DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
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RICK BLANGIARDI
MAYOR

DAWN TAKEUCHI APUNA
DIRECTOR DESIGNATE

December 15, 2022

2022/ED-24(CK)

Ms. Mary Alice Evans, Director
State of Hawaii
Office of Planning and Sustainable Development
Environmental Review Program
235 South Beretania Street, Room 702
Honolulu, Hawaii 96813

Dear Ms. Evans:

SUBJECT:	Chapter 25, Revised Ordinances of Honolulu Draft Environmental Assessment (DEA)
Project:	Ke Piki Ohana Single-Family Dwelling Project
Applicant:	Ki Piki Ohana, LLC (Ann and Jim Pietsch)
Agent:	WHALE Environmental Consulting (Mark Howland)
Location:	56-229 Kamehameha Highway - Maleakahana
Tax Map Key:	5-6-001:077

With this letter, the Department of Planning and Permitting hereby transmits the DEA and the Anticipated Finding of No Significant Impact for the Ke Piki Ohana Single-Family Dwelling Project, located at 56-229 Kamehameha Highway in Maleakahana, Oahu, for publication in the December 23, 2022, edition of *The Environmental Notice*.

We have uploaded an electronic copy of this letter, the publication form, and the DEA to your online submittal site.

Should you have any questions, please contact Christi Keller, of our Zoning Regulations and Permits Branch, at (808) 768-8087 or via email at c.keller@honolulu.gov.

Very truly yours,

FOR

Dawn Takeuchi Apuna
Director Designate

October 2015

NON-CHAPTER 343 DOCUMENT
PUBLICATION FORM
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

Project Name: Ke Piki Ohana Single Family Dwelling Project

Applicable Law: Chapter 25, Revised Ordinance of Honolulu (ROH), Special Management Area (SMA)

Type of Document: Draft Environmental Assessment (EA) and Anticipated Finding of No Significant Impact (AFONSI)

Island: Oahu

District: Council District 2; Koolau Loa Sustainable Communities Plan Area

TMK: (1) 5-6-001:007

Permits Required: SMA Use Permit; Development Permits

Applicant or Proposing Agency:
Ke Piki Ohana, LLC
Contact: Ann and Jim Pietsch
abpietsch@gmail.com; 808jpeach@gmail.com
(808) 223-2990
264 Mokulua Drive
Kailua, Hawaii 96734

Approving Agency or Accepting Authority:
City and County of Honolulu
Department of Planning and Permitting
Contact: Christi Keller
c.keller@honolulu.gov
(808) 768-8087
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Consultant:
WHALE Environmental Services, LLC
Contact: Mark Howland
markahowland@hawaii.rr.com
(808) 294-9254
P.O. Box 455
Kahuku, Hawaii 96731

Status: Draft EA - Public Review and Comment

Project Summary: The Project proposes the construction of a new single-family dwelling on a vacant shoreline lot in the R-5 Residential District and Special Management Area (SMA). Associated development is proposed to include rooftop photovoltaic solar panels, a lanai, a new gate, entrance and driveway, six asphalt-paved parking spaces, a septic system located under the paved parking spaces, and a gravel-covered septic leach field. All activities are proposed to occur outside of the shoreline setback area. The proposed development triggers the requirement for an EA and SMA Use Permit under Chapter 25, ROH. Upon acceptance and publication of the Final EA with a DPP-issued Finding of No Significant Impact (FONSI), the Applicant must submit an application for an SMA Use Permit, which is subject to approval by Resolution of the City Council.

Reasons Supporting Determination: Please refer to the analysis in the Draft EA.

WHALE Environmental Services LLC
P.O. Box 455. KAHUKU, HI 96731 808-294-9254

Ke Piki Ohana LLC Environmental Assessment

TMK: (1) 5-6-001:077

56-229 Kamehameha Highway Kakuku

December 2022

Speak to the 'aina...
Work with Lokahi

HARMONY AND BALANCE

Prepared by: WHALE Environmental Services LLC www.whalees.com

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Ke Piki Ohana LLC - Pietsch- Construction of New Single-Family Residence

Preface and Summary

PREFACE

This Environmental Assessment (EA) has been prepared to comply with:

- Chapter 343, and 205A of the Hawaii Revised Statutes (HRS); and
- Title 11, Chapter 200.1 of the revised Hawaii Administrative Rules (HAR) (August 2019).

Proposed Action and Location. Construction of a new single-family residence at 56-229 Kamehameha Highway, Kahuku, HI 96731. TMK 1-5-6-001:077.

Project Summary. The Proposed Action consists of the construction of a single-family residence on a vacant shoreline lot in the R-5 Residential District, and is therefore subject to compliance with the development standards in Chapter 21, Revised Ordinances of Honolulu (ROH), the Land Use Ordinance (LUO). The property is also located within the Special Management Area (SMA). is therefore subject to compliance Chapter 25, ROH, the SMA Ordinance. All project components will be outside the shoreline setback area. Therefore, Chapter 26, ROH, the Shoreline Setback Ordinance does not apply. Consistency with the Shoreline Setback Ordinance is demonstrated herein through the provision of the Certified Shoreline Determination), and with all scaled enlargement on the plans found in the appendixes. Regulatory authority in the R-5 Residential District and SMA lies with the City and County of Honolulu (City) Department of Planning and Permitting (DPP).

Consistent with Title 11, Chapter 200.1, HAR, other interested agencies and parties were contacted to participate in the pre-DEA early consultation process prior to submittal of this DEA to the DPP. In total, 24 federal, State and City and County agencies were notified with some comments received. Abutters were notified with no responses received. A DPP pre-consult letter was received with file # of 2022/ELOG-546 (CK) on April 8th, 2022. A request for DEA resubmission with correction was received dated August 12th, 2022, with file number 2022/ED-11 and File No. 2022/ED-18.

Chapter 343, HRS, is incorporated into the "*Guide to the Implementation and Practice of the Hawai'i Environmental Policy Act, 2012 Edition*" published by the then Office of Environmental Quality Control (now OPSD). The Guidebook provides an explanation of the Hawai'i Environmental Policy Act (HEPA), its practice, and its implementation. The Guidebook outlines the information to be provided to State and County agencies, prior to construction, which allows the agencies to evaluate the environmental, social, and economic impacts of proposed developments. The following nine (9) statutory conditions are key factors designed to achieve the standards of HEPA and Chapter 343, HRS, as identified in the Guidebook. There are nine (9) statutory conditions.

Use of state or county lands or funds;
Use of conservation district lands;
Use within shoreline setback area or special management areas;
Use of historic site or district;
Use of land in the Waikiki district;
Amendment to county general plan;
Reclassification of conservation lands;
Construction or modification of helicopter facilities; or
Construction or modification of a wastewater facility, waste-to-energy facility, landfill, oil refinery, or power-generating facility.

This DEA, a shoreline residential development is triggered by Chapter 25 ROH, as a result of the definition of "Development" being amended in Chapter 205A, HRS under Act 16 (2020), and because it meets the threshold for an SMA Use (Major) Permit, which requires an EA. The EA is required to be consistent with the requirements of 343, HRS, and 200.1, HAR.

Proposed actions meeting one of the triggers cannot receive discretionary approval and proceed until one of the following takes place:

The agency with the authority to grant approval makes a finding that the proposed action falls within a certain class of activities that are routine and minor in scope and exempt from the law because it will probably have minimal or no significant effects on the environment If not exempt, an EA must be prepared to determine whether an EIS is required. The agency with the authority to grant approval reviews the EA and issues a Finding of No Significant Impact (FONSI) and negative declaration if the action is not likely to have a significant effect on the environment, after which the proposed action may proceed without further study

OR

If the agency with the authority to grant approval reviews the EA and determines that the action may have a significant effect on the environment, the agency must issue an Environmental Impact Statement Preparation Notice stating that an EIS will be required. The final EIS must be acceptable to the agency with the authority to grant approval before the Proposed Action can proceed.

OR

The Proposed Action triggers the requirements of Chapter 25, ROH, because it proposes development of greater than $500,000 on a shoreline lot by being within the Special Management Area District. The DPP's SMA USE Permit Application Instructions require the preparation of an environmental disclosure document in accordance with Chapter 343 HRS, prior to submittal of an SMA Use Permit Application. This EA has been prepared in accordance with Chapter 343, HRS and other related regulations and rules.

Other studies prepared in conjunction with this EA included Draft Survey and Engineered Plans, Botanical and Faunal Report, Cultural Impact Assessment, Erosion Control and Sedimentation Plan, and Phase I ESA Hazmat Report. The afore-mentioned studies are appended to this EA. This draft EA has also been prepared in consideration of the comments received in response to the early consultation package sent in April 2022 to the respective stakeholders listed in the *Consultation* Chapter 7 of this EA as well as the supplemental DPP request letter of August 12, 2022 and 2022/ED-18.

Project:	**Ke Piki Ohana LLC Property** **Development of Single-Family Residential Construction**
Applicant:	Name: Ke Piki Ohana LLC Contact: Ann and Jim Pietsch
Approving Agency:	Department of Planning and Permitting City and County of Honolulu 650 South King Street, 7th Floor Honolulu, HI 96813
Location:	56-229 Kamehameha Highway, Kahuku, HI 96731
Proposed Action:	Development of Single Family Residential Structure with new construction
Associated Actions Requiring Environmental Assessment	Construction within Special Management Area (SMA)
Tax Map Key:	1-5-6-001:077
Parcel Area:	34,064 SF (0.782 acres)
Project Area:	16,000 SF
Judicial District:	Kahuku
Community/Development Plan Designation:	Koolauloa Sustainability Communities Plan and Oahu General Plan
State Land Use District:	Urban
County Zoning:	R-5 Residential District
Required Permits and Approvals:	DPP FEA acceptance and FONSI issuance City Council SMA Approval DPP - Building Permits
Anticipated Determination:	Finding of No Significant Impact
Parties Consulted:	See Chapter 7 - Consultation
Consultant:	WHALE Environmental Services LLC PO Box 455, Kahuku, HI 96731 Email:markahowland@hawaii.rr.com Contact: Mark Howland (808-294-9254)

SUMMARY SHEET

Construction of new Single-Family Residence

Proposing Group: **Ann and Jim Pietsch on behalf of Ke Piki Ohana LLC**

Location:	**56-229 Kamehameha Highway, Kakuku, 96731 on the island of Oahu, Hawaii**
Tax Map Keys (TMKs):	**1-5-6-001:077**
Recorded Fee Owner :	**Ke Piki Ohana LLC, Fee Owner**
Existing Use:	**Vacant Shoreline Residential Lot**
State Land Use Classification:	**Urban**
County Zoning Designation:	**R-5 Residential District**
Proposed Action:	**Ke Piki Ohana LLC (Applicant) proposes to construct new single-family residence at 56-229 Kamehameha Highway, Kakuku, 96731. The primary purpose of the proposed project is private home use and consists of approximately 0.782 acres of R-5 zoned lands.**
Impacts:	**No significant impacts are anticipated that compliance with applicable regulatory requirements, proposed Mitigation Measures (MM) and Best Management Practices (BMPs) as recommended in the attached technical appendixes will sufficiently minimize/reduce/ eliminate any potential impacts to the various resource categories presented.**
Anticipated Determination:	**FONSI**
Parties Consulted during Pre-Consult:	**Please see Chapter Seven – Consultation**

Proposed Action Location Map

Figure 1 - Action Location Map

AAQS	Ambient Air Quality Standards
ac	acre(s)
BMPs	Best Management Practices
CAA	Clean Air Act
CCH	City and County of Honolulu
CFR	Code of Federal Regulations
CZM	Coastal Zone Management Program
DLNR	State of Hawaii Department of Land and Natural Resources
DPP	Department of Planning and Permitting
EA	Environmental Assessment
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
ft	feet/foot
ft^2	square feet/foot
HAR	Hawaii Administrative Rules
HDOH	State of Hawaii Department of Health
HECO	Hawaiian Electric Company
HRS	Hawaii Revised Statutes
m	meter(s)
m^2	square meter(s)
mi	mile
NAAQS	National Ambient Air Quality Standards
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OPSD	Office of Planning and Sustainability Development
PV	Photovoltaic
ROH	Revised Ordinances of Honolulu

SHPD	State Historic Preservation Division
SF	Square Feet
SMA	Special Management Area
SPCP	Spill Prevention and Control Plan
SSA	Shoreline Setback Area
TMK	Tax Map Key
U.S.	United States
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service

Chapter One

INTRODUCTION

1. Introduction

1.1 Background and General Information

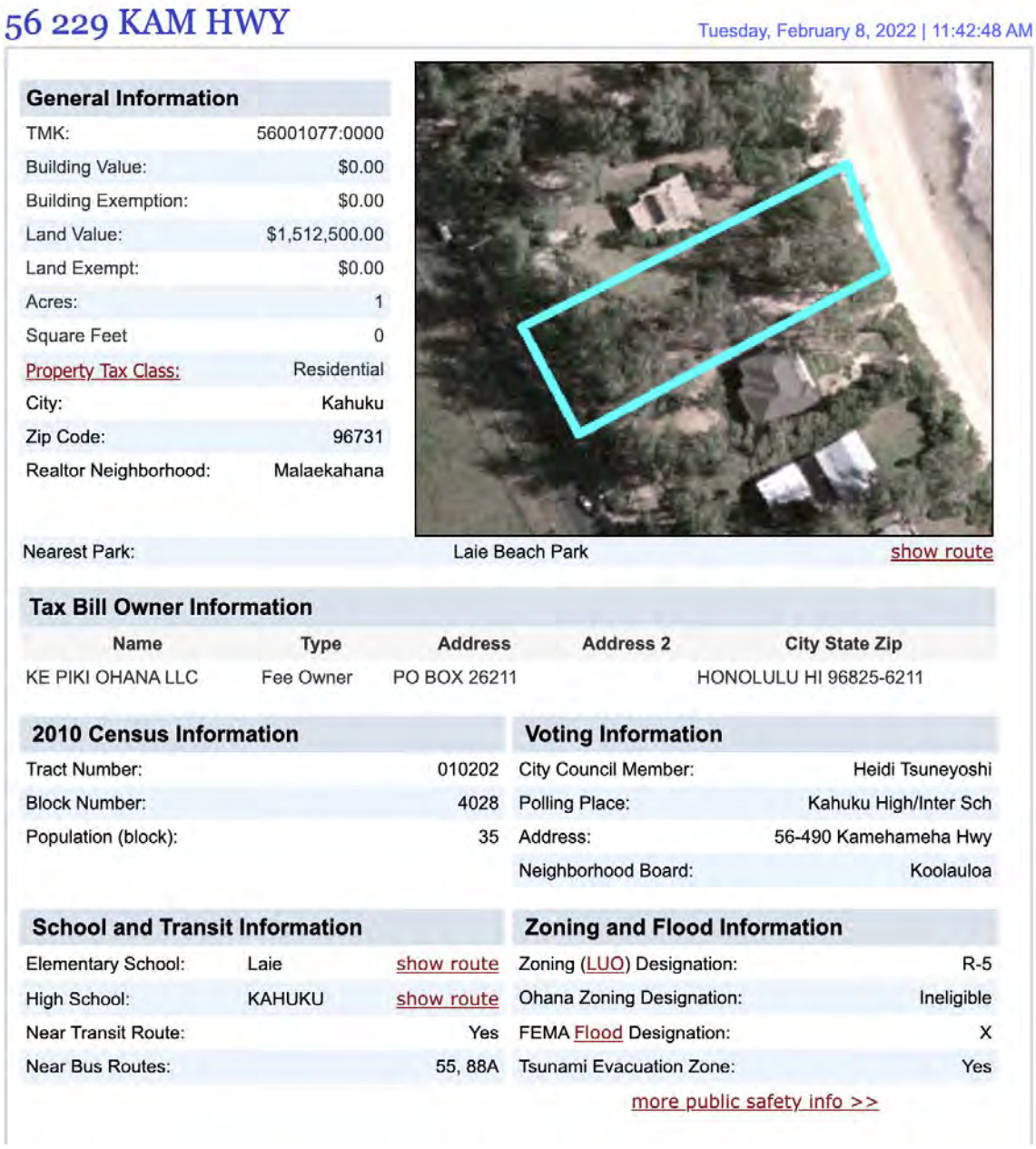
The Proposed Action would be construction of a new single-family residence situated on a vacant site. This will be a private residence for the Pietsch Family and not used for short-term rentals. The development will be setback 90'+ from the shoreline. The location of the shoreline at the subject property, and the relation to the proposed development to the shoreline discussed in Chapter 3, and documented in Appendix B – Shoreline Determination.

The property has been a vacant lot for a long time,at least since the acquisition of the parcel by the applicant over six decades ago. Ke Piki Ohana LLC represented by Ann and Jim Pietsch own three lots (all separate TMKs) in this location on the Kamehameha Highway. The northern and middle lot host structures on them, this southern subject lot is vacant. The first dwelling on the northern lot used as a family gathering spot and the middle dwelling for Ann and Jim's personal use. Family circumstances have changed. Their daughter has graduated from college and will occupy the dwelling on the northern lot, necessitating the need for a new family compound home and personal use dwelling for Ann and Jim on the third vacant lot – subject of this filing. The dwelling on the middle lot was originally slated to remain the personal residence for Ann and Jim, but examination shows the unit is past the state of reasonable repair – salt action from the ocean has rotted floor joists, walls, siding, flooring affected foundations, and much more. It's only remaining value at this time is as a source of electricity and water and material storage for the new construction on the third vacant lot – subject of this filing. After construction of new dwelling, the middle lot's dwelling will likely require a demolition permit. Future use of that middle lot is undermined at this time.

Also, a DPP Pre-Consultation version of this DEA was submitted to the DPP by our firm in April 2022, and a presentation was made before the Koolauloa Neighborhood Board on 5/19/2022 with subsequent follow-ups on 6/21/2022 with the Kahuku Community Association and reporting of the two board presentations to the Neighborhood Board on 6/23/2022. Reporting of those presentations can be found in ***Chapter 7 – Consultation***. Outreach to pertinent agencies and abutting property owners was also conducted. This DEA incorporates comments and feedback received from DDP, other stakeholders comments and the neighborhood board meeting/presentation results.

1.2 Property Information

Figure 2 - Property Information



56 229 KAM HWY

Tuesday, February 8, 2022 | 11:42:48 AM

General Information	
TMK:	56001077:0000
Building Value:	$0.00
Building Exemption:	$0.00
Land Value:	$1,512,500.00
Land Exempt:	$0.00
Acres:	1
Square Feet	0
Property Tax Class:	Residential
City:	Kahuku
Zip Code:	96731
Realtor Neighborhood:	Malaekahana

Nearest Park: Laie Beach Park show route

Tax Bill Owner Information

Name	Type	Address	Address 2	City State Zip
KE PIKI OHANA LLC	Fee Owner	PO BOX 26211		HONOLULU HI 96825-6211

2010 Census Information	
Tract Number:	010202
Block Number:	4028
Population (block):	35

Voting Information	
City Council Member:	Heidi Tsuneyoshi
Polling Place:	Kahuku High/Inter Sch
Address:	56-490 Kamehameha Hwy
Neighborhood Board:	Koolauloa

School and Transit Information		
Elementary School:	Laie	show route
High School:	KAHUKU	show route
Near Transit Route:	Yes	
Near Bus Routes:	55, 88A	

Zoning and Flood Information	
Zoning (LUO) Designation:	R-5
Ohana Zoning Designation:	Ineligible
FEMA Flood Designation:	X
Tsunami Evacuation Zone:	Yes

more public safety info >>

The project is construction of new single-family residence on a parcel at 56-229 Kamehameha Highway, Kahuku, HI. The TMK is 1-5-6-001:077

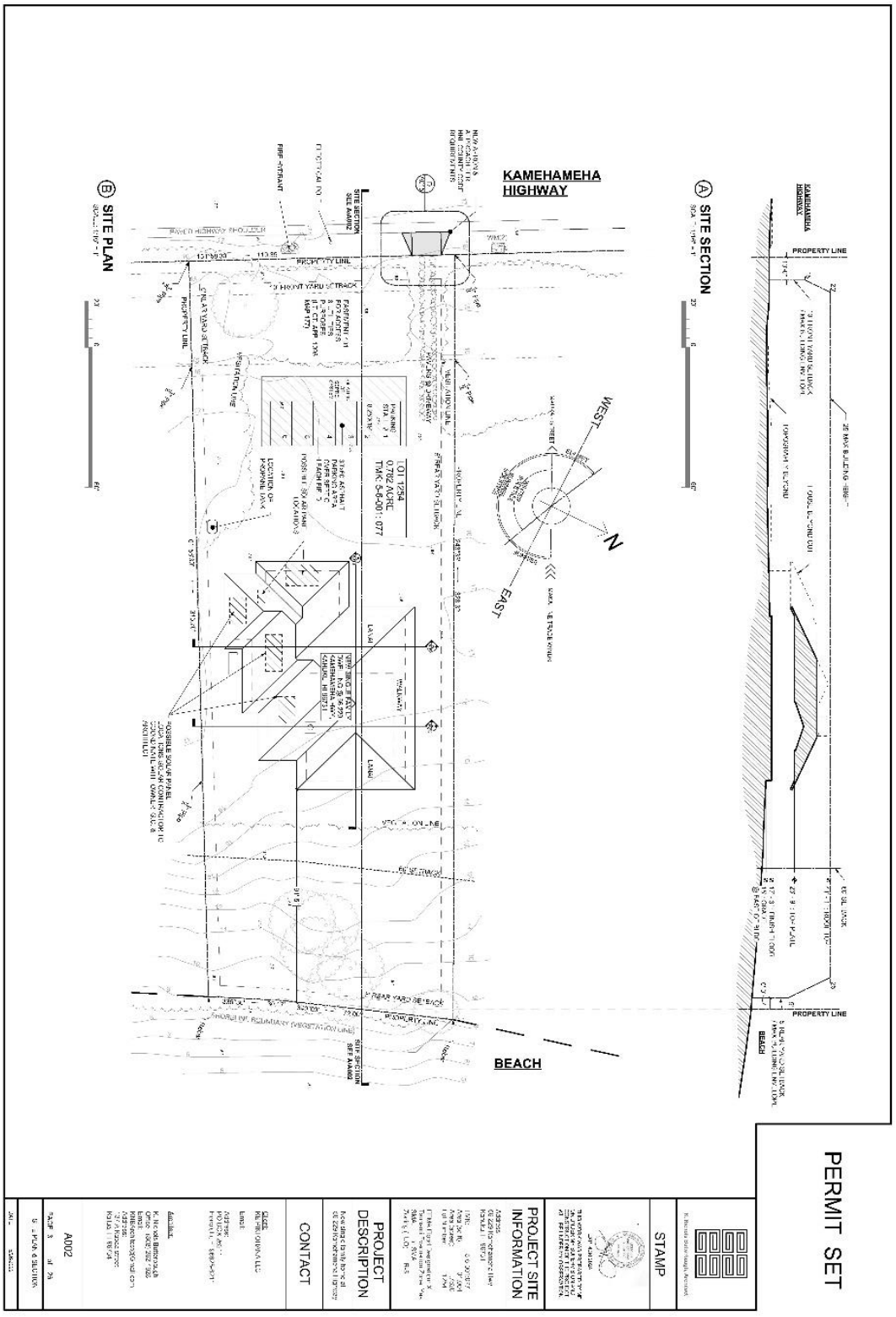


Figure 3 - Conceptual Project Layout This is the intended layout of the project. Development is proposed to occur greater than 90 feet mauka of the shoreline as identified on the most recent

shoreline survey (January 14th, 2022) to accommodate any future shoreline changes. And a review of the UH shoreline erosion rate maps in Erosion Transect 35 now shows a gain in shoreline property at a rate about 0.50 feet per year, and a negative erosion rate with a movement of the shoreline determination seaward at a projected rate of about ½ foot per year rather than a loss of shoreline.

Figure 4 - Shoreline Erosion Rate 1

Ke Piki Ohana LLC *at 56-229 Kamehameha Highway, Kahuku, HI.*
The subject parcel (hereinafter referred to as the "site") consists of approximately 0.782 acres of residentially zoned lands and identified as Tax Map Key Number: (1) 5-6-001:077. The site is a rectangular-shaped parcel that is bounded by the Pacific Ocean to the east, residential development lots to the north and south, and Kamehameha Highway to the west.

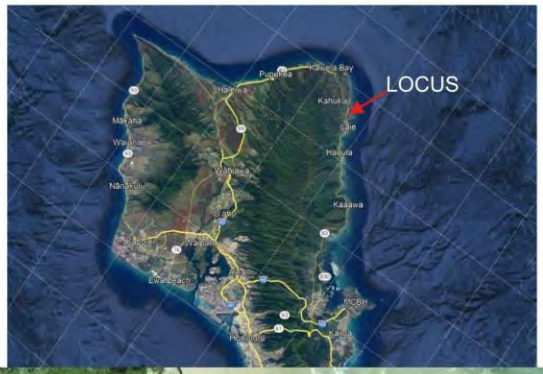


Figure 5 - Project Location
Ke Piki Ohana LLC,
Malaekahana, Kahuku, Oahu

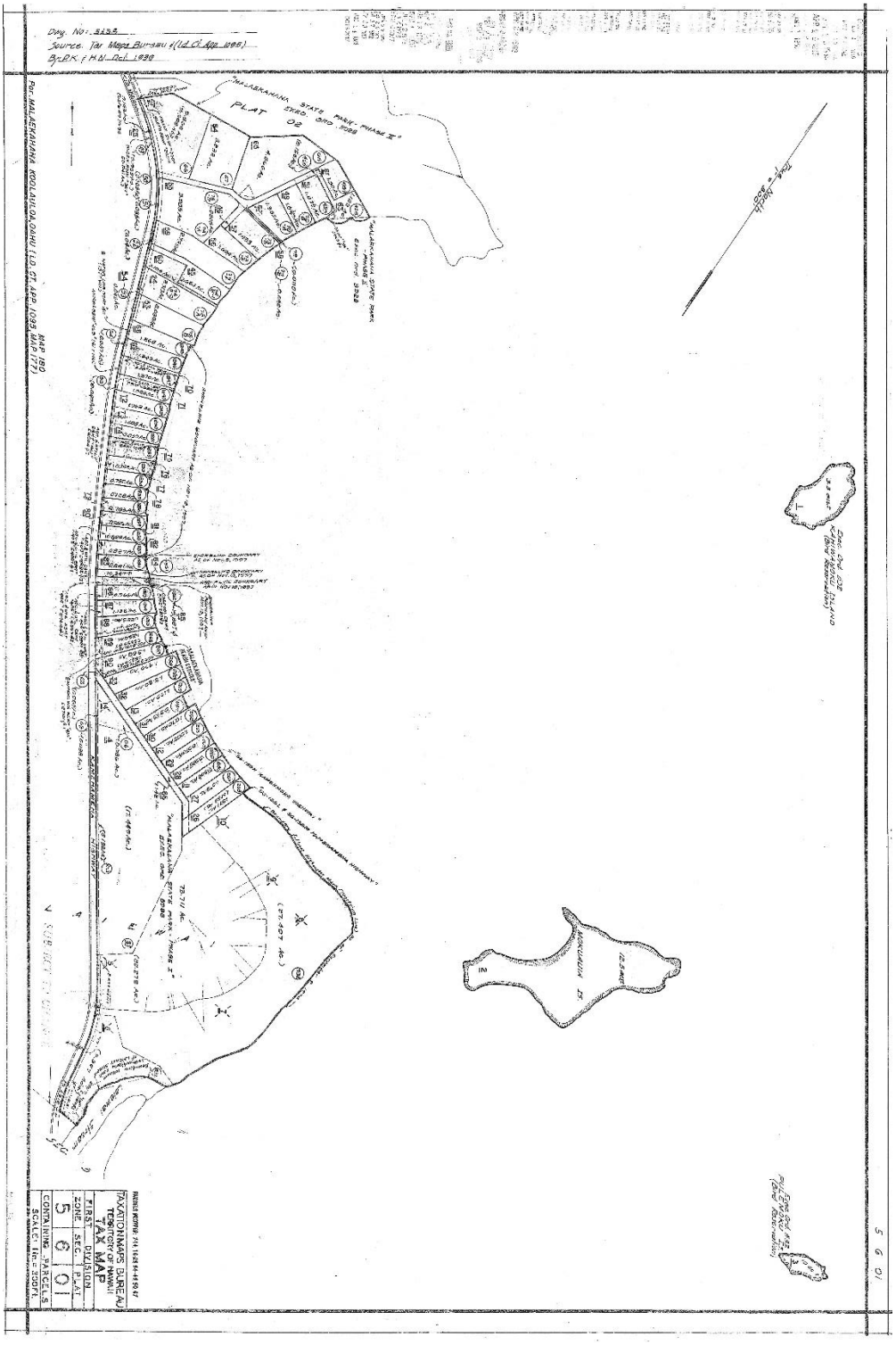


Figure 6 - Plat Map

Nearby Uses within ½ mile include to the North – Kahuku Village with zip lines, food trucks, beaches and Kahuku Golf Course, nearby Gunstock Ranch and Maleakahana Recreational Area and Campground, and to the south, the Laie Mormon Temple and other beach parks.

Figure 7 - Nearby Uses 1

1.3 Land Ownership

The project site is within the boundaries of TMK 1-5-6-001:077 and is owned by the following fee owner:
Ke Piki Ohana, LLC

Chapter Two

PROJECT DESCRIPTION

2. PROJECT DESCRIPTION

2.1 Purpose and Need

The purpose of the proposed project is to develop a site in an sustainability and conservation mannered development, as well as an environmentally-sound manner on Oahu and to provide single-family housing compatible with its surroundings and natural resources.

The Ke Piki Ohana LLC Property (Applicant Ann and Jim Pietsch, Trustees) proposes to construct a new single-family residential structure on a vacant lot at 56-229 Kamehameha Highway, Kahuku, HI. The primary purpose of the project is construction for family gatherings. The subject parcel (hereinafter referred to as the "site") consists of approximately 0.782 acres of R5 Residential County zoned lands and State Land Use District Urban and identified as Tax Map Key Number: 1-5-6-001:077.

The purpose and needs of the proposed project (action) are:

1. To construct the conceptual and 95% complete building plans as shown in Appendix A,– Initial Conceptual Plan, Survey Maps, 95% complete Building Plans.

