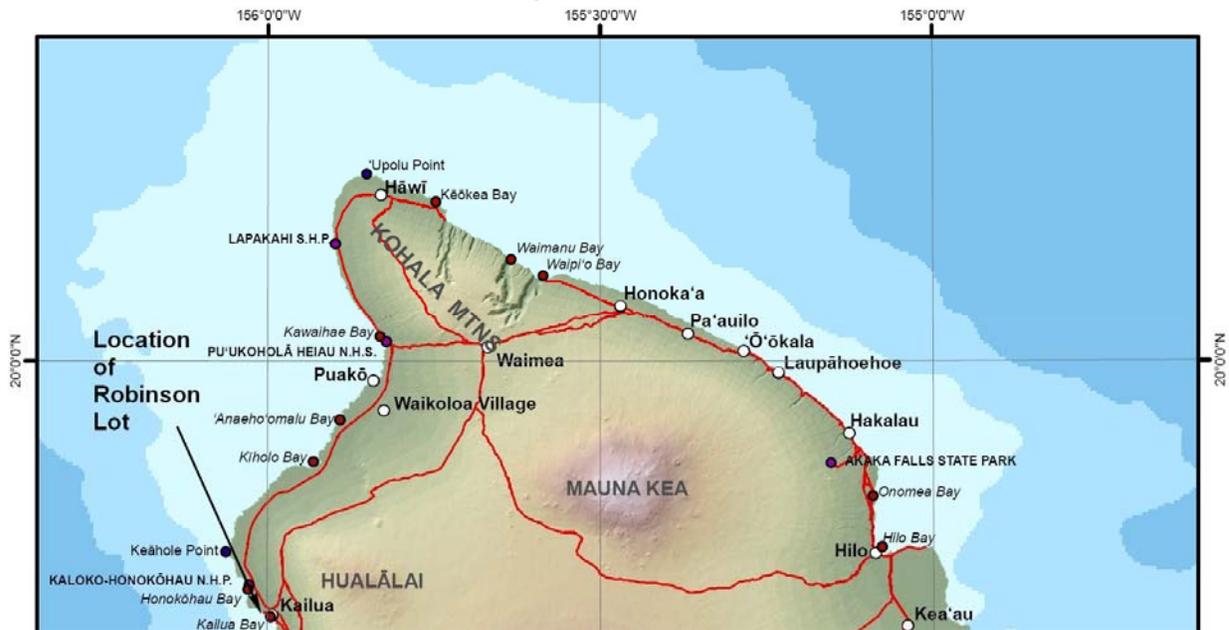
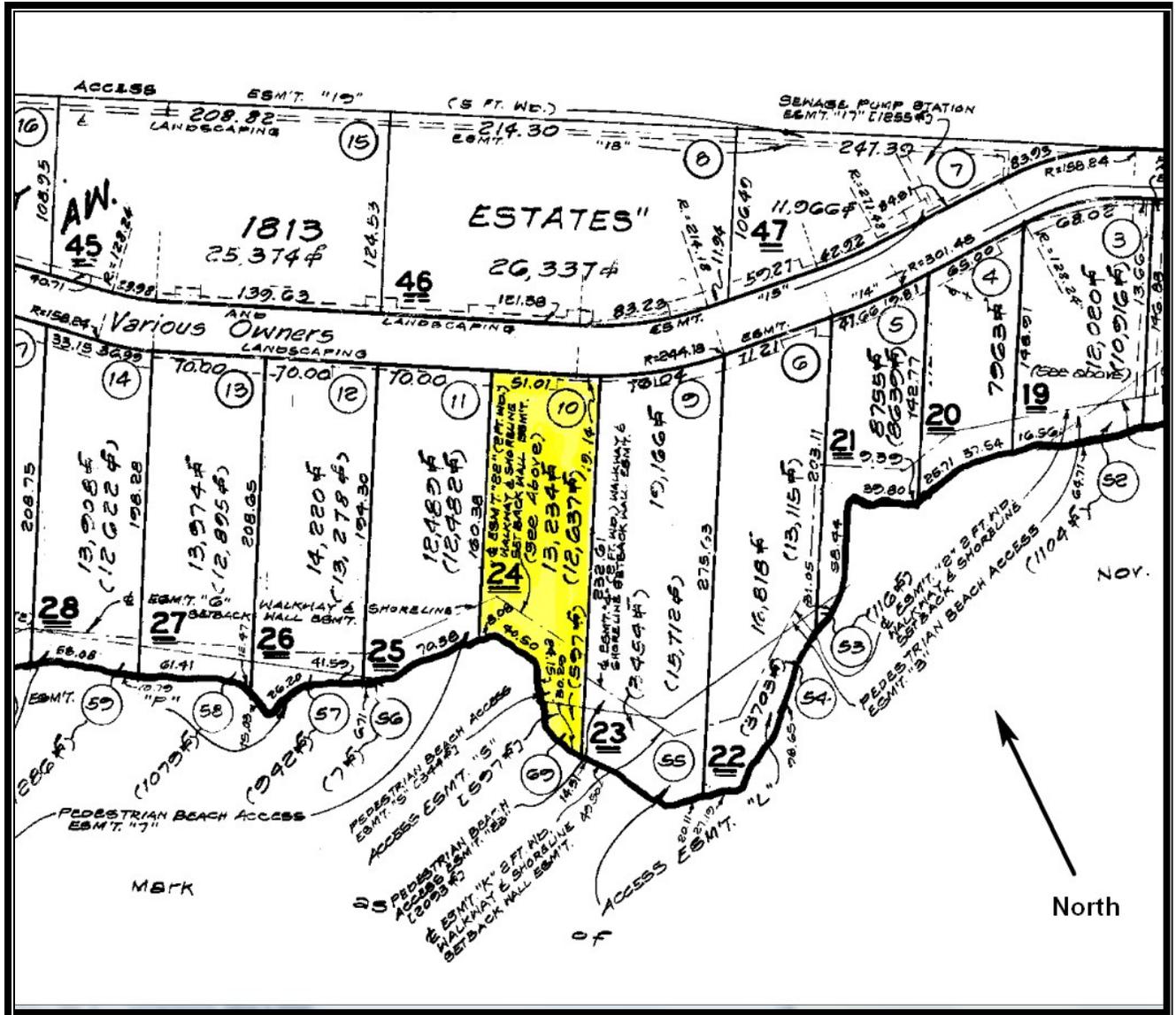


Figure 2
Tax Map



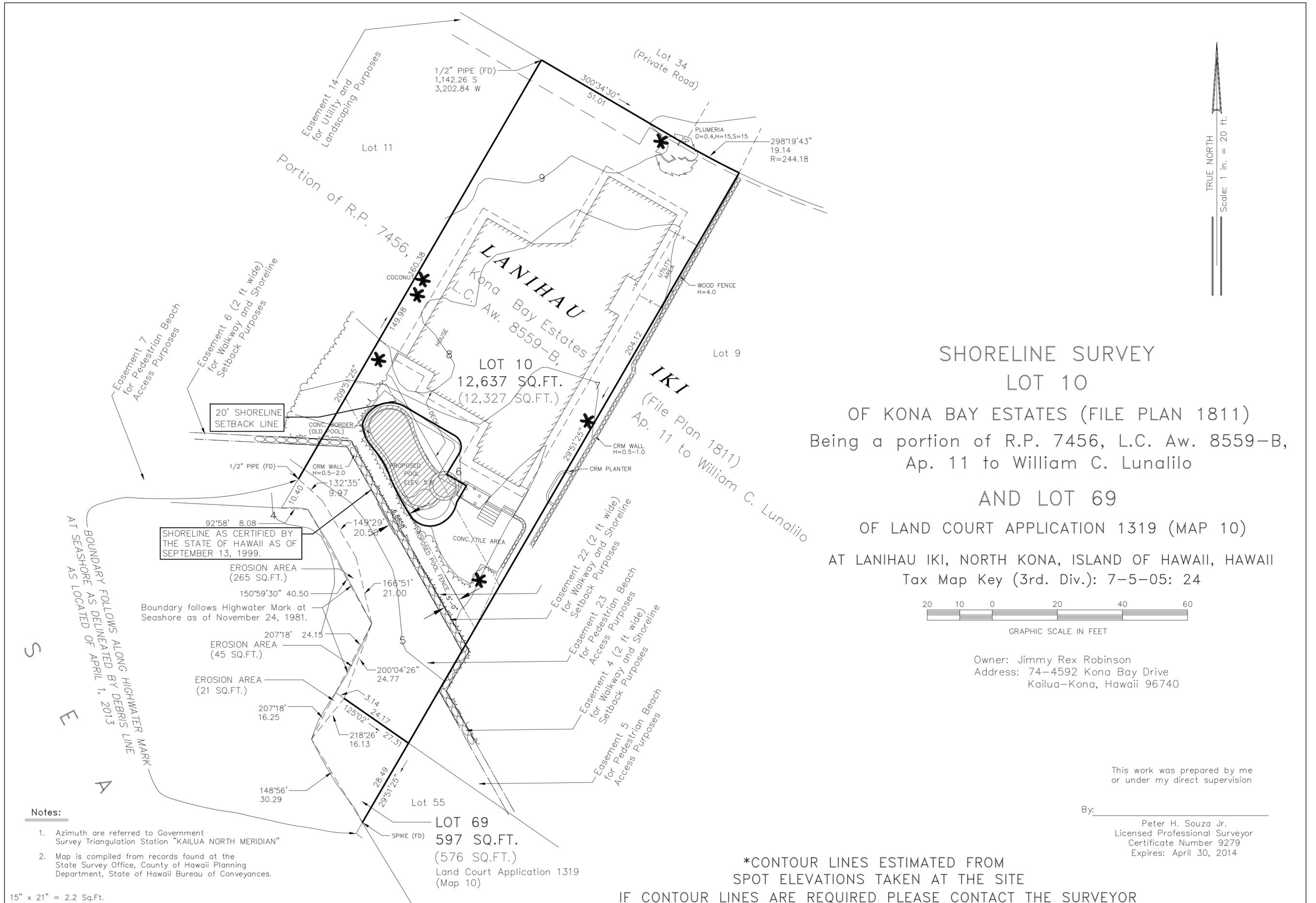
Portion of Plat 7-5-5. Source: Hawai'i County Real Property Tax Division.

Project Site Photos



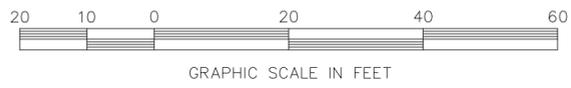
3a Area Proposed for Swimming Pool ▲ ▼ 3b Shoreline in Front of Property





TRUE NORTH
Scale: 1 in. = 20 ft.