2. To support the State's policy to increase the number of available housing units and ensure there is on-island residential land development in a responsible and sustainable manner with respect for natural resources in conservation lands,

3. To help protect the State's environmental and environmental resources

4. Housing. The increase the number of available housing unit(s) is a stated goal for Oahu

5. Economic. There will be direct economic activity during construction and operation (temporary jobs, equipment, materials and supplies), and the project-related excise tax revenues over the project's lifetime.

2.2 – Project Description

The project is the development of a single-family residence (one) with rooftop solar (PV) and partial surround lanai. There is a new gate/entrance and driveway leading to a six - space parking asphalt lot positioned over the septic system in the forepart of the site on the northwest corner on Kamehameha Highway. The structure is allowed under Land Use Ordinance as consistent with the R5 zoning. The housing unit is elevated above the flood zone limit. Water will be provided the well on the northern adjacent site also owned by the

applicant. A fire hydrant exists in front of the property. Wastewater will come from a private septic system located on the property under the proposed parking area. Electricity is provided from the utility poles along Kamehameha Highway, though solar PV is also proposed. The site has already been graded in the past and will only need spreader footings installed for the house support. No additional clearing will be done, and shoreline and shoreline setback vegetation will be left undisturbed. The only import of soils will be gravel for the septic leach field. The site is currently fenced along the highway and the southern property line. The oceanside is not fenced and will not be fenced, nor the common lot line to the north when this lot and the northern lot share common ownership.

The dwelling is 3380 SF with a surrounding lanai of 1617 SF for a total living space of 4997 SF or 14.7% of the lot areas. Impervious areas of the dwelling, lanai, parking area, PV, and propane tank occupy 23.7% of the lot. Parking has been determined for six spaces for the 4997 SF of living space.

More details can be found in the site plans for the proposed house and other actions in Appendix A.

2.3 – Development Schedule

Following design and permitting of an DEA/FEA and SMA Major by DPP – construction sequencing of the Proposed Action is as follows:

1. Implementation of the development activities associated with the proposed actions are anticipated to commence in the second quarter of 2023, or upon approvals of required permits; and are anticipated to be complete within Eighteen (18) months thereafter.

2. Construction sequencing is expected to be utility tie-ins, the construction of the main residence, the development of parking area, and then sustainability actions of PV electricity provision and other sustainability actions.

This Draft EA provides an overview of the proposed project and approvals required in association with the implementation of the Proposed Action in Chapter Four – *Relationship to Plans, Policies and Controls*.

2.4 Project Costs

The proposed project is anticipated to cost approximately $800,000 – $900,000 million to construct.

Chapter Three

DESCRIPTION of EXISTING ENVIRONMENT, IMPACTS, and MITIGATION MEASURES

3. DESCRIPTION OF THE EXISTING ENVIRONMENT, IMPACTS, AND MITIGATION MEASURES

3.1 Climate, Greenhouse Gas Emissions, and Climate Change

CLIMATE

Definition of Resource

Climate refers to meteorological conditions, such as the temperature range, precipitation levels, and wind conditions in a particular region. Due to their connection with precipitation levels, flooding hazards are addressed under climate for purposes of this EA.

Oahu lies just south of the Tropic of Cancer in the belt of the northeast trade winds. Its climate is generally mild and consistent. The annual average temperature is 76 degrees Fahrenheit (ºF), although temperatures occasionally exceed 88 ºF. **A**nnual rainfall on the South Shore of Oahu is less than 20 inches and on the leeward side, Oahu dry side, annual rainfall is approximately five (5). In comparison, average annual rainfall is forty-five (45) inches in some areas of the North Shore. Trade winds prevail about 75 percent of the time and generally blow from the northeast at 5 to 15 miles per hour. Departures from normal trade wind weather, known as Kona storms, tend to occur during winter months. Such storms are characterized by several days of variable winds blowing from the south and west.

The weather on Oahu does not change much throughout the year, and the island really only has two seasons (winter and summer). In general, Oahu is usually much drier on the west side of the island (*the leeward side*) than the east side (*the windward side*), so you will find most of the greener landscape along the coastal areas to the east.

As one of the two states in the U.S. that doesn't observe daylight savings time, Hawaii doesn't experience a substantial variation in daylight hours, either. Throughout the year there is only about an hour discrepancy in sunrise and sunset times on the island of Oahu. One of the things the makes Oahu so special is its trade winds. For the majority of the year, winds coming from east to west on the island provide a welcome and necessary relief from the hot, humid environment.

The outstanding features of Hawaii's climate include mild temperatures throughout the year, moderate humidity, persistence of northeasterly trade winds, significant differences in rainfall within short distances, and infrequent severe storms. For most of Hawaii, there are only two seasons: summer, between May and October, and winter, between October

and April. The ocean supplies moisture to the air and acts as a giant thermostat, since its own temperature varies little compared with that of large land masses. The seasonal range of sea surface temperatures near Hawaii is only about 6 degrees, from a low of 73 or 74 degrees between late February and March to a high near 80 degrees in late September or early October. The variation from night to day is one or two degrees.

Hawaii is more than 2,000 miles from the nearest continental land mass. Therefore, air that reaches it, regardless of source, spends enough time over the ocean to moderate its initial harsher properties. For example, Arctic air that reaches Hawaii, during the winter, may have a temperature increase by as much as 100 degrees during its passage over the waters of the North Pacific. Hawaii's warmest months are not June and July, but August and September. Its coolest months are not December and January, but February and March, reflecting the seasonal lag in the ocean's temperature.

Hawaii's mountains significantly influence every aspect of its weather and climate. The endless variety of peaks, valleys, ridges, and broad slopes, gives Hawaii a climate that is different from the surrounding ocean, as well as a climatic variety within the islands. These climatic differences would not exist if the islands were flat and the same size.

The mountains obstruct, deflect, and accelerate the flow of air. When warm, moist air rises over windward coasts and slopes, clouds and rainfall are much greater than over the open sea. Leeward areas, where the air descends, tend to be sunny and dry. In places sheltered by terrain, local air movements are significantly different from winds in exposed localities. Since temperature decreases with elevation by about 3 degrees per thousand feet, Hawaii's mountains, which extend from sea level to nearly 14,000 feet, contain a climatic range from the tropics to the sub-Arctic.

The climate of Hawaii can be defined by what it has and by what it does not have. It does not have the extremes of cold winters and summer heat waves and it usually does not have snowfall and hailstorms on most of the islands. However, on the isle of Hawaii's tallest peaks, do get their share of winter blizzards, ice, and snow. Highest temperatures may reach into the 90s. Thunderstorms, lightning, hail, floods, hurricanes, tornadoes, and droughts are not unknown. However, these phenomena are usually less frequent and less severe than their counterparts in continental regions.

The highest temperature ever recorded in Hawaii was 100 at Pahala (elevation 870 feet) on the Big Island of Hawaii on April 27, 1931. The lowest ever recorded was 12 on Mauna Kea (elevation 13,770 feet), also on the Big Island, on May 17, 1979.

A microclimate is a unique set of localized atmospheric conditions that differs to varying degrees from the greater surrounding region's weather. It can be as small as a few square feet or several hundred square miles in size but is always contained within the surrounding weather conditions.

Even in a local region with its prevailing weather conditions, one can find even smaller areas with their pockets of unique atmospheric conditions. These conditions are known as microclimates.

It is important to note the term "climate" in "microclimate." As discussed, climate refers to the average weather conditions that are unique to an area, compared to the weather, which refers to the atmospheric conditions at any given time. As a result, microclimate refers to atmospheric conditions that prevail within a relatively small space for a sustained period compared to the surrounding weather. The North Shore of Oahu is famous for its microclimates as anyone can attest to as they drive from Wahiawa to Haleiwa or west to Keana Point. Schofield Barracks in Wahiawa is known as the *Grey Lady*, constantly sprinkling. The drive down Kakonahua Road brings one to dry "*dust devils*" crossing the road at mid-point on Central Oahu ag lands. One then crests over the hill and descends to Haleiwa – almost always in the sun. Going east to Kahuku, there is a more prevalence of trade wind showers along the coast, some microclimates so influenced by terrain that there can be showers on the mauka side of the Kam Highway by Turtle Bay, and bright sunshine on the makai side by the hotel. Going west to Keana Point, the rain shadows from Wahiawa disappear going over the mountain range to the Waianae. Most of the regions between Haleiwa and Keana Point involve purely sea influenced weather patterns. Mostly sun, occasional squeals of rain, dryer conditions with moderate rainfall predominate.

The Kahuku/Malaekahana microclimate is usually classified as follows:

(BWh) WARM DESERT

Subcategory of Arid and Semi-Arid Climates (B)

Almost all of the lengthy stretches of white sand beach through Kahuku and Malaekahana are found in this warm Hawai'i climate zone. On Oahu, the zone extends along the coast and a scant few miles inland. The area is the one of the driest in the Hawaiian Islands, recording 10-30 inches of rainfall annually and hot days averaging 81°F annually. As opposed to other hot spots around the world, this coastline is among the easiest to tolerate thanks to cool ocean breezes quickly visiting on the land and, especially, the beaches. The actual site lies higher on the scale of this subcategory, getting a bit more rain averaging about 25-30" a

year, likely due to the proximity of the downdrafts of the nearby mountains. This site like is more ideal for agriculture since the uplifting mountains above Kahuku Training Area is closer that other stretches of this coastline and possesses more downdrafts from ocean winds hitting the mountain range and returning, creating more moisture for the site. Its microclimate can be characterized as semi-arid with moderate moisture impact and stronger winds from both directions due to bounce-back of ocean off-shore winds encountering the nearby Koolau range and returning as low moisture returning lower velocity winds. As such, the makai side of the site gets the strongest trade winds and ocean winds; while the mauka side is sheltered from those winds and mostly gets wind-bounce dew-laden weaker winds from the Koolau Range.

Impacts and Mitigation Measures

The climate of the west side of Oahu would not be adversely affected by the Proposed Action. It is not anticipated that there will be any effect on the context of the existing environment with regard to temperature, wind, rainfall events on-site or in the regions. Moreover, the project is not expected to exacerbate climate change impacts to the climate or microclimates and has been in fact designed to accommodate those changes as can be seen in the *Building Plans* in Appendix A by adding sustainable PV panels to reduce dependence on fossil fuels for electricity. The *Erosion and Sedimentation Control Plan* (ESCP) recognizes short-term releases of greenhouse gases from the construction process by hopes to have long-term mitigation of greenhouse gas emission by employing the PV panel generated electrical maintenance equipment.

The ESCP address air emissions, dust control, and other measures needed as found in Appendix E. Also, given constant climate changes, the Pietschs intend to remain flexible and adjust as needed to policy and regulatory changes in the use of the dwelling.

3.2 Physiography

3.2.1 Geology and Topography

Definition of Resource

Geology refers to the surface and subsurface materials of which a land area is composed, including soils and rocks. Important geologic characteristics of soils and underlying rocks include stability, slope, compatibility, shear strength, and productivity. Discussions of

geology and soils typically identify existing conditions and determine how the Proposed Action and alternatives under consideration would likely affect, and be affected by, geology and soils.

Affected Environment Changes

The project area is located along the Kahuku Coastal Plain of northern Oahu, Hawaii. The site consists of classified Jaucas sands (JaC) composed of sequences of relatively flat marine sedimentary deposits (calcareous silts, sands and gravels and seashell layers) intercalated with terrestrial alluvium deposits (silts and clays) of artificial loams during past grading activities. The soil profile still showed Jaucas sands, but the soil profile is also highly disturbed to a distance of 12" – 16". The shoreline is composed of Beach Sands (BS). The site is generally flat and level. The proposed project will not change the soils composition of the property, nor will it impact any significant geologic features or soil resources (*See Soil Map Exhibit in ESA* – Appendix D) and also below. Small portions of the project elements, such as column footings and septic system will require excavation that may encounter soft rock that will have to be removed using heavy equipment during construction. This material does not have any notable natural resource value and it is not suitable for agriculture or other productive uses. All of the soil and underlying rock that would be affected by the Proposed Action are suitable for construction of the proposed facilities as they are designed.

In cultural considerations, any excavation work that encounters cultural artifacts or signs of such, will immediately halt, SHPD called, and asked for advice on how to proceed, which likely would involve the inclusion of an archaeologist for an AIS survey. Construction will not resume until SHPD releases the site.

Routine operation and maintenance of any flood elevated dwellings does not have the potential to affect geological or soil resources as they will require only foundation footings as the earliest activity, for which the drilling of such will give those indicative indicators of cultural presence. The Proposed Action site is generally level terrain that drains to the south toward Kamehameha Highway. Construction of the Proposed Action would involve minor site preparation, grading, and ground disturbance that would minimally alter the topography of the site. The site had previously been graded during construction of the two homes on the Pietsch adjacent northern lots.

Any remaining vegetation in need of removal will be removed via a *DPP Grubbing and Stockpiling Permit* and follow guidelines established in the ESCP in appendix E. It is envisioned that only minor shrub removal of non-native species next to the highway will be removed for a new driveway.

3.2.2 Soils

The site has an official classification of Jaucas sands and scattered Artificial Soils introduced by past grading work. The registered Jaucas sands are supplemented with artificial fills (rocks, cobble) from the grading efforts.

Affected Environment Changes

Soils on the site are suitable for construction of the Proposed Action. The site does not contain significant geologic features or natural resources that could be affected by the Proposed Action. The Proposed Action will be consistent with drainage standards established by the City and County of Honolulu, Department of Environmental Services, Storm Water Management Plan. Implementation of BMPs for erosion and sediment controls during construction will ensure that geologic or soil hazards and adverse effects to water quality do not occur. The Proposed Action would not result in significant effects associated with geology and soils.

Figure 8 - Soil Mapping .

3.3 Hydrology
3.3.1 Surface and Coastal Waters
Definition of Resource

Water resources is a broad term that encompasses surface water, groundwater, near-shore water, wetlands, and other sources of water that support a variety of human activities, plant and wildlife species, habitats, and ecosystems. Surface water resources typically include stormwater, lakes, streams, and rivers, while water located beneath the ground surface within soil pore spaces, or in the fractures of rock formations is known as groundwater. Near-shore water is generally considered the area extending seaward from the shoreline beyond the end of the surf zone to its start. Offshore waters are usually outside the surf break. A wetland is an area of land that is saturated with water either permanently or seasonally in both inland and coastal environs. Water within wetlands can be saltwater, freshwater, or brackish. Examples of wetlands include coastal marshes and inland swamps or riparian zones. Services performed by wetlands include water purification, shoreline stability, and habitat for plant and wildlife species.

Affected Environment Changes

Surface Water

There are no water bodies located onsite.

The proposed action will not increase any of these degradations to the environment as there is no surface water on the site.

Groundwater Recharge

Groundwater depth at the project site is approximately six to eight feet below ground surface and may vary with tidal conditions. With the exception of the dwelling, the majority of the site will consist of permeable surfaces and will not significantly interfere with natural groundwater recharge.

Nearshore Water Quality

Nearshore waters closest to the Proposed Action, The Pacific Ocean, are classified as Class A, Open Coastal Waters. It is the objective of Class A waters that their use for recreational purposes and aesthetic enjoyment be protected. In addition, Class A waters shall not function as receiving waters for any discharge that has not received the best degree of

treatment of control compatible with the criteria established for Class A water (Chapter 11-54-3, HAR).

The Proposed Action would implement standard construction phase BMPs during construction of the Proposed Action (USEPA 2010). The appendixes contain an Erosion and Sedimentation Control Plan (ESCP – Appendix E). These BMPs would ensure that stormwater runoff from construction does not reach the shoreline located on the eastern property line. With implementation of construction BMPs, nearshore waters would not be impacted by the Proposed Action. The Proposed Action will comply with applicable sections of ROH (ROH, Article 11 Section 16-11) regarding flood-proofing, waterproofing, and structural requirements for buildings and structures. The main house is elevated above flood and sea rise elevations on pilings, and other structures are level such as the parking area. Therefore, no significant impacts related to flooding hazards would occur. No significant environmental consequences associated with water resources would result from the Proposed Action.

Ground Water Quality

The site does not lie within any known aquifers – Wai'alae, East Wai'alae. Palolo, Nu'uanu, Kalihi, or Moanalua. Water Supply will be from the domestic water supply from the Board of Water Supply water line in Kamehameha Highway who has deemed the supply adequate for the project's needs. The proposed septic design for the property is being designed for submittal to the State of Hawaii DOH and is not anticipated to result in adverse impacts to groundwater quality.

3.4 Natural Hazards

The Disaster Mitigation Act of 2000 (FEMA, 2000), 44 Code of Federal Regulations, Hazard Mitigation Planning, required States and Counties to have approved hazard mitigation plans as of November 1, 2004, to receive Pre-Disaster Mitigation funding. The development of State and local hazard mitigation plans is critical for maintaining eligibility for future Federal Emergency Management Agency (FEMA) mitigation and disaster recovery funding. Given Hawai'i's vulnerability to natural hazards and history of disasters, the State has maintained and implemented a comprehensive, multi-hazard mitigation strategy to reduce loss of life and property damage. This strategy is embodied in the 2018 State Multi-Hazard Mitigation Plan. The 2018 State Hazard Mitigation Plan identifies the major natural hazards that affect the State, assesses the risk that each hazard poses, analyzes the vulnerability of the State's population, property, and infrastructure to the specific hazard, and recommends actions that can be taken to reduce the risk and vulnerability to the hazard. The State

Hazard Mitigation Plan also contains a description of programs, policy, statues, and regulations applicable to hazard mitigation. It should be noted that the 2023 update to this plan has begun and is expected to be released at the end of 2023. The CCH also maintains a Local Hazard Mitigation Plan, that the State of Hawai'i Emergency Management Agency reviews in accordance with The Disaster Mitigation Act of 2000 (FEMA, 2000), 44 Code of Federal Regulations and coordinates with the CCH to ensure compliance with the federal regulations. The identified major natural hazards that could affect the State, as well as the CCH are *climate change effects (including SLR/coastal erosion), floods, tsunamis, strong windstorms/hurricanes, earthquakes, landslides/rockfalls, wildfires, and volcanic hazards*.

3.4.1 Sea Level Rise due to Climate Change

Climate change considerations and its impacts have been discussed in detail in Section 3.1 above. This section will focus on (Sea Level Rise) SLR and coastal erosion impacts. The island of Oʻahu is susceptible to flooding and SLR, With approximately one million residents, Oʻahu accounts for approximately 70% of the State's entire population. Thus, Oʻahu also possesses many of the State's critical resources, infrastructure, and services. A major impact from SLR on Oʻahu could reverberate and result in major economic and social impacts for the islands and communities throughout the State. Elevated seawater levels in the spring and summer of 2017 provided a glimpse of the near future when coastal flooding events are expected to occur more frequently and severely with continued SLR. Through a projection, enough evidence has been garnered to determine which sites may have a future SLR threat. Findings by the UH Sea Level Center showed that the 2017 anomalously high-water levels resulted from an unprecedented combination of Pacific-wide climate and ocean variability. The water levels in 2017 presented record highs. The rise in sea level caused localized flooding and coastal erosion throughout the State during the spring and summer of 2017.

Although coastal erosion is a naturally occurring event, as sea level continues to rise, the rate at which coastal erosion occurs is increasing which will have more severe impacts. Over the next 30 to 70 years, as sea level rises, homes and businesses located on or near the shoreline throughout the State will become exposed to chronic flooding. Sea level is rising at increasing rates due to global warming of the atmosphere and oceans and melting of the glaciers and ice sheets. Rising sea level and projections of stronger and more frequent El Niño events and tropical cyclones in water surrounding Hawai'i indicate a growing vulnerability to coastal flooding and erosion. The Hawai'i Sea Level Rise Vulnerability and Adaptation Report (2017) modeled exposure to chronic coastal flooding and erosion using projections from the Intergovernmental Panel on Climate Change (IPCC)

5th Assessment Report (IPCC, 2014) where the high-end projected scenario was up to 3.2-ft of sea level rise by the end of the century (Courtney et al., 2020).

For Oʻahu, the exposure area (SLR-XA) with 3.2 ft. of SLR is based on modeling passive inundation, coastal erosion, and annual high wave run-up. According to a recent National Oceanic and Atmospheric Administration (NOAA) report, global SLR in the range of 6.4 ft. (2.0 m) to 8.8 ft (2.7 m) is "*physically plausible*" by the end of this century (Sweet et. al, 2017). The CCH Climate Commission issued SLR guidance for the City and County to use for areas exposed to 3.2 ft. of SLR as a planning benchmark for most developments, with consideration of 6 ft. of SLR as a planning benchmark for critical infrastructure with long expected lifespans and minimal risk tolerance (Climate Change Commission, 2018). The Proposed Project Area (construction) is not located within the 3.2 ft. SLR exposure areas, but a portion of the Project Lot is (See Figures 9 [regional exposure] and Figure 10 [site exposure]; on the makai portion of the property site is confined to the shoreline setback region and not planned for any activity. This is likely due to the high elevated coastal berm along the shoreline and the distance of the planned construction using a 91' shoreline setback.

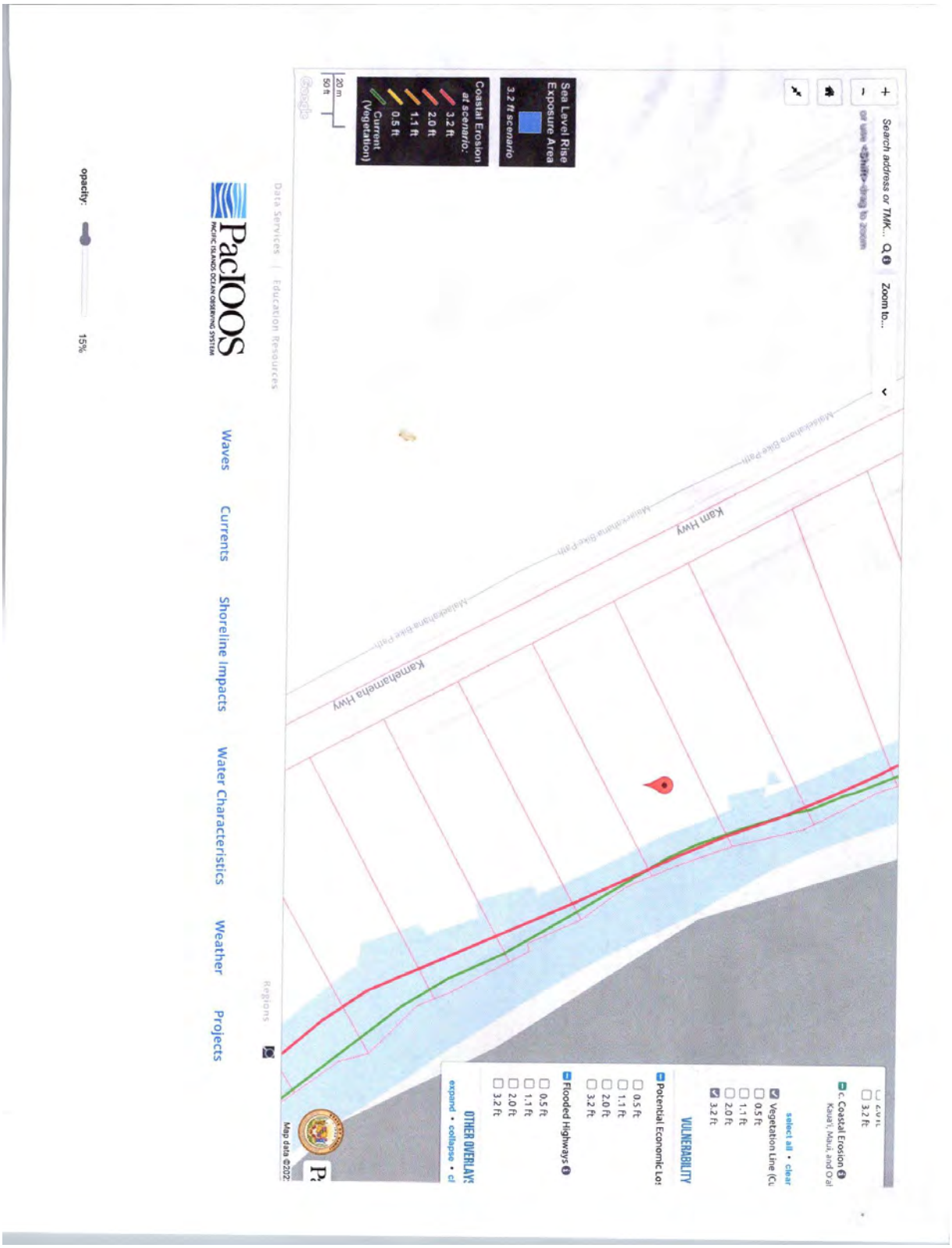
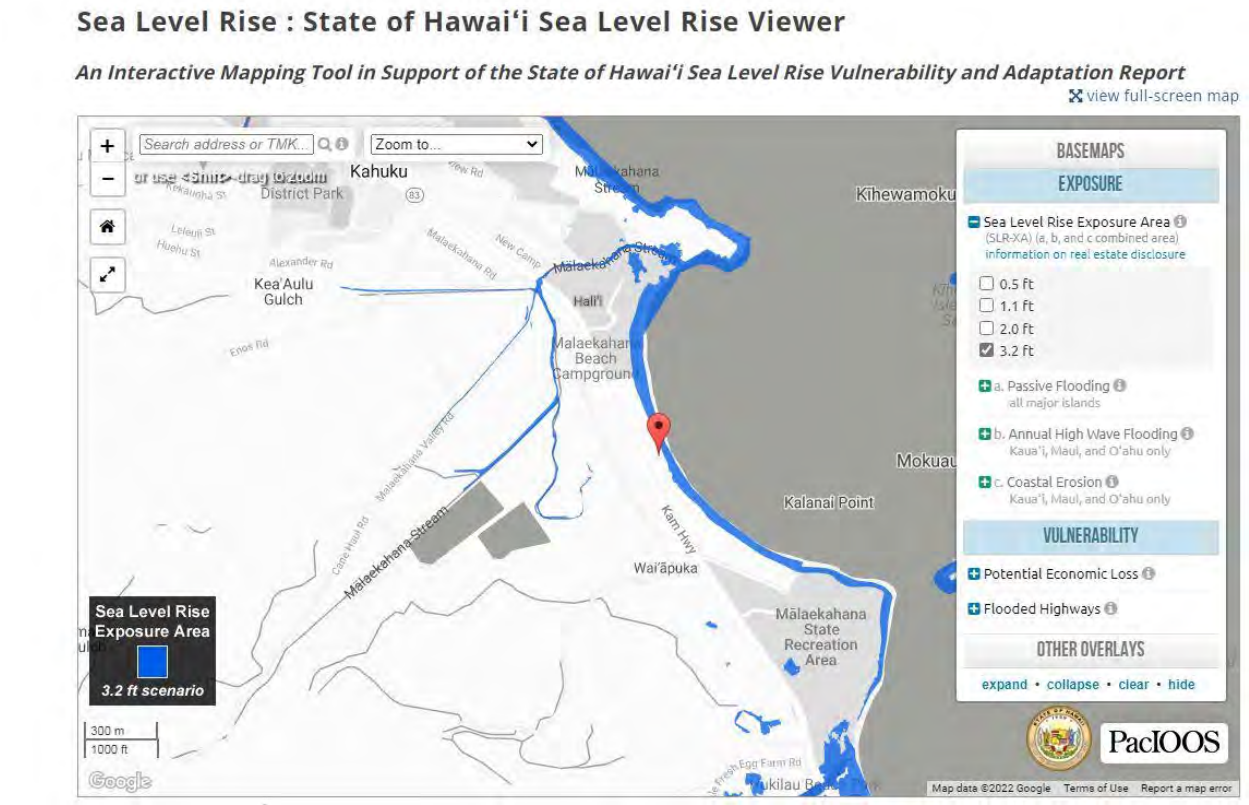


Figure 9 - Sea Level Rise on the Pietsch Lot

Figure 10 - Sea Level Rise Regional



The project action has been evaluated for potential impacts related to coastal hazards, particularly flooding potential using the Hawaii SLR Vulnerability and Adaptation Report and the SLR Guidance and Climate Change Study. Site-Specific, the first-floor elevation has its lowest elevation at 17.5' above MSL, above the current 11' flood elevation standard and thus will not require flood insurance. However, there is no projected elevation change to that current standard in the building area in the next projection of the SLR Exposure Area. As can be seen on the preceding SLR 3.2' elevation change maps above, the active working area of the site is not in an endangered zone as the rise would be contained by the high coastal berm for the shoreline setback and not reach the project area 91' setback, and hence not particularly subject to SLR exposure. As shown in the next few pages, the erosion rate is in the negative for the next few decades and no change to the shoreline, except seaward as expected.

On a broader policy level, added information will continually need to be incorporated within future assessments to identify where efforts should be focused when developing

adaptation strategies to SLR impacts. It is anticipated that the Proposed Project will need to be flexible to conform with guidance set forth by best practices outlined by policies and research based on the best scientific data at the time as climate change science, technology, and policies evolve over time.

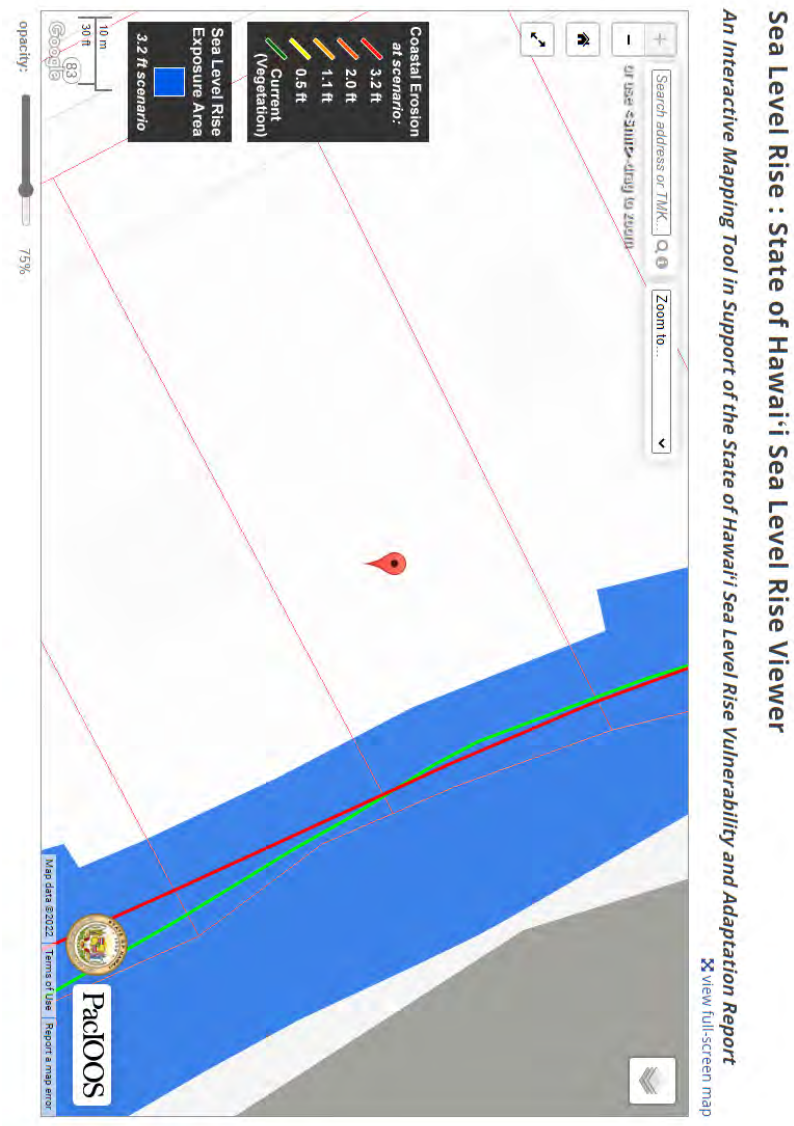


Figure 11 - Site Specific Sea Level Rise

As well, for shoreline projects, on the next pages are two more graphics, the SMA regional map showing the site in common with neighboring properties; and the hi-wave/erosion

rate potential map which shows the high coastal berm also stopping hi-wave action and erosion potentials.

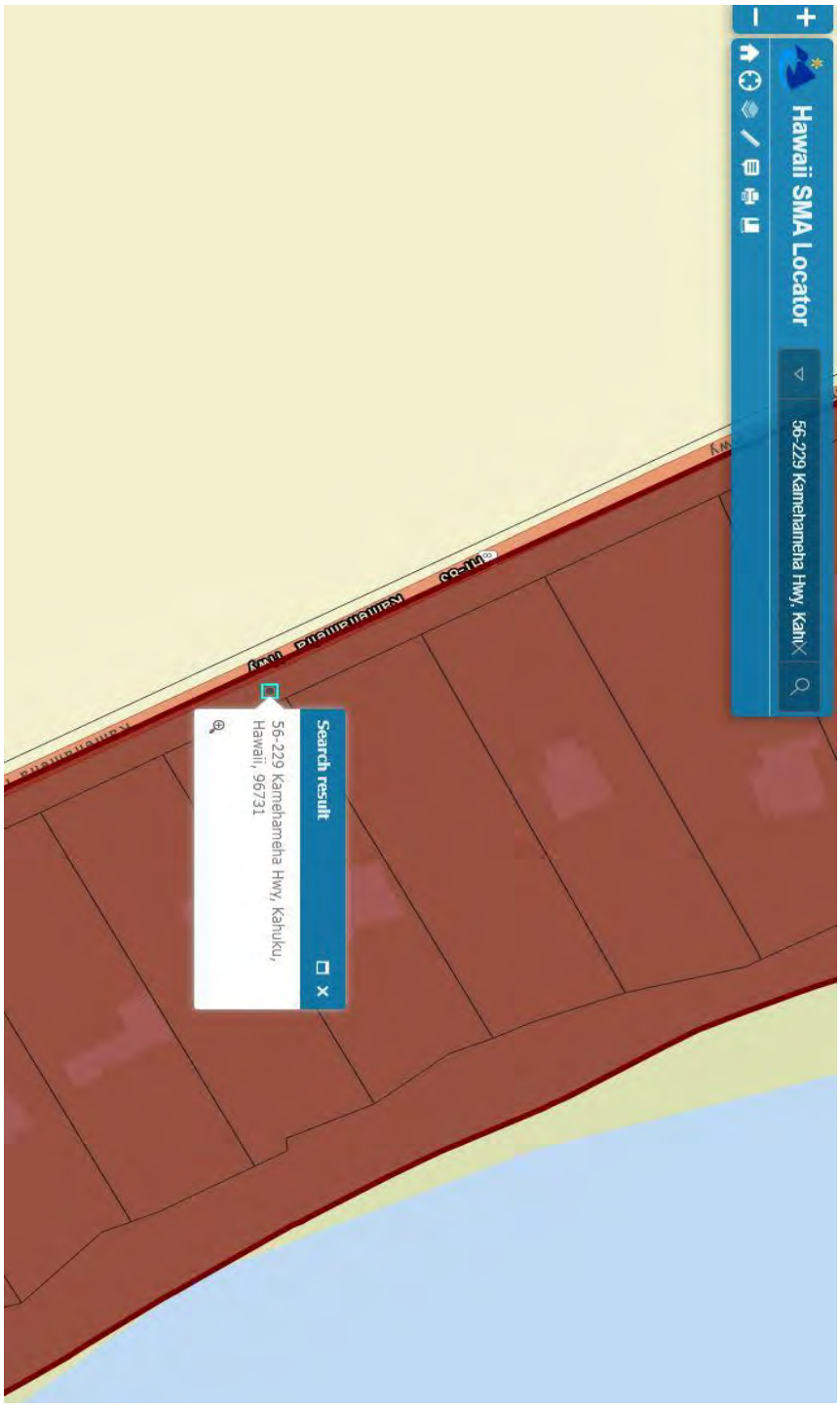
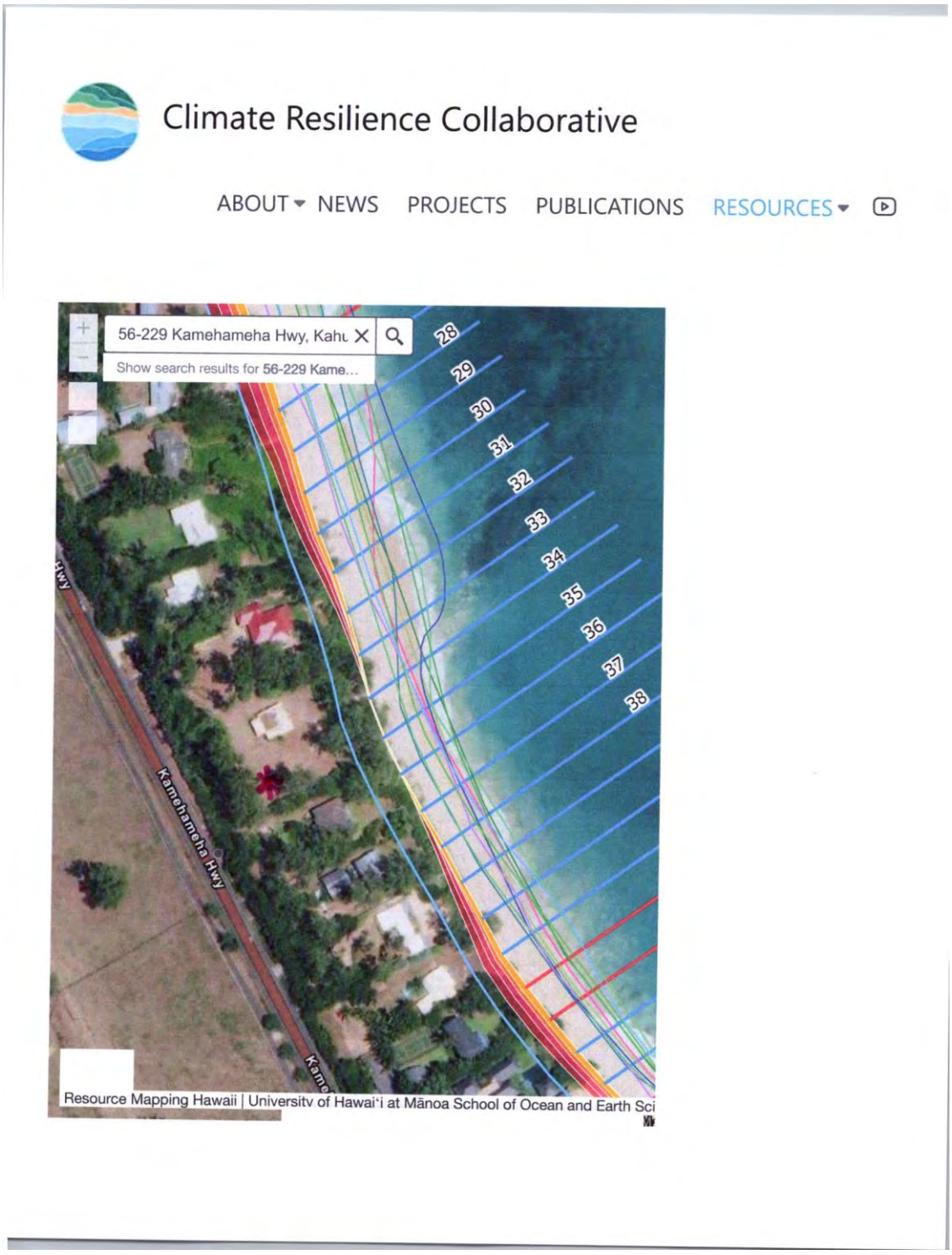


Figure 12 - SMA Regional

Figure 13 - Hi-wave, Erosion



As can be seen, the site lies in Transect 35 zone, which has a projected seashore migration seaward at about ½ foot per year.

Figure 14 - Erosion Rate Map - #35 Transect

3.4.2 Flood and Tsunami Hazards

Floods are the temporary inundation of land from excessive rainfall or other sources. Although floods are caused by natural events, most flood damage is a result of human occupation and development of lands that are susceptible to flooding without adequate protection. The CCH is vulnerable to flooding from storms, storm surge, high surf, and on rarer occasions, tsunamis. Every year flooding causes millions of dollars of damage. In the CCH, from about 1915 to 2018, floods caused by rainstorms, tsunamis, and hurricanes have claimed more than 140 lives and inflicted more than $200 million dollars of direct and indirect damage (DEM, 2020). According to the Flood Insurance Rate Map (FIRM), prepared by the Federal Emergency Management Agency (FEMA), the Ke Piki Ohana LLC is situated within one flood zone designation, Zone X: Areas determined to be outside the 0.2% annual chance Floodplain.

All of the Project Site itself is situated within Zone X (See Figure 14). Zone X includes studied areas that are areas determined to be outside the 0.2% annual chance floodplain, and do not require mandatory flood insurance and floodplain management regulations or options, but this project applies stringent flood mitigation methods. With regards to tsunami hazards, since the early 1800's, approximately 50 tsunami(s) have inundated the State of Hawai'i's shores, including the 1946 tsunami that resulted in wave heights of 11 meters and killed 6 people on O'ahu alone. Additional tsunamis impacting O'ahu shores occurred in 1952, 1957, 1960, 1964, and 2011. According to the Tsunami Evacuation Zone maps for O'ahu, the property is situated within the Tsunami Evacuation Zone, but not the Extreme Tsunami Zone (See Figure 16).

Flood Hazard Assessment Report

www.hawaiinfip.org

Ke Piki Ohana LLC

Property Information

COUNTY:	HONOLULU
TMK NO:	(1) 5-6-001:077
WATERSHED:	MALAEKAHANA
PARCEL ADDRESS:	56-229 KAMEHAMEHA HIGHWAY KAHUKU, HI 96731

Notes:

Flood Hazard Information

FIRM INDEX DATE:	NOVEMBER 05, 2014
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL:	15003C0045H
PANEL EFFECTIVE DATE:	NOVEMBER 05, 2014

THIS PROPERTY IS WITHIN A TSUNAMI EVACUTION ZONE: YES
FOR MORE INFO, VISIT: http://www.scd.hawaii.gov/

THIS PROPERTY IS WITHIN A DAM EVACUATION ZONE: NO
FOR MORE INFO, VISIT: http://dlnreng.hawaii.gov/dam/

0 40 80 ft

Disclaimer: The Hawaii Department of Land and Natural Resources (DLNR) assumes no responsibility arising from the use, accuracy, completeness, and timeliness of any information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the DLNR, its officers, and employees from any liability which may arise from its use of its data or information.

If this map has been identified as 'PRELIMINARY', please note that it is being provided for informational purposes and is not to be used for flood insurance rating. Contact your county floodplain manager for flood zone determinations to be used for compliance with local floodplain management regulations.

FLOOD HAZARD ASSESSMENT TOOL LAYER LEGEND
(Note: legend does not correspond with NFHL)

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD - The 1% annual chance flood (100-year), also know as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. SFHAs include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

- **Zone A:** No BFE determined.
- **Zone AE:** BFE determined.
- **Zone AH:** Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
- **Zone AO:** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
- **Zone V:** Coastal flood zone with velocity hazard (wave action); no BFE determined.
- **Zone VE:** Coastal flood zone with velocity hazard (wave action); BFE determined.
- **Zone AEF:** Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA - An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

- **Zone XS (X shaded):** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- **Zone X:** Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

- **Zone D:** Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase apply, but coverage is available in participating communities.

Figure 15 - FHAT Map

Impact and Mitigation

According to the Hawaii-National Flood Insurance Program Flood Hazard Assessment Tool, the Proposed Action is located within Zone X. The Proposed Action will comply with applicable sections of ROH (ROH, Article 11 Section 16-11 *and* Required Compliance with Chapter 21A ROH Flood Hazard Areas Ordinances) regarding elevation of the dwelling or structures, flood-proofing, waterproofing, and structural requirements for buildings and with structures potentially subject to coastal flood waters due to tsunami(s) with the site's project action based on sea rise maps and hi-wave maps.

As a result, the Proposed Action would not result in significant impacts to people or property due to a flooding hazard, including hazards related to coastal flooding due to a tsunami. In the short- and long-term, no significant impacts on flood hazards on the Proposed Project are anticipated as the proposed improvements are not anticipated to increase flood risks or cause any adverse flood-related impacts at the project area. The Proposed Project will be designed and constructed to applicable flood zone requirements.

For the development, all drainage improvements, excavation, drilling, and grading will be coordinated with the appropriate agencies during permitting and construction in order to ensure that the Proposed Project will not result in significant impacts regarding flood and tsunami hazards.

3.4.3 Hurricane and Wind Hazards

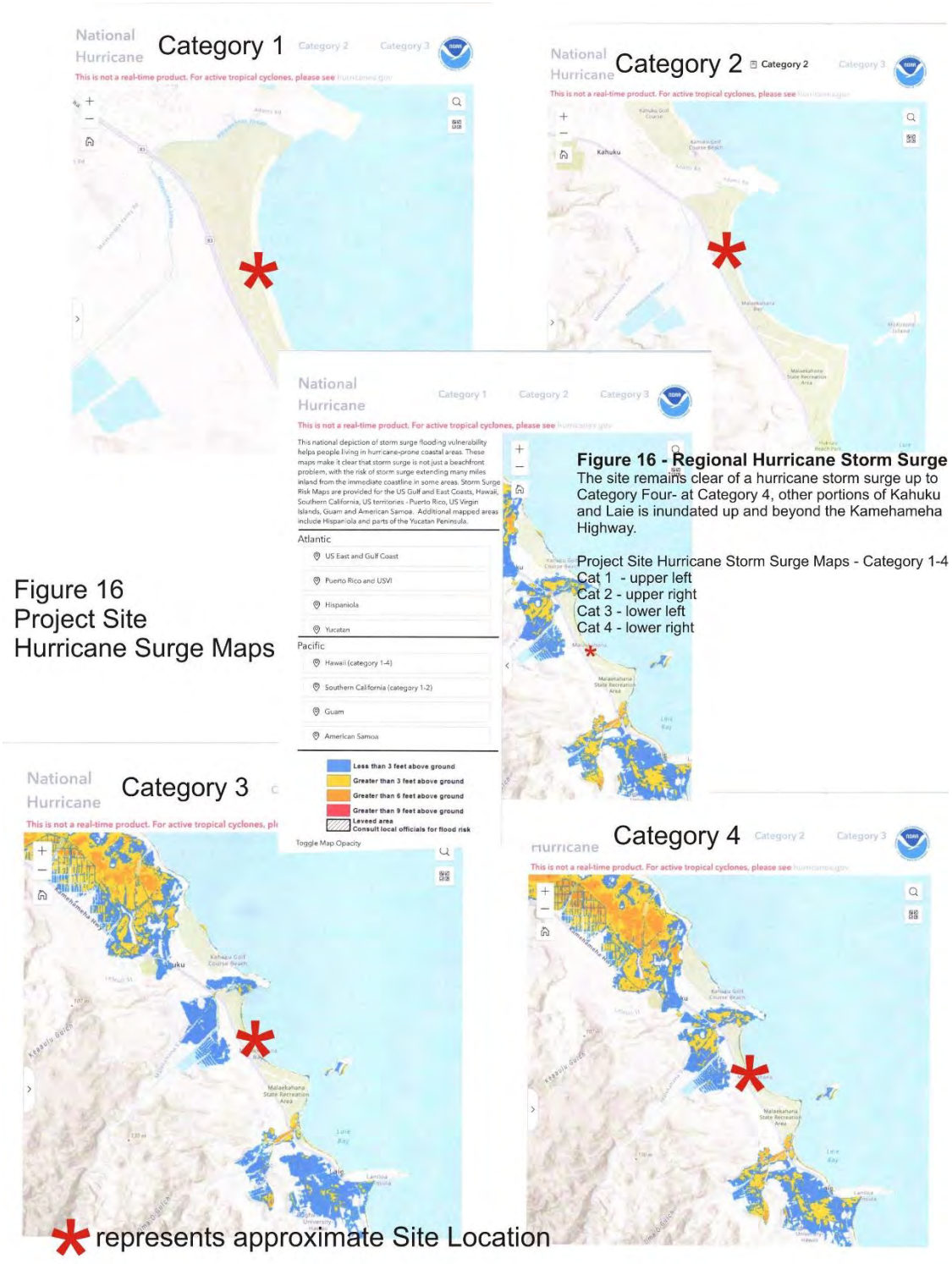
The Hawaiian Islands are seasonally affected by Pacific hurricanes from the late summer to early winter months. The State has been affected twice since 1982 by significant hurricanes, 'Iwa in 1982 and 'Iniki in 1992. During hurricanes and storm conditions, high winds caused strong uplift forces on structures, particularly on roofs. Wind-driven materials and debris can attain high velocity and cause devastating property damage and harm to life and limb. Along the coastline, a surge of water, topped by battering waves can move ashore into low lying coastal areas. However, it is difficult to predict how hurricane-induced storm surge may impact a specific location due to differences in atmospheric pressure, tidal stage, coastal topography, and location relative to the eye of the hurricane. It is difficult to predict these natural occurrences, but it is reasonable to assume that future events will occur. The Proposed Project is, however, no more or less vulnerable than the rest of the island to the destructive winds and torrential rains associated with hurricanes.

Impacts and Mitigation Measures

The potential for hurricanes, while relatively rare, is present across the State of Hawai'i. The Proposed Action's construction activities could potentially exacerbate the effect of

hurricanes if loose materials are not secured prior to the event of a storm and become flying debris. To minimize this hazard, construction materials and equipment would be stored properly when not in use, consistent with construction best management practices. To safeguard against hurricane damage in the long-term, the Proposed Project improvements would be designed in compliance with American Society of Civil Engineers and International Building Code standards for wind exposure.

As can be seen from the Category 4 (highest for Hawaii) Hurricane Surge Maps from the National Weather Service, the site is not exposed but nearby areas are.



3.4.4 Earthquake and Seismic Hazards

Figure 16 - Hurricane Surge Map

Seismic hazards are those related to ground shaking. Landslides, ground cracks, rock falls and tsunamis are all considered as seismic hazards. Although difficult to predict, an earthquake of sufficient magnitude causing structural or other property damage may occur in the future. However, except for the island of Hawai'i, the Hawaiian Islands are not situated in a high seismic area subject to numerous earthquakes (Macdonald et al. 1983). Thousands of earthquakes occur every year in the State of Hawai'i. Earthquakes in the Hawaiian Islands are associated with volcanic eruptions or tectonic movements. Most of these earthquakes are closely related to volcanic processes and are so small they can only be detected by seismometers. One of the larger and more recent earthquakes occurred offshore of Puakō, Hawai'i in 2006. The earthquake measured 6.7 on the Richter Scale and caused minor damages to structures and buildings on the island of O'ahu. Engineers and other professionals have created a system of classifying seismic hazards on the basis of the expected strength of ground shaking and the probability of the shaking actually occurring within a specified time. From our research in the International Building Code (IBC) seismic provisions, Hawaii has only adopted codes for Hawaiian Historic Properties, which this site does not contain. The IBC classifies the likelihood of seismic activity into zones ranging from 0 to 4. Seismic Zone 0 represents no chance of severe ground shaking and Seismic Zone 4 represents a 10 percent chance of severe shaking in a 50-year interval. The Project Site lies within the region of O'ahu, which is generally classified as Seismic Zone 2A under the IBC. Strong shaking is associated with earthquakes in this zone and may result in negligible damage to buildings in superior design and construction, slight to moderate damage in well-built ordinary structures, and considerable damage in poorly built structures. Thus, Malaekahana is assessed to have low vulnerability to earthquakes.

Volcanic hazards on O'ahu are considered minimal due to the extinct status of former volcanoes; however, the effects of earthquakes occurring on the islands of Hawai'i, and Maui may be felt on the island of O'ahu.

Impacts and Mitigation Measures

O'ahu has not experienced significant seismic events in the modern era. The development of the Proposed Action would not be subject to adherence to earthquake design requirements, but all buildings are expected to adhere to modern building standards that do incorporate seismic codes to ensure that all developments of the Proposed Action would comply with geotechnical recommendations for seismic hazards and meet prevailing building codes by incorporating specifications to reduce vulnerability to earthquakes at that time.

3.4.5 Wildfire Hazards

Wildfires can threaten life and property, but they can also harm the environment and threaten important natural resources such as endangered species. While sometimes caused by lightning, nine out of ten wildfires are human caused. Put simply, "*wildfire*" is the term applied to any unwanted and unplanned fire burning in forest, shrub, or grass regardless of whether it is naturally or humanly induced (DEM, 2020). On a global basis, the number of wildfires has significantly increased in the last decades. Such an increase can be explained by four key factors:

1. *Past fire suppression policies, including one of "total suppression," which allowed for the accumulation of fuel in the form fallen leaves, branches, and excessive plant overgrowth in forest and wild land areas.*
2. *Increasingly dry, hot weather.*
3. *Changing weather patterns.*
4. *Increased residential development in the wild land/urban interface*

All the Hawaiian Islands are susceptible to wildfires, especially during prolonged drought and high winds. In recent years, the average annual cost to suppress wildfires in Hawaiʻi is about $1,100,000 - making it a Statewide risk (DEM, 2020). The greatest danger of fire is where the wildland borders urban areas. Through August 2018, wildfires in Hawaiʻi have burned 30,000 acres (about double the annual average). Historically, most of these fires have been directly caused by humans, either directly or by negligence. Malaekahana is within a moderate-risk area for wildfires due to open grassed area prone to fire risks and fire events on the mauka side of the Kamehameha Highway of the lands of Gunstock Ranch.

Impacts and Mitigation Measures

The Proposed Project is not anticipated to have impacts that could result in wildfire events as the Proposed Project is within a moderate-risk area being mostly cleared of brush, with a grass understory. Irrigation for the property also provides fire suppression tools.

Moreover, the State Department of Land and Natural Resources-Division of Forestry and Wildlife (DLNR-DOFAW) has adopted a Fire Management Handbook, which specifies its standards for prevention, pre-suppression, and suppression. The document provides a structured approach in providing for public/firefighter safety and minimizing damage to Hawaii's environment. Funding for the fire management program is provided by the State's general fund and federal cost share programs through the U.S. Forest Service. These programs include the Rural Community Fire Protection and Rural Fire Protection and Control programs. Additionally, the DLNR-DOFAW is a key agency within the State who can trigger provisions of the Stafford Act (Fire Suppression Assistance) which provides for FEMA funding assistance in situations where forest and grass fires on public or private lands threaten a major disaster to communities and economies. For DLNR-DOFAW to meet

its legal fire protection mandate for State-owned lands and honor its partnership with other fire services, DLNR-DOFAW negotiated with its local fire departments and established a cooperative mechanism for prevention, pre-suppression, and suppression measures by way of the current Memorandum of Agreements (MOAs).

3.4.6 Volcanic Hazards

The island of Oʻahu is formed from two principal volcanoes: Waiʻanae and Koʻolau about *2.2 – 3.8 million years and 1.8 – 2.6 million years ago* respectively. Oʻahu is also riddled with a number of more recent smaller "rejuvenation" vents such as Diamond Head, Koko head, Punchbowl, and many others, which are believed to have occurred between 70,000 and 500,000 years ago. Hence, volcanic hazards on Oʻahu are considered minimal due to the extinct status of the former volcanoes. The Island of Hawaiʻi is composed of five volcanoes, two of which (Mauna Loa and Kīlauea) have been highly active in the past 100 years and pose the most immediate threat to life and property. A third volcano, Hualalai, last erupted in 1801 and has the potential to erupt again within our lifetime. The other two are dormant. Mauna Kea last erupted approximately 3,500 years ago and is considered dormant but not extinct. Kohala, considered extinct, is the oldest volcano on the island and last erupted approximately 60,000 years ago. Hawaiian volcanoes are not as explosive as continental margin volcanoes (e.g., Rainier, Mt. St. Helens, Mt. Shasta) and are characterized by relatively quiet outflow of relatively fluid lava, therefore the probability of harmful volcanic rock debris and ashfall on Oʻahu from the volcanoes on Maui and Hawaiʻi is negligible. Consequently, the only credible volcanic hazard on Oʻahu is "**VOG**," short for "volcanic gas" or "volcanic smog," resulting from ongoing eruptions on Hawaiʻi.

VOG is a term used in Hawaiʻi to describe hazy conditions caused by gaseous emissions from Kīlauea Volcano. VOG is created when volcanic gases react with sunlight, oxygen, and moisture. The VOG plumes from Kīlauea contain a variety of compounds, at varying concentrations, which could have adverse impacts on the downwind communities and environment. During slack or southerly winds, the entire island chain can be blanked in VOG. VOG is most prevalent in the winter when Kona winds are most frequent.

Impacts and Mitigation Measures

The Proposed Project will not have an impact on volcanic hazards nor exacerbate the impacts associated with volcanic hazards. Any former volcanoes on Oʻahu are now considered inactive and the probability of eruption on Oʻahu is negligible. Therefore, only neighboring volcanoes on the Island of Hawaiʻi and possibly Haleakalā on Maui, which last erupted in the 1700's, are expected to have any impact on Oʻahu. The main impact from volcanic hazards on Oʻahu would occur from VOG and not sourced from the project site.

VOG impacts are highly dependent on both proximity of the source to the affected area as well as the day-to-day climatic conditions. During trade-wind weather, VOG is carried from the Kīlauea vents is carried toward the southwest, around the southern tip of the island where some is trapped within an eddy system on the Leeward side of the island. Hence, during normal trade-wind conditions the southern and Kona communities on Hawaiʻi Island are most heavily impacted by VOG. During slack or southerly winds, the entire island chain can be blanked in VOG. However, due to the short half-life of sulfur dioxide (SO2) and sulfuric acid in the environment, Oʻahu is not expected to experience the elevated SO2 levels that may be experienced on Hawaiʻi island (DEM, 2020). SO2 levels are greatly reduced further away or upwind from the vents as the gas disperses and reacts with water to form sulfuric acid and then with ammonia to form ammonium sulfate which is eventually washed or settles out of the atmosphere. The visible "hazy" appearance of VOG is often intensified when the gases and particulate matter combine with high humidity due to the warmer tropical temperatures when brought up from the south. Informational resources on VOG distributions can be found at this website, which provides modeled VOG plume trajectories based on current and projected weather conditions: http://mkwc.ifa.hawaii.edu/vmap/

Other informational resources on VOG and mitigation actions that the public can take to reduce the impacts of VOG can be found at these websites:

https://vog.ivhhn.org/

https://hilo.hawaii.edu/natural-hazards/vog

3.5 Natural Environment

3.5.1 BIOLOGICAL AND FAUNA RESOURCES

Definition of Resource

Biological resources include species of vegetation, wildlife, fisheries, and habitat. Biological resources discussed in this section include botanical, avian, or mammalian resources of special concern, particularly species listed under federal, or state endangered species law evaluated in Appendix C – *Botanical and Fauna Report*. Also discussed are species considered sensitive, protected, or proposed for protection.

Affected Environment Changes

The affected environment for biological resources described below is based on the biological resources survey report prepared for the EA (in Appendix C) unless otherwise noted (WHALE Environmental Services LLC, February 2022).

Botanical Resources

The Proposed Action site is currently not being used and is vacant. The vegetation in this area is non-native grasses and herbaceous plants that are common in disturbed coastal areas throughout the Hawaiian Islands.

Mammalian and Avian Resources

No species of bird or mammal were observed during the point counts in the Proposed Action site. Only honeybees were detected in the shoreline naupaka. The species are introduced to the Hawaiian Islands and are common throughout the Hawaiian Islands, particularly in areas of flowered vegetation.

Special Status Species

According to the biological resources survey report (Appendix C), the Proposed Action site does not contain any plant or mammal species protected or proposed for protection under either federal or state endangered species programs. This was supported with consultation with USFW, which advised only biological monitoring and a cease-and-desist work provision if any endangered species were observed and consultation with USFW and DLNR before any further action. This request will be complied with.

Impacts and Mitigation Measures

Unless otherwise noted, this section is based on the Biological Resources Survey, at the site conducted by WHALE Environmental Services LLC, February 2022. The entire site has been intensively disturbed and altered by human activity (e.g. – grass seeding, grading). The Proposed Action will not result in adverse impacts to any plant or animal species currently listed or proposed for listing under federal or state endangered species statutes, because no such species have been found on or near the site according to the recent survey of the proposed site. Bird species were observed outside the project area, none of which are an endangered species.

The Proposed Action site does not include, and would not affect, USFW critical habitat. There would be no significant impact to biological resources under the Proposed Action.