SHORELINE SURVEY
 LOT 10
 OF KONA BAY ESTATES (FILE PLAN 1811)
 Being a portion of R.P. 7456, L.C. Aw. 8559-B,
 Ap. 11 to William C. Lunalilo
 AND LOT 69
 OF LAND COURT APPLICATION 1319 (MAP 10)
 AT LANIHAU IKI, NORTH KONA, ISLAND OF HAWAII, HAWAII
 Tax Map Key (3rd. Div.): 7-5-05: 24



Owner: Jimmy Rex Robinson
 Address: 74-4592 Kona Bay Drive
 Kailua-Kona, Hawaii 96740

This work was prepared by me
 or under my direct supervision

By: _____
 Peter H. Souza Jr.
 Licensed Professional Surveyor
 Certificate Number 9279
 Expires: April 30, 2014

- Notes:**
1. Azimuth are referred to Government Survey Triangulation Station "KAILUA NORTH MERIDIAN"
 2. Map is compiled from records found at the State Survey Office, County of Hawaii Planning Department, State of Hawaii Bureau of Conveyances.

*CONTOUR LINES ESTIMATED FROM
 SPOT ELEVATIONS TAKEN AT THE SITE
 IF CONTOUR LINES ARE REQUIRED PLEASE CONTACT THE SURVEYOR

15" x 21" = 2.2 Sq.Ft.

Job Number: 2013-004
 Revised: JULY 9, 2013

CROSSROADS LAND SURVEYING
 Land Surveyors

P.O. Box 9017
 Kailua-Kona, Hawaii 96745

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No water will be taken from or discharged into the ocean. The improvements also include an at-grade spa, a tile pool deck and a 4-foot high pool security fence.

The improvements are estimated to cost \$50,000, and all funding is private (no public funds are involved). Work would begin immediately after permits are obtained would take about three months to finish.

1.2 Environmental Assessment Process

This Environmental Assessment (EA) process was conducted in accordance with Chapter 343 of the Hawai'i Revised Statutes (HRS). This law, along with its implementing regulations, Title 11, Chapter 200, of the Hawai'i Administrative Rules (HAR), is the basis for the environmental impact process in the State of Hawai'i. *An EA is necessary because the site is within the Shoreline Setback Area and the County of Hawai'i does not consider the project an exempt activity.*

According to Chapter 343, an EA is prepared to determine impacts associated with an action, to develop mitigation measures for adverse impacts, and to determine whether any of the impacts are significant according to thirteen specific criteria. If a study concludes that no significant impacts would occur from implementation of the proposed action, a Finding of No Significant Impact (FONSI) will be prepared and an action will be permitted to occur. If a study finds that significant impacts are expected to occur because of a proposed action, then an Environmental Impact Statement (EIS) is prepared in order to allow wider investigation of impacts and more extensive public involvement.

Section 2 considers alternatives to the proposed project, and Section 3 discusses the existing environment and impacts associated with this project. Section 4 discusses the determination (anticipated determination in the Draft EA), and Section 5 lists the criteria and the findings made by the applicant in consultation with the County of Hawai'i Planning Department for this project.

1.3 Public Involvement and Agency Coordination

The following agencies, organizations and individuals have been consulted during the Environmental Assessment Process:

County:

Planning Department
County Council
Parks and Recreation Department

State:

Department of Land and Natural Resources, Land Division
Department of Land and Natural Resources, Historic Preservation Division
Department of Health
Office of Hawaiian Affairs, Honolulu and West Hawai'i

Private:

Kona Hawaiian Civic Club
Kona-Kohala Chamber of Commerce
Sierra Club
Adjacent Property Owners

Copies of communications received during early consultation are contained in Appendix 1a. Notice of the availability of the Draft EA was published in the January 8, 2014 OEQC Environmental Notice. Appendix 1b contains written comments on the Draft EA and the responses to these comments. Various places in the EA have been modified to reflect the completion of the Draft EA process. Substantive, non-procedural changes are denoted by double underlines, as in this paragraph.

PART 2: ALTERNATIVES

2.1 Proposed Project

The proposed project is described in Section 1.1 above and illustrated in Figures 1-4.

2.2 No Action and Alternative Sites

Under the No Action Alternative, the swimming pool and associated improvements would not be built. This EA considers the No Action Alternative as the baseline by which to compare environmental effects from the project. There is no other site on the lot with enough space to accommodate the swimming pool. No other alternative uses for this part of the property are desired by the applicant, and thus none are addressed in this EA.

PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION

The subject property is a relatively flat lot situated adjacent to the shoreline at an elevation of between roughly 6 and 10 feet above mean sea level. It is bounded on the northwest and southeast by other lots within the Kona Bay Estates subdivision; on the northeast by an access road and beyond that by Old Kona Airport Park; and on the southwest by the shoreline area and the Pacific Ocean (Figs. 1-3). The climate in this part of Kona is hot and dry, averaging between 20 and 30 inches of rain annually, with a mean annual temperature of approximately 76 degrees Fahrenheit (U.H. Hilo-Geography 1998:57).

3.1 Physical Environment

3.1.1 Geology, Soils and Geologic Hazards

Environmental Setting

The surface geology consists of lava flows from Hualālai volcano dated between 1,500 and 3,000 years ago (Wolfe and Morris 1996). Soil is minimal and the area is classified as Lava, Pahoehoe Flows (virtually no soil). The ground is highly permeable, and runoff and soil erosion hazard are minimal (U.S. Soil Conservation Service 1973).

The entire Big Island is subject to geologic hazards, especially lava flows and earthquakes. The U.S. Geological Survey classifies all of Kailua-Kona, which is on the slopes of the dormant volcano Hualālai, within Lava Flow Hazard Zone 4, on a scale of ascending risk 9 to 1 (Heliker 1990). The hazard risk is based on the fact that Hualālai has steep slopes and is historically the third most active volcano on the island. Volcanic hazard Zone 4 areas have had about 5 percent of the area covered with lava since 1800 and less than 15 percent of the area covered in the past 750 years.

In terms of seismic risk, the entire Island of Hawai'i is rated Zone 4 Seismic Hazard (Uniform Building Code, Appendix Chapter 25, Section 2518). Zone 4 areas are at risk from major earthquake damage, especially to structures that are poorly designed or built.

Impacts and Mitigation Measures

Geologic conditions impose no substantial constraints on the project. The pool and associated structures will conform to seismic standards of the Uniform Building Code. Although the general area is exposed to a certain amount of hazard from lava flows and earthquakes, the project presents no additional geologic hazard to the public. Landowners and residents of high-hazard lava inundation parts of the island have been made aware of the potential and accept the risk when they purchase and/or inhabit such areas.

3.1.2 Flood Zone and Shoreline Setting

Existing Environment

Floodplain status for many areas of the island of Hawai‘i has been determined by the Federal Emergency Management Agency (FEMA), which produces the National Flood Insurance Program’s Flood Insurance Rate Maps (FIRM). The map for the project site is 1551660694C. The area of the subject property where the swimming pool is to be located is designated Zone AE on the FIRM maps, with a base flood elevation of 10 feet (Figure 5). Construction of at-grade pools and decks is permitted within the AE zone. The area from the *makai* wall towards the sea is designated as Zone VE (Coastal High Hazard Area). The subject property lies adjacent to a basalt shoreline shelf with white sand pocket beaches (see Figure 3).

In a letter in response to early consultation of July 15, 2013 (see Appendix 1a), the Planning Department expressed concern about coastal erosion and damage:

“While the applicant believes that ‘use of this setback area for a swimming pool and related improvements is a reasonable use’, Planning Commission Rules of Practice and Procedure rule 8-11 states that *“the determination of the reasonableness of the use of land shall consider factors such as shoreline conditions, erosion, surf and flood condition, and the geography of the lot as it relates to health and safety”*. With respect to this rule, the Planning Department has concerns with subject proposal.

- Photos of the subject property during high winter surf conditions show the parcel heavily flooded *mauka* of the CRM seawall (see attached file photos from January 2003) in the general location of the proposed swimming pool.
- The property is subject to erosion *mauka* of the CRM seawall during high winter surf conditions (see attached file photo dated December, 28 2003). **[see photo in Appendix 1a]**
- The parcel appears to be within the *coastal flood zone with velocity hazard (wave action)* area designated AE by the National Flood Insurance Program.

With respect to global climate change and sea level rise, it is highly unlikely that the natural phenomena identified in the first two bullets above will have any less impact on the subject property in the future. The draft EA should speak to the property specific environmental conditions identified above and address any potential concerns related to discharge of pool water to the ocean.”

It is important to note that the project does not involve any shoreline hardening or use of areas subject to beach processes. Although exceptionally high waves do overtop the wall in this area (the area experienced high water during Hurricane Iniki in 1992 and again in 2003), the land

**Figure 5
Flood Zone Map**



Source: Hawaii DLNR Flood Hazard Assessment Tool: <http://gis.hawaiiinfip.org/fhat/>

behind the rock wall on this and adjoining properties does not appear to have suffered any noticeable damage from wave activity in since 2003. The event of 2003 did cause very localized damage that was quickly repaired. No damage to the wall or public property was involved, and the minor erosion inside the wall did not affect public access in any way. And although it is true that similar infrequent events may cause the water in the saltwater pool to mix with that of the ocean behind the wall, the saltwater pool is simply diluted salt water and is not hazardous. Pollution concerns after a high water event in Kailua-Kona would realistically focus not on saltwater pools but rather on the residues of fertilizers, pesticides, sediment, hydrocarbon puddles, household chemicals in non-flood proofed structures, animal feces, etc., that the surge will pick up from County streets and other land uses.

In the event that water periodically overtopped the wall, there would be no adverse effects to utilities on or off the property. The electrical components would be installed and protected as per code with conduit and Ground Fault Circuit Breakers. If n electrical short should occur, the electrical supply to the pool and the equipment would be automatically be shut off. Water supply to the pool is simply through filling with a hose, so no water connections would be affected.

Of increasing importance to land use approvals in coastal regions throughout the world is the issue of sea level rise. There Earth is warming because of increases in human-produced greenhouse gases such as carbon dioxide and methane, which in turn has led to a rise in global

sea level (<http://www.ncdc.noaa.gov/oa/climate/globalwarming.html>). According to the National Climate Data Center of the National Oceanic and Atmospheric Administration (NOAA), global mean sea level has been rising at an average rate of 1.7 mm/year (plus or minus 0.5mm) over the past century, a rate which has increased over the last 10 years to 3.1 mm/year (Bindoff et al 2007). NOAA forecasts an expected range of sea level rise over the next century of between 0.18 and 0.59 m, due mainly to thermal expansion and contributions from melting alpine glaciers. However, potential contributions from melting ice sheets in Greenland or Antarctica may yield much larger increases. Dr. Charles Fletcher of the University of Hawai‘i, Manoa, estimates that sea level may rise up to one meter by the end of the next century.

In Hawai‘i, beach erosion, reef overtopping and consequent higher wave run-up, more devastating tsunami, and full-time submergence of critical coastal areas are likely to occur (<http://www.soest.hawaii.edu/coasts/sealevel/>). It is particularly important to evaluate the location of new infrastructure, and the State and counties must consider how to adjust zoning and setbacks so that large, expensive public buildings are not put in the path of inevitable damage and private structures do not pose undue hazards. On the Big Island, eustatic (global) sea level rise is coupled with local effects of subsidence. Since 1946, sea level at Hilo on the Big Island has risen an average of 1.8 ± 0.4 mm/yr faster than at Honolulu on the island of O‘ahu, a figure that has recently decreased. The degree to which this reflects subsidence versus variations in upper ocean temperature is currently not known (Caccamise et al 2005).

Impacts and Mitigation Measures

A scenario of modest sea level rise would not likely substantially affect the integrity or use of the proposed swimming pool. Although the pool may be affected, it would present no additional hazard to the public based on its siting and characteristics. If sea level rises dramatically, however, this residence and its structures would be among thousands, or perhaps tens of thousands, to be affected by what would be the largest disaster in the Hawaiian Islands since human settlement.

3.1.3 Water Quality

As discussed in the preceding section, the subject property is adjacent to the shoreline. No water features such as streams, springs, or anchialine ponds are found on or near the subject property. Construction of the swimming pool and related improvements, which would be separated from the shoreline area by a wall, will include practices to minimize the potential for sedimentation, erosion and pollution of coastal waters. The applicant will ensure that his contractor performs all earthwork in conformance with:

- (a) “Storm Drainage Standards,” County of Hawai‘i, October, 1970, and as revised.
- (b) Applicable standards and regulations of Chapter 27, “Flood Control,” of the Hawai‘i County Code.
- (c) Applicable standards and regulations of the Federal Emergency Management Agency (FEMA).
- (d) Applicable standards and regulations of Chapter 10, “Erosion and Sedimentation

Control,” of the Hawai‘i County Code.

Runoff on the lot is already required to be contained onsite, in conformance with Chapter 27 of the Hawai‘i County Code. As part of the plan approval process, the Hawai‘i County Department of Public Works will examine the application and determine if there is a need for the applicants to construct drainage improvements.

As discussed above, in the event of an occasional overtopping of the *makai* wall which floods the pool area, although there may be damage to the pool, there would be no serious adverse impacts to water quality.

Because construction of the swimming pool may involve excavation below the water table here (the ground elevation is about six feet above sea level), as is typical in many pools in shoreline areas, there would be a requirement for a National Pollutant Discharge Elimination System permit if discharge, either directly or indirectly, of construction site dewatering effluent into State waters is determined to be necessary. Because of the relatively shallow depth of the pool, it does not appear likely that any dewatering will be necessary, according to the pool contractor familiar with conditions for the many pools in the area.

3.1.4 Flora and Fauna

Environmental Setting

The yard area proposed for the pool is covered by grass and concrete (see Figure 3), with adjacent coconut trees (*Cocos nucifera*) and *naupaka* (*Scaevola sericea*) hedges. The adjacent property in which staging may occur contains *naupaka* and tree heliotrope (*Tournefortia argentea*). No rare, threatened or endangered plant species were found or would be expected.

Animals likely to be on the project site are non-native birds such as Japanese White-eye (*Zosterops japonicus*) and Mynah (*Acridotheres tristis*) and the alien mammal mongoose (*Herpestes auropunctatus*), along with domestic cats and dogs. Common native waterbirds such as *ulili* (*Heteroscelus incanus*) and *kolea* (*Pluvialis fulva*) utilize the rocky shelf and tidepools *makai* of the wall. In terms of conservation value, however, no valuable bird habitat is present on the project site itself.

No streams, wetlands or special aquatic sites (e.g., anchialine ponds) are present on the subject property. However, North Kona coastal waters have excellent marine biota, including healthy coral-based ecosystems. The waters off Kailua Beach are used by boaters, swimmers, divers, and fishers, and maintenance of water quality is essential for preservation of natural ecosystems that they utilize.

Impacts and Mitigation Measures

Because of the relative minor nature of the project and the lack of native terrestrial ecosystems and threatened or endangered plant species, construction and use of the swimming pool is not likely to cause adverse biological impacts. No additional planted landscaping is planned. The precautions for preventing any effects to water quality during construction listed above in Section 3.1.3 should prevent any adverse impact on aquatic biological resources in coastal waters. All drain water from the swimming pool would be disposed of in conformance with regulations, and there would be no effects on coastal waters.

3.1.5 Air Quality, Noise, and Scenic Resources

Environmental Setting

Air pollution in the Kona area is mainly derived from volcanic emissions of sulfur dioxide, which convert into particulate sulfate and produce a volcanic haze (vog) that persistently blankets the district. Drier areas experience blowing dust, especially during high winds.

Noise on the site is moderate, and is derived from natural sources (such as surf and wind) as well as nearby residences, roads, recreational facilities, and the Kona International Airport, approximately 10 miles to the north.

The area shares the quality of scenic beauty along with most of the Kona coastline. The Hawai'i County General Plan contains Goals, Policies and Standards intended to preserve areas of natural beauty and scenic vistas from encroachment. Several views in the Kailua Bay area are specifically cited in the 2005 Hawai'i County General Plan as examples of natural beauty to be preserved for future generations, as shown in Table 1.

**Table 1
Scenic Sites in Hawai'i County General Plan**

View	TMK	Ahupua'a
White Sand Beach	7-5-05:07	Keahuolu
Mauka and makai viewplane along Queen Ka'ahumanu Highway	Various	Various

None of these properties or views is affected by the proposed action in the subject property.

Impacts and Mitigation Measures

The project would not affect air quality or noise levels, except for very minor and brief effects during construction. The construction of a swimming pool, spa, decking, and 4-foot high security fence would not have any substantial impact to scenery, because such development is in keeping with neighboring lots and is visually unobtrusive. No impacts would occur to views of or from the areas discussed in the General Plan. For construction noise mitigation, construction would be limited to daytime hours.

3.1.6 Hazardous Substances, Toxic Waste and Hazardous Conditions

Based on onsite inspection, it appears that the project site contains no hazardous or toxic substances and exhibits no other hazardous conditions.

3.2 Socioeconomic and Cultural

3.2.1 Land Use, Designations and Controls

Existing Environment

The project site is bordered by coastal State land on the *makai* side, by a private road and State land utilized for a County park on the *mauka* side, and by private parcels on the east and west.

The State Land Use District is Urban and County zoning is RS-15 (Residential, Minimum lot size 15,000 square feet). The Land Use Pattern Allocation Guide Maps identify the area as Open. The site is within the Special Management Area (SMA), and the portion of the subject property under consideration is within the Shoreline Setback Area (see Figs. 1-4).

Impacts and Mitigation

Given the setting, construction of the swimming pool, spa, decking, and 4-foot high security fencing will require a Shoreline Setback Variance and a Special Management Area Permit or exemption, which are discussed in Section 3.6, Consistency with Government Plans and Policies.

3.2.2 Socioeconomic Characteristics and Recreation

Existing Environment

The project site is within the Census Designated Place of Kailua-Kona (*ahupua'a* of Lanihau) in the North Kona District of the island of Hawai'i. Many parts of Kona have experienced high rates of growth associated with the booming visitor industry in West Hawai'i. Since 1970, population has grown rapidly in all of West Hawai'i and particularly in North Kona, where the number of inhabitants increased from 4,832 in 1970 to 28,543 in 2000 and to 37,875 in 2010. The population of Kailua-Kona, the largest population center, was 11,975 in 2010. Census data reveal a population that is 36.7 percent White, 18.1 percent Asian, 15.2 percent Native Hawaiian or Pacific Islander, and 25.2 percent identified by two or more races (<http://www.census.gov/popfinder/>).

The Kona Bay subdivision is isolated from other neighborhoods, but industrial, commercial and recreational uses are present nearby. The shoreline fronting the lava wall consists of a lava shelf with sand pockets that are formed and reworked during large wave episodes (see Figure 3). This area is frequently traversed and used by residents of and visitors to Kailua for fishing, gathering, hiking and sunbathing. Public access to and along the shoreline is provided by a trail in an easement along the top of the wall that is *makai* of each subdivision lot (see Figure 3) and at

various *mauka-makai* locations in or near the subdivision. Many people walk on the lava flats in the shoreline area as well.

Impacts and Mitigation Measures

No adverse socioeconomic impacts are expected to result from the project. Residential-zoned property and residential uses surround the subject property, and the proposed use is consistent with these neighboring properties. The swimming pool, spa, decking, and 4-foot high security fencing, along with the single-family residence to which they pertain, would not adversely affect neighbors, who also have single-family residences, many with swimming pools. The subject property would remain residential in use and zoning.

Mauka-makai access, access along the wall, and access in the shoreline in front of the wall are clearly important. The proposed swimming pool and related improvements would not affect access to or use of these areas in any way.

3.2.3 Cultural and Historic Resources

The cultural value of the project site was assessed as part of this EA. The purpose of this investigation was to determine whether the subject property supported any traditional gathering uses, was vital for access to traditional cultural sites, or had other important symbolic associations for native Hawaiians. It should be emphasized that the project is restricted to several hundred square feet on an already graded lot on which a single-family home is already present, and is surrounded by development, including homes and a modern wall, on three sides. As such, sources for the information included examination of maps and published literature for the Lanihau *ahupua'a* and observations of the site.

Historical and Cultural Background

Kona became a residence of many of the *ali'i* (chiefs) of the Island of Hawai'i beginning with Umi-a-liloa, who unified the island circa 1525. By this time, the island was divided into six districts or *moku-o-loko* (Fornander 1973 – Vol. II: 100-102). On Hawai'i Island, the district of Kona is one of six major *moku-o-loko* within the island. Kona, like other large districts on Hawai'i, was further divided into *'okana* or *kalana* (regions of land smaller than the *moku-o-loko*, yet comprising a number of smaller units of land), including that of Kona 'akau (North Kona), which extended from Lanihau to Pu'uohau.

Like Umi-a-liloa centuries before upon unification of Hawai'i, Kamehameha I also moved his court to Kona after unification of all the islands to Kamakahonu in the *ahupua'a* of Lanihau (present-day Kailua-Kona). Here Kamehameha spent the last years of his life and died in 1819 (Menton 1994: pp. xv-xvii).

Soon after the death of Kamehameha I, Kamakahonu was yet again the site of historic events, when Kamehameha II (Liholiho) ended the *kapu* forbidding women and men to eat together, thereby precipitating the end of the ancient religion with its *kapu* system. Later on in the year 1820, Kamehameha II and his entourage, including a number of American Protestant missionaries, departed for O‘ahu, where the Kingdom’s government was relocated. John Adams Kuakini created a fort out of the Ahu‘ena Heiau at Kamakahonu, where governance of the island continued under his charge.