To adhere with provisions of the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), as amended (ESA) and from information received from USFW with pertinent information in their files, as it pertains to federally listed species in accordance with section 7 of the ESA; the applicant is aware that the following federally listed species *may* occur or *transit* through the vicinity of the proposed project area:

The endangered Hawaiian hoary bat (Lasiurus cinereus semotus); endangered Hawaiian petrel (Pterodroma sandwichensis), threatened Newell's shearwater (Puffinus auricularis newelli), and endangered Hawaii DPS band-rumped storm-petrel (Oceanodroma castro) (hereafter collectively referred to as Hawaiian seabirds); the endangered Hawaiian stilt (Himantopus mexicanus knudseni), Hawaiian coot, (Fulica alai) Hawaiian gallinule (Gallinula galeata sandvicensis), and Hawaiian duck (Anas wyvilliana) (hereafter collectively referred to as Hawaiian waterbirds).

Hawaiian hoary bat The Hawaiian hoary bat roosts in both exotic and native woody vegetation across all islands and will leave young unattended in trees and shrubs when they forage and particularly like ironwood. If trees or shrubs 15 feet or taller are cleared during the pupping season, there is a risk that young bats could inadvertently be harmed or killed since they are too young to fly or may not move away.

To avoid and minimize impacts to the endangered Hawaiian hoary bat the applicant is incorporating the following applicable measure into the project mitigations:

• Do not disturb, remove, or trim woody plants greater than 15 feet tall during the bat birthing and pup rearing season (June 1 through September 15). Ironwood will be removed after September and before June.

• Do not use barbed wire for fencing. Existing barbed wire fencing will be removed and replaced with wooden fencing. Hawaiian seabirds Hawaiian seabirds may traverse the project area at night during the breeding, nesting, and fledging seasons (March 1 to December 15). Outdoor lighting could result in seabird disorientation, fallout, and injury or mortality. Seabirds are attracted to lights and after circling the lights they may become exhausted and collide with nearby wires, buildings, or other structures or they may land on the ground. Downed seabirds are subject to increased mortality due to collision with automobiles, starvation, and predation by dogs, cats, and other predators. Young birds (fledglings) traversing the project area between September 15 and December 15, in their first flights from their mountain nests to the sea, are particularly vulnerable.

To avoid and minimize potential project impacts to seabirds the following has been incorporated as applicable mitigation measures:

• Fully shield all outdoor lights so the bulb can only be seen from below bulb height and only use when necessary.

• Install automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.

• Avoid nighttime construction during the seabird fledging period, September 15 through December 15.

• In areas where waterbirds are known to be present, post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.

• If water resources are located within or adjacent to the project site, incorporate applicable best management practices regarding work in aquatic environments into the project design (see enclosure).

• Have a biological monitor that is familiar with the species' biology conduct Hawaiian waterbird nest surveys where appropriate habitat occurs within the vicinity of the proposed project site prior to project initiation. Repeat surveys again within 3 days of project initiation and after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest). If a nest or active brood is found:

1. Contact the USFW Service within 48 hours for further guidance.
2. Establish and maintain a 100-foot buffer around all active nests and/or broods until the chicks/ducklings have fledged. Do not conduct potentially disruptive activities or habitat alteration within this buffer.
3. Have a biological monitor that is familiar with the species' biology present on the project site during all construction or earth moving activities until the chicks/ducklings fledge to ensure that Hawaiian waterbirds and nests are not adversely impacted.

The same provisions of monitoring for site entry, halt to construction, notification of species presence to USFW and DLNR/DAR and request for guidance will apply to other species such as monk seals and green sea turtles that may enter the site from near shore waters and beaches.

3.6 Historical, Cultural and Archaeological Resources

Definition of Resource

Significant cultural resources are defined by the National Historic Preservation Act and Chapter 343 of the Hawaii Revised Statutes (HRS). According to the National Historic Preservation Act (NHPA), a historic resource is defined as, "*any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register…*" According to Chapter 343 of the HRS, cultural resources are defined as "*cultural beliefs, practices, and resources of native Hawaiians and other ethnic groups*." Chapter 343 requires that the environmental assessment process accounts for cultural resources in determining the significance of impacts that could occur because of a proposed action. Appendix F contains the *Cultural Impact Assessment.*

Unless otherwise noted, this section is based on the Cultural Impact Assessment prepared by WHALE Environmental Services LLC (WHALE), February 2022. The cultural impact assessment completed by WHALE Environmental Services LLC supports the Project's environmental review under HRS Chapter 343. WHALE performed a field inspection, historical research, and reviewed past archaeological and paleontological studies and found no significant cultural associations with the site. An excerpt from that report follows:

Regional Cultural History

Malaekahana Ahupuaʻa, Koʻolau Loa Moku District

Ko'olauloa is the northeastern district of O'ahu, from Waimea Bay on the North Shore to Ka'a'awa on the windward coast. ("Ko'olau" means "windward"; "loa" means "long"). The valleys from La'ie to Kahana are well-watered and fertile. The most famous god of this land was Kamapua'a, "Pig-Child," whose home was in the valley of Kaliuwa'a (Sacred Falls) in Kaluanui. The gods Kane and Kanaloa wandered through this district, creating springs and fishing. Fish is abundant; the coastline is also noted for its shark gods and shark men (mano kanaka).

According to legend, during the Makahiki festival several Akua (Gods) appeared. Akua Loa traveled in a right circle around the island and Akua Poko journeyed to the left. Eventually, they met at the ahupuaʻa division between Kualoa and Ka'a'awa. As a result, the names Koolauloa and Koolaupoko were given to the moku to represent the meeting of the Akua. The ahupua'a from west to east are Waimea, Keahuohapu'u, Pupukea, Paumalu, Kaunala (or Peapueo), ʻOpana, Kawela, Hanakaoʻe, Kahuku (or Ahumanu), Keana, Malaekahana, Lå'iewai, Laniloa, Lå'iemalo'o, Kaipapa'u, Hau'ula (or Lanakila), Mākoa, Kapaka, Kaluanui, Punalu'u (or Moa'e), Kahana (or ʻÅhiu), Ka'a'awa (or Holopalo), and Ka'o'io.

In Hawaiian. Malaekahana has been historically known as “Puuhonua” (Place of Refuge). Hawaii is known for its many rains and winds of the islands.

Historical Changes and Map Analysis

For generations following initial settlement, communities in Koʻolauloa were clustered along the shores which offered sheltered bays from which deep sea fisheries could be easily accessed. The near shore fisheries and coastal fishponds, which were enriched by nutrients carried in the fresh water, also offered opportunities for resource extraction and stewardship. It was in these coastal areas that clusters of houses were found, and where agricultural production first became established. Over a period of several centuries, these areas became populated and perhaps even crowded, and inland elevations began to be used for agriculture and some habitation. Taro would have been the dominant crop in this area with sweet potatoes planted only as a supplement for it (Handy and Handy 1972:282-283).

Other crops would have included wauke, noni, gourds, sugarcane, ʻawa, breadfruit, bananas, coconuts, and ti (Stride et al. 2003). Other resources important to subsistence would have been gathered from the sea to the mountains. The period between A.D. 1200–1650 was characterized by the greatest social stratification, major socioeconomic changes, and intensive land modification (Kirch 1985). Most of the ecologically favorable zones of the windward and coastal regions of all major islands were settled and the more marginal leeward areas were being developed. The concept of the ahupuaʻa was established during the A.D. 1400s (Kirch 1985), adding another component to a then well-stratified society. This land unit became the equivalent of a local community, with its own social, economic, and political significance. Ahupuaʻa were ruled by aliʻi ʻai ahupuaʻa or lesser chiefs; who, for the most part, had complete autonomy over this generally economically
self-supporting piece of land, which was managed by a konohiki. Ahupuaʻa were usually wedge or pieshaped, incorporating all of the eco-zones from the mountains to the sea and for several hundred yards beyond the shore, assuring a diverse subsistence resource base (Hommon 1986). Entire ahupuaʻa, or portions of the land were generally under the jurisdiction of appointed konohiki or lesser chief-landlords, who answered to an aliʻi-ʻai-ahupuaʻa (chief who controlled the ahupuaʻa
resources). The aliʻi-ʻai-ahupuaʻa in turn answered to an aliʻi ʻai moku (chief who claimed the abundance of the entire district). Thus, ahupuaʻa resources supported not only the makaʻainana and ʻohana who lived on the land, but also contributed to the support of the royal community of regional and/or island kingdoms. This form of district subdividing was integral to Hawaiian life and was the product of strictly adhered to resources management planning. In this system, the land provided fruits and vegetables and some meat in the diet, and the ocean provided a wealth of protein resources.

Legendary Accounts of the regional Ahupuaʻa (s)
The current study parcels are located in the District of Koʻolauloa, Island of Oʻahu.

This area includes a rich fishery and a broad coastal plain abundant with wetlands, springs, and brackish pools. This area was once renowned for its hala groves.

This moku and many of the places named within it, have traditional legends associated with them.

[1] Legend tells us that Kahuku region was a floating island situated several miles out to sea. For a long time, the people of Oʻahu had planned to make the island part of their land, for they saw it come close to Oʻahu's shores. The floating island of the Menehune did not have any fresh water springs because there were no high mountains covered with verdure and trees to capture the rains. So, the Little Folk used to paddle their islet into the bays of Oʻahu at night to haul water from the springs of the larger island.

One day, a resident of Kahuku suggested that all the people gather together to make strong hooks of whalebone and attach them to a stout rope made of sacred olona fibres. This was done. The Menehune came to take water as usual, then the residents of Oʻahu attached the large hooks to the floating isle while the Menehune started to paddle off again, but they could not move their islet or free it from their ivory hooks and Olona ropes. Today, many people who travel Kahuku section of Oʻahu and see the many islets seeming to float off shore, and hear the sea singing its songs, they say, '*Listen to the Menehune grumbling while they try to move their island that used to float!*'

McAllister (1933) also describes a legend associated with Punamana, a spring and wetland located on the Kahuku plain. He relates that it is a small water hole that was pointed out by Kahione, Kaleo, and Luiko Kaio in the flat limestone plain of Kahuku Point. It is about 15 ft. in diameter and brackish in taste. The legend is:

One time when the people of Kahuku were fishing they caught a small shark. Putting him in a calabash of water they carried him to their houses near the beach. Here he was cared for and put in larger and larger calabashes as he grew bigger. Finally haven outgrown even the largest calabash that could be found, it was decided to place him in one of the pools of brackish water which came to be known as Punamano. A man and woman living near the pool became guardians. They had lived in their grass huts with a breadfruit tree near the pool and taro and potato patches near the mountains for several years when the brother of the woman came to live with them. Sometime after, the man and his wife went to the mountains to gather taro and potatoes. The brother, who was staying at home, thought that he would like to have some food prepared when the sister and her husband returned. He climbed the breadfruit tree and gathered several, throwing the fruit into the water instead of on the ground, where it would have been bruised in the fall. After picking enough for a few days he descended the tree and gathered most of the fruits from the bank. Two had floated to the middle of the pond and he could not reach them. Now this man knew of the shark that lived in the pool, but he had frequently bathed in the pool and no thought of fear crossed his mind as he swam to the breadfruit. He did not know,

however, that his sister and her husband had warned the shark not to allow anyone to steal breadfruit when they were gone. When the sister and he r husband returned they could not find brother. Neither was the shark to be found, but they saw the breadfruit floating in the pool and the reddish color to the water. They guessed what had occurred. For nearly a mile they followed the bloody trail until they came to a spring known as Punahoolapa. Not only was the brother never seen, but the shark has never been seen to this day.

During Precontact and early Historic times the Kahuku plain was well known for its groves of hala. Wong-Smith (1989:A-5, A-6) provides several accounts of its renown:

…he flew to Kahuku and adorned his neck with wreaths of the pandanus fruit and his head with flowers of sugarcane. [Thrum 1912:100]

This is the land of the hala tree…"I sent out word…among the people that there should be no one leaving here (Kahuku) for Waimea or Waialua who had not a wreath of hala fruit…": [Cummings 1913:241-242 cited in Wong-Smith 1989]

…men from Kahuku were identified by leis of the orange hala fruit which they wore by order of their chief when they left their ahupua'a…[Wilcox 1975]

Halemano, a man credited with the evolution of hula, composed a chant to win back the attentions of his wife that mentions the hala of Kahuku (Wong-Smith 1989:A-6).

Impacts and Mitigation Measures

No surface historic properties were observed during a field examination within or in the immediate vicinity of the Proposed Action. No intact sinkholes, sand dune deposits, or cultural material were observed within the project area, and none are believed to be present. As a result, the Proposed Action is not anticipated to adversely affect any historic properties. Furthermore, the Proposed Action would have no significant impact on historic properties as none are listed or detected.

Continued consultation with the State Historical Preservation Division (SHPD) will be necessary to determine if archaeological monitoring or other specific measures will be required. However, in that unlikely event that previously unidentified historical, archaeological, or cultural resources or human remains are encountered, work in the immediate area would cease and notification of the proper authorities, including the State Historic Preservation Division, would occur immediately according to applicable law.

3.7 – Air Quality

Definition of Resource

Air quality is defined by the concentrations of specific pollutants of concern in the general outdoor atmosphere to which the public has access, with respect to the health and welfare of the general public. These pollutants are generated by many direct and indirect sources such as: Factories and power plants (stationary); automobiles, buses, and planes (mobile); windblown dust and volcanic eruptions (natural), construction and site preparation (fugitive dust).

The United State Environmental Protection Agency (EPA) administers and enforces the Clean Air Act, a federal law that regulates air emissions from stationary and mobile sources. Passed by Congress in 1970, and later amended in 1977 and 1990, this law authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous, commonly occurring pollutants known as "criteria" pollutants. Thus far NAAQS have been set for six criteria pollutants (40 Code of Federal Regulations [CFR] 50): carbon monoxide (CO); nitrogen dioxides (NO_2); ozone (O_3) with nitrogen oxides [NO_x] and volatile organic compounds [VOCs] as precursors; particulate matter (PM) PM_{10} – less than 10 microns in particle diameter and $PM_{2.5}$ – less than 2.5 microns in particle diameter; lead (Pb); and sulfur dioxide (SO_2). Two types of standards have been established. "Primary standards" set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. "Secondary standards" set limits to protect public welfare which includes protection against decreased visibility, and damage to animals, crops, vegetation, and buildings. The EPA requires that states monitor the ambient air to determine attainment of the NAAQS and regulate industries that emit these and other pollutants.

In addition to NAAQS, the Hawaii DOH has established State ambient air quality standards (SAAQS) to further protect human health. SAAQS exist for the following pollutants: CO, NO_2, O_3, PM_{10}, Pb, hydrogen sulfide (H_2S), and SO_2. Performance standards exist for volatile organic compounds (VOC) and total suspended particulates (TSP) within HAR and are controlled by permit.

Air Pollutant	Hawaii Standard	Federal Primary Standard	Federal Secondary Standard
Carbon Monoxide			
1-hour average	9 ppm	35 ppm	None
8-hour average	4.4 ppm	9 ppm	None
Lead			
3-month average	1.5 $\mu g/m^3$ (calendar quarter)	0.15 $\mu g/m^3$ (running 3-month)	Same as primary
Nitrogen Dioxide			
1-hour average	None	100 ppb	None
Annual average	0.04 ppm	53 ppb	Same as primary
Particulate Matter (PM_{10})			
24-hour block average	150 $\mu g/m^3$	150 $\mu g/m^3$	Same as primary
Annual average	50 $\mu g/m^3$	None	None
Particulate Matter ($PM_{2.5}$)			
24-hour block average	None	35 $\mu g/m^3$	Same as primary
Annual average	None	12 $\mu g/m^3$	15 $\mu g/m^3$
Ozone			
8-hour rolling average	0.08 ppm	0.075 ppm	Same as primary
Sulfur Dioxide			
1-hour average	None	75 ppb	None
3-hour block average	0.5 ppm	-	0.5 ppm
24-hour block average	0.14 ppm	None	-
Annual average	0.03 ppm	None	-
Hydrogen Sulfide			
1-hour average	25 ppb	None	None

ppb = parts per billion by volume
ppm = parts per million by volume
$\mu g/m^3$ = micrograms per cubic meter of air

Chart 2 - Air Quality Standards for Criteria Pollutants (DOH 2013)

Impacts and Mitigation Measures

During the construction of the proposed activities there is expected to be a marginal increase in air pollutants associated with the operation of commercial construction vehicles and the grading of project access roads during construction. These pollutants will be limited to NO_2, HS_2, PM_{10} and CO, from the operation of construction vehicles; dust from the grading of project access roads; in the form of fugitive dust from vehicle traffic and site grading. This marginal increase will be temporary, and limited in duration to a period of 4-6 months. The laydown staging site will be on the Pietsch-owned adjacent lot. In order to mitigate any potential impacts to air quality, The construction project will proceed with construction under the guidelines of HAR Section 11-60.1-33.

During the operational lifetime of the project, air pollutants will be limited to mobile sources produced by the operation of residential vehicles entering and leaving the site.

Table 3.7 State and National Ambient Air Quality Standards

Pollutant	Unit	Averaging Period	NAAQS	SAAQS
CO	ppm	1-hour	35[b]	9
		8-hour	9[b]	4.4
Pb	µg/m^3	Quarterly	1.5[h]	1.5
NO_2	ppb	1-hour	100	None
	ppm	Annual	0.053[c]	0.04
H_2S	ppm	1-hour	None	0.025
PM_{10}	µg/m^3	24-hour	150[d]	150
		Annual	None[e]	50
$PM_{2.5}$	µg/m^3	24-hour block avg.	35	None
		Annual	15[f]	None
O_3	ppm	8-hour rolling avg.	0.075[g]	0.08
SO_2	ppm	3-hour	0.5[a]	0.5
		24-hour	0.14[b]	0.14
		Annual	0.03[c]	0.03

Notes:
a. Federal Secondary Standard.
b. Not to be exceeded more than once per year.
c. Average of all 1-hour values in the year may not exceed the level of the standard.
d. May not be exceeded more than one day per year.
e. EPA revoked the annual PM_{10} standard effective December 17, 2006, due to lack of evidence linking health problems to long-term exposure. The State still has an annual standard.
f. The 3-year average of 24-hour values must not exceed the level of the standard.
g. The 3-year average of the fourth highest daily maximum value must not exceed the level of the standard.
h. Average of all 24-hour values in any calendar quarter may not exceed the level of the standard.

Source: DOH (2010)

The marginal increase in emissions from construction activities will occur over a temporary, short-term period of 4 to 6 months. Use of water as-needed for dust control during construction will minimize the potential for visible emissions HAR §11-60.1-32. The Proposed Action will comply with the provisions of HAR §11-60.1-33 on fugitive dust by requiring the contractor to select appropriate measures to comply with the provision.

3.8 - Noise

Definition of Resource

Noise is defined by the EPA as “unwanted or disturbing sound”, and in the HAR as "any sound that may produce adverse physiological or psychological effects or interfere with individual or group activities, including but not limited to communication, work, rest, recreation, or sleep".

While the typical human response to noise pollution is annoyance, Noise pollution can cause stress related illnesses (e.g. high blood pressure, sleep disruption, and lost productivity) and potentially hearing loss, with prolonged exposure. The response of individuals to similar noise events is diverse and influenced by the type of noise; the perceived importance of the noise, and its appropriateness in the setting; the time of day and the type of activity during which the noise occurs; and the sensitivity of the individual. Most environmental noise includes a mixture of noise from distant sources that creates a relatively steady background noise in which no particular source is identifiable.

Sound is generally characterized by several variables, including frequency and intensity. Frequency describes the pitch of the sound and is measured in Hertz (Hz), while intensity describes the sound’s loudness and is measured in decibels (dB). Normal speech has a sound level of approximately 60 db. For the purpose of quantify sound for ordinance, sound level is usually expressed by reference to a known standard. Because the human ear is less sensitive to low audio frequencies, a table of octave values are added to the dB sound pressure level to make the A-weighted scale (dBA). The result is a standard scale relative to the loudness perceived by the human ear, which incorporates both sound intensity and frequency.

In 1970 under the CAA, the EPA established the Office of Noise Abatement and Control (ONAC) with the purpose of performing studies on noise and its effect on the public health and welfare. In 1972 Congress passed the Noise Control Act, followed by the Quiet Communities Act in 1978. By 1981 the EPA concluded that noise issues were best handled at the State and local level. The Hawaii DOH is the State administrator of noise control ordinance in Hawaii. The DOH has set maximum permissible sound levels (specified in HAR §11-46-4), which cannot be exceeded beyond the source's property line. These maximums vary based on zoning district, being the highest for industrially zoned parcels. These noise limits apply to "stationary noise sources; and equipment related to agricultural, construction, and industrial activities". "Construction equipment" means any device designed and intended for use in construction, including but not limited to any air

compressor, pile driver, bulldozer, pneumatic hammer, steam shovel, derrick, crane, tractor, grader, loader, power saw, pump, pneumatic drill, compactor, on-site vehicle, and power hand tool (HAR §11-46-4(a)).

Table 3.8 Hawai'i Administrative Rules §11-46 Noise Limits

Zoning District	Noise Limit (in dBA)	
	Daytime (7:00 am to 10:00 pm)	Nighttime (10:00 pm to 7:00 am)
Class A: Areas equivalent to lands zoned residential, conservation, preservation, public space, open space, or similar type.	55	45
Class B: All Areas equivalent to lands zoned for multifamily dwellings, apartment, business, commercial, hotel, resort, or similar type.	60	50
Class C: All Areas equivalent to lands zoned agriculture, country, industrial, or similar type.	70	70

Construction noise is generated by the use of heavy equipment and portable powered tools on job sites and is generally considered temporary. The noise can vary greatly in overall duration and aggregate magnitude depending on the construction processes or activities being conducted, the type and condition of equipment used, the layout of the construction site and the proximity of sensitive receptors. Generally, construction noise levels primarily represent the acoustical contribution of two categories of dominant sources: impact devices (e.g., jackhammers, pile drivers) that produce high amplitude impulsive, and large engine-driven equipment and vehicles (e.g., bulldozers, backhoes, dump trucks) that produce noise as they idle, move, or utilize engine power to perform a function.

Operation and maintenance noise refers to the sounds produced by the completed project (i.e., post-construction) under typical conditions and includes activities, equipment, and building systems that may occur either during the day, night, or continuously.

Impact and Mitigation Measures

The existing environment is characterized by relatively high noise levels associated with the traffic on Kamehameha Road on the west side of the site, other residential-associated noises in the area and ocean-generated noise from wave action.

Grading and construction will involve the use of excavators, trucks, and other heavy equipment. Some of the construction equipment is inherently noisy. Construction related noise from those sources will be short term, less than 2 months.

The greatest source of typical day and nighttime noise is generated by vehicle traffic along Kamehameha Highway, which is expected to be the dominant source of noise in the affected environment. A secondary source of noise is the Kahuku Army Training Area which frequently has loud sounds from plane drops of troops in the landing zones.

Construction noise impacts will be mitigated by compliance with provisions of the State DOH Administrative Rules, Title 11, Chapter 46, "Community Noise Control" regulations. These rules require a noise permit if the noise levels from construction activities are expected to exceed the allowable levels stated in the DOH Administrative Rules. It shall be the contractor's responsibility to minimize noise by properly maintaining noise mufflers and other noise-attenuating equipment, and to maintain noise levels within regulatory limits. Also, the guidelines for heavy equipment operation and noise curfew times, as set forth by the DOH noise control rules, will be adhered to; or, if necessary, a noise permit shall be obtained. In the long-term, operation of the Proposed Project is not anticipated to result in adverse noise impacts. The site is currently Class A zoned.

3.9 Hazardous Materials

Definition of Resource

The degree to which any given material or waste is deemed hazardous depends on its potential to pose a threat to human health or to the environment. The Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) define hazardous substances as those which can be severely harmful to human health and the environment. Many substances defined as hazardous are harmless in their normal uses but dangerous when released. Under the federal Resource Conservation and Recovery Act (RCRA) hazardous waste is defined as a solid waste which, because of its quality, concentration, or other characteristic may cause or contribute to impacts to human health or to the environment that are specified in the law. Substances are defined as hazardous

under CERCLA, RCRA, and other federal laws. Appendix D holds the *Environmental Site Assessment (ESA)* Phase I Hazmat files.

Construction activities associated with the implementation of the Proposed Action improvements may involve the use of materials and processes that involve chemical agents or materials typical to construction that could be considered hazardous. These materials are primarily associated with vehicle and/or equipment maintenance that typically include flammable and combustible liquids, acids, aerosols, batteries, corrosives, solvents, paints, and hydraulic fluids.

Impacts and Mitigation Measures

No significant impacts are anticipated to result from the Proposed Project with regards to hazardous materials. As noted above, a Hazardous Material Survey was conducted prior to any construction activities. This survey identified any potential hazardous materials and recommended appropriate mitigation measures to manage and dispose of the hazardous materials. These remediation activities would comply with all established regulations and procedural guidelines. Design features specific to the reduction of the potential effects of hazardous spills will be implemented, where appropriate. No significant impacts to hazardous waste disposal are anticipated to result from the implementation and operation of the Proposed Project.

Hazardous substances are controlled in the United States primarily by laws and regulations administered by the EPA, OSHA, and USDOT. Each agency incorporates hazardous substance safeguards according to its unique Congressional mandate. EPA regulations focus on protection of human health and the environment. OSHA regulations are designed primarily to protect workplace health and safety, and DOT regulations promote the safe transportation of hazardous substances used in industry and commerce.

As stated in the ESA Phase I HazMat Report located in the Appendix D, WHALE Environmental Services, LLC has determined that there has been no negative impact from past use that would raise any concerns related to hazardous materials or waste to affect current activities. The Phase One Historical Review report may be found in Appendix D.

3.10 Traffic

Surrounding Roadway Network

The Project Site is located at 56-229 Kamehameha Highway, a highway which lies to the west of the project. It is the only road in the area. The project site lies between the highway

and the ocean and is a shoreline lot. Kamehameha Highway is a two-lane, two-way roadway generally oriented in the north-south direction.

Transportation Facilities

Transit within the vicinity of the Project Site is provided by "The Bus" which is operated by the Oʻahu Transit Service (OTS) for the City and County of Honolulu Department of Transportation Services. There are 2 bus stop locations within a quarter mile radius of the Project Site.

Bike Facilities

In the vicinity of the Project Site there is an existing bike path along Kamehameha Highway. There are no crosswalks or curb ramps along this locus stretch of the Kamehameha Highway and there is no parking allowed as well on the west side of the highway. There are sidewalks and street lighting along the west side of the road for walking and bike path.

Parking Facilities

All parking for the project site is contained within the lot, as shown on the plans found in Appendix A. There is level parking space for vehicles, with parking spaces for residential parking next to the dwelling on the mauka side.

Impacts and Mitigation Measures

Therefore, the Proposed Project is expected to result in a slight increase of vehicle trips to the Project Site. Short term will be the influx of construction vehicles. Long term use will be the owners and their family, but the property will be a substitute for the adjacent decaying residence where the Pietschs used to use for family gatherings and this site will now have that use so it is a null effect. Accordingly, long-term transportation impacts are not anticipated as occupants of the site will be limited to the same use. Most of the potential traffic impacts would be short-term, occurring during the construction of the facility, and would be caused by construction traffic. These would be temporary impacts, only occurring during construction. These impacts would no longer occur once the Proposed Project is complete. Potential traffic impacts associated with construction vehicles, construction workers, and construction parking demand would be mitigated through a construction traffic management plan developed by the builder which would include construction schedule notification to fire and police departments. The construction traffic management plan would identify appropriate parking areas for construction workers and constructions vehicles that will park within the project area and, thus will not affect traffic flow along the adjoining roadway except while traveling to and from the Project Site. Construction

contractor(s) will be required to mitigate potential vehicular and pedestrian traffic impacts through appropriate traffic control measures and safety devices. Examples of such measures that may be implemented include:

• Providing barriers, cones, signage, lighting, non-skid covering over trenches, adequate and safe sidewalk widths, adequate intersection visibility and other provisions to promote safe passage of vehicles and pedestrians through the construction zone's entrance;

• Restricting transport of construction vehicles during school and commuter peak traffic hours;

• Notifying providers of emergency services (fire, ambulance, police) prior to implementation of any required detours or street closures;

• Coordinating with the City Department of Transportation Services (DTS) and Oʻahu Transit Services of any detours or street closures; and,

• Providing appropriate barriers as necessary to deter the public from unauthorized entry into restricted or hazardous construction zones during working and nonworking hours.

3.11 Visual Resources

Visual resources are public in nature and include views of a project to and from neighboring scenic resources. When evaluating scenic quality, both natural and manmade components of the existing visual environment should be collectively considered. These components may be evaluated in terms of whether each contributes or detracts to the overall scenic landscape character. In turn, this evaluation contributes to the assessment of scenic quality levels, which are established by evaluating the distinctiveness and diversity of a particular landscape setting. Public concern over adverse visual impacts is also an important part of the visual impact assessment process. Public concerns over the visual impacts associated with a project are often directly connected to the size and scale of a project. Additionally, the number and presence of people or activities nearby will further inform the level of concern for impacts to the existing scenic quality of the area. Visual impacts associated with a project can be evaluated in the following objective terms: form, line, color and texture. Such terms are used to measure the existing scenic quality and proposed scenic quality with the addition of the project. This methodology allows for an objective assessment of visual resources. The visibility of a project determines how the Project will be seen from particular viewing areas, which directly relates to the level of

concern nearby viewers will have. In general, however, perception of details relating to form, line, color, and texture diminishes with increasing distance.

Impacts and Mitigation Measures

The Proposed Action site is currently a vacant site that may have been used in the past for fishing or perhaps beach access. The topography of the site is relatively flat and is located adjacent to the higher shoreline. A band of trees and shrubs along the side of Kamehameha Highway prevent site views from the highway to the ocean. The lot depth makes visual views of the ocean difficult and there is a high coastal berm above the beach. The topography of the site is relatively flat and is located adjacent to the higher shoreline. There are no viewsheds identified in this region in the NSSCP or the 1987 viewshed study

3.12 Socio-Economic Characteristics

Definition of Resource

Socio-economic resources and characteristics refer to the social and economic qualities of the human environment, such as demographic characteristics, employment and income-generating activities, and the ways in which people live, relate to one another, organize to meet their needs, and engage in leisurely activities.