Major changes in the area were brought about by the introduction of new forms of agriculture, which were of limited success, and by the Great Mahele in 1848, whereby Kamehameha III and his chiefs redistributed land ownership (Kelly 1983: pp. 22, 35-36). Over 800 *kuleana* property awards to native Hawaiians were made in Kona at this time and many other thousands of acres of Kingdom lands were sold to both Hawaiians and foreigners. The *ahupua‘a* of Lanihau 1, including the entire area of the old Kona airport, was awarded to William C. Lunalilo at this time, while eight other native Hawaiian claimants were awarded a total of 15.86 acres in this land division. The area directly around Kamakahonu and the former Ahu‘ena Heiau were designated as being part of the Lanihau 2 land division with the Kingdom retaining ownership. Lunalilo, a grandson of the half-brother of Kamehameha I and a recipient of Lanihau 1 *ahupua‘a*, later became the first popularly elected King of Hawai‘i.

The next significant change for Kona was the beginning of tourism in the district, marked by the construction of Kona’s first major hotel, the Kona Inn, in 1928 (Menton 1994). The old Kona airport was constructed in 1945, abandoned in 1970, and made a State park in 1975. The Lanihau area formerly contained a number of brackish water ponds that contained ‘*opae*, or shrimp, that were often used for bait. The construction of the airport almost totally destroyed these environments. The Lanihau *ahupua‘a* has had a number of archaeological sites documented, including petroglyphs near the subject property in parcels TMK 7-5-07:46-47 (Neller 1980), and numerous other sites in the vicinity of the old Kona airport (Estioko-Griffin and Lovelace 1980). As the project site is within a developed residential lot surrounded on three sides by modern development, and no archaeological sites are present (see *Existing Archaeological Resources* below), the rich cultural associations of Lanihau are no longer particularly evident. The portion of the subject property for which a swimming pool is planned is a several hundred square foot walled-in front yard that is not being used currently for ceremonial, gathering, or any other cultural purposes by native Hawaiians.

The lava shoreline and tidepools makai of the subdivision are used extensively for fishing and gathering, including traditional uses. These practices would not be constrained or prevented by the construction of the swimming pool and associated improvements on this lot; most of the lots in the subdivision have similar amenities, none of which restrict such uses.

In summary, no significant sites or practices appear to present in the area, and no effect on nearby sites or practices is expected. No party reviewing the Draft EA supplied any cultural information.

Existing Archaeological Resources

No sites are listed on the National and State Register of Historic Places on or directly adjacent to the subject property, according to published lists of Register sites maintained by the State Historic Preservation Division. Historic sites, including house sites, burials and *papamu* (game boards), are present on parts of TMK 7-5-05:07 at the Old Kona Airport Park, well to the west of the subject property. When the subdivision was developed over 20 years ago an archaeological study of the subject property was conducted by PHRI Inc., and reviewed and approved by Department of Land and Natural Resources, State Historic Preservation Division. All necessary data recovery was completed prior to grading the subdivision lots. All surface deposits and sand present on the Robinson lot (as well as the adjacent vacant lot, which will be used for staging equipment and materials), has been extensively moved around and turned over as part of house construction. The actual area proposed for the pool has already been excavated for a pool previously (see Section 1.1).

Impacts and Mitigation for Archaeological Resources

In order to ensure that potential impacts to archaeological resources was properly considered, the EA involved consultation and coordination with the Hawai‘i State Historic Preservation Division (SHPD). Correspondence is contained in Appendix 1a. In their final letter of September 19, 2013, SHPD archaeologist Michael Vitousek stated concerning the consultation letter:

“Our office responded with a request for more information on whether the proposed pool will extend, either vertically or horizontally, beyond the area that was previously excavated for the pool and, therefore, extend into previously undisturbed sediments (LOG NO: 2013.4227, DOC NO: 1307MV19). A review of our records indicated that no adequate inventory survey exists for this parcel and that Native Hawaiian burial sites have been inadvertently discovered in the immediate vicinity of this project area (SIHP 50-10-27-29819). As aerial photographs indicate it is very likely that sandy deposits extend onto this proposed project area. Therefore, we also requested that if previously undisturbed sediments are to be excavated, then an archaeological inventory survey (AIS) with subsurface testing should be undertaken.

A field visit was conducted by SHPD staff archaeologist Michael Vitousek on September 18, 2013, with the owner, Mr. Jim Robinson, and with Neal Tanaka of SVC pools. At this field visit we were provided with a detailed construction plan that indicates that the excavations for the current pool will fall entirely within the former pool. Therefore, no previously undisturbed sediments will be impacted. Provided there is no extension of project activities beyond the former location of the pool, SHPD believes that no historic properties will be affected. However, in the event that historic resources, including human skeletal remains, structural remains, sand deposits, midden deposits, or lava tubes are identified during construction activities, please cease work in the immediate vicinity of the find, protect the find from additional disturbance, and contact the State Historic Preservation Division.”

3.3 Public Facilities and Utilities

Environmental Setting, Impacts and Mitigation Measures

A privately owned paved access road runs along the *mauka* or northern edge of the subject property, providing vehicular access to the subject parcel. The site is serviced by overhead power and telephone lines from HELCO and Hawaiian Telcom. Water service would be via the County of Hawai'i Department of Water Supply. Wastewater disposal is through a municipal sewage system. No other public facilities are present. Water for the pool and electric power for the pool's pump is already available at the site. No adverse impact to public facilities or utilities would occur.

3.4 Secondary and Cumulative Impacts

The small scale of the proposed project would not produce any secondary impacts, such as population changes or effects on public facilities.

Cumulative impacts result when implementation of several projects that individually have limited impacts combine to produce more severe impacts or conflicts in mitigation measures. None of the adverse effects of the project are more than negligible, and there is almost no likelihood that the sum of such impacts added to others from nearby projects could become significant, or even noticeable. However, it is worthwhile to simply review the context of the proposed project and adjacent construction projects that would occur within the next year, the proposed time-frame of the pool construction.

Review of SMA permits and Chapter 343 documents in the OEQC Environmental Notice as well as press coverage indicates that there are a number of planned or ongoing projects in North Kona in the 2013-2017 timeframe. Most major projects here are centered in the growing Kailua to Keahole area. These include improvements to Queen Ka'ahumanu Highway and related roads; Kona International Airport; energy facilities, a Monk Seal Rehabilitation Facility, West Hawai'i Explorations Academy Public Charter School, and road construction at the Natural Energy Laboratory of Hawaii (NELHA); Honokohau Harbor improvements; the Kamakana Villages at Keahuolu (commonly known as the Forest City project); the La'i'opua Community Center; and the Kona Judiciary Complex. In the south of the Kailua-Kona region there is a 320-unit timeshare project at Kahalu'u, demolition and renovations at the former Keauhou Beach Resort, the La'aloa Avenue Extension, and completion of the Mamalahoa Highway Bypass from Kealakekua to Napo'opo'o. All of the activities are located two or more miles from the subject property and will have little interaction potential, especially given the intrinsically minor nature of building a small residential swimming pool. There appears to be only one planned project in the immediate vicinity – the ongoing improvements to the County's Old Kona Airport Park. According to a *West Hawaii Today* article by Erin Miller from April 7, 2013, the County Department of Parks and Recreation would like to complete the first phase of Old Kona Airport Park improvements by 2016, but there is no precise budget, schedule, or even certainty that it will be conducted. The work would include grassing much of the runway. Other facilities

determined through community input, such as a youth center, more restrooms and lockers, concessions, and additional lawn and landscaped areas, may be included. There is no land agreement yet with the State Department of Land and Natural Resources, the landowner, as this agency needs to relocate a baseyard currently on the property.

The adverse effects of building and using the swimming pool and related improvements on the subject property are very minor and temporary disturbance to air quality, noise, and visual quality during construction. Other than the precautions for preventing any effects to water quality during construction listed above in Section 3.1.3, no special mitigation measures should be required to counteract any small, adverse cumulative effect of nearby construction. It is particularly important to note that the project is expected to generate negligible scenic impact, no impact to public use and enjoyment of trails and shoreline areas, and no effect to historic or cultural properties. There would thus be no risk of cumulative impact to these resources.

3.5 Required Permits and Approvals

County of Hawai‘i

- Shoreline Setback Variance,
- Special Management Area Permit or Exemption
- Plan Approval

State of Hawai‘i

- National Pollutant Discharge Elimination System Permit (if dewatering necessary)

3.6 Consistency With Government Plans and Policies

3.6.1 County of Hawai‘i General Plan

The *General Plan* for the County of Hawai‘i is the document expressing the broad goals and policies for the long-range development of the Island of Hawai‘i. The plan was adopted by ordinance in 2005. The *General Plan* is organized into thirteen elements, with policies, objectives, standards, and principles for each. There are also discussions of the specific applicability of each element to the nine judicial districts comprising the County of Hawai‘i. Below are pertinent sections followed by a discussion of conformance.

ECONOMIC GOALS

- (a) Provide residents with opportunities to improve their quality of life through economic development that enhances the County’s natural and social environments.
- (b) Economic development and improvement shall be in balance with the physical, social, and cultural environments of the island of Hawaii.
- (d) Provide an economic environment that allows new, expanded, or improved economic opportunities that are compatible with the County’s cultural, natural and social environment.

Discussion: The construction and use of the swimming pool would not be out of balance with the natural, cultural and social environment of the County, would create temporary construction jobs

for local residents, and would indirectly boost the economy through construction industry purchases from local suppliers. A multiplier effect takes place when these employees spend their income for food, housing, and other living expenses in the retail sector of the economy. Such activities are in keeping with the overall economic development of the island.

ENVIRONMENTAL QUALITY GOALS

- (a) Define the most desirable use of land within the County that achieves an ecological balance providing residents and visitors the quality of life and an environment in which the natural resources of the island are viable and sustainable.
- (b) Maintain and, if feasible, improve the existing environmental quality of the island.
- (c) Control pollution.

ENVIRONMENTAL QUALITY POLICIES

- (a) Take positive action to further maintain the quality of the environment.

ENVIRONMENTAL QUALITY STANDARDS

- (a) Pollution shall be prevented, abated, and controlled at levels that will protect and preserve the public health and well being, through the enforcement of appropriate Federal, State and County standards.
- (b) Incorporate environmental quality controls either as standards in appropriate ordinances or as conditions of approval.
- (c) Federal and State environmental regulations shall be adhered to.

Discussion: The proposed project would not have a substantial adverse effect on the environment and would not diminish the valuable natural resources of the region. The swimming pool and associated improvements would be compatible with the existing single-family homes and recreational uses in the area. In the event of an occasional overtopping of the *makai* wall that would flood the pool area, there may be some damage to the pool and the area confined by the wall, but serious adverse impacts to water quality or coastal processes would not occur.

HISTORIC SITES GOALS

- (a) Protect, restore, and enhance the sites, buildings, and objects of significant historical and cultural importance to Hawaii.
- (b) Appropriate access to significant historic sites, buildings, and objects of public interest should be made available.

HISTORIC SITES POLICIES

- (a) Agencies and organizations, either public or private, pursuing knowledge about historic sites should keep the public apprised of projects.
- (b) Amend appropriate ordinances to incorporate the stewardship and protection of historic sites, buildings and objects.
- (c) Require both public and private developers of land to provide historical and archaeological surveys and cultural assessments, where appropriate, prior to the clearing or development of land when there are indications that the land under consideration has historical significance.
- (d) Public access to significant historic sites and objects shall be acquired, where appropriate.

Discussion: It has been determined through coordination with the State Historic Preservation Division that no archaeological or cultural sites appear to be present on the small, disturbed project site or would be affected by the proposed action.

FLOOD CONTROL AND DRAINAGE GOALS

- (a) Protect human life.
- (b) Prevent damage to man-made improvements.
- (c) Control pollution.
- (d) Prevent damage from inundation.
- (e) Reduce surface water and sediment runoff.
- (f) Maximize soil and water conservation.

FLOOD CONTROL AND DRAINAGE POLICIES

- (a) Enact restrictive land use and building structure regulations in areas vulnerable to severe damage due to the impact of wave action. Only uses that cannot be located elsewhere due to public necessity and character, such as maritime activities and the necessary public facilities and utilities, shall be allowed in these areas.
- (g) Development-generated runoff shall be disposed of in a manner acceptable to the Department of Public Works and in compliance with all State and Federal laws.

FLOOD CONTROL AND DRAINAGE STANDARDS

- (a) "Storm Drainage Standards," County of Hawaii, October, 1970, and as revised.
- (b) Applicable standards and regulations of Chapter 27, "Flood Control," of the Hawaii County Code.
- (c) Applicable standards and regulations of the Federal Emergency Management Agency (FEMA).
- (d) Applicable standards and regulations of Chapter 10, "Erosion and Sedimentation Control," of the Hawaii County Code.
- (e) Applicable standards and regulations of the Natural Resources Conservation Service and the Soil and Water Conservation Districts.

Discussion: The subject property is within the AE Zone, or areas within the 100-year Floodplain as determined by detailed methods in the community flood insurance study, according to the Flood Insurance Rate Maps (FIRM). The improvements are subject to review by the Hawai'i County Department of Public Works to ensure that all relevant standards of Chapter 27 and Chapter 10 are addressed.

NATURAL BEAUTY GOALS

- (a) Protect, preserve and enhance the quality of areas endowed with natural beauty, including the quality of coastal scenic resources.
- (b) Protect scenic vistas and view planes from becoming obstructed.
- (c) Maximize opportunities for present and future generations to appreciate and enjoy natural and scenic beauty.

NATURAL BEAUTY POLICIES

- (a) Increase public pedestrian access opportunities to scenic places and vistas.
- (b) Develop and establish view plane regulations to preserve and enhance views of scenic or prominent landscapes from specific locations, and coastal aesthetic values.

Discussion: The swimming pool, deck and fencing would be built within an identified subdivision lot and would conform to CC&Rs that help limit scenic impact. The improvements are minor and would not cause scenic impacts or impede access.

NATURAL RESOURCES AND SHORELINES GOALS

- (a) Protect and conserve the natural resources from undue exploitation, encroachment and damage.
- (b) Provide opportunities for recreational, economic, and educational needs without despoiling or endangering natural resources.
- (c) Protect and promote the prudent use of Hawaii's unique, fragile, and significant environmental and natural resources.
- (d) Protect rare or endangered species and habitats native to Hawaii.
- (e) Protect and effectively manage Hawaii's open space, watersheds, shoreline, and natural areas.
- (f) Ensure that alterations to existing land forms, vegetation, and construction of structures cause minimum adverse effect to water resources, and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation, or failure in the event of an earthquake.

NATURAL RESOURCES AND SHORELINES POLICIES

- (a) Require users of natural resources to conduct their activities in a manner that avoids or minimizes adverse effects on the environment.
- (c) Maintain the shoreline for recreational, cultural, educational, and/or scientific uses in a manner that is protective of resources and is of the maximum benefit to the general public.

- (d) Protect the shoreline from the encroachment of man-made improvements and structures.
- (h) Encourage public and private agencies to manage the natural resources in a manner that avoids or minimizes adverse effects on the environment and depletion of energy and natural resources to the fullest extent.
- (p) Encourage the use of native plants for screening and landscaping.
- (r) Ensure public access is provided to the shoreline, public trails and hunting areas, including free public parking where appropriate.
- (u) Ensure that activities authorized or funded by the County do not damage important natural resources.

Discussion: The proposed project avoids impact on shoreline resources by remaining located behind an existing wall, in a neighborhood area where about 20 other homeowners have also built pools and accessory facilities.

LAND USE GOALS

- (a) Designate and allocate land uses in appropriate proportions and mix and in keeping with the social, cultural, and physical environments of the County.

LAND USE POLICIES

- (c) Allocate appropriate requested zoning in accordance with the existing or projected needs of neighborhood, community, region and County.

LAND USE, OPEN SPACE GOALS

- (a) Provide and protect open space for the social, environmental, and economic well-being of the County of Hawai‘i and its residents.
- (b) Protect designated natural areas.

LAND USE, OPEN SPACE POLICIES

- (a) Open space [in the County of Hawai‘i] shall reflect and be in keeping with the goals, policies, and standards set forth in the other elements of the General Plan.

Discussion: The proposed construction of a swimming pool and associated improvements does not detract from the open space in the area. Lateral coastal access would be preserved.

3.6.2 Special Management Area

The subject property is located within the Special Management Area (SMA). At the conclusion of the EA process, Planner Neal Tanaka will conduct a Special Management Area Assessment and request the Planning Director to determine that the proposed accessory use (swimming pool) to the existing single-family dwelling is exempt from further SMA review under Planning Commission Rule No. 9-4(10)(B)(xv).

In any case, the proposed land use complies with provisions and guidelines contained in Chapter 205A, Hawai‘i Revised Statutes (HRS), entitled *Coastal Zone Management*. The proposed use would be consistent with Chapter 205A because it would not affect historic resources, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, or public access to recreational areas, as summarized below.

Recreational Resources: The subject property is a coastal parcel situated between roughly 6 and 10 feet above mean sea level. The site is a residence that is not used as a recreational resource. There is lateral public access on top of and in front of the existing wall. Hikers, sunbathers, or fishers who utilize the shoreline *makai* of the site will be able to continue their use of this area, as the swimming pool, spa, decking, and 4-foot high security fencing would be set back behind the wall. These improvements would not in any manner affect the recreational resources of the subject property or the area.

Historic Resources: An archaeological inventory survey of the project site was completed prior to subdivision and grading, and no sites appear to be present on the surface. The area proposed for the pool was already excavated once, and there was no evidence of historic properties. According to the State Historic Preservation Division, it appears that construction of the proposed swimming pool would appear to have no impact on historic resources on the site or the surrounding properties. The front yard is not used for gathering, ceremonial or other cultural purposes by native Hawaiians, and therefore there appears to be no potential for cultural impact. Cultural practices in the area include fishing and gathering of marine resources in the shoreline area *makai* of the subject property. These practices would not be constrained by construction of the pool.

Scenic and Open Space Resources: The guidelines contained in Rule 9 of the Hawai‘i County Planning Commission Rules (which governs the SMA) express the intent to minimize development that would “substantially interfere with or detract from the line of site toward the sea from the State Highway nearest the coast or from other scenic areas identified in the General Plan.” The swimming pool, spa, decking, and 4-foot high security fencing are between an existing residence and a wall and would not impact scenic or open space resources. The swimming pool use is consistent with all other homes along this section of shoreline.

Coastal Ecosystems: The subject property abuts the shoreline. The design of the pool and the conditions of construction permits would minimize impacts to coastal resources. All mandated setbacks and government regulations related to runoff and nearshore waters will be adhered to. No threatened or endangered animal or plant species are present. No adverse impact to flora, fauna or ecosystems would be expected to result from the proposed swimming pool or any activities associated with it.

Economic Uses: The swimming pool would have very little impact on the greater socioeconomic environment. The proposed action would be an amenity for one household on the subject property which is zoned RS-15 by the County. This economic impact would be minor, given the context of this area of North Kona.

Coastal Hazards: The subject property is designated Zone AE-10 on the Flood Insurance Rate maps (FIRM). All habitable structures have been constructed above this elevation. In the event of an occasional overtopping of the *makai* wall that would flood the pool area, there may be some damage to the pool and the area confined by the wall, but serious adverse impacts to water quality or coastal processes would not occur.

3.6.3 Shoreline Setback Rules

When the subdivision was created in 1984, the developer was required to formulate a public access plan as part of the Special Management Area Use Permit conditions. This plan included two 10-foot wide *mauka-makai* access points and a lateral shoreline access along the top of a two-foot wide low rock wall that was constructed on the *makai* edge of all of the ocean-front properties. The shoreline fronting the subject property was certified in 1984 by the State of Hawai‘i when the subdivision was developed. It was located between 22 feet and 42 feet below the *makai* property line of the subdivision parcels.

On September 13, 1999, the State of Hawai‘i re-certified the shoreline at the *makai* edge of the wall in front of the subject property, some 20 feet more *mauka* than the previous certified shoreline. Because of this most recent certification, the applicant must obtain a shoreline setback variance for any improvements within 20 feet of the shoreline wall, including the proposed swimming pool, spa, decking, and 4-foot high security fencing.

Rule 11 (Shoreline Setback) of the Hawai‘i County Planning Department Rules of Practice and Procedure governs uses with the Shoreline Setback Area. Pursuant to Rule 11-6(b), all structures and activities that do not qualify under section 11-7(a) through (c) are prohibited in the shoreline setback area, unless the applicant obtains a Shoreline Setback Variance or the Planning Director determines that it is a “minor activity” “that does not adversely affect the shoreline” in the context of the rules and is thus exempt. The swimming pool and related improvements are not considered a minor activity and thus require a variance.

Shoreline Setback Variances are governed by Rule 8 of the Hawai‘i County Planning Commission Rules Of Practice And Procedure, which provides for the variance process in section 8-8 and defines the criteria for approving a variance in Section 8-10. Section 8-10 (b) (3) states:

(b) A variance may also be granted upon a finding that, based upon the record, the proposed structure or activity meets one of the following standards of this subsection: ...

(3) Hardship Standard.

(A) A structure or activity may be granted a variance upon the grounds of hardship only if:

(i) The applicant would be deprived of reasonable use of the land if required to comply fully

with this rule; and

(ii) The request is due to unique circumstances and does not draw into question the reasonableness of this rule; and

(iii) The request is the practicable alternative which best conforms to the purpose of this rule.