The CCH accounts for 68.8% of the State's total resident population, down from 69.7% just a few years ago. Based on the latest population projections, Honolulu's population is expected to continue climbing, but at a slower rate than the other counties. By 2045, the county is projected to be home to nearly 1.074 million residents. However, the average annual growth rate is predicted to slow from 0.4% between 2020 and 2030 to 0.1% by 2045. The projected population increases will result in increased demand for housing and public services across the island.

The project site lies in the *Urban* State Land Use zone, and the City and County of Honolulu classification is R5 - Residential.

The population of Oahu was 953,207 in 2010 (U.S. Census 2010) and 1, 106, 508 in 2020. The town nearest the Proposed Action site is Laie, located approximately 1.5 miles to the south. The population of Laie was 5963 in 2020 (U.S. Census 2020) with a 2000 census of 4583. Most of its population is related to Brigham Young University.

The median income for a household in the CDP was $50,875, and the median income for a family was $59,432. Males had a median income of $40,242 versus $26,750 for Females.

The per capita income for the CDP was $13,785. About 10.7% of families and 17.5% of the population were below the poverty line, including 13.8% of those under the age of 18 and 11.6% of those ages 65 and older.

Impacts and Mitigation Measures

No significant impacts are anticipated to result from the construction or operation of the Proposed Project. In the short- term, construction expenditures related to the Proposed Project will provide positive benefits to the local economy. This would include creation of construction and construction support jobs, and the purchase of materials from local suppliers, as well as indirect benefits to local retail businesses resulting from construction or residential activities. In the long-term, the project meets the goals of remaining zoned for shoreline use, common to the goals of the Oahu General Plan and the Koolaulua Sustainable Community Plan and would house a single family and transient construction workers during construction.

3.13 Public Services and Facilities

3.13.1 Police, Fire and Medical Services

Police protection is provided by the City's Honolulu Police Department. The Project Site is serviced by the Honolulu Police Department's District 4 – Kahuku to Kaneohe. The Honolulu Fire Department provides emergency service to the region from its Hauula Fire Station located approximately 5.6 miles south on the Kamehameha Highway. The nearest full-service hospital is Kahuku Hospital, approximately 2.0 miles from the Project Site. Emergency medical service is provided by the City's Emergency Services Department, Emergency Medical Services (EMS) Division located in the fire station.

Impacts and Mitigation Measures

In the short- and long-term, no significant impacts on police, fire, and medical services are anticipated. In the long-term, the Proposed Project may require occasional police and fire protection, as well as medical services, however it would likely not represent a significant amount relative to the overall regional demand. The Proposed Project will be designed and built-in compliance with the applicable County fire code requirements.

3.13.2 Education

There are three schools in the Kahuku region – two public and one private. Laie Elementary School on Kamehameha Highway services children K-7. Kahuku Intermediate and High

School on Kamehameha Highway services children 7-12. Brigham Young University is a private college servicing adults in pursuit of college degrees.

Impacts and Mitigations

The Proposed Project Action is not anticipated to affect any of the educational facilities. The project site population is not expected to utilize the schools.

3.13.3 Recreational Facilities

Definition of Resource

Recreational resources offer opportunities for residents and visitors to engage in leisurely activities. Recreational resources include parks and open space as well as other infrastructure facilitating leisurely activities on land or water, such as piers and harbors. Recreational resources offer opportunities such as hiking, fishing, beachcombing, spelunking, and boating. Recreational opportunities and resources are important to economic activity and quality of life.

Recreational resources in the vicinity of the Proposed Action under consideration include the following parks and other recreational infrastructure within the nearby towns of Kahuku and Laie and along the shoreline (relative to the Proposed Action):

- Ocean – accessible by nearby beach access easement(s).
- Malaekahana Recreational Area within ½ mile of the site
- Kahuku Golf Course within ½ mile of the site
- Hukilau Beach Park in Laie town
- Gunstock Ranch – horseback rides and tours
- Climb works – zip line

Figure 17 - Recreational Facilities

Impacts and Mitigation Measures

No significant impacts are anticipated to occur from the construction or operation of the proposed project.

3.13.4 Solid Waste

Solid waste collection and disposal service is provided by the ENV for incineration at the Campbell Industrial Park H-POWER Plant that generates electricity, followed by disposal of ash and non-combustibles at the Waimanalo Gulch Sanitary Landfill. Construction and demolition material is disposed of at the privately-owned PVT landfill in Waiʻanae.

Impacts and Mitigation Measures

No short-term or long-term significant impacts to municipal solid waste collection and disposal facilities are anticipated because of the construction and operation of the proposed project. Green slash resulting from the operation or trimming of production of plant stock is expected to be brought to the Laie Waste station on Kamehameha Highway.

3.13.5 Infrastructure and Utilities

3.13.5.1 Water System

Water for domestic use and fire protection is provided to the project site and surrounding area through the Board of Water Supply (BOWS) water system which draws only from groundwater sources.

Impacts and Mitigation Measures

No short- or long-term significant impacts are anticipated to result from the development and operation of the Proposed Project. On-site water system improvements will be required to accommodate the Proposed Project. The final line size and location will be determined during the design phase of the project.

Connections and improvements will be confirmed when construction drawings for the Proposed Project are developed and submitted to BOWS for review and approval. It is anticipated that the connection would be using the existing connection to the site's adjacent northern lot.

3.13.5.2 Wastewater System

The site is served by a private septic system for which a permit application is being developed. There is no public sewage in this region.

Impacts and Mitigation Measures

No significant impacts are anticipated on the existing wastewater system because of the construction and operation of the Proposed Project.

3.13.5.3 Drainage System

There is no drainage system on the site or on this section of Kamehameha Highway. All drainage on the site will be through evaporation or percolation. Kamehameha Highway's paved asphalt surface directs runoff to the roadsides where it also percolates or evaporates.

Impacts and Mitigation Measures

No short- or long-term significant impacts on the quantity or quality of drainage in the project vicinity are anticipated during construction or operation of the Proposed Project. Construction of the Proposed Project will not involve major land disturbing activities that will significantly alter site contours. Applicable erosion control measures and best management practices will be implemented to mitigate any possible adverse effects relating to runoff. As applicable for each phase, these may include but are not limited to temporary sediment basins, temporary diversion berms and swales to intercept runoff, silt fences, dust fences, slope protection, stabilized construction vehicle entrance, grate inlet protection, truck wash down areas, and use of compost filter socks. Planting of landscaping also will be done as soon as possible on completed areas to help control erosion. Permanent sediment control measures will be used once construction is completed. More details can be found in the *Erosion and Sedimentation Control Plan* found in Appendix E.

3.13.5.4 Electrical and Communications Systems

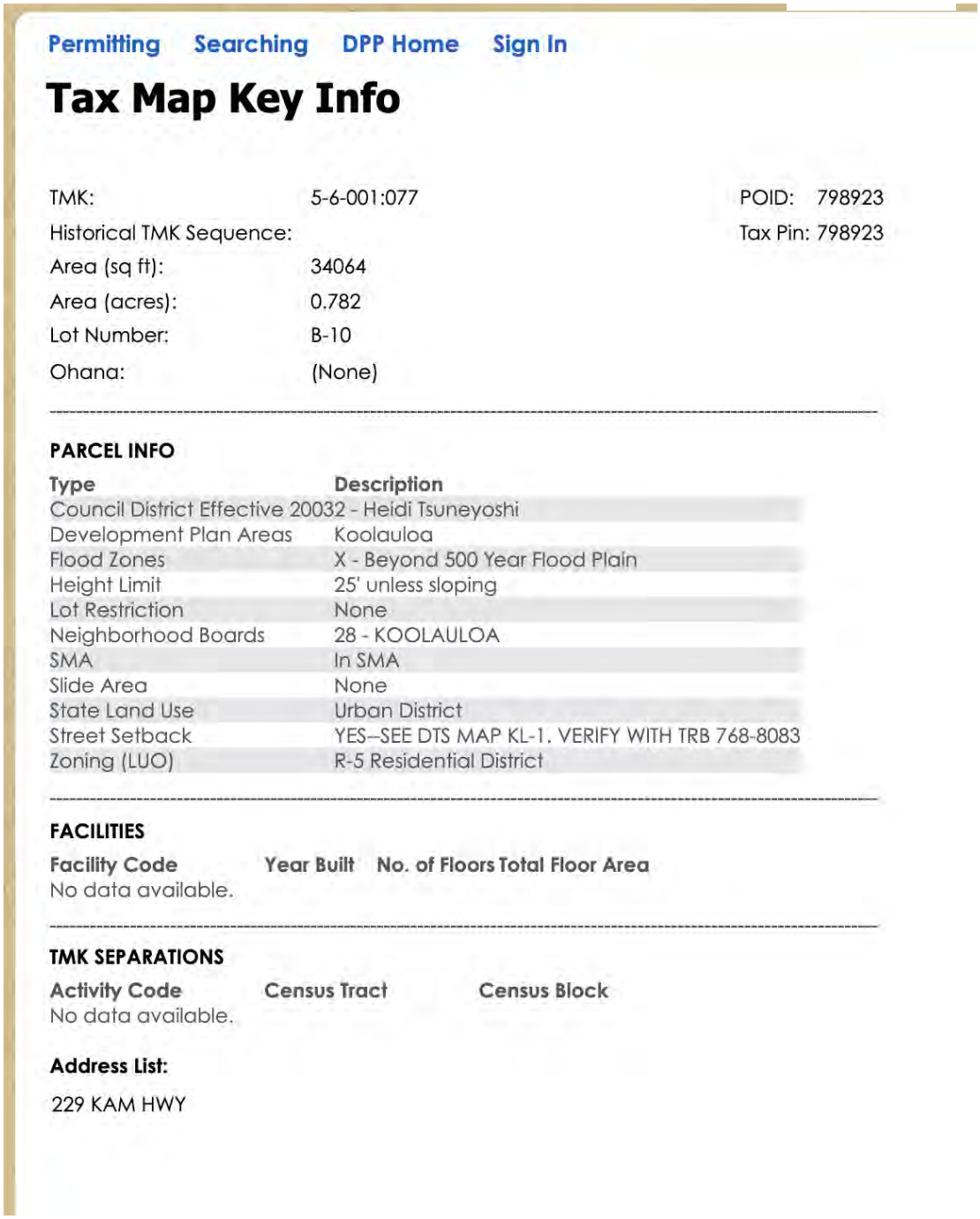
Electrical power on the island of Oʻahu is provided by Hawaiian Electric Company (HECO). Telephone service in the area is provided by Hawaiian Telcom. Spectrum is the local CATV provider in the region and also offers telephone service.

Impacts and Mitigation Measures

In the short- and long-term, the proposed project is not anticipated to impact or increase overall demand for electrical and communication systems in the area.

Zoning

Figure 19 - Zoning



Permitting Searching DPP Home Sign In

Tax Map Key Info

TMK:	5-6-001:077	POID:	798923
Historical TMK Sequence:		Tax Pin:	798923
Area (sq ft):	34064		
Area (acres):	0.782		
Lot Number:	B-10		
Ohana:	(None)		

PARCEL INFO

Type	Description
Council District Effective 20032	- Heidi Tsuneyoshi
Development Plan Areas	Koolauloa
Flood Zones	X - Beyond 500 Year Flood Plain
Height Limit	25' unless sloping
Lot Restriction	None
Neighborhood Boards	28 - KOOLAULOA
SMA	In SMA
Slide Area	None
State Land Use	Urban District
Street Setback	YES--SEE DTS MAP KL-1. VERIFY WITH TRB 768-8083
Zoning (LUO)	R-5 Residential District

FACILITIES

Facility Code	Year Built	No. of Floors	Total Floor Area
No data available.			

TMK SEPARATIONS

Activity Code	Census Tract	Census Block
No data available.		

Address List:

229 KAM HWY

Chapter Four

RELATIONSHIP TO PLANS, POLICIES, and CONTROLS

4. RELATIONSHIP TO PLANS, POLICIES, AND CONTROLS

Pursuant to HAR Section 11-200.1-24, this section describes the relationship of the Proposed Project to "*land use and natural or cultural resource plans, policies, and controls for the affected area*." Discussed is how the Proposed Project "*may conform or conflict with objectives and specific terms of approved or proposed land use and resource plans, policies, and controls, if any, for the affected area*."

Where a conflict or inconsistency exists, described is the extent to which the Proposed Project has been reconciled "*with the plan, policy, or control, and the reasons why*" the proposing entity (Ke Piki Ohana LLC) "…*has decided to proceed, notwithstanding the absence of full reconciliation*." To facilitate describing the relationships of the Proposed Action to the numerous land use and natural or cultural resource plans, policies, and controls for the affected area, some of those plans, policies, and controls are presented in tabular form, and are described with text and/or the following letter code:

S = Supportive, NS = Not Supportive, N/A = Not Applicable

4.1 Land Use Plans and Policies – Oʻahu General Plan and Koolauloa Sustainable Communities Plan

4.1.1 Oʻahu General Plan

The General Plan for the City and County of Honolulu is a comprehensive statement of objectives and policies that sets forth the long-range aspirations of Oʻahu's residents and the strategies to achieve them. It is the first tier of and lays the foundation for a comprehensive planning process that addresses physical, social, cultural, economic, and environmental concerns affecting the City and County of Honolulu. This planning process serves as the coordinative means by which the City government provides direction to the population projected for Oʻahu. The City's planning process is comprised of three distinct tiers. As the first tier of planning, the General Plan establishes policy guidance for Oʻahu as a whole, with all subsequent community development plans, policy plans, and implementing regulations of the City and County of Honolulu required to be consistent with the General Plan. The second tier consists of the eight regional Development Plans (DPs) and Sustainable Communities Plans (SCPs). These plans relate to specific regions of the island, and

(1) conceptually describe the pattern of land use desired for the region,

(2) provide guidance for functional infrastructure planning, and

(3) identify areas within the DP/SCP boundary that might benefit from more detailed planning.

The third tier is comprised of the specific mechanisms to implement the two higher levels of the planning hierarchy. These include the implementing ordinances and regulations (i.e., the Land Use Ordinance and Zoning Maps, the Subdivision Rules and Regulations, and the City's Capital Improvement Program), public facilities and infrastructure functional plans, and special area plans that give specific guidance for specific portions of a DP or SCP area.

Specific consistency with the Oahu General Plan policies is as follows:

Population

Objective A – To plan for anticipated population in a manner that acknowledges the limits of Oʻahu's natural resources, protects the environment, and minimizes social, cultural, and economic disruptions.

Policy 3 Seek a balanced pace of physical development in harmony with the City's environmental, social, cultural, and economic goals by effecting and enforcing City regulations.

Policy 5 Support family planning and social equity.

Finding: The project would increase the population in this area by a negligible amount. The project would also allow family planning for a family ohana "gathering place" home.

Objective B – To establish a pattern of population distribution that will allow the people of Oʻahu to live, work and play in harmony.

Policy 3 Manage land use and development in the urban-fringe and rural areas so that:

a. Development is contained within growth boundaries; and

b. Population densities in all areas remain consistent with the character, culture, and environmental qualities desired for each community.

Policy 4 Direct growth according to policies by providing development capacity and needed infrastructure to support a distribution of Oʻahu's resident population that is consistent with the table seen in the Oahu General Plan – page 20:

Finding: The project would adhere to land use and development in urban areas. As the Pietsch already live on Oahu and have used this set of three lots as a gathering place for their family over 60 years, there will be no change in population on the North Shore.

Balanced Economy

Objective A: To promote diversified economic opportunities that enable all the people of Oʻahu to attain meaningful employment and a decent standard of living.

Policy 7 Explore and encourage alternate economic models that reflect traditional cultural values and improve economic resilience, i.e., subsistence, barter and a culture of reciprocity and sharing

Finding: The project would promote a culture of reciprocity and sharing by keeping the Pietsch family to their usual site use.

Environment

Objective A To protect and preserve the natural environment.

Policy 1 Protect Oʻahu's natural environment, especially the shoreline, valleys, ridges, watershed areas, and wetlands from incompatible development.

Policy 4 Require development projects to give due consideration to natural features and hazards such as slope, inland and coastal erosion, flood hazards, water-recharge areas, and existing vegetation, as well as to plan for coastal hazards that threaten life and property.

Policy 5 Require sufficient setbacks from Oʻahu's shorelines to protect life and property, preserve natural shoreline areas and sandy beaches, and minimize the future need for protective structures or relocation of structures.

Policy 6 Design and maintain surface drainage and flood-control systems in a manner which will help preserve natural and cultural resources.

Policy 7 Protect the natural environment from damaging levels of air, water, carbon, and noise pollution.

Policy 8 Protect plants, birds, and other animals that are unique to the State of Hawaiʻi and Oʻahu and protect their habitats.

Policy 9 Increase tree canopy and ensure its integration into new developments and protect significant trees on public and private lands.

Policy 12 Plan, prepare for, and mitigate the impacts of climate change on the natural environment, including strategies of adaptation.

Objective B To preserve and enhance natural landmarks and scenic views of Oʻahu for the benefit of both residents and visitors as well as future generations.

Policy 1 Protect the Island's significant natural resources: its mountains and craters; forests and watershed areas; wetlands, rivers, and streams; shorelines, fishponds, and bays; and reefs and offshore islands.

Finding: The proposed project is in full agreement with these policies and adheres to the guidelines presented in each. The Ke Piki Ohana family has addressed these policies by enhancing sustainability efforts, protecting unique species, avoiding the shoreline, planning for adaptation to new climate change strategies, etc....

Housing To ensure a balanced mix of housing opportunities and choices for all residents at prices they can afford.

Objective A

Policy 2 Streamline approval and permit procedures, in a transparent manner, for housing and other development projects.

Policy 3 Encourage innovative residential developments that result in lower costs, sustainable use of resources, more efficient use of land and infrastructure, greater convenience and privacy, and a distinct community identity.

Policy 10 Promote the design and construction of dwellings which take advantage of O'ahu's year-round moderate climate and use other sustainable design techniques.

Finding: Strong support for these policies. The project is designed with sustainability in mind and the Pietsch will continue to be a part of the distinct Malaekahana community.

Transportation

Finding: Not applicable to the Proposed Action

Energy Systems

Finding: Not applicable to the Proposed Action

Physical Development and Urban Design

Objective E To maintain those development characteristics in the urban-fringe and rural areas which make them desirable places to live.

Policy 4 Maintain rural areas that reflect an open and scenic setting, dominated by small to moderate size agricultural pursuits, with small towns of low-density and low-rise character, and which allows modest growth opportunities tailored to address area residents' future needs.

Policy 5 Encourage the development of a variety of housing choices including affordable housing in rural communities, to give people the choice to continue to live in the community that they were raised in.

Policy 6 Ensure the social and economic vitality of rural communities by supporting infill development and modest increases in heights and densities around existing rural town areas where feasible to maintain an adequate supply of housing for future generations.

Objective F To create and maintain attractive, meaningful, and stimulating environments throughout Oʻahu.

Policy 3 Require developments in stable, established communities and rural areas to be compatible with the existing communities and areas.

Policy 9 Recognize the importance of using Native Hawaiian plants in landscaping to further the traditional Hawaiian concept of mālama ʻāina and to create a more Hawaiian sense of place.

Objective G To promote and enhance the social and physical character of Oʻahu's older towns and neighborhoods.

Policy 1 Encourage new construction in established areas to be compatible with the character and cultural values of the surrounding community.

Policy 6 Support and encourage cohesive neighborhoods which foster interactions among neighbors, promote vibrant community life, and enhance livability.

Finding: The Proposed Action meets these requirements, the Pietsch will remain in the community they gather in for family events and are building in compatibility with the surrounding communities.

Public Safety and Community Resilience

Objective B To protect residents and visitors and their property against natural disasters and other emergencies, traffic and fire hazards, and unsafe conditions.

Policy 2 Require all developments in areas subject to floods and tsunamis, and coastal erosion to be located and constructed in a manner that will not create any health or safety hazards or cause harm to natural and public resources.

Finding: The Proposed Action is constructed in such a manner as to address flooding concerns and will not create any hazards or cause harm to natural resources.

Health and Education

Finding: Not applicable to the Proposed Action

Culture and Recreation

Finding: Not applicable to the Proposed Action

Government Operations and Fiscal Management

Finding: Not applicable to the Proposed Action

The following pages are a summary table of the Proposed Action relationship to the Oahu General Plan. It highlights the Proposed Action overall relatability to the 11 major areas of the Oahu General Plan.

Page left blank to insert Oahu General Plan Table

4.1.1 - Oahu General Plan	S	NS	NA
GOALS - The General Plan is a guide for all levels of government, private enterprise, neighborhood and citizen groups, organizations, and individual citizens. It is intended to guide land use and development decisions and to influence actions in 11 key areas			
(1) A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawai'i's present and future generations	X		
(2) A desired and sustainable physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well being of the people.	X		
(3) Physical, social, and economic well-being, for individuals and families in Hawai'i, that nourishes a sense of community responsibility, of caring, and of participation in community life	X		
Discussion: The Proposed Project will support the Oahu General Plan goals, for present and future generations, to ensure individuals and groups may approach their desired levels of self-reliance and self-determination. The Proposed Project will support the State of Hawai'i economy by providing the creation of construction, construction support jobs, and the purchase of materials. The Proposed Project will provide an enhanced family opportunity with elements that provide for a better socio-economic well-being and community integration.			
OBJECTIVES AND POLICIES - A future which is sustainable is also of great importance for an island community interested in the current and future well-being of its people. The principles of sustainability recognize that there are limits to the complex network of systems (environmental, economic and social) that define our lifestyles and overall well-being. A sustainable Honolulu means having the capacity to support the current generation's basic resource needs without compromising the ability of future generations to meet their own needs. To do this, the City shall seek to find the appropriate balance and synthesis of the major elements of sustainability that are essential to the creation of a sustainable place.			
OBJECTIVES AND POLICIES - POPULATION			
The first is to provide for our existing and anticipated population in a manner that respects the limits of O'ahu's natural resources, protects the environment, and minimizes social, cultural, economic, and environmental disruptions. This includes the active management of tourism to prevent visitor impacts from overwhelming the quality of life for our island community	X		
The second is to maintain a pattern of population distribution that will allow people to live, work, and play in harmony	X		

Discussion: The Proposed Project will support the Oahu General Plan goals, for present and future generations, to ensure individuals and groups may approach their desired levels of self-reliance and self-determination. The Proposed Project will support the objective of protecting the environment and avoiding or mitigating impacts. The intent to use Hawaiian-based landscaping plants keeps to the Hawaiian theme of communities.			
BALANCED ECONOMY			
The objectives and policies for balanced economic activity attempt to address the needs for an adequate standard of living, an improved quality of life for residents and future generations, and a diversified economy that advances O‘ahu’s long-term sustainability. Critical issues include varied employment and advancement opportunities, living wage jobs, viability of both major industries and small businesses, the location of jobs, inclusion of flexible and remote work, and diversification of the economic base to ensure its resiliency to changes in global conditions. Policies address what government can do to provide, encourage, and promote economic opportunities, and reduce economic inequity for our residents. An innovative, sustainable, and technologically savvy economy that respects our unique traditions and cultural values will advance an equitable economic future.	**X**		
Discussion: The Pietschs own neighboring properties on the North Shore and continue to bring sustainability efforts to the community			
NATURAL ENVIRONMENT AND RESOURCE STEWARDSHIP			
The natural environment, next to the island’s people, is O‘ahu’s greatest asset. Protecting the island’s natural resources and environmental quality is essential to ensuring the long term health and well-being of the community. O‘ahu’s array of biologically rich and diverse ecosystems, year-round temperate climate, beautiful mountains, beaches, scenic vistas, and freshwater and marine environments are enjoyed by all. However, these precious resources that are fundamental to O‘ahu’s lifestyle and economy are also adversely impacted by climate change, and in some cases the ill-effects of overuse. The City's policies seek to protect and enhance O‘ahu’s natural beauty and environment by increasing public awareness and appreciation, and by mitigating against the degradation of these assets. The objectives and policies recognize the importance of protecting the natural environment for current and future generations.	**X**		
HOUSING AND COMMUNITIES			

Obtaining decent, reasonably priced housing in safe and attractive neighborhoods has been a persistent problem for the residents of Oʻahu, and is a primary concern of the General Plan. This section recognizes the importance of diverse communities that are well-integrated with transportation, the surrounding land uses, and the natural environment, and that include housing and access to schools, services, amenities, and job opportunities. The objectives and policies for housing seek to ensure a wide range of housing opportunities and choices and to increase the availability of affordable housing, including at the lowest income levels, and meet City and State affordability goals; to encourage higher-density housing via mixed-use and transit-oriented developments in rail station areas; to encourage infill housing where permitted; to increase the use of sustainable building designs and techniques; to reduce speculation in land and housing; and to address issues associated with homelessness so that all people have decent and stable housing options.			**X**
Discussion: The Project is not in an urban district with access to rail and does not address homelessness issues or other housing issues.			
TRANSPORTATION AND UTILITIES			
Moving quickly toward a safe, efficient, and cost-effective multi-modal transportation system that is not dependent on fossil fuels and generates far less greenhouse gas emissions is essential to the environment, economic prosperity, and quality of life. The cost of building and maintaining the various elements of a comprehensive transportation system to service the island is a major public investment. Coordinated planning of accessibility and circulation requirements and integration of the island's transportation network within existing and planned developments is important in the effective management of urban growth and in meeting the community's daily needs. The transportation objectives and policies address the need for a balanced ground transportation system that allows safe, comfortable and convenient travel for all users, including pedestrians, micro-mobility users, bicyclists, public transit riders, and motorists. The airports and harbors are State facilities and are under State jurisdiction. The City's role is limited to align and regulate surrounding land uses, provide connectivity to these key facilities, and process certain needed permits. Population growth results in increased demands for water, sewerage, recycling, and solid waste disposal services provided by government, as well as the communication, electricity, and other utility systems provided by the private sector. When meeting such needs, the social, economic, and environmental consequences must be carefully considered at all decision points. Reliability, cost-effectiveness, and capacity are necessary attributes of a highly functioning utility system. In addition to emphasizing the importance of these attributes, the objectives and policies for utilities emphasize the need for efficient and dependable transmission and service, adequate supplies of water, and environmentally sound waste disposal systems.			**X**

Discussion: The Proposed Action is not related to transportation or utilities issues or activities. By filing this DEA and subsequent SMA, Ke Piki Ohana LLC -Saville is adhering to meeting the CCH goals of regulation and permitting requirements.		
ENERGY SYSTEMS		
There is no more salient example of the direct impact of changing global conditions on an island community than the provision of energy and the attendant dangers of escalating global warming and the volatility of global energy supply chains. With more than 90 percent of O‘ahu’s electrical and transportation needs powered by imported fossil fuels, achieving energy self-sufficiency is a critical component of achieving sustainability. Our health and livability, even in the most urban area, directly depend on the health and integrity of natural ecosystems. Our island's achievement of 100 percent renewable energy and renewable transportation must include increasing the resilience of our energy grid, protecting agricultural productivity, enhancing community trust, and guarding against the most hazardous impacts of climate change. Policies have been revised to support net zero to net positive performance in the areas of energy, low carbon emissions, waste streams, all utilities, and food security.		X
Discussion: The Development ofa single new family home does not create emissions or use much energy. Positive factors are that the over 1/2 of the site will be green plants that filters carbon dioxide and regenerates oxygen. Power will be PV based and not totally reliant on the grid.		
PHYSICAL DEVELOPMENT AND URBAN DESIGN		

Physical development and urban design are concerned with the management of growth and the quality of life that occur within the various parts of the island. The objectives and policies in this area are concerned with the coordination of public facilities and land development, compatibility of land uses, and specification of certain land uses at particular locations. It also deals with creating active, vibrant communities linked not only physically but digitally, and through social media and other forms of technology to promote public participation in the planning process in ways that engage our increasingly digital society. New policies also emphasize the need to recognize and prepare for the current and even greater long-term impacts of climate change. Urban design emphasis is contained in objectives to create and maintain attractive, meaningful, and stimulating environments, and to promote and enhance the social and physical character of O'ahu's older towns and neighborhoods. Given the population distribution reflected in the General Plan, it is intended that rural centers be allowed incremental growth over time, providing for generations to remain in their hometowns and maintain the economic viability of our rural and suburban communities. The General Plan now also contains an objectives on climate change and sea level rise, and the continued need to plan for and mitigate associated impacts. It calls for all public and private organizations to prepare for problems caused by rises in sea level, rises in groundwater levels, more frequent and severe storms, shifts in local rainfall patterns, increased flooding, and higher urban temperatures. The State and the City have adopted strategies and plans that guide the response to climate change.	X	
Discussion: The Proposed Project has meet all strategies and plans that respond to potential climate change issues and events.		
PUBLIC SAFETY AND COMMUNITY RESILIENCE		
Many of the City's services derive from the concern for the safety of the people. The prevention and control of crime and maintenance of public order are one aspect of public safety. The City's policies reflect the roles of the citizen, and the City, State, and federal governments in providing for the safety of residents and visitors. Another aspect deals with the protection of people and property from natural disasters and other emergencies, traffic and fire hazards, and other unsafe conditions. This includes creating resilient, disaster-ready communities that are mentally and physically prepared for disasters and environmental stressors including those driven by climate change.		X
Discussion: The Proposed Project does not affect or interact with public safety outside of ensuring a fit with flooding prevention and climate chage mitigation strategies and poses no traffic, fire hazards, or unsafe conditions		
HEALTH AND EDUCATION		

Public health and health care services are a joint State, City, and private sector responsibility. The City provides ambulance services, regulates hospital structures, helps to enforce the State health code, and promotes healthy lifestyles. New policies promote active lifestyles, enhance personal health, and support age-friendly cities so that people of all ages and abilities can thrive. Objectives and policies for education call for a wide range of educational opportunities, development of employable skills, efficient use of facilities and appropriate facility location, and the promotion of Honolulu as a center for higher education in the Pacific. A new education policy also calls for recognizing Honolulu's status as an international Pacific crossroads, and another encourages outdoor learning opportunities and venues that reflect Oʻahu's unique natural environment and Native Hawaiian culture.			**X**
Discussion: The guidelines presented are not applicable to the Proposed Project			
CULTURE AND RECREATION			
Preservation and enhancement of Hawaiʻi's multiethnic culture will be achieved through policies that encourage and respect the Native Hawaiian culture and its vital influence on the way of life on Oʻahu; recognize unique local cultures, values and traditions; prioritize equity for historically marginalized groups; protect and enhance cultural, historic and archaeological sites, buildings, and artifacts; and promote the living arts and culture of our multi-cultural heritage. The City also recognizes the importance of providing adequate park space and facilities to meet changing demand. Objectives and policies encourage visual and performing arts and the provision of a wide range of recreational facilities and services that are readily available to residents and visitors. New policies also call for using our unique natural environment in a responsible way for cultural events and activities, and for creating and promoting recreational venues for all to enjoy from kūpuna to keiki, and kamaʻāina to malihini.			**X**
Discussion: The guidelines presented are not applicable to the Proposed Project			
GOVERNMENT OPERATIONS AND FISCAL MANAGEMENT			
The objectives and policies in the first ten key areas rely on a well-run, transparent, and resourceful City government. Increased efficiency, effectiveness, responsiveness, and fiscal responsibility in carrying out the functions of City government are crucial to the City's ability to successfully fulfill its many duties. In an age of increased technology, automation, and citizen engagement, government operations must evolve to become more open and transparent, embrace crowd-sourcing, and collaborate with communities while also delivering services quickly and ensuring integrity. Increasing challenges require more nimble systems that are able to quickly adapt and adjust. Revenue mechanisms to support these operations should ensure social and economic equity, encourage sustainability, and be aligned to support the first ten key areas.			**X**
Discussion: The guidelines presented are not applicable to the Proposed Project			

4.1.2 Koolaulua Sustainable Communities Plan

Koolaulua Sustainable Communities Plan

The Koolaulua Sustainable Communities Plan (KSCP) provides policies and guidelines for future development along the North Shore. The KSCP covers an area that extends from Waiale'e to the north end of Kaneohe Bay, with the shoreline defining the eastern edge and the slopes of the Ko'olau Mountain Ranges defining the western edge. The KSSCP Vision Statement focuses on retaining unique qualities that define the North Shore's attractiveness to residents and visitors alike, including coastal resources, scenic open spaces, and the community's heritage.