Project planner Neal Tanaka has provided the following interpretation of how the request for variance meets these criteria in the application for a Shoreline Setback Variance:

- (i) Should the applicant be denied this variance he would be denied a reasonable use of the subject property enjoyed by other ocean-front lots within this subdivision. There are 32 ocean-front lots in the subject subdivision, 26 of which are developed. Of these 26 developed lots 20 have pools immediately *mauka* of the public access/wall. Of those without a pool, five are located on the white sand bay near the south end of the subdivision known as “Keiki Beach”. All lots have pools, decks and/or landscape improvements immediately *mauka* of the wall. The applicant’s request to have a pool within the setback area is a reasonable and accepted use of the subject property. Nearby properties have been granted Shoreline Setback Variances (e.g., SSV 94-2) for the construction of a pool.
- (ii) This request for a variance is due to unique circumstances created when the shoreline was re-certified. Had the pool been proposed in the first 15 years after the lot was subdivided, when the shoreline was considered to be more than 20 feet *makai* of the wall, no shoreline setback variance would have been required. This 1999 certification is substantially different than the previous certification. Nearby properties were allowed to construct pools, some with a variance and some without, as the shoreline was demarcated further *makai*. Since the lateral public access is identified as the top of the wall, the proposed improvements within the setback area would not encroach into the public shoreline area, nor would it impact any coastal processes. The lot is only 13,234 sf (with only 12,637 sf *mauka* of the wall) and there is no space to set the pool any further back given the existing single-family dwelling.
- (iii) The request for permission to build the proposed improvements is the practicable alternative that best conforms to the purpose of Rule 8, Section 8-2. The existing wall prevents any encroachment onto the shoreline area, the proposed structure is at grade and would not be perceived as “massing of concrete.” The proposed action would not cause the loss of sand, coral or rocks from the shoreline. The proposed improvement would not endanger any residential dwellings.

Section 8-10 (b) (3) continues:

(B) Before granting a hardship variance, the Commission must determine that the request is a reasonable use of the land. The determination of the reasonableness of the use of land shall consider factors such as shoreline conditions, erosion, surf and flood condition, and the geography of the lot as it relates to health and safety.

The applicant's response to this criterion is that the proposed use is reasonable and common for the present subdivision. The wall prevents erosion of the shoreline caused by any activity behind the wall. The pool is not a habitable structure and there would be no jeopardy to health or safety by the proposed construction of this improvement.

(C) If a structure is proposed to artificially fix the shoreline, the Commission must also determine that shoreline erosion is likely to cause hardship if the structure is not allowed within the shoreline area.

The applicant's response to this criterion is that the proposed pool, spa, decking, and 4-foot high security fencing would not artificially fix the shoreline, which has been determined to be located on an existing artificial rock wall.

(D) Hardship shall not be determined as a result of a rezoning amendments, planned unit development (PUD) permits, cluster plan development (CDP) permits, or subdivision approvals after June 16, 1989.

The applicant's response to this criterion is that the subject lot was created by Subdivision 5059-C, approved on January 20, 1984.

Section 8-10 continues:

*(c) No variance shall be granted unless appropriate conditions are imposed as applicable:
To comply with Chapters 10 and 27 of the Hawai'i County Code relating to Erosion and Sedimentation Control and Flood Control respectively;
To maintain safe lateral access along the shoreline or adequately substitute for its loss;
To minimize risk of adverse impacts on beach processes;
To minimize risk of structures failing and becoming loose rocks or rubble on public property;
and
To minimize adverse impacts on public views to, from and along the shoreline.*

The applicant's response to these criteria is that:

- (1.) The applicant will comply with all provisions of Chapters 10 and 27.
- (2.) The proposed pool would not impact the lateral access which is located on top of and in front of the existing wall.
- (3.) The proposed action would not negatively impact beach processes as the subject property is separated from the beach by a wall that has existed for almost thirty years.
- (4.) The *makai* wall protects the subject property. The proposed pool is at grade and would not become rubble on public property.
- (5.) The proposed pool is at grade and would not affect viewplanes to, from, or along the shoreline.

3.6.4 Kona Community Development Plan

The Kona Community Development Plan (CDP) encompasses the judicial district of North and South Kona, and was developed under the framework of the February 2005 County of Hawai‘i General Plan. Community Development Plans are intended to translate broad General Plan Goals, Policies, and Standards into implementation actions as they apply to specific geographical regions around the County. CDPs are also intended to serve as a forum for community input into land use, delivery of government services and any other matters relating to the planning area.

The General Plan now requires that a Community Development Plan shall be adopted by the County Council as an “ordinance,” giving the CDP the force of law. This is in contrast to plans created over past years, adopted by “resolution” that served only as guidelines or reference documents to decision-makers. The Kona CDP was adopted in September 2008 by the County Council. The version referenced in this Environmental Assessment is at:

http://www.hcrc.info/community-planning/community-development-plans/kona/cdp-final-drafts/Final%20KCDP_Sept%202008_text.pdf.

The Plan has many elements and wide-ranging implications, but there are several major strategies that embody the guiding principles related to the economy, energy, environmental quality, flooding and other natural hazards, historic sites, natural beauty, natural resources and shoreline, housing, public facilities, public utilities, recreation, transportation and land use.

The swimming pool, spa, decking, and 4-foot high security fencing are generally consistent with, or not inconsistent with, all aspects of the Kona CDP. By designing the pool with a cartridge filter system that does not require any back-washing, and by maintaining it by draining it in conformance with County and State regulations, the project is in keeping with Section 4.3.2, Environmental Resources, which calls for managing the impacts of development on natural resources. This is detailed in Objective ENV-1: Managing Impacts:

In order to minimize impacts on the land, make use of best management planning practices for any land-based endeavor by balancing public and private rights, and taking advantage of an ever-improving knowledge of resource sensitivity and natural processes.

PART 4: DETERMINATION, FINDINGS AND REASONS

4.1 Determination

Based on the findings below, and upon consideration of comments to the Draft EA, it is the applicant’s current expectation that the County of Hawai‘i Planning Department will determine that the proposed action will not significantly alter the environment, as impacts will be minimal, and that this agency will accordingly issue a Finding of No Significant Impact (FONSI). The findings below present the reasons the proposed project is not expected to have any significant

effect in the context of Chapter 343, Hawai‘i Revised Statutes and section 11-200-12 of the State Administrative Rule.

4.2 Findings and Supporting Reasons

1. *The proposed project will not involve an irrevocable commitment or loss or destruction of any natural or cultural resources.* No valuable natural or cultural resource would be involved, committed or lost. No native ecosystems or historic sites are present. No valuable cultural resources or practices such as coastal access, fishing, gathering, hunting, or access to ceremonial activities would be affected in any way.
2. *The proposed project will not curtail the range of beneficial uses of the environment.* No restriction of beneficial uses would occur.
3. *The proposed project will not conflict with the State's long-term environmental policies.* The State's long-term environmental policies are set forth in Chapter 344, HRS. The broad goals of this policy are to conserve natural resources and enhance the quality of life. The project is minor and basically environmentally benign, and it is thus consistent with all elements of the State's long-term environmental policies.
4. *The proposed project will not substantially affect the economic or social welfare of the community or State.* The project would not have any substantial effect on the economic or social welfare of the Kona community or State.
5. *The proposed project does not substantially affect public health in any detrimental way.* The project would not affect public health and safety in any way.
6. *The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities.* As the project involves the construction of a swimming pool and associated improvements within an existing subdivision lot that already contains a residence, no secondary effects are expected.
7. *The proposed project will not involve a substantial degradation of environmental quality.* The project is minor and environmentally benign, and it would thus not contribute to environmental degradation.
8. *The proposed project will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat.* The site was already disturbed as part of subdivision and home construction and supports the typical shoreline vegetation found in disturbed sites, including mostly aliens with some common natives. No rare, threatened or endangered species of flora or fauna are known to exist on the project site, and none would be affected by any project activities.
9. *The proposed project is not one which is individually limited but cumulatively may have considerable effect upon the environment or involves a commitment for larger actions.* The

adverse effects of constructing a swimming pool and related improvements are very minor and involve temporary disturbance to air quality, noise and scenery during construction. The project is not related to other activities in the region in such a way as to produce adverse cumulative effects or involve a commitment for larger actions. Other than the precautions for preventing any effects to water quality during construction listed above, no special mitigation measures should be required to counteract the small adverse cumulative effect.

10. *The proposed project will not detrimentally affect air or water quality or ambient noise levels.* No substantial effects to air, water, or ambient noise would occur. Brief, temporary effects could occur during construction and will be mitigated.

11. *The project does not affect nor would it likely to be damaged as a result of being located in environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal area.* The project is inside the flood zone, according to FIRM maps, but all improvements will conform to appropriate regulations guiding development within such zones. Although the proposed swimming pool would be located in a zone exposed to earthquake and volcanic hazard, there are no reasonable alternatives that would avoid such exposure. In the event of an occasional storm wave event overtopping the *makai* wall and flooding the pool area, as occurred in 2003, there may be some damage to the pool and the area confined by the wall, but serious adverse impacts to water quality or coastal processes would not occur. Construction and use of the pool present no additional hazard to the public and are a reasonable risk for the landowner.

12. *The project will not substantially affect scenic vistas and viewplanes identified in county or state plans or studies.* The project is low-profile, at grade and would not impact views to, from or along the shoreline, nor any views listed in the Hawai'i County General Plan or other plans.

13. *The project will not require substantial energy consumption.* Small amounts of energy input would be required for construction and operation.

REFERENCES

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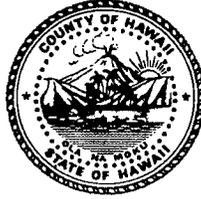
**ENVIRONMENTAL ASSESSMENT
ROBINSON SWIMMING POOL IN THE
SHORELINE SETBACK AREA**

**TMK (3rd) 7-5-005:024
Lanikai, North Kona District, Island of Hawai'i, State of Hawai'i**

**APPENDIX 1a
Comment Letters in Response to Early Consultation**

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William P. Kenoi
Mayor



Harry S. Kubojiri
Police Chief

Paul K. Ferreira
Deputy Police Chief

County of Hawai'i

POLICE DEPARTMENT

349 Kapi'olani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-2389

July 12, 2013

Mr. Ron Terry, Principal
Geometrician Associates, LLC
P.O. Box 396
Hilo, Hawai'i 96721

Dear Mr. Terry:

RE: EARLY CONSULTATION ON ENVIRONMENTAL ASSESSMENT FOR SHORELINE
SETBACK VARIANCE TO CONSTRUCT SWIMMING POOL AND RELATED
IMPROVEMENTS
TMK 7-5-005:024, NORTH KONA, ISLAND OF HAWAII

This responds to your letter dated July 5, 2013, soliciting comments on the above-referenced project.

We have reviewed the environmental assessment and have no comments or objections to offer at this time.

Should you have any questions regarding this matter, please contact Captain Randal M. Ishii, Commander of our Kona Division, at 326-4646, Ext. 299.