Vision through 2035:

- Adapt the concept of ahupua'a in land use and natural resource management
- Preserve and promote open space and agricultural uses
- Preserve and enhance scenic, recreational, and cultural features that define Ko'olau Loa's sense of place
- Emphasize alternatives to private passenger vehicle as modes of travel
- Protect and enhance residential character while adapting to changing needs
- Define and enhance existing commercial and civic districts
- Maintain the Community Growth Boundary to protect agricultural, open space, and natural resources

While the region is to remain "*country*," a mix of housing units is desired to meet the needs of residents, in a manner consistent with rural design and principles of sustainability (DPP 2011). The project is consistent with the below objectives for the regional goals.

KAHUKU COUNTRY TOWN

• Maintain a plantation town character that reflects the building forms and exterior appearance of traditional commercial and mixed-use buildings in Hawai'i's plantation communities. The mill theme should continue to be a dominant element for the town.

• Allow limited expansion to create sufficient critical and diversified mass for the center's continued viability to meet local and visitor shopping needs.

• Allow for compatible mixtures of commercial, industrial and residential uses within the Country Town. Emphasize commercial uses along the Kamehameha Highway frontage.

• Emphasize commercial and related uses conducive to pedestrian activity at the street level along main street frontages. Encourage adequate landscaping, and where possible and appropriate, bikeway and public transportation provisions to improve public thoroughfares through these locations.

LĀʻIE RURAL REGIONAL COMMERCIAL CENTER

• Introduce a rural architectural character which incorporates appropriate themes and building forms reflective of the diverse heritage of Lāʻie's residents.

• Provide for a modest expansion of the district in order to meet future resident and visitor needs associated with Lāʻie's anticipated long-term housing and employment growth, and the expansion of visitor attractions. Given its size, and potential mix of uses, Lāʻie's center has potential as a focal point for the region's shopping and services, and expansion is appropriate in order to better serve adjoining communities as well as local residents.

• Limit uses primarily to commercial retail, business service establishments, professional offices and public uses such as a satellite city hall, library, post office, or other similar facilities, that provide services to Lāʻie and surrounding communities.

The Malaekahana Site lies between the Kahuku Country Town and the Laie Rural Regional Commercial Center. As such, it fits the classification of providing housing for support to the commercial centers. In particular, it fits the goals of the KSCP as follows:

<u>Open Space and Natural Environment</u>

Open space preservation is a key element of the vision for Koʻolau Loa's future. Long-term protection and preservation of scenic resources, agricultural areas, natural areas, and recreational areas are important to maintaining the rural character of Koʻolau Loa for both residents and visitors. The open space system consists of areas that serve important ecological, recreational, and scenic functions, including undeveloped mauka and shoreline areas, parks and recreational resources, natural gulches and drainageways, utility corridors, and agricultural areas. It also includes the open space "gaps" that provide visual definition and physical separation between the existing rural communities in support of the region's rural development pattern.

• Define and maintain clear boundaries and separations between existing rural communities.

• Provide adequate shoreline setbacks that consider shoreline changes resulting from erosion hazards and rising sea levels, based on adopted projections of shoreline erosion rates and sea level rise.

• Allow outdoor lighting at the minimum level necessary for public safety, security and community aesthetics consistent with the goals of energy conservation and environmental protection.

Finding: The proposed project would be located outside of the shoreline setback area and would not adversely impact shoreline habitats or resources. It maintains a gap between the commercial centers of Laie and Kahuku. The units' foundations are designed to conform to and exceed all FEMA and National Flood Insurance programs and requirements. The design ensures that the dwellings will withstand the impact and remain intact under worst-case disaster scenarios. The proposed project would employ erosion and spill control BMPs, which would be implemented during construction to avoid and minimize potential indirect impacts to streams, bays, or other aquatic resources, as described in the ESCP in Appendix E. All disturbed soils would be replaced and stabilized, and landscaping would be installed around the proposed units to stabilize soils and prevent erosion over the long term. All outdoor lights would be fully shielded so bulbs could only be seen from below, and all outdoor lights would be turned off when human activity is not occurring (or motion sensors would be installed). All permanent outdoor lighting would be shielded using a seabird-friendly light style that also protects the dark, starry skies of Hawai'i. For aesthetics, the proposed landscaping would consist of native Hawaiian plants or non-invasive plants to the maximum extent possible. If native plants do not meet landscaping objectives (unlikely), plants with a minimal risk of becoming invasive would be substituted.

As the following map shows on the next page, the locus of the site between the two commercial villages of Laie and Kahuku provide that "rural" composition desired for these urban areas.

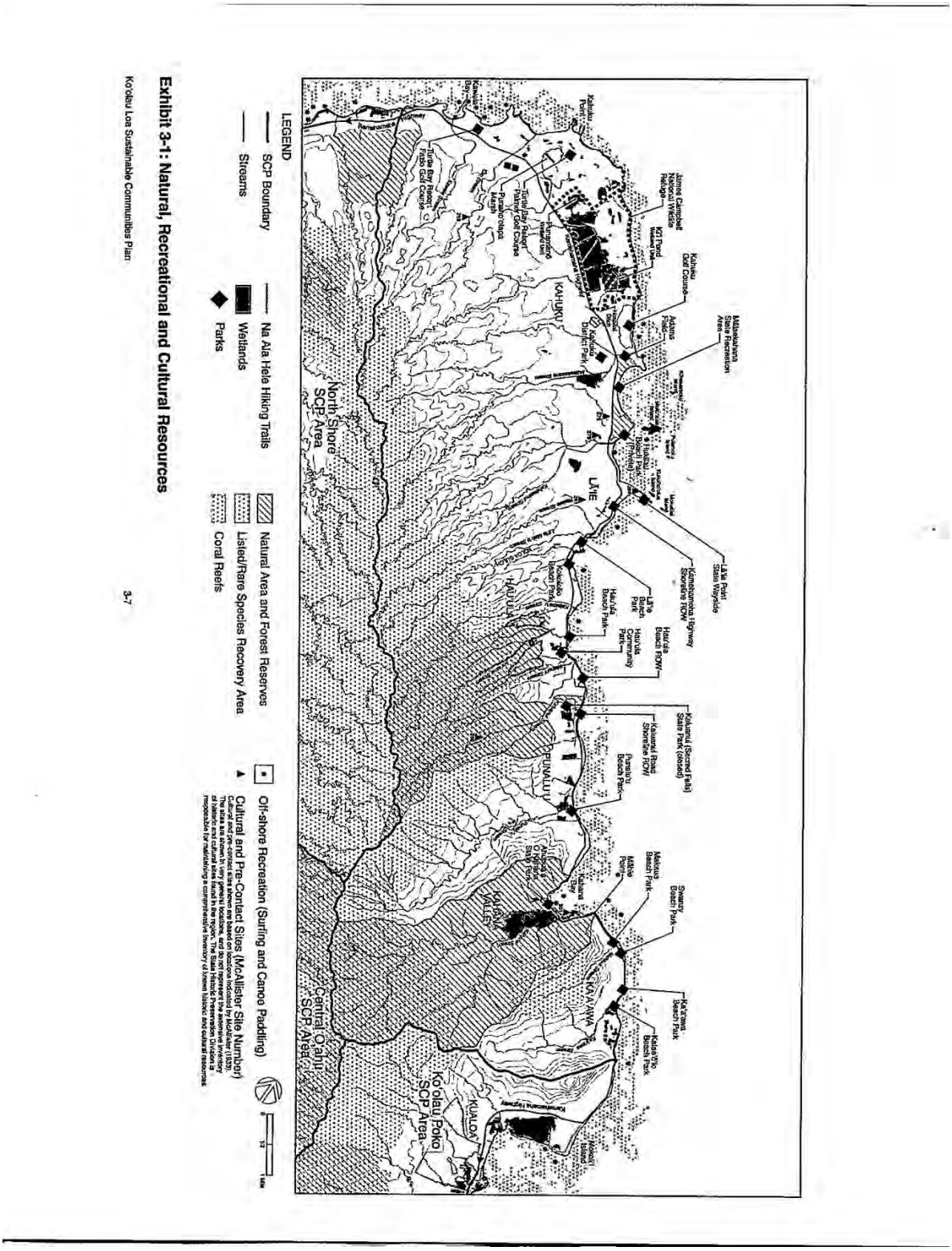


Figure 20 - KSCP Map

EXISTING AND NEW RESIDENTIAL COMMUNITIES

The following policies are applicable to existing and new residential communities:

• Respect and help to preserve the natural setting of the Koʻolau Loa region by requiring development in residential areas to be sensitive to physical constraints and have minimal impact on the area's rural character.

• Maintain sufficient inventory of land within the Community Growth Boundary to accommodate existing and future housing needs of residents within the Koʻolau Loa area by supporting limited expansion of residential areas in Kahuku and Lāʻie to meet existing pent-up demand and provide land for affordable work force housing.

• Increase housing affordability to Koʻolau Loa residents.

• Maintain the existing inventory of residential land for the communities of Kaʻaʻawa, Hauʻula and Punaluʻu. Future residential needs in these communities will be met through infill residential development on appropriately zoned vacant lots within existing neighborhoods. No new housing areas are designated in these areas.

• Adopt zoning, subdivision and related project design regulations which foster a rural character in new residential developments and improvements to existing residential areas.

• Encourage and support the development of affordable housing in the region in order to address existing pent-up demand for housing and overcrowded housing conditions.

This project meets the standards of the KSCP for residential communities. It is an infill situation on an appropriate zoned site, maintain houses for members of the Pietsch family, incorporates a "rural characteristic" with low rise construction, and employs constraints with setbacks, retention of open space and shorelines, maintaining pervious surfaces, etc…

4.1.3 LAND USE ORDINANCE (CHAPTER 21)

The City and County of Honolulu Land Use Ordinance (LUO), Chapter 21 of the ROH, regulates land use and development in accordance with adopted land use policies and plans, including the city's General Plan. The provisions of the LUO are also referred to as the zoning ordinance. The project area is located within the Residential zoning district, which is intended to provide areas for housing sensitive to natural resource protection, as stated in the LUO. The proposed project constitutes an allowed use within the zoning district.

The project is also in compliance with the requirements set forth by Chapter 21A Flood Hazard Areas of the ROH. The structures would be flood zone X and thus will use the standard 11' flood elevation from MSL of which its first-floor elevation lies above at 17.8'.

4.1.4 SHORELINE SETBACKS (CHAPTER 26)

Chapter 26 of the ROH establishes standards and rules that apply to all shoreline areas of the city, and generally prohibits any construction or activity that may adversely affect beach processes, public access along the shoreline, or shoreline open space. ROH Sec 26-1.5 prohibits structures or activities in the shoreline area with exceptions granted for certain, minor structures or activities that do not affect shoreline processes or public access. An older shoreline survey was done, and the applicant is proposing a 91' setback from that determination. The survey is in Appendix B. The proposed development would be located 90+ feet mauka of the shoreline area. Therefore, the project would be following shoreline setback requirements outlined under Chapter 26 of the ROH by extending the setback further than is required.

4.1.5 SPECIAL MANAGEMENT AREAS (CHAPTER 25)

Chapter 25 of the ROH regulates development within special management areas, including coastal zones and natural or historic wetlands. According to Sec 25-3.3, all development within the SMA is subject to review and approval by the agency and is subject to compliance with the objectives, policies, and guidelines set forth under Chapter 25 of the ROH. Article 5 of the SMA regulations outlines submittal requirements for proposed developments seeking an SMP. In accordance with Sec 25-6.3, specific requirements applicable to shoreline lots, all exterior lighting for the proposed housing units would be shielded to reduce potential impacts to wildlife, and all landscaping and irrigation would be contained and maintained within the property boundaries and would not extend into the shoreline area.

4.2 State Regulations

4.2.1 Hawai‘i Coastal Zone Management Program (HRS 205A)

The Hawai‘i Coastal Zone Management (CZM) Program (HRS Chapter 205A) was promulgated in 1977 in response to the Federal Coastal Zone Management Act of 1972. Hawai‘i's CZM area encompasses the entire state, including all marine waters seaward to the extent of the state's police power and management authority, including the 12-mile U.S. territorial sea and all archipelagic waters. The project is located within the SMA and a Residential District. The purpose of the SMA permit is to ensure that uses, activities, and operations within the SMA are conducted in compliance with the state's CZM law (HRS 205A) and is compatible in its goals with an DEA/FEA/SMA. SMA and EA permits regulate permissible land uses that are already allowed by land use policies, considering zoning designations, county general plans, and community plans. Projects within the SMA are

required to undergo procedural steps set forth in HRS 343 prior to applying for an SMA or FEA permit.

Hawai'i's CZM program has 10 objectives and policies. Each of these objectives and policies are listed below, along with a description of how the proposed project is consistent with each of them.

• Recreational resources: The proposed project is located on private land and will have no adverse effect on recreational uses or public access. The project would not result in a change or adverse effect to recreational resources or public access to the beach and coastal resources.

• Historic resources: The property through CIA research did not detect any indicators that an archaeological inventory survey would be required as CIAs mainly use cultural historical research, SHPD and OHA database research and cursory surface land examination. The project area was the location of a previously cleared residential land. Grubbing, grading, and leveling for that activity would have destroyed any surface historic properties within the planned construction area. As aforementioned, SHPD will be further consulted with, and the applicant has agreed to stop work immediately in the event any historical or cultural artifacts are discovered and contact SHPD.

During that cursory surface examination, no surface historic properties were observed within or in the immediate vicinity of the Proposed Action. No intact sinkholes, sand dune deposits, or cultural material were observed within the project area, and none are believed to be present. As a result, the Proposed Action is not anticipated to adversely affect any historic properties. Furthermore, the Proposed Action would have no significant impact on historic properties as none are listed or detected.

Continued consultation with the State Historical Preservation Division (SHPD) will be necessary to determine if archaeological monitoring or other specific measures will be required. However, in that unlikely event that previously unidentified historical, archaeological, or cultural resources or human remains are encountered, work in the immediate area would cease and notification of the proper authorities, including the State Historic Preservation Division, would occur immediately according to applicable law.

• Scenic and open space resources: The proposed dwelling would be visually consistent with the surrounding residential landscape setting (see Appendix A – *Building Plans*). The project would not impact any public open space resources. Landscaping would include native flora.

• Coastal ecosystems: The proposed units would be located outside the 40-foot shoreline setback area and is set at 90'+ away. Erosion and spill control BMPs would be implemented during construction to avoid and minimize potential indirect impacts to coastal ecosystems. All disturbed soils would be replaced and stabilized, and landscaping would be installed around the proposed units to stabilize soils and prevent erosion over the long term.

• Economic uses: The proposed housing units would provide additional residential housing use and temporary construction employment within the community, would generate tax revenue for the City, and would create temporary jobs during construction. The house is appropriately located within zoning designation and meets requirements as a single-family residence.

• Coastal hazards: The units' foundations are designed to conform to and exceed all FEMA and National Flood Insurance programs and requirements. The design ensures that the dwellings will withstand the impact and remain intact under disaster scenarios. In addition, the proposed project has been designed to avoid development within sea level rise exposure areas up to 3.2 feet by 2100.

• Managing development: The proposed project represents an allowed residence development within its zoning designation. The impacts of the proposed project have been analyzed and disclosed in this Draft EA as part of the permitting process.

• Public participation: In addition to the 30-day public review and comment period of the Draft EA, the project's SMA permitting process provides opportunities for public participation, including providing written notice and a presentation to appropriate neighborhood boards, providing written notice to surrounding property owners, and holding a public hearing. Twenty-four (24) agencies were contacted and approximately 1/3 responded with comments ranging from no comment to specific suggestions such as with USFW. Abutters were notified with no response. Communication can be found in Appendix G – Consultation with agencies and stakeholders. In addition to the 30-day public review and comment period of the Draft EA and a 60-day review period upon agency request, the Koolauloa Neighborhood Board hearing and the Kahuku Community Association, the project's permitting process provides additional opportunities for public participation during EN notification, including providing written notice or additional presentation to appropriate neighborhood boards or/and hearings, providing written notice to surrounding property owners, and potentially holding another public hearing.

• Beach protection: The proposed development is located outside of the shoreline setback, and there are no other forms of development proposed within the shoreline area (e.g.,

landscaping or seawalls). Therefore, the project would have no impact on existing beach conditions or access.

• Marine resources: The proposed units would have no impact on marine resources. Erosion control, setbacks, spill prevention, and stormwater management measures would be implemented to protect off-site marine waters from being affected by the project.

4.2.2 Hawai‘i Revised Statutes, Chapter 343

The State of Hawai‘i EIS law, HRS Chapter 343, was developed "to establish a system of environmental review which will ensure that environmental concerns are given appropriate consideration in decision making along with economic and technical considerations" (HRS 343-1). This chapter requires the development of an EA or EIS that discloses the effects of a proposed action, including the cumulative and overall effects, relative to an established set of 13 significance criteria, as defined in 11 HAR 200-12. HRS 343 also mandates that state agencies consider the potential effects of a proposed action on cultural practices as part of the environmental review process. Act 50 of the Session Laws of Hawai‘i (*A Bill for an Act Relating to EISs*) clarifies that "*the preparation of environmental assessments or environmental impact statements should identify and address effects on Hawai‘i's culture, and traditional and customary rights*" and stresses the need to include consideration of cultural resources, customs, practices, and beliefs as part of the EA and EIS process. As part of the project's permitting process, this Draft EA has been prepared in accordance with HRS Chapter 343, as required under ROH Chapter 25.

4.2.3 Hawai‘i Land Use Law (Hawai‘i Revised Statutes 205)

Hawai‘i Land Use Law (HRS Chapter 205) classifies the state into four land use districts: Urban, Rural, Agricultural, and Conservation. The proposed project is in an area classified as Urban. Private residences used for housing purposes are permitted within that district, and thus the project is consistent with its land use classification.

4.2.4 Hawai‘i State Planning Act

The Hawai‘i State Planning Act (HRS 226-1) was implemented in 1978, to "improve the planning process in this state, to increase the effectiveness of government and private actions, to improve coordination among different agencies and levels of government, to provide for wise use of Hawai‘i's resources and to guide the future development of the State." The project is consistent with the Hawai‘i State Planning Act's objectives and

policies, particularly those related to the physical environment land-based, shoreline, and marine resources; scenic, natural beauty, and historic resources; and land, air, and water quality. The project has been designed to avoid or minimize impacts to all natural resources and would not cause any long-term adverse effects to natural resources as demonstrated in this Draft EA.

4.2.5 Hawai'i State Environmental Policy (HRS Chapter 344)

The purpose of this chapter is to "*establish a state policy which will encourage productive and enjoyable harmony between people and their environment, promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of humanity, and enrich the understanding of the ecological systems and natural resources important to the people of Hawaii*." HRS Chapter 344 provides specific guidelines for the conservation of natural resources and enhancement of quality of life for Hawai'i's people. The project is consistent with HRS 344 guidelines for the conservation of land, water, mineral, visual, air, and other natural resources because the project has been designed to avoid or minimize impacts to all natural resources and would not cause any significant adverse effects to natural resources as demonstrated in this Draft EA. The project is also consistent with HRS 344 guidelines for the enhancement of quality of life since the project would create a new housing and use and opportunity for the owners that is in balance with the unique natural and social environment of Hawai'i.

4.3 Federal Regulations

4.3.1 Endangered Species Act

The Endangered Species Act (ESA) provides broad protection for plants, fish, and wildlife that have been listed as threatened or endangered in the United States or elsewhere and conserves ecosystems on which these species depend (16 United States Code 1531–1544). Section 9 of the ESA prohibits the unauthorized take of any endangered or threatened species of fish or wildlife listed under the ESA. Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect species listed as endangered or threatened, or to attempt to engage in any such conduct (50 Code of Federal Regulations [CFR] 17.3). Harm has been defined by the USFWS to mean an act that actually kills or injures wildlife and may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). Harass has been defined to mean an intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns that include but are not limited to breeding, feeding, or sheltering (50 CFR 17.3). Section 10 of the ESA contains exceptions and exemptions to Section 9, if such a taking is incidental to the conducting of

an otherwise lawful activity. Due to the lack of a federal nexus, formal consultation under the ESA is not required for the project. However, official species lists were requested from USFWS and DLNR and are included in Appendix G (*Letters and Responses*). Biological resource surveys were performed at the project area to document flora and fauna species and assess the site's potential to provide habitat for special-status species. A detailed description of the survey methods and results can be found in the biological resources memorandum (Appendix C – *Botanical and Fauna Report*). The project area is largely disturbed from previous land use and is dominated by plant species that are not native to Hawai'i. No federally or state-listed threatened, endangered, or candidate plant species or rare native Hawaiian plant species were observed in the survey area. Although there are no special-status wildlife species known to occur within the project area, potential habitat for Hawaiian hoary bat, Hawaiian monk seal, and sea turtles occurs nearby the project area. To prevent impacts to these species during construction, regular on-site staff would be trained to identify special-status fauna with the potential to occur on-site and would know the appropriate measures to be taken if they are present. No long-term impacts to wildlife species are anticipated to result from the proposed development since they would be located within previously disturbed habitats and would have no effect on the long-term health and function of adjacent coastal or riparian habitats where most wildlife species are expected to occur. Therefore, with the consideration of BMPs and species-specific measures that would be implemented during construction, the project is not anticipated to have any adverse effects on special-status species.

4.1.2 Migratory Bird Treaty Act

The MBTA prohibits the taking of migratory birds. A list of birds protected under MBTA regulations is provided in 50 CFR 10.13. Unless permitted by regulations, under the MBTA it is unlawful to pursue, hunt, take, capture, or kill; attempt to take, capture, or kill; possess, offer to, or sell, barter, purchase, deliver, or cause to be shipped, exported, imported, transported, carried, or received any migratory bird, part, nest, egg, or product. The USFWS does not currently have a comprehensive program under the MBTA to permit the take of migratory birds by otherwise lawful activities. On December 22, 2017, the U.S. Department of the Interior, Office of the Solicitor issued a memorandum opinion concluding that the MBTA does not prohibit incidental take of migratory birds. Conservation measures that avoid or minimize impacts to listed species would be incorporated into the project's plans and specifications. No MBTA-protected bird species were observed in the project area during biological resource surveys (see Appendix C). However, given the property's proximity to shoreline, estuarine, and riparian habitats, there is potential for migratory birds to be present on-site or transit the area. Implementation of the MBTA-related guidelines which are the same as USFW for *Dark Sky* provisions, no barbed wire, avoid

roosting/nesting seasons, etc... is expected to avoid all direct impacts to birds protected by the MBTA.

Chapter Five

ALTERNATIVES

5. Review of Alternatives including the Proposed Action

The project site and its project action zone are a current vacant lot with a mostly dominant border tree and shrub canopy with a large internal grassed area as well. The site's botanical and faunal characteristics are fully described in Appendix C to the DEA – *Botanical and Faunal Report*. The site is composed mainly of Jaucas sands but also has some artificial fill soils as site was previously graded and leveling materials brought in. Culturally, it appears from research and contacts that the site was not used for farming, but the shoreline likely was used pre-contact for fishing. The proposed action zone does not affect the shoreline. Other details on the site may be found in Appendix D of the DEA – the *Environmental Site Assessment* which includes a Hazardous Materials Investigation, Database, Historical Aerial Imagery, and other information.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

The applicant (Ke Piki Ohana LLC - Pietsch) intended to construct a new single-family residential home development. A detailed description of the proposed action may be found in Appendix A of this DEA – *Site-Specific Conceptual Design and Building Plans* which further details the required components and layout.

A: Physical Setting

The proposed site is located in Kahuku on the north side of Oahu. The Proposed Action will be located on acres that is denoted by TMK Parcel (1) 5-6-001:077 and is identified as Proposed Action Site.

Project Site

The Proposed Action will be located on a vacant site that is dominated by invasive species vegetation and a grass landscape. The proposed site is classified as Jaucas mineral sands and other silts and clays, but the sands also include Artificial Fill Soils from past grading. There is a fine layer of vegetative-derived detritus that forms a small ½ inch to 1 inch silt layer above the soils in some locations.

Project Site Access

There is an existing parking area and access from Kamehameha Highway from the Pietsch owned adjacent lot used to access the site. An new access driveway is planned for the lot and shown on the building plans. There is no beach access path on this property.

B. Mitigation Measures

There are two proposed mitigation measures planned.

First is the BMPs (Best Management Practices) proposed to mitigate construction activity. These are outlined in Appendix E of the DEA – *Erosion and Sedimentation Control Plan*. These are designed to minimize construction impact such as dust control, runoff, equipment storage and use, etc.....

Last is land use alteration. Construction of a dwelling as an allowed use in its district places the structures outside areas that may harm natural resources and employs practices that are in relation to mitigating flood hazards and shoreline impact.

Alternatives

An EA must consider alternatives to the Proposed Action in accordance with Chapter 343, HRS. However, detailed analysis is only required for those alternatives determined to be reasonable.

Reasonable alternatives are alternatives that could attain the purpose and need of the Proposed Action, regardless of cost. This EA identifies and evaluates the environmental impacts of alternative uses on the property (Alternatives 1-3) capable of attaining the purpose and need of the Proposed Action.

Alternatives

A DEA must consider alternatives to the Proposed Action in accordance with Chapter 343, HRS. However, detailed analysis is only required for those alternatives determined to be reasonable.

Reasonable alternatives are alternatives that could attain the purpose and need of the Proposed Action, regardless of cost. This EA identifies and evaluates the environmental impacts of alternative uses on the property capable of attaining the purpose and need of the Proposed Action.

5.1 Alternative 1 – (Proposed Action)

5.1.1 Technical Characteristics

Construction of a new Single-family residence. The project would consist of a housing unit of an unit of floor area of approximately 6500 SF. The southern roof will be PV lined for solar electricity production.

5.2 Alternatives Considered but Dismissed

Other Alternatives of previous designs and layout for the residence were considered but dismissed to avoid site security risks, no reduction of impact to resources, or lack of viability for crop production. Consideration was given to:

- Moving closer to the shoreline to avoid Kamehameha Highway noise, but that places the dwelling closer to flood hazards and the climate change potential sea rise.
- Moving the parking to the rear of the site (makai) was rejected for the same reasoning as above.

5.3 No Action Alternative

The No-Action Alternative where the proposed project would not be constructed and there would be no allowed development (residence) in the SMA area. Therefore, the Pietschs would not benefit from an allowed use of the property for housing.

Chapter Six

ANTICIPATED DETERMINATION OF FONSI

The proposed project involves the construction and operation of a new single-family residence. Potential impacts of the proposed improvements have been evaluated in accordance with the significance criteria of §11-200.1- 13 of the Administrative Rules. Discussion of the project's conformance to the criteria is presented as follows:

6. A FONSI is anticipated for this project, based on the following analysis:

(1) Irrevocably commit a natural, cultural, or historic resources.

No irrevocable commitment to loss or destruction of any natural or cultural resource would result. The project is not expected to irrevocably commit to the loss or destruction of any natural or cultural resources. The project area has been previously disturbed, and the proposed units have been designed to avoid sensitive and protected resource areas. BMPs would be implemented during construction to further avoid or minimize potential construction impacts to natural or cultural resources. In the event of unexpected discovery of historic or archaeological resources, the SHPD will be immediately notified for appropriate response and action.

(2) Curtail the range of beneficial uses of the environment.

The Proposed Action would not curtail the range of beneficial uses of the environment. The project is not expected to curtail the range of beneficial uses of the environment.

(3) Conflict with the State's environmental policies or long-term environmental goals established by law.

The State's environmental policies enumerated in Chapter 344, HRS promote conservation of natural resources, and an enhanced quality of life for all citizens. The Proposed Project does not conflict with the State's long-term environmental policies, goals, or guidelines as expressed in Chapter 344, HRS, and will not significantly impact natural resources due to the fact that the Project Site is already disturbed and has been subject to human utilization since the project area was developed for current residential uses. The project would be in conformance with the State's long-term environmental policies and goals expressed under HRS 344.

(4) Have a substantial adverse effect on the economic welfare, social welfare, or cultural practices of the community and State.