Sincerely,

HARRY S. KUBOJIRI
POLICE CHIEF



PAUL H. KEALOHA JR.
ASSISTANT POLICE CHIEF
AREA II OPERATIONS

RMI:dmv
RS130462

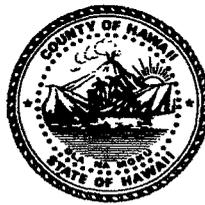
Aloha Ron

DPW received the Early Consultation letter for the subject. Although the project is located in the VE Zone on the Flood Insurance Rat Map, at-grade swimming pools are not regulated by Chapter 27 of Hawaii County Code. If the pool will not be at-grade, compliance with the requirements for obstructions is required and you should discuss the proposal with our Flood Plain Manager Frank Demarco.

Thanks--Ki

Kiran Emler
West Hawaii Civic Center
Department of Public Works- Engineering Division, Building D First Floor
74-5044 Ane Keohokalole Highway
Kailua-Kona, HI 96740
PH (808)323-4851 FAX (808)327-3533
kemler@co.hawaii.hi.us

William P. Kenoi
Mayor



Duane Kanuha
Director

Bobby Command
Deputy Director

West Hawai'i Office
74-5044 Ane Keohokalole Hwy
Kailua-Kona, Hawai'i 96740
Phone (808) 323-4770
Fax (808) 327-3563

County of Hawai'i
PLANNING DEPARTMENT

East Hawai'i Office
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720
Phone (808) 961-8288
Fax (808) 961-8742

July 15, 2013

Mr. Ron Terry
Geometrician Associates, LLC
P.O. Box 396
Hilo, HI 96721

Dear Mr. Terry:

Subject: Pre-Consultation for Draft Environmental Assessment
Project: Shoreline Setback Variance for Swimming Pool
TMK: (3) 7-5-005:024; Kona Bay Estates, North Kona, Hawai'i

Thank you for your letter dated July 8, 2013, requesting comments from this office regarding the preparation of a Draft Environmental Assessment (DEA) for the subject project.

The applicant proposes the construction of an approximately 15' by 30' saltwater swimming pool within the 40' shoreline setback area of the subject parcel. The certified shoreline survey of the subject property, which dates back to 1999, identified the shoreline as the makai face of the CRM seawall that spans the property. This seawall is also the identified Public Access easement for the subject subdivision.

The subject property consists of 13,324 s.f., is situated in the State Land Use Urban district, zoned Residential (RS-15) by the County, and designated Open by the Hawai'i County General Plan Land Use Pattern Allocation Guide (LUPAG) map. The property is located within the Special Management Area (SMA) and abuts the shoreline.

While the applicant believes that "use of this setback area for a swimming pool and related improvements is a reasonable use", Planning Commission Rules of Practice and Procedure rule 8-11 states that "*the determination of the reasonableness of the use of land shall consider factors such as shoreline conditions, erosion, surf and flood condition, and the geography of the lot as it relates to health and safety*". With respect to this rule, the Planning Department has concerns with subject proposal.

- Photos of the subject property during high winter surf conditions show the parcel heavily flooded mauka of the CRM seawall (see attached file photos from January 2003) in the general location of the proposed swimming pool.

Mr. Ron Terry
Geometrician Associates, LLC
July 15, 2013
Page 2

- The property is subject to erosion *mauka* of the CRM seawall during high winter surf conditions (see attached file photo dated December, 28 2003).
- The parcel appears to be within the *coastal flood zone with velocity hazard (wave action)* area designated AE by the National Flood Insurance Program.

With respect to global climate change and sea level rise, it is highly unlikely that the natural phenomena identified in the first two bullets above will have any less impact on the subject property in the future. The draft EA should speak to the property specific environmental conditions identified above and address any potential concerns related to discharge of pool water to the ocean.

Additionally, the draft EA should fully discuss any temporary or permanent impacts the proposed project is likely to have on the lateral public access along the top of the existing seawall and any mitigation measures necessary to assure public access is neither interrupted nor impeded in any way.

While it is noted that several residences in the subdivision have swimming pools, improvements on neighboring properties are not a factor for permitting items within the shoreline setback area. Granting of shoreline setback variances are guided by both State law (Hawai'i Revised Statutes, Chapter 205A-46) and County rules.

We have no further comments to offer, at this time. However, please keep us informed and provide our department with a copy of the draft Environmental Assessment for our review and comment. If you have any questions or if you need further assistance, please feel free to contact Lucas Mead of this office at 961-8140.

Sincerely,



 DUANE KANUHA
Planning Director

LM:cs

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Encl: File photos dated January 2003
File photo dated December 28, 2003

TMK 7-8-5:24 Blackburn property January 2003





STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

13-135
Shoreline Setback

July 15, 2013

Mr. Ron Terry
Geometrician Associates, LLC
P.O. Box 396
Hilo, Hawaii 96721

Dear Mr. Terry:

SUBJECT: Early Consultation for Environmental Assessment for Shoreline Setback Variance to Construct Swimming Pool and Related Improvements, TMK 7-5-005: 024, North Kona, Island of Hawaii

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your letter dated July 5, 2013. Thank you for allowing us to review and comment on the subject document. EPO recommends that you review the Standard Comments found on our website:

<http://health.hawaii.gov/epo/home/landuse-planning-review-program/>.

You are required to adhere to all Standard Comments specifically applicable to this application.

EPO suggests that you examine the many sources available on strategies to support the sustainable design of communities, including the:

- U.S. Environmental Protection Agency's report, "Creating Equitable, Health and Sustainable Communities: Strategies for Advancing Smart Growth, Environmental Justice, and Equitable Development" (Feb. 2013), <http://www.epa.gov/smartgrowth/pdf/equitable-dev/equitable-development-report-508-011713b.pdf>;
- U.S. Environmental Protection Agency's sustainability programs: www.epa.gov/sustainability;
- U.S. Green Building Council's LEED program: www.new.usgbc.org/leed; and
- World Health Organization, www.who.int/hia.

The DOH encourages everyone to apply these sustainability strategies and principles early in the planning and review of projects. We also request that for future projects you consider conducting a Health Impact Assessment (HIA). More information is available at www.cdc.gov/healthyplaces/hia.htm. We request you share all of this information with others to increase community awareness on sustainable, innovative, inspirational, and healthy community design.

We wish to receive notice of the environmental assessment's availability when it is completed. We request a written response confirming receipt of this letter and any other letters you receive from DOH in regards to this submission. You may mail your response to: 919 Ala Moana Blvd., Ste. 312, Honolulu, Hawaii 96814. However, we would prefer an email submission to epo@doh.hawaii.gov. We anticipate that our letter(s) and your response(s) will be included in the final document. If you have any questions, please contact me at (808) 586-4337.

Mahalo,

A handwritten signature in black ink, appearing to read "Laura Leialoha Phillips McIntyre".

Laura Leialoha Phillips McIntyre, AICP
Manager, Environmental Planning Office

William P. Kenoi
Mayor



Darren J. Rosario
Fire Chief

Renwick J. Victorino
Deputy Fire Chief

County of Hawai'i
HAWAII FIRE DEPARTMENT
25 Aupuni Street • Room 2501 • Hilo, Hawai'i 96720
(808) 932-2900 • Fax (808) 932-2928

July 16, 2013

Mr. Ron Terry
Geometrician Associates
PO Box 396
Hilo, HI 96721

Dear Mr. Terry,

SUBJECT: EARLY CONSULTATION FOR ENVIRONMENTAL
ASSESSMENT FOR SHORELINE SETBACK VARIANCE TO
CONSTRUCT SWIMMING POOL AND RELATED IMPROVEMENTS
TMK: 7-5-005:024

The Hawai'i Fire Department does not have any comments to offer at this time regarding the above-referenced early consultation on Environmental Assessment.

Thank you for the opportunity to comment. A copy or Notice of Availability of Environmental Assessment is not needed when completed.

Sincerely,

A handwritten signature in black ink, appearing to read "DR", is written over the signature line.

DARREN J. ROSARIO
Fire Chief

KT:lc



NEIL ABERCROMBIE
GOVERNOR OF HAWAII



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

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ESTHER KIA'AINA
FIRST DEPUTY

WILLIAM M. TAM
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

July 23, 2013

Ron Terry
Geometrician Associates
PO Box 396
Hilo, HI 96721

LOG NO: 2013.4227
DOC NO: 1307MV19
Archaeology

Dear Mr. Terry:

**SUBJECT: Chapter 6E-42 Historic Preservation Review –
Early Consultation on Environmental Assessment for Shoreline Setback Variance to
Construct Swimming Pool and Related Improvements,
Lanihau Ahupua'a, North Kona District, Island of Hawai'i
TMK: (3) 7-5-005:024**

Thank you for the effort to consult with our office on the potential historic preservation concerns regarding this project early in the process. Your letter was received by our office on July 8, 2013. According to the letter, the proposed project involves the construction of an approximately 15 by 30-foot salt water swimming pool and related improvements. The letter also indicates that the pool is planned for a location that was formerly excavated for a pool, but subsequently filled with concrete. However, the letter does not indicate whether the proposed pool will extend, either vertically or horizontally, beyond the area that was previously excavated for the pool and, therefore, extend into previously undisturbed sediments. A review of our records indicates that no adequate inventory survey exists for this parcel. Our records also indicate that Native Hawaiian burial sites have been inadvertently discovered in the immediate vicinity of this project area (SIHP 50-10-27-29819). As aerial photographs indicate it is very likely that sandy deposits extend onto this proposed project area. Therefore, it is possible that subsurface cultural deposits, including human skeletal remains, exist within the project area. In order to adequately assess the potential effects of this project on historic properties, we request more information on the nature of the previous excavation compared to the proposed excavation. We also request that if previously undisturbed sediments are to be excavated, then an archaeological inventory survey (AIS) with subsurface testing should be undertaken. If necessary, we request that the AIS report be submitted prior to EA publication so that our office has an opportunity to review and comment on the findings and recommendations.

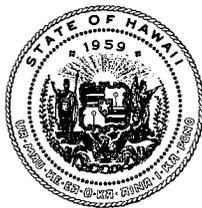
Please contact Mike Vitousek at (808) 652-1510 or Michael.Vitousek@Hawaii.gov if you have any questions or concerns regarding this letter.

Aloha,

A handwritten signature in black ink, appearing to read "Theresa K. Donham".