In the short term, construction expenditures will provide positive benefits to the local economy. This would include creation of some construction and construction support jobs,

and the purchase of materials from local suppliers, as well as indirect benefits to local retail businesses resulting from construction activities, but not at a level that would generate any significant population expansion. The Proposed Action would not substantially affect the economic, cultural practices or social welfare of the community or State. The project is not anticipated to cause substantial, adverse effects to the economic or social welfare of the community or State. The project would increase tax revenue for the City and will create temporary jobs during construction.

(5) Have a substantial adverse effect on public health.

The Proposed Action would not affect public health. The project is not anticipated to affect public health. No identifiable adverse short- or long-term impacts on public health are anticipated to result from the construction and operation of the Proposed Project. Typical short-term construction-related impacts (e.g., noise and air quality) are anticipated, however, they will be temporary in nature and will comply with Federal, State, and County regulations.

(6)Involve adverse secondary impacts, such as population changes or effects on public facilities.

No substantial secondary impacts, such as population changes or effects on public facilities, are expected. The project is not expected to result in substantial secondary impacts to population or public facilities. Substantial impacts to public facilities are not anticipated to result from the construction and operation of the Proposed Project. Moreover, the Proposed Project is not anticipated to induce population growth in the area or region. Existing private water and utility infrastructure have served the area for many years and are expected to have sufficient capacity to serve project demands. Agencies with jurisdiction over their respective infrastructure systems will be consulted as the Proposed Project proceeds to assure that it can be accommodated.

(7) Involve a substantial degradation of environmental quality.

No substantial degradation of environmental quality is expected due to the Proposed Action. The project is not anticipated to cause substantial degradation of environmental quality. The Proposed Project is not anticipated to substantially degrade environmental quality. Long-term impacts to air and water quality, noise levels and natural resources will be minimal. Typical short-term construction-related impacts (e.g., noise and air quality) are anticipated, but will be temporary and will comply with State and County regulations.

(8) Be individually limited but cumulatively have substantial adverse effect upon the environment or involves a commitment for larger actions.

No cumulative effect on the environment or commitment to larger actions would be involved. The project is not anticipated to have adverse cumulative environmental effects and it is not linked to any larger action. The Proposed Project will not have any substantial negative secondary impacts on the environment. Implementation of the Proposed Project will not commit the applicant to any other larger actions and will not generate any additional actions that could have a cumulative effect on the environment.

(9) Have a substantial adverse effect on a rare, threatened, or endangered species, or its habitat.

No rare, threatened and/or endangered flora or fauna species are known to inhabit the project area. However, it was acknowledged by the State Department of Land and Natural Resources – Division of Forestry and Wildlife (DLNR-DOFAW) that the State listed Hawaiian Hoary Bat or ʻŌpeʻapeʻa (Lasiurus cinereus semotus) could potentially occur in the vicinity of the project area and may roost in nearby trees, the State threatened White Tern (Gygis alba) or Manu o Kū is known to nest in the vicinity of the Proposed Project, State-listed waterbirds such as the Hawaiian Duck (Anas wyvilliana), Hawaiian Stilt (Himantopus mexicanus knudseni), Hawaiian Coot (Fulica alai), and Hawaiian Common Gallinule (Gallinula chloropus sandvicensis) could potentially occur in the vicinity of the Proposed Project. No adverse impacts resulting from the project are anticipated. However, measures to prevent adverse effects to protected species include the following:

• Any required site clearing should be timed to avoid disturbance to bats during their birthing and pup rearing season (June 1 through September 15). During this period woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed. Barbed wire should be avoided for any construction because bat mortalities have been documented as a result of becoming ensnared by this type of fencing during flight.

• During construction activities, all nighttime lighting will be shielded and angled downward to reduce glare and disruption of bird flight. Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season from September 15 through December 15. This is the period when young seabirds take their maiden voyage to the open sea. Following construction, permanent light sources will be shielded and angled downward to eliminate glare that could disturb or disorient birds in flight.

• If tree trimming or removal is planned, DLNR-DOFAW strongly recommends a qualified biologist survey for the presence of endangered species prior to any action that could disturb the trees.

• If any of the State-listed waterbirds are present during construction activities, then all activities within 100 feet (30 meters) should cease, and the bird should not be approached. Work may continue after the bird leaves the area of its own accord.

No rare, threatened, or endangered species or their habitats would be adversely affected. Although no special-status species are known to occur within the project area, potential habitat for Hawaiian hoary bat, Hawaiian monk seal, and sea turtles, Hawaiian sea birds, and potentially MBTA migratory species occurs nearby the project area. In order to prevent impacts to these species during construction, regular on-site staff would be trained to identify special-status fauna with the potential to occur on-site and would know the appropriate measures to be taken if they are present. Long-term impacts are not anticipated. Therefore, it is not anticipated that the project would adversely impact any rare, threatened, or endangered species or their habitats.

(10) Have a substantial adverse effect on air or water quality or ambient noise levels.

The Proposed Action would not detrimentally affect air or water quality, or ambient noise levels. The project is not anticipated to adversely affect air or water quality or ambient noise levels. Construction of the project would temporarily increase air emissions and noise levels within the immediate project area but would be minimized through BMPs. Erosion and spill control BMPs would be implemented during construction to avoid and minimize potential indirect impacts to streams or water resources. Compliance with all state and local regulations would be followed to ensure that the impacts are less than significant.

No long-term significant impacts to air quality, water quality, or noise levels within the Project Site are anticipated as a result of the construction and operation of the Proposed Project. Land disturbing activities include demolition, foundation work, and potential utility upgrades. Construction of the residence will be performed in accordance with Federal, State and County regulations, thereby minimizing potential impacts to air and water quality. In the short-term, noise from construction activities will be unavoidable. The increase in noise level will vary according to the phase of construction. Noise may also increase because of operating power equipment during the construction period. Construction noise impacts will be mitigated by compliance with provisions of the State DOH Administrative Rules, Title 11, Chapter 46, "*Community Noise Control*" regulations. These rules require a noise permit if the noise levels from construction activities are expected to exceed the allowable levels stated in the DOH Administrative Rules. It shall be the contractor's responsibility to minimize noise by properly maintaining noise mufflers and other noise-attenuating equipment, and to maintain noise levels within regulatory limits. In the long term, no significant noise impacts are anticipated once the construction

of the Proposed Project has been completed. Since the Proposed Project is not expected to significantly increase roadway capacity or travel demand, ambient noise levels in the vicinity attributable to the Proposed Project should not change significantly.

(11) Have a substantial adverse effect on or be likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, sea level rise exposure area, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.

The Proposed Action would not detrimentally affect environmentally sensitive areas such as floodplains, tsunami zones, beaches, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters, or coastal waters. The project has been designed to avoid impacts to, and development within, environmentally sensitive areas including coastal hazard areas, coastal shorelines and setbacks, waters features, and riparian buffers, and the units would be above the flood elevations. BMPs would be implemented to minimize potential erosion due to construction activities.

In the short- and long-term, no significant impacts on flood hazards on the Proposed Project are anticipated as the proposed improvements are not anticipated to increase flood risks or cause any adverse flood-related impacts at the project area. The Proposed Project will be designed and constructed to applicable flood zone requirements and mitigations.

(12) Have a substantial adverse effect on scenic vistas and view planes, during day or night, identified in county or state plans or studies;

The Proposed Action would not substantially affect scenic vistas and view planes identified in county or state plans or studies. The project would not adversely impact scenic vistas and view planes. The proposed home and associated landscaping and structures would be visually consistent with the surrounding residential landscape setting. Moreover, the Proposed Project is not expected to adversely affect scenic and visual resources in the project area. The Proposed Project will not degrade lateral coastal views or mauka-makai views from areas in the vicinity of the site. The vertical components of the Proposed Project will be consistent with the visual character of the surrounding uses in terms of height and character as well as surrounding community.

(13) Require substantial energy consumption or emit substantial greenhouse gases.

There would be no requirement for substantial energy consumption. The project would not require substantial energy consumption. The proposed development would increase energy consumption within the overall community by small amount but is expected to be offset by use of PV panels. The Proposed Project will not require substantial energy consumption nor produce substantial GHG emissions. Additionally, it is anticipated that the

Proposed Project will implement energy efficient fixtures as feasible to reduce overall energy consumption

6.1 Anticipated Determination

Based on a review of the significance criteria in HRS Chapter 343, and HAR Section 11-200.1- 13, it is anticipated that the project would not result in significant adverse effects on the natural or human environment.

Chapter Seven

CONSULTATION

7. CONSULTATION

7.1 Pre-Assessment Consultation

Below are the following agencies and organizations were consulted during the preparation of the Draft EA. Consultation was conducted to solicit comments regarding potential concerns and requirements pursuant to refining the scope of EA documentation. All written comments are reproduced in Appendix G.

The agencies and organizations listed in Table below received electronic copies of the Draft EA as part of the Chapter 25, ROH & HRS 343 review process during the DPP pre-consultation review, and before the Neighborhood Public Hearing.

Table - List of Agencies and Organizations
Receiving the Pre-Consult Documents for formulating aDraft Environmental Assessment

FEDERAL AGENCIES
United States Army Corps of Engineers Pacific Ocean Division, Building 230 Fort Shafter, Hawaii 96858-5440
United States Department of the Interior Fish and Wildlife Service Pacific Islands Fish and Wildlife Office 300 Ala Moana Blvd., Room 3-122, Box 50088 Honolulu, Hawaii 96813
United States Department of Agriculture Natural Resources Conservation Service Hawaii State Office 300 Ala Moana Blvd. Room 4-118 Honolulu, HI 96850-4118

STATE AGENCIES
State of Hawaii Department of Agriculture Office of the Chairperson 428 S. King Street Honolulu, Hawaii 96814
State of Hawaii Department of Accounting and General Services Kalanimoku Building 1151 Punchbowl Street Honolulu, HI 96813

STATE AGENCIES
State of Hawaii Department of Business, Economic Development and Tourism Office of Planning P.O. Box 2359 Honolulu, Hawaii 96804
Hawaii Dept. of Health Environmental Management Division 2827 Waimano Home Road Rm 222 Pearl City, Hawaii 96782
State of Hawaii Department of Defense 3949 Diamond Head Road Honolulu, HI 96816-4495
State of Hawaii Department of Education 1390 Miller Street Honolulu, Hawai'i 96813
State of Hawaii Department of Hawaiian Home Lands 91-5420 Kapolei Pkwy Kapolei, HI 96707
State of Hawaii Department of Health Environmental Planning Office 1177 Alakea Street., Room 402 Honolulu, HI 96813
State of Hawaii Department of Labor and Industrial Relations 830 Punchbowl Street Honolulu, HI 96813
State of Hawaii Department of Land and Natural Resources Historic Preservation Division (via – HICRES) Kakuhihewa Building 601 Kamokila Blvd., Room 555 Kapolei, HI 96707
State of Hawaii Department of Land and Natural Resources Land Division 1151 Punchbowl St, Room 220 Honolulu, Hawaii 96813
Office of Hawaiian Affairs 560 Nimitz Highway Honolulu, Hawaii 96817
Office of Conservation and Coastal Lands Kalanimoku Building, 1151 Punchbowl St. Rm 131 Honolulu HI 96813

COUNTY AGENCIES
Board of Water Supply 630 S. Beretania Street Honolulu, HI 96843
Department of Design and Construction 650 S. King Street, 11th Floor Honolulu, HI 96813
Department of Planning and Permitting Land Use Permits Division – 7th Floor 650 S. King Street Honolulu, HI 96813
Department of Environmental Management 1000 Uluohia Street, Suite 308 Kapolei, HI 96707
Department of Transportation Services 650 S. King Street, 3rd Floor Honolulu, HI 96813
C&C of Honolulu, Police Dept. 801 S. Beretania Street Honolulu HI 96813
County of Oahu – Fire Department Administrator – Dept of Fire and Public Safety 636 South Street Honolulu. HI 96813

ADJACENT AND NEARBY PROPERTIES
Abutters Koolauloa Neighborhood Board Kahuku Community Association

Chapter Eight

PREPARERS

This report was prepared for Ke Piki Ohana LLC- Pietsch – Applicant, by WHALE Environmental Services LLC. Members of the WHALE professional staff are listed below.

Project Management

- Mark Howland/Bonnie Howland

Quality Assurance

- Mark Howland/Kri Brook

Technical Analysts

- Mark Howland, Caitlin Coska

Graphic Design

- Mark Howland/Gabe Blossom

APPENDIX A

SITE SPECIFIC CONCEPTUAL DESIGN & BUILDING PLANS

PERMIT SET

KE PIKI OHANA

56-229 Kamehameha Highway
Kahuku, Hawaii 96731
5-6-001:077

K. Nichols Butterbaugh, Architect

STAMP

EXP. 4.30.2024

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THE PROJECT WILL BE UNDER MY OBSERVATION.

PROJECT SITE INFORMATION

Address:
56 229 Kamehameha Hwy
Kahuku, HI 96731

TMK: 5-6-001:077
Area (sq ft): 34,064
Area (acres): .7820
Lot Number: 1254

FEMA Flood Designation: X
Tsunami Evacuation Zone: Yes
SMA: In SMA
Zoning (LUO) R-5

PROJECT DESCRIPTION

New single family home at
56 229 Kamehameha Highway

CONTACT

Client:
KE PIKI OHANA LLC

Email:

Address:
PO BOX 26211
Honolulu, HI 96825-6211

Architect:

K. Nichols Butterbaugh
Office: (808) 262-1928
Email:
KNBArchitect@Gmail.com
Address:
137 A Kapaa street
Kailua, HI 96734

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COVER SHEET

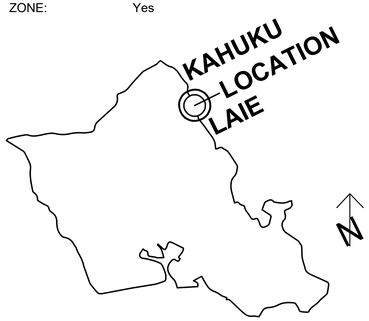
DATE: 5/26/2022

INDEX:

000 -	COVER SHEET
A001 -	INDEX, NOTES, DATA. LOCATION MAP, PLAT MAP, SITE PLAN.
A002 -	SITE PLAN & SECTION
A003 -	FLOOR PLAN
A004 -	WINDOW, DOOR & FINISH, SCHEDULES & DETAILS
A005 -	REFLECTED CEILING PLAN
A006 -	ROOF PLAN
A007 -	EXTERIOR ELEVATIONS
A008 -	EXTERIOR ELEVATIONS
A009 -	INTERIOR KITCHEN ELEV.
A010 -	INTERIOR BEDROOM & CHIMNEY ELEV.
A011 -	BATHROOM PLANS & INTERIOR ELEV.
A012 -	BATHROOM PLANS & INTERIOR ELEV.
A013 -	BUILDING SECTIONS
A014 -	BUILDING SECTIONS & WALL SEC.
A015 -	MISC. DETAILS
A016 -	CHIMNEY DETAILS
S001 -	STRUCTURAL NOTES
S100 -	FOUNDATION PLAN
S101 -	FLOOR FRAMING PLAN
S102 -	ROOF FRAMING PLAN
S300 -	STRUCTURAL DETAILS
S301 -	STRUCTURAL DETAILS
S302 -	STRUCTURAL DETAILS
S303 -	STRUCTURAL DETAILS
S304 -	STRUCTURAL DETAILS

PROJECT DATA:

OWNERS:	Ke Piki Ohana, LLC
LOCATION:	District 3, Ko'olaupoko
ADDRESS:	56-229 Kamehameha Highway Kahuku, Hawaii 96731
TMK:	(1) 5-6-001:077
ZONE:	R-5
PROPERTY SIZE:	34063.92 SF, .782 Acre
FLOOD ZONE:	X
SMA:	Yes
TSUNAMI EVACUATION ZONE:	Yes



Ⓐ **LOCATION**
SCALE: NTS

LOT COVERAGE INFORMATION:

INTERIOR AREA:	3380 S.F.
LANAI AREA:	1617 S.F.
TOTAL LIVING AREA:	4,997 S.F.
BUILDING AREA TOTAL:	4,997 / 34,063.92 = 14.7%

LOT COVERAGE CALCULATIONS:

PARKING AREA (1,800 SF) + GAS PAD (20 SF) + OUT DOOR SHOWER & STAIR LANDINGS OUTSIDE OF OVERHANGE (150 SF) + BUILDING WITH OVERHANG (6,114 SF) = 8,084 SF

IMPERMEABLE AREA: 8,084 / 34,063.92 = 23.7%

PARKING REQUIRMENTS:

PER ORDINANCE 19-3
4 SPACES REQUIRED FOR 4000 SF- 4749 SF
1 ADDITIONAL FOR EVERY 750 SF OVER 4000 SF

TOTAL LIVING: 4997
TOTAL PARKING REQUIRED AND PROVIDED: 6

SPECIAL INSPECTION:

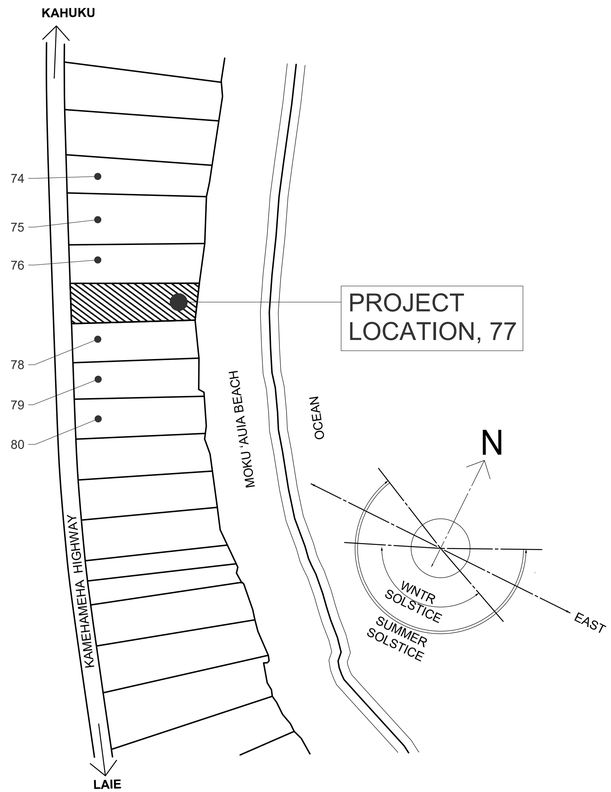
SEE STRUCTURAL PLANS

BOARD OF WATER SUPPLY NOTES:

1. ALL FIXTURES LOW FLOW.
2. NO IRRIGATION SYSTEM
3. NO AFS (AUTOMATIC FIRE SPRINKLER).

SOLA WATER HEATING:

WATER HEATING UTILIZING PHOTOVOLTAIC SYSTEM.



Ⓑ **LOCATION MAP**
SCALE: NTS

EROSION SEDIMENT CONTROL NOTES:

1. USE BEST MANAGEMENT PRACTICES (BMPS) TO PREVENT AND REDUCE DISCHARGE OF POLLUTANTS FROM THE PROJECT SITE ONTO THE OFF_SITE STREETS, STORM DRAINS STREAMS AND THE OCEAN. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO SOIL, OIL PRODUCTS, PAINT, SOLVENTS, CONSTRUCTION DEMOLITION WASTE, TRASH, PORTABLE TOILETS, AC MATERIALS, CONCRETE, OR ANY OTHER LIQUID, PAVING OR WASHOUT MATERIAL THAT COULD BE DETRIMENTAL IF RELEASED INTO THE ENVIRONMENT.

2. ANY EXPOSED SOIL FROM THIS ACTIVITY MUST BS PERMANENTLY OR TEMPORARILY STABILIZED IMMEDIATELY USING VEGETATION, GRAVEL, PAVERS, ROLLED EROSION CONTROL PRODUCTS, OR AN EQUIVALENT METHOD UNLESS ACTIVE WORK IS SCHEDULED WITHIN 14 DAYS.

3. ALL CONSTRUCTION WASTE AND WASHOUT WATER MUST BE PROPERLY CONTAINED AND DISPOSED OF.

4. SEDIMENT TRACKED OFF SITE MUST BE SWEPT OR VACUUMED DAILY.

5. DUST FROM THE PROJECT SITE SHALL NOT BE TRANSPORTED OR DISCHARGED TO OFF-SITE AREAS. THE WORK MUST BE IN CONFORMANCE WITH AIR POLLUTION CONTROL STANDARDS CONTAINED IN HAWAII ADMINISTRATIVE RULES: TITLE 11 CHAPTER 60.1, " AIR POLLUTION CONTROL"

R301.2.1.2 PROTECTION OF OPENINGS:

WINDOWS IN BUILDINGS LOCATED IN WIND BORNE DEBRIS REGIONS SHALL HAVE GLAZED OPENINGS PROTECTED FROM WIND BORNE DEBRIS. GLAZED OPENING PROTECTION FOR WIND BORNE DEBRIS SHALL MEET THAT REQUIREMENTS OF THE LARGE MISSILE TEST OF ASTM E 1996 AND OF ASTM E 1886 REFERENCED THEREIN.
EXCEPTION:
WOOD STRUCTURAL PANELS WITH A MINIMUM THICKNESS OF 7/16-INCH (11.1 MM) AND A MAX. SPAN OF 8 FEET (2438 MM) SHALL BE PERMITTED FOR OPENING PROTECTION IN 1 & 2 STORY BUILDINGS. PANELS SHALL BE PRECUT TO COVER THE GLAZED OPENINGS WITH ATTACHMENT HARDWARE PROVIDED. ATTACHMENTS SHALL BE DESIGNED TO RESIST THE COMPONENTS AND CLADDING LOADS DETERMINED IN ACCORDANCE WITH EITHER TABLE R301.2(2) OR SECTION 1609.6.5 OF THE IBC. ATTACHMENT IN ACCORDANCE WITH TABLE R301.2.1.2 IS PERMITTED FOR BUILDINGS WITH A MEAN ROOF HEIGHT OF 33 FEET OR LESS WHERE THE EFFECTIVE WIND SPEEDS DO NOT EXCEED 130MPH.

SMOKE ALARM:

SECTION R313 / SMOKE ALARMS
THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT. THE ALARM SHALL BE CLEARLY AUDIBLE IN ALL BEDROOMS OVER BACKGROUND NOISE WITH ALL INTERVENING DOORS CLOSED.
EXCEPTIONS
SMOKE ALARMS IN EXISTING AREAS NOT REQUIRED TO BE INTERCONNECTED OR HARDWIRE WHERE THE ALTERATIONS OR REPAIRS DONE RESULT IN INTERIOR WALL OR CEILING REMOVAL.

CARBON MONOXIDE ALARMS
PER 2012 IRC SE.C R315

GENERAL NOTES:

1. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH 2012 I.R.C., STATE, AND LOCAL BUILDING CODES.
2. THE CONTRACTOR SHALL VERIFY APPROVED JOB-SITE PRINTS, SITE DIMENSIONS, AND PLAN DIMENSIONS, BEFORE COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL NOTIFY ARCHITECT & ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO STARTING CONSTRUCTION. AT NO TIME SHALL THE CONTRACTOR / BUILDER SCALE THE DRAWINGS TO DETERMINE ANY DIMENSION. IN THE CASE OF A MISSING, OR DISCREPANT DIMENSIONS, CONTRACTOR / BUILDER SHALL CONTACT ARCHITECT/ENGINEER FOR CLARIFICATION. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK WITH ANY DISCREPANCY UNRESOLVED
3. CONTRACTOR SHALL VERIFY THE SITE AND ALL INFORMATION INCLUDING DISTANCE, LOT DIMENSIONS AND EXACT PROPERTY LINES TO ACCURATELY LOCATE PROPOSED PROJECT WITHIN THE MINIMUM REQUIRED SETBACK AREA.
4. CONTRACTOR SHALL PROTECT ADJOINING LAND, BUILDING AND OTHER IMPROVEMENTS SITUATED THEREON. ANY DAMAGES OCCURRED SHALL BE REPAIRED AT NO COST TO THE OWNER, ARCHITECT OR ENGINEER.
5. ANY CONDITIONS, MATERIALS, DEVICES, OR DETAILS NOT SPECIFICALLY SHOWN ON THE DRAWINGS OR SPECIFIED SHALL BE CLARIFIED WITH THE ARCHITECT OR ENGINEER BEFORE BIDDING, CONSTRUCTION, INSTALLATION, AND COMPLETION. AT NO TIME SHALL THE CONTRACTOR ARBITRARILY OR UNILATERALLY MAKE CHANGES TO ANY STRUCTURAL COMPONENT AS CERTIFIED ON PLANS BY THE ARCHITECT/ENGINEER OF RECORD.
6. ALL FINISHED GRADE LEVEL SAND/OR SPOT ELEVATIONS ARE ASSUMED TO BE APPROXIMATE. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS.
7. IF SOFT OR EXPANSIVE SOIL IS ENCOUNTERED THE SOIL SHALL BE REMOVED AND REPLACED WITH NON-EXPANSIVE STRUCTURAL FILL COMPACTED TO 95% AS PER ASTM D-1557.
8. ALL FOOTINGS SHALL REST ON FIRM UNDISTURBED SOIL.
9. GROUND TO BE CHEMICALLY TREATED FOR TERMITES PER 2012 I.R.C. SECTION R-320 "AS AMENDED" BY A QUALIFIED BONDED CONTRACTOR.
10. HE CONTRACTOR SHALL PROVIDE ADEQUATE BRACING AND SHORING FOR ALL STRUCTURAL MEMBERS DURING ALL PHASES OF CONSTRUCTION.
11. CONTRACTOR SHALL PROVIDE ALL NECESSARY FLASHING, CAULKING, AND WATERPROOFING, ETC. TO ENSURE A WEATHER TIGHT FINISH AS PER STANDARD PRACTICE AS PER 2012 I.R.C. SEC. R-703 & SEC. R-903.
12. ALL LUMBER SHALL BE BORATE PRESSURE TREATED DOUGLAS FIR #2 (#1 FOR BEAMS) OR BETTER, AS PER 2012 I.R.C. SEC. R-319 AS AMENDED.
13. WHERE INDICATED ALL FRAMING MEMBERS, RAFTERS, JOISTS, AND BEAMS SHALL BE FASTENED WITH STAINLESS STEEL "SIMPSON" METAL CONNECTORS TO PROVIDE A CONTINUOUS LOAD PATH FROM ROOF TO FOUNDATION TO RESIST HIGH WIND FORCES.
14. ALL HANDRAILS SHALL BE 34" MIN., TO 38" MAX., IN HEIGHT.
15. BEDROOMS SHALL HAVE AT LEAST ONE EGRESS WINDOW WITH A MINIMUM SILL HEIGHT OF 44" AFF; WINDOW SHALL HAVE A 24" HEIGHT MINIMUM, 20" WIDTH MINIMUM AND A MINIMUM NET CLEAR AND OPENING AREA OF 5.7 SQUARE FEET PER, I.R.C.
16. PAINT ALL NEW INTERIOR AND EXTERIOR SURFACES (COLOR SELECTION BY OWNER) UNLESS OTHERWISE AGREED BETWEEN OWNER AND CONTRACTOR.
17. ALL WALLS AND CEILINGS FOR BATH AREAS OR EXTERIOR DRYWALL TO BE APPROVED WATERPROOF TYPE GYPSUM BOARD, U.N.O.
18. THE ARCHITECT OR ENGINEER IS NOT RESPONSIBLE FOR THE CONTRACTORS METHODS, PROCEDURES, OR CONDITIONS ON JOB SITE THAT MAY DEVELOP DUE TO CONTRACTOR NOT FOLLOWING PLANS.
19. THE DRAWINGS INTEND TO SHOW FINISHED CONCEPT. CHANGES TO THE DRAWINGS MAY BE REQUIRED DUE TO UNFORESEEN CONDITIONS.
20. ALL BEDROOMS & HALLWAYS SHALL HAVE U.L. APPROVED ELECTRIC SMOKE ALARMS WITH BATTERY BACK-UP AND SHALL HAVE INTERCONNECTED WIRING WHERE NEW INSTALLATION OCCURS AS PER 2012 I.R.C. SEC. 313 / SMOKE ALARMS.
21. CONTRACTOR SHALL INSTALL DOUBLE FLOOR JOIST UNDER ALL PARTITION WALLS RUNNING PARALLEL WITH JOISTS.
22. CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER 2 DAYS IN ADVANCE WHEN SHEAR WALLS AND TIE DOWNS FOR CONTINUOUS LOAD PATHS CAN BE INSPECTED.
23. OWNER OR CONTRACTOR MUST NOTIFY ARCHITECT/ENGINEER 48 HOURS PRIOR TO POURING CONCRETE AND CLOSING OF ALL WALLS FOR INSPECTION. IF ANY WALLS ARE CLOSED BEFORE AN INSPECTION IS MADE CONTRACTOR MAY BE ASKED BY BUILDING INSPECTOR OR THE ARCHITECT/ENGINEER TO RE-OPEN THE WALLS AT CONTRACTOR'S OWN EXPENSE.
24. ANY STRUCTURAL CHANGES BY THE CONTRACTOR MUST BE APPROVED BY THE ARCHITECT/ENGINEER BEFORE IMPLEMENTATION.
25. CONTRACTOR SHALL VERIFY ALL FINISH MATERIALS, WINDOW SIZES, WINDOW TYPES, ETC.
26. IN THE CASE OF THE OWNER/BUILDER PERFORMING AS THE CONTRACTOR: THE OWNER/BUILDER SHALL ASSUME ANY AND ALL RESPONSIBILITIES OF THE GENERAL CONTRACTOR AND/OR THE PERFORMANCE AND METHODS OF ANY SUB-CONTRACTORS, FOR WORK BEING PERFORMED ON THE PROJECT.

REVISED ORDINANCE CHAPTER 32,
HONOLULU COUNTY CODE 1990, AS AMENDED

To the best of my knowledge, this project's design substantially conforms to the Building Energy Conservation Code for:

__X__ Building Component Systems
_____ Electrical Component Systems
_____ Mechanical Component Systems

Signature: _____ Date: 5/26/2022
Name: K. N. Butterbaugh
Title: Architect
LicenseNo.: AR-9421

PERMIT SET

K. Nichols Butterbaugh, Architect

STAMP

EXP. 4.30.2024

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THE PROJECT WILL BE UNDER MY OBSERVATION.