Theresa K. Donham
Archaeology Branch Chief
Historic Preservation Division

NEIL ABERCROMBIE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
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WILLIAM J. AILA, JR.
CHAIRPERSON
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COMMISSION ON WATER RESOURCE MANAGEMENT

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WILLIAM M. TAM
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CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

September 19, 2013

Ron Terry
Geometrician Associates
PO Box 396
Hilo, HI 96721

LOG NO: 2013.4227
DOC NO: 1307MV19
Archaeology

Dear Mr. Terry:

**SUBJECT: Chapter 6E-42 Historic Preservation Review –
Early Consultation on Environmental Assessment for Shoreline Setback Variance to
Construct Swimming Pool and Related Improvements,
Lanihau Ahupua'a, North Kona District, Island of Hawai'i
TMK: (3) 7-5-005:024**

Thank you for the effort to consult with our office on the potential historic preservation concerns regarding this project early in the process. Your letter was originally received by our office on July 8, 2013. According to the letter, the proposed project involves the construction of an approximately 15 by 30-foot salt water swimming pool and related improvements. The letter also indicates that the pool is planned for a location that was formerly excavated for a pool, but subsequently filled with concrete. Our office responded with a request for more information on whether the proposed pool will extend, either vertically or horizontally, beyond the area that was previously excavated for the pool and, therefore, extend into previously undisturbed sediments (LOG NO: 2013.4227, DOC NO: 1307MV19). A review of our records indicated that no adequate inventory survey exists for this parcel and that Native Hawaiian burial sites have been inadvertently discovered in the immediate vicinity of this project area (SIHP 50-10-27-29819). As aerial photographs indicate it is very likely that sandy deposits extend onto this proposed project area. Therefore, we also requested that if previously undisturbed sediments are to be excavated, then an archaeological inventory survey (AIS) with subsurface testing should be undertaken.

A field visit was conducted by SHPD staff archaeologist Michael Vitousek on September 18, 2013, with the owner, Mr. Jim Robinson, and with Neal Tanaka of SVC pools. At this field visit we were provided with a detailed construction plan that indicates that the excavations for the current pool will fall entirely within the former pool. Therefore, no previously undisturbed sediments will be impacted. Provided there is no extension of project activities beyond the former location of the pool, SHPD believes that **no historic properties will be affected**. However, in the event that historic resources, including human skeletal remains, structural remains, sand deposits, midden deposits, or lava tubes are identified during construction activities, please cease work in the immediate vicinity of the find, protect the find from additional disturbance, and contact the State Historic Preservation Division at (808) 933-7653.

Please contact Mike Vitousek at (808) 652-1510 or Michael.Vitousek@hawaii.gov for any questions or concerns regarding this letter.

Aloha,

A handwritten signature in black ink that reads "Mike Vitousek".

Michael Vitousek,
Lead Archaeologist Hawaii Island Section
Historic Preservation Division

CC: Neal Tanaka <nealtanaka@gmail.com>

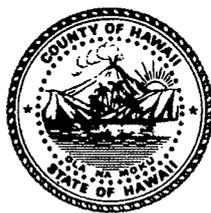
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**ENVIRONMENTAL ASSESSMENT
ROBINSON SWIMMING POOL IN THE
SHORELINE SETBACK AREA**

**TMK (3rd) 7-5-005:024
Lanikai, North Kona District, Island of Hawai'i, State of Hawai'i**

**APPENDIX 1b
Comments to Draft EA and Responses**

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William P. Kenoi
Mayor

Warren H. W. Lee
Director

Walter K. M. Lau
Managing Director

Brandon A. K. Gonzalez
Deputy Director

County of Hawai'i
DEPARTMENT OF PUBLIC WORKS
Aupuni Center
101 Pauahi Street, Suite 7 · Hilo, Hawai'i 96720-4224
(808) 961-8321 · Fax (808) 961-8630
www.co.hawaii.hi.us

January 17, 2014

Geometrician Associates
Attn: Ron Terry
P.O. Box 396
Hilo, HI. 96721

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
Robinson Swimming Pool in the Shoreline Setback Area
TMK No. 7-5-005:024
Location: Lanihau, North Kona, Hawaii

We reviewed the subject application and our comments are as follows:

We have determined that the subject property is located within Flood Zone "VE" according to the Flood Insurance Rate Map (FIRM) by the Federal Emergency Management Agency (FEMA).

Ground alterations, new construction, improvements to repetitive loss structures and substantial improvements of structures within Parcel 3 / 7-5-005: 024 are subject to the requirements of Chapter 27 – Flood Plain Management, of the Hawaii County Code.

Unfenced at grade swimming pools are exempted from regulation under Chapter 27 per Section 27-5. The proposed security fence is subject to evaluation, for potential obstruction and ramping of waves, when additional details are submitted.

Should there be any questions concerning this matter, please contact Kiran Emler of our Kona Engineering Division office at 323-4851.

BEN ISHII, Division Chief
Engineering Division

KE/bo
Copy: Planning Director
ENG-Hilo/Kona

geometrician

ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

February 14, 2014

Ben Ishii, Engineering Division Chief
Hawaii County Department of Public Works
101 Pauahi Street, Suite 7
Hilo HI 96720-4224

Dear Mr. Ishii:

**Subject: Comment to Draft Environmental Assessment for Robinson
Swimming Pool in Shoreline Setback Area, Kailua-Kona, Island of
Hawai'i, TMK 7-5-005:024**

Thank you for your comment letter dated January 17, 2014, on the Draft EA. In answer to your specific comments:

1. *Location of pool within Flood Zone "VE" and need to comply with Chapter 27, Flood Plain Management, of the Hawaii County Code.* The applicant understands the need to comply and will work with your agency during the building permit process.
2. *Unfenced at grade swimming pools are exempted from regulation; proposed security fence is subject to evaluation, for potential obstruction and ramping of waves.* The applicant will work with your agency to ensure that the fencing meets regulations.

We very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

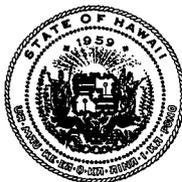
Sincerely,



Ron Terry, Principal
Geometrician Associates

Cc: Duane Kanuha, Director, Hawai'i County Planning Department
Jim Robinson/Neal Tanaka

NEIL ABERCROMBIE
GOVERNOR OF HAWAII



GARY L. GILL
ACTING DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:
14-009
Robinson Pool

January 30, 2014

Mr. Ron Terry
Geometrician
P.O. Box 396
Hilo, Hawaii 96721

Dear Mr. Terry:

**SUBJECT: Robinson Swimming Pool in the Shoreline Setback Area
North Kona, Hawaii, TMK: (3) 7-5-005: 024**

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your letter for the above project. Thank you for allowing us to review and comment on the subject document. EPO recommends that you review the standard comments at:

<http://health.hawaii.gov/epo/home/landuse-planning-review-program/>.

You are required to adhere to all standard comments specifically applicable to this application.

EPO suggests that you examine the many sources available on strategies to support the sustainable and healthy design of communities and buildings, including the:

State of Hawaii, Office of Planning: www.planning.hawaii.gov and the new 2013 ORMP;

U.H., School of Ocean and Earth Science and Technology: www.soest.hawaii.edu;

U.S. Health and Human Services: www.hhs.gov/about/sustainability;

U.S. Environmental Protection Agency's sustainability programs: www.epa.gov/sustainability;

U.S. Green Building Council's LEED program: www.usgbc.org/leed; and

International Well Building Standard: <http://delosliving.com>

The DOH encourages everyone to apply these sustainability strategies and principles early in the planning and review of projects. We also request that for future projects you consider conducting a Health Impact Assessment (HIA). More information is available at:

www.cdc.gov/healthyplaces/hia.htm. We request you share all of this information with others to increase community awareness on sustainable, innovative, inspirational, and healthy community design.

We request electronic response confirming receipt of this letter and any other letters you receive from DOH in regards to this project. Please email: epo@doh.hawaii.gov. We anticipate that our letter(s) and your electronic response(s) will be included in the final document. If you have any questions, please contact me at (808) 586-4337 or laura.mcintyre@doh.hawaii.gov

Mahalo,

A handwritten signature in cursive script, appearing to read "Carol Phelps".

FOR Laura Leialoha Phillips McIntyre, AICP
Program Manager, Environmental Planning Office

c: Daryn S. Arai, County of Hawaii, Planning Department

geometrician

ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

February 14, 2014

Laura Leialoha McIntyre, Program Manager
Hawai'i State Department of Health EPO
epo@doh.hawaii.gov

Dear Ms. McIntyre:

**Subject: Comment to Draft Environmental Assessment for Robinson
Swimming Pool in Shoreline Setback Area, Kailua-Kona, Island of
Hawai'i, TMK 7-5-005:024**

Thank you for your comment letter on the Draft EA dated January 30, 2014, in which you shared strategies on sources to support the sustainable and healthy design of communities. The small, low-key, saltwater pool and simple landscaping, coupled with a lack of effects on public access, views, or shoreline ecosystems, supports applicable principles. Pursuant to your letter, we will respond to your letter by email. We very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

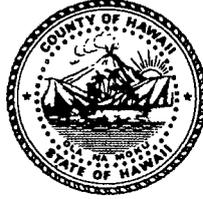
Sincerely,



Ron Terry, Principal
Geometrician Associates

Cc: Duane Kanuha, Director, Hawai'i County Planning Department
Jim Robinson/Neal Tanaka

William P. Kenoi
Mayor



Harry S. Kubojiri
Police Chief

Paul K. Ferreira
Deputy Police Chief

County of Hawai'i

POLICE DEPARTMENT

349 Kapi'olani Street • Hilo, Hawai'i 96720-3998
(808) 935-3311 • Fax (808) 961-2389

January 31, 2014

Mr. Ron Terry, Principal
Geometrician Associates, LLC
P.O. Box 396
Hilo, HI 96721

RE: ROBINSON SWIMMING POOL IN THE SHORELINE SETBACK AREA
TMK: 3-7-5-005:024, NORTH KONA, HAWAI'I

Dear Mr. Terry:

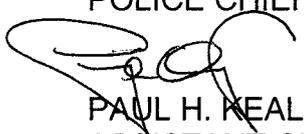
This is in response to your correspondence received on January 8, 2014, requesting for comments on the above-referenced project.

We have no comments or objections to offer at this time.

Should you have any questions or concerns please contact Captain Randal M. Ishii, Commander of our Kona District, at 326-4646, extension 299.

SINCERELY,

HARRY S. KUBOJIRI
POLICE CHIEF



PAUL H. KEALOHA, JR.
ASSISTANT CHIEF
AREA II OPERATIONS

RMI/jaj
RS130462

cc: Mr. Daryn S. Arai
Hawai'i County Planning Department
101 Aupuni Street, Suite 3
Hilo, HI 96720

geometrician

A S S O C I A T E S , L L C
integrating geographic science and planning

phone: (808) 969-7090 PO Box 396 Hilo Hawaii 96721 rterry@hawaii.rr.com

February 14, 2014

Harry Kubojiri, Chief
Hawai'i County Police Department
349 Kapiolani Street
Hilo HI 96720

**Subject: Comment to Draft Environmental Assessment for Robinson
Swimming Pool in Shoreline Setback Area, Kailua-Kona, Island of
Hawai'i, TMK 7-5-005:024**

Thank you for the comment letter dated January 31, 2014, in which you stated that your agency had no comments or objections at this time. We very much appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,



Ron Terry, Principal
Geometrician Associates

Cc: Duane Kanuha, Director, Hawai'i County Planning Department
Jim Robinson/Neal Tanaka