PROJECT SITE INFORMATION

Address:
56 229 Kamehameha Hwy
Kahuku, HI 96731

TMK:	5-6-001:077
Area (sq ft):	34,064
Area (acres):	.7820
Lot Number:	1254

FEMA Flood Designation: X
Tsunami Evacuation Zone: Yes
SMA: In SMA
Zoning (LUO) R-5

PROJECT DESCRIPTION

New single family home at
56 229 Kamehameha Highway

CONTACT

Client:
KE PIKI OHANA LLC

Email:

Address:
PO BOX 26211
Honolulu, HI 96825-6211

Architect:

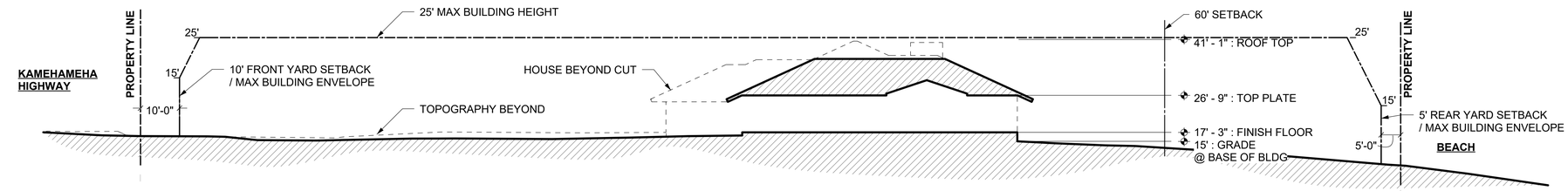
K. Nichols Butterbaugh
Office: (808) 262-1928
Email:
KNBArchitect@Gmail.com
Address:
137 A Kapaa street
Kailua, HI 96734

A001

NOTES, INDEX, DATA

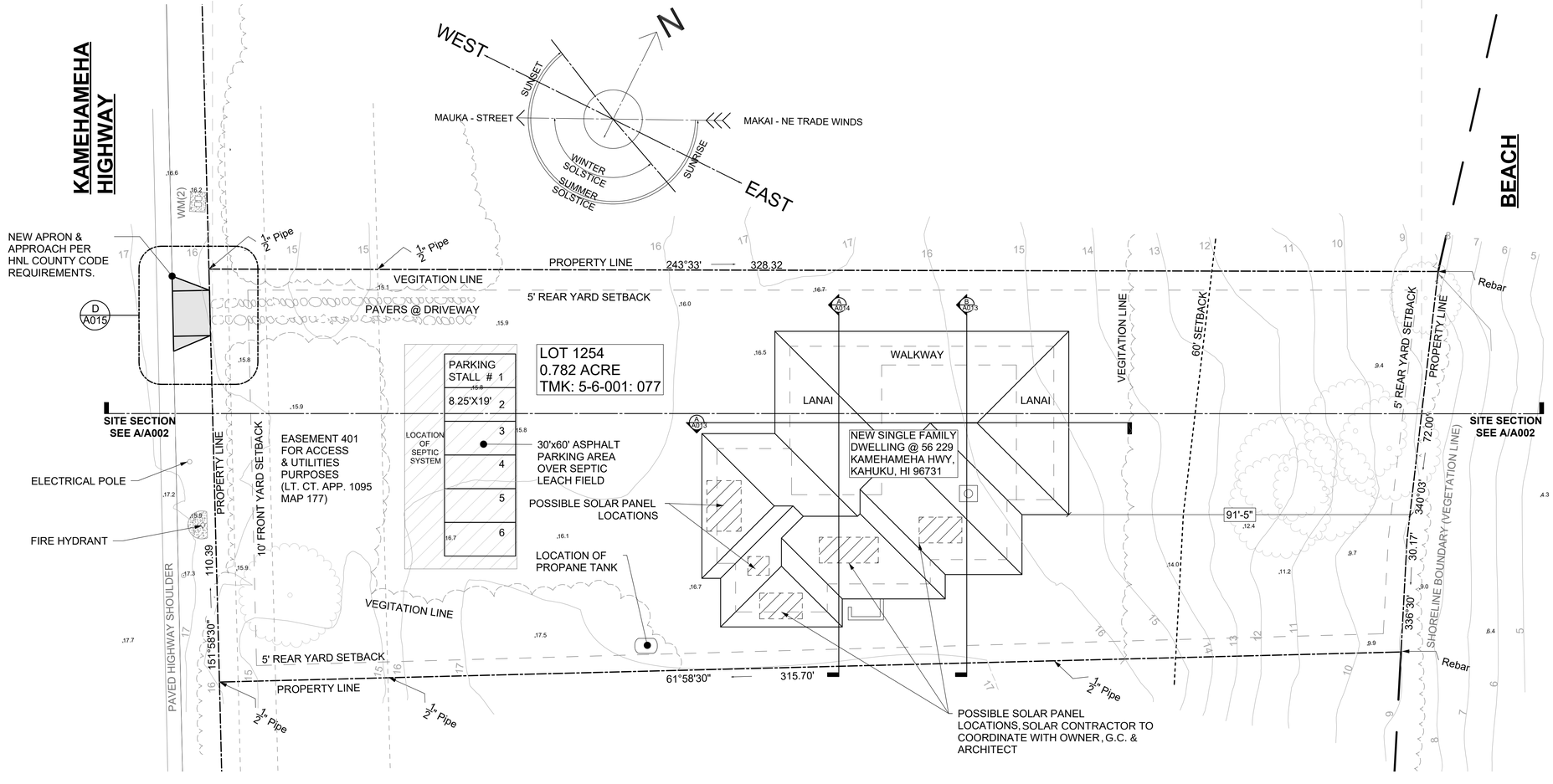
DATE: 5/26/2022

PERMIT SET



A SITE SECTION

SCALE: 1/16" = 1' 20' 0' 60'

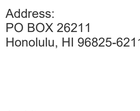


B SITE PLAN

SCALE: 1/16" = 1' 20' 0' 60'

K. Nichols Butterbaugh, Architect

STAMP



EXP. 4.30.2024

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Lot Number: 1254

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SMA: In SMA
Zoning (LUO) R-5

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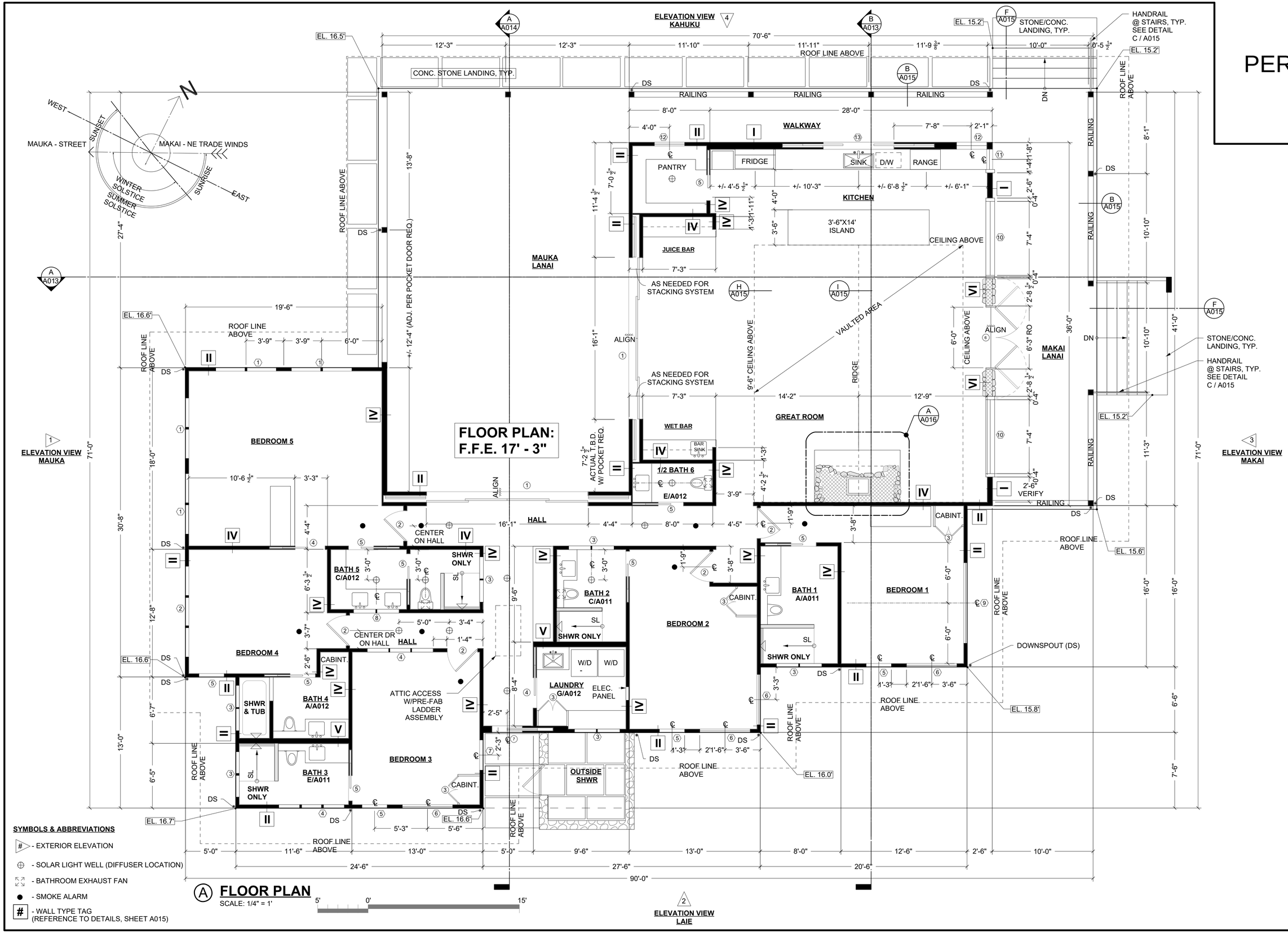
A002

SITE PLAN & SECTION

DATE: 5/26/2022

PERMIT SET



SYMBOLS & ABBREVIATIONS

- # - EXTERIOR ELEVATION
- - SOLAR LIGHT WELL (DIFFUSER LOCATION)
- - BATHROOM EXHAUST FAN
- ● - SMOKE ALARM
- # - WALL TYPE TAG (REFERENCE TO DETAILS, SHEET A015)

A FLOOR PLAN

SCALE: 1/4" = 1'

5' 0' 15'

K. Nichols Butterbaugh, Architect

STAMP

EXP. 4.30.2024

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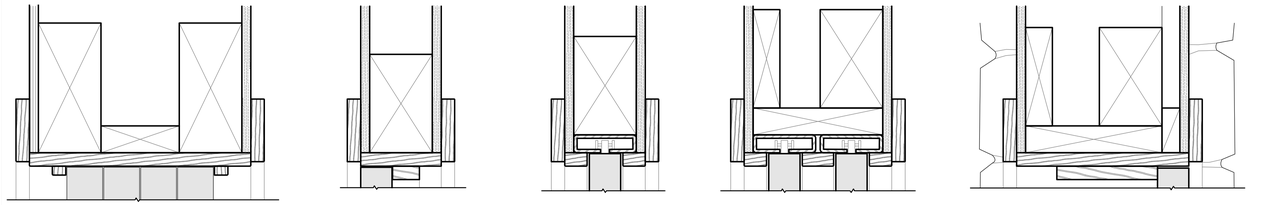
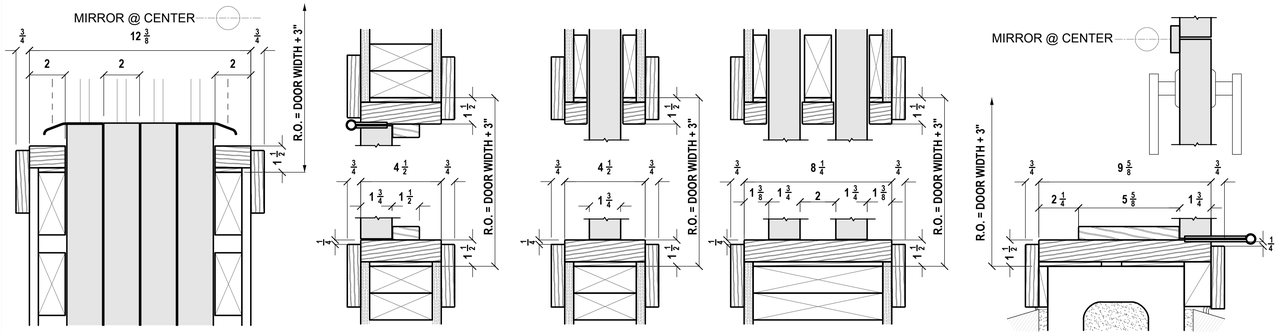
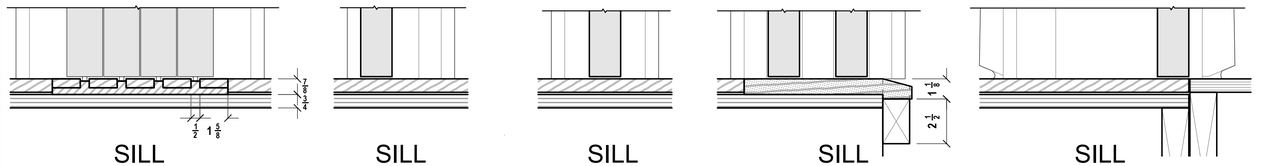
A003

FLOOR PLAN

DATE: 5/26/2022







Ⓐ DOOR HEAD, SILL & JAMB TYPICAL DETAILS (SEE NOTE # 1)

SCALE: 3" = 1'

DOOR SCHEDULE:

SYMBOL	NOMINAL WIN. SIZE	DESCRIPTION	LOCATION	HEAD	SILL	MAKE (TBD)	HARDWARE (TBD)	FINISH (TBD)	REMARKS (TBD)	CNT
①	16'-0" X 8'-0"	8 LEAF, GLASS & SCREEN	MAUKA LANAI	8'-0"	TOP OF F.F.	TBD	TBD	TBD	4 WOOD 4 SCREEN	2
②	3'-0" X 7'-6"	1 LEAF SWING SOLID CORE	BEDROOMS	7'-6"	TOP OF F.F.	TBD	TBD	TBD	TBD	5
③		CLOSET CABINET DOORS							BY CABINET MAKER	
④	3'-0" X 7'-6"	THK. INTERIOR POCKET	BDRM 5 & LAUNDRY	7'-6"	TOP OF F.F.	TBD	TBD	TBD	TBD	2
⑤	2'-6" X 7'-6"	INTERIOR POCKET	BATHROOMS & PANTRY	7'-6"	TOP OF F.F.	TBD	TBD	TBD	TBD	7
⑥	6'-0" X 8'-0"	2 LEAF SOLID CORE, DUTCH DOOR	MAKAI LANAI	8'-0"	TOP OF F.F.	TBD	TBD	TBD	S.G. PANELS ABOVE WOOD BELOW	1
⑦	3'-0" X 8'-0"	EXTERIOR POCKET	EXTERIOR TO HALLWAY	8'-0"	TOP OF F.F.	TBD	TBD	TBD	1 WOOD 1 SCREEN	1

DOOR NOTES:

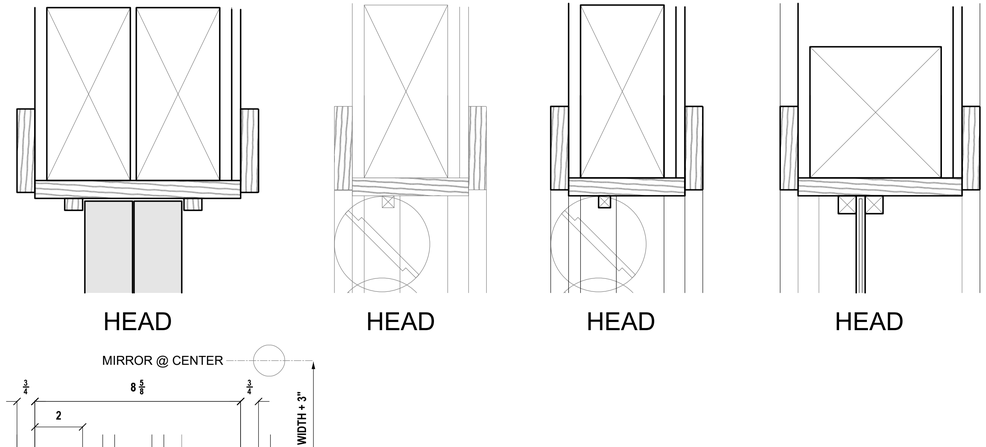
1. DOOR SIZES SHOWN ARE NOMINAL SIZES. VERIFY NET SIZES WITH OWNER AND/OR BY REFERRING TO THE DETAILS AND/OR MANUFACTURERS SPECIFICATIONS.
2. S.G. = SAFETY GLASS

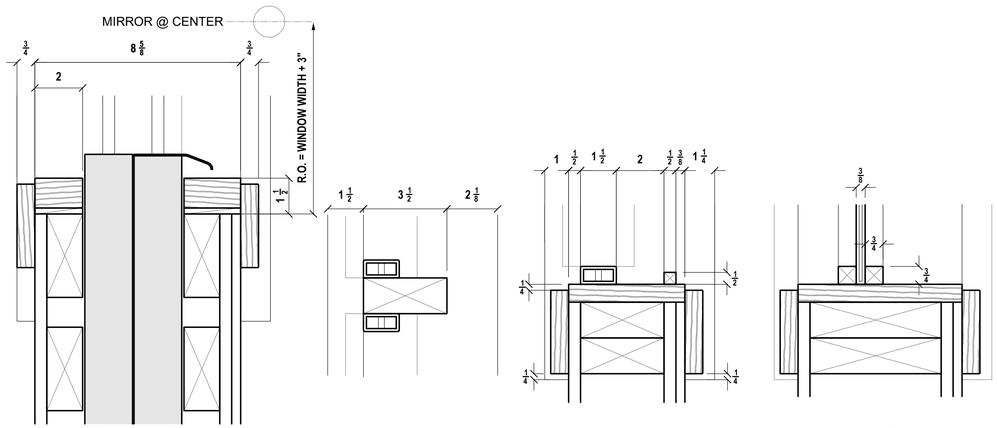
WINDOW SCHEDULE:

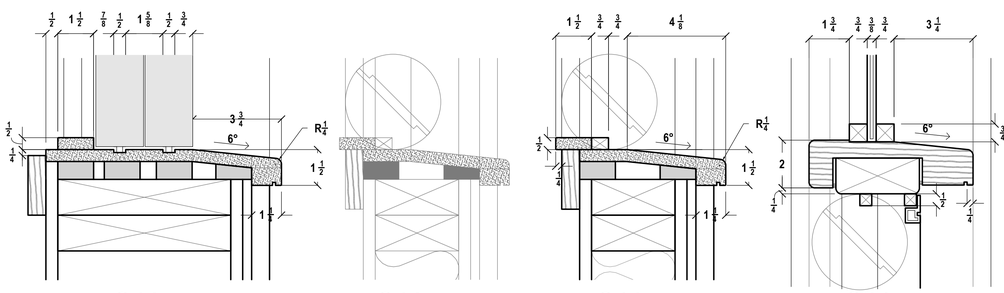
SYMBOL	NOMINAL WIN. SIZE	DESCRIPTION	LOCATION	HEAD	SILL HEIGHT	MAKE	HARDWARE	FINISH	REMARKS	COUNT
①	6'-0" X 4'-5 1/2"	(2) 15 BLADE JALOUSIE BAYS	MAUKA & KAHUKU BEDROOM 5	8'-0"	3'-3"	TRADEWIND	STRIP ALUM. W/VINYL CLIPS	WHITE POWDER COATED		4
②	9'-0" X 2'-8 1/2"	(3) 9 BLADE JALOUSIE BAYS	MAUKA FACADE BEDROOM 4	8'-0"	5'-10 1/2"	TRADEWIND	STRIP ALUM. W/VINYL CLIPS	WHITE POWDER COATED		1
③	4'-6" X 1'-6 1/2"	(2) 5 BLADE JALOUSIE BAYS	BATH 1,2,3,4,5 & LAUNDRY	8'-0"	6'-5 1/2""	TRADEWIND	STRIP ALUM. W/VINYL CLIPS	WHITE POWDER COATED		6
④	6'-6" X 1'-6 1/2"	(3) 5 BLADE JALOUSIE BAYS	INTERIOR HALLWAY BATHROOM 3 LAIE FACADE	8'-0"	6'-5 1/2"	TRADEWIND	STRIP ALUM. W/VINYL CLIPS	WHITE POWDER COATED		2
⑤	2'-6" X 6'-6"	(1) 22 BLADE JALOUSIE WINDOW	BEDROOM 1,2,3 & 4 LAIE FACADE	8'-0"	1'-6"	TRADEWIND	STRIP ALUM. W/VINYL CLIPS	WHITE POWDER COATED		4
⑥	5'-0" X 7'-3 1/2"	(1) FIXED S.G. ABOVE (2) 5 BLADE BAYS BELOW EQ. WIDTH X 1'-6 1/2"	BEDROOM 1,2 & 3 LAIE FACADE	8'-0"	1'-6"	WOOD FRAME W/TRADEWIND	STRIP ALUM. W/VINYL CLIPS	WHITE POWDER COATED		4
⑦	3'-0" X 1'-6 1/2"	(1) 5 BLADE JALOUSIE WINDOW	BEDROOM 3 MAKAI FACADE	8'-0"	6'-5 1/2"	TRADEWIND	STRIP ALUM. W/VINYL CLIPS	WHITE POWDER COATED		1
⑧	4'-6" X 0'-11 1/2"	(2) 3 BLADE JALOUSIE BAYS	BATH 5 @ HALLWAY	8'-0"	7'-0 1/2"	TRADEWIND	STRIP ALUM. W/VINYL CLIPS	WHITE POWDER COATED		1
⑨	8'-0" X 7'-3 1/2"	(1) FIXED S.G. ABOVE (3) 5 BLADE BAYS BELOW EQ. WIDTH X 1'-6 1/2"	BEDROOM 1 MAKAI FACADE	8'-0"	1'-6"	WOOD FRAME W/ TRADEWIND	STRIP ALUM. W/VINYL CLIPS	WHITE POWDER COATED		1
⑩	7'-4" X 7'-3 1/2"	(1) FIXED S.G. ABOVE (3) 5 BLADE BAYS BELOW EQ. WIDTH X 1'-6 1/2"	GREAT ROOM	8'-0"	0'-8 1/2"	WOOD FRAME W/ TRADEWIND	STRIP ALUM. W/VINYL CLIPS	WHITE POWDER COATED		2
⑪	2'-0" X 4'-2 1/2"	FIXED PANE	KITCHEN MAKAI FACADE	8'-0"	3'-9 1/2"	WOOD FRAME			VERIFY/COORDINATE SILL HEIGHT WITH FULL TILES @ BACKSPLASH	1
⑫	3'-0" X 4'-2 1/2"	FIXED PANE	KITCHEN & PANTRY KAHUKU FACADE	8'-0"	3'-9 1/2"	WOOD FRAME			VERIFY/COORDINATE SILL HEIGHT WITH FULL TILES @ BACKSPLASH	2
⑬	7'-0" X 4'-2 1/2"	(2) S.G. PANELS W/(2) SCREEN PANELS	KITCHEN ABOVE SINK	8'-0"	3'-9 1/2"	WOOD FRAME			VERIFY/COORDINATE SILL HEIGHT WITH FULL TILES @ BACKSPLASH	1

WINDOW NOTES:

1. 4" JALOUSIE HARDWARE BY TRADEWIND FROM RMA SALES. CONFIRM DIMENSIONS WITH MANUFACTURER. ALUMINUM STRIP HARDWARE WITH WOOD CASING AND CORIAN SILL.
2. WHERE MORE THAN ONE SET OF JALOUSIE'S ARE WITHIN A FRAME THE FINAL WIDTH WILL BE DETERMINED BY EQUAL BAY SPACING USING 2X MULLIONS BETWEEN BAYS.
3. ALL GLASS SHALL BE CLEAR UNLESS NOTED OTHERWISE.
4. INSTALL "TYVEK" HOUSEWRAP PRIOR TO INSTALLING THE WINDOWS.
5. AFTER INSTALLING ALL THE WINDOWS INSTALL 'WINDOW WRAP' FLASHING TAPE AROUND THE PERIMETER OF THE WINDOW FRAMES TO CREATE A WATERPROOF INSTALLATION PRIOR TO SIDING INSTALLATION.
6. BEDROOMS SHALL HAVE AT LEAST ONE EGRESS WINDOW WITH A MINIMUM SILL HEIGHT OF 44" AFF; WINDOW SHALL HAVE A 24" HEIGHT MINIMUM, 20" WIDTH MINIMUM AND A MINIMUM NET CLEAR AND OPENING AREA OF 5.7 SQUARE FEET PER, I.R.C.
7. S.G. = SAFETY GLASS







* ALL SILLS CRAFTED FROM CORIAN, TYP (U.N.O.)

Ⓑ WINDOW HEAD, SILL & JAMB TYPICAL DETAILS

SCALE: 1/2" = 1'

10' 0' 15'

PERMIT SET

K. Nichols Butterbaugh, Architect

STAMP

EXP. 4.30.2024

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Area (acres): .7820
Lot Number: 1254

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Tsunami Evacuation Zone: Yes
SMA: In SMA
Zoning (LUO) R-5

PROJECT DESCRIPTION

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Architect:

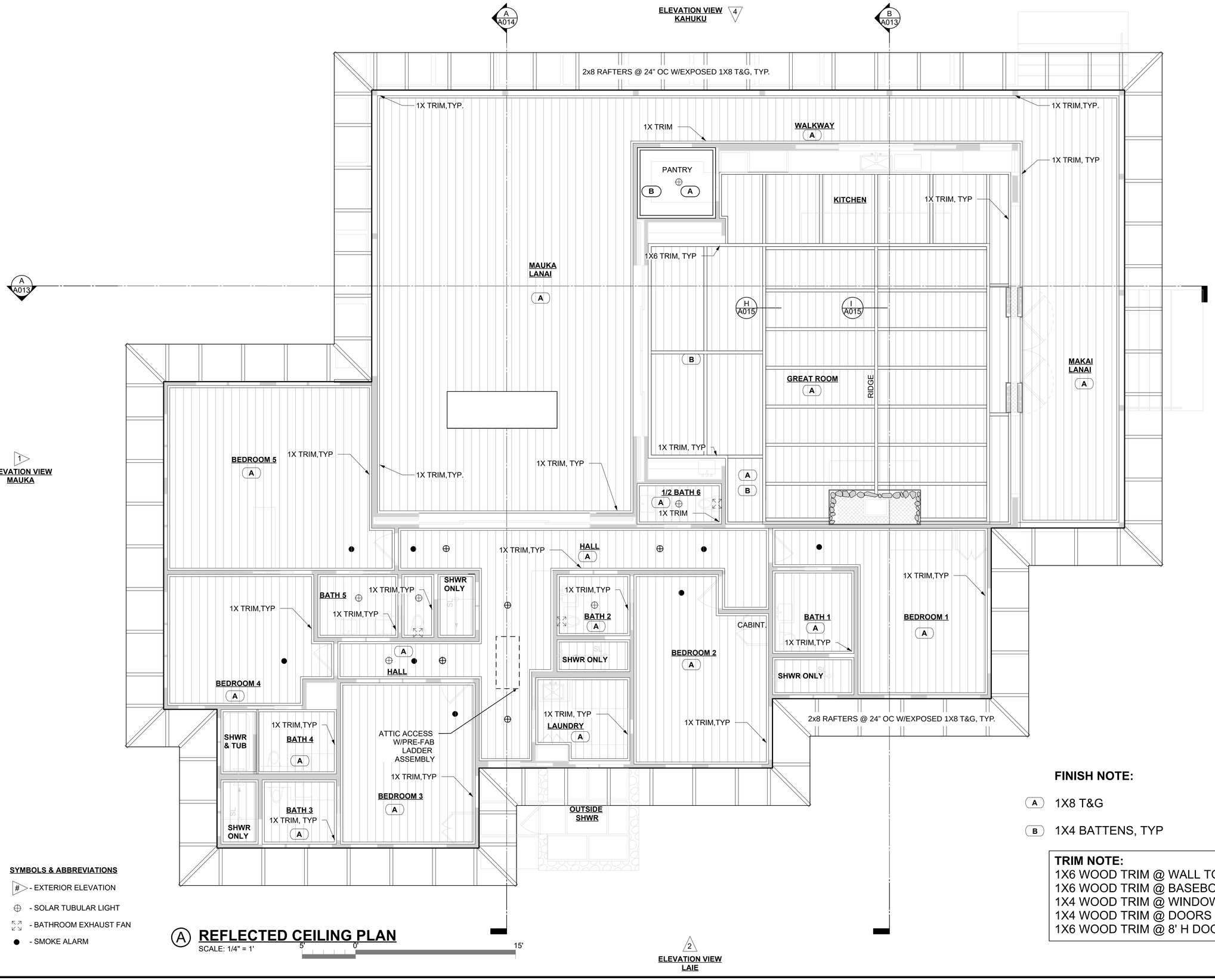
K. Nichols Butterbaugh
Office: (808) 262-1928
Email:
KNBArchitect@Gmail.com
Address:
137 A Kapaa street
Kailua, HI 96734

A004

SCHEDULES & DETAILS

DATE: 5/26/2022

PERMIT SET



A REFLECTED CEILING PLAN

SCALE: 1/4" = 1'

5' 0' 15'

SYMBOLS & ABBREVIATIONS

- # - EXTERIOR ELEVATION
- ⊕ - SOLAR TUBULAR LIGHT
- ⛶ - BATHROOM EXHAUST FAN
- ● - SMOKE ALARM

FINISH NOTE:

- A 1X8 T&G
- B 1X4 BATTENS, TYP

TRIM NOTE:
1X6 WOOD TRIM @ WALL TO CEILING
1X6 WOOD TRIM @ BASEBOARD
1X4 WOOD TRIM @ WINDOWS
1X4 WOOD TRIM @ DOORS (UNO)
1X6 WOOD TRIM @ 8' H DOORS D1 & D6

K. Nichols Butterbaugh, Architect

STAMP

KENNA NICHOLS BUTTERBAUGH LICENSED PROFESSIONAL ARCHITECT No. 9421 HAWAII U.S.A.

EXP. 4.30.2024

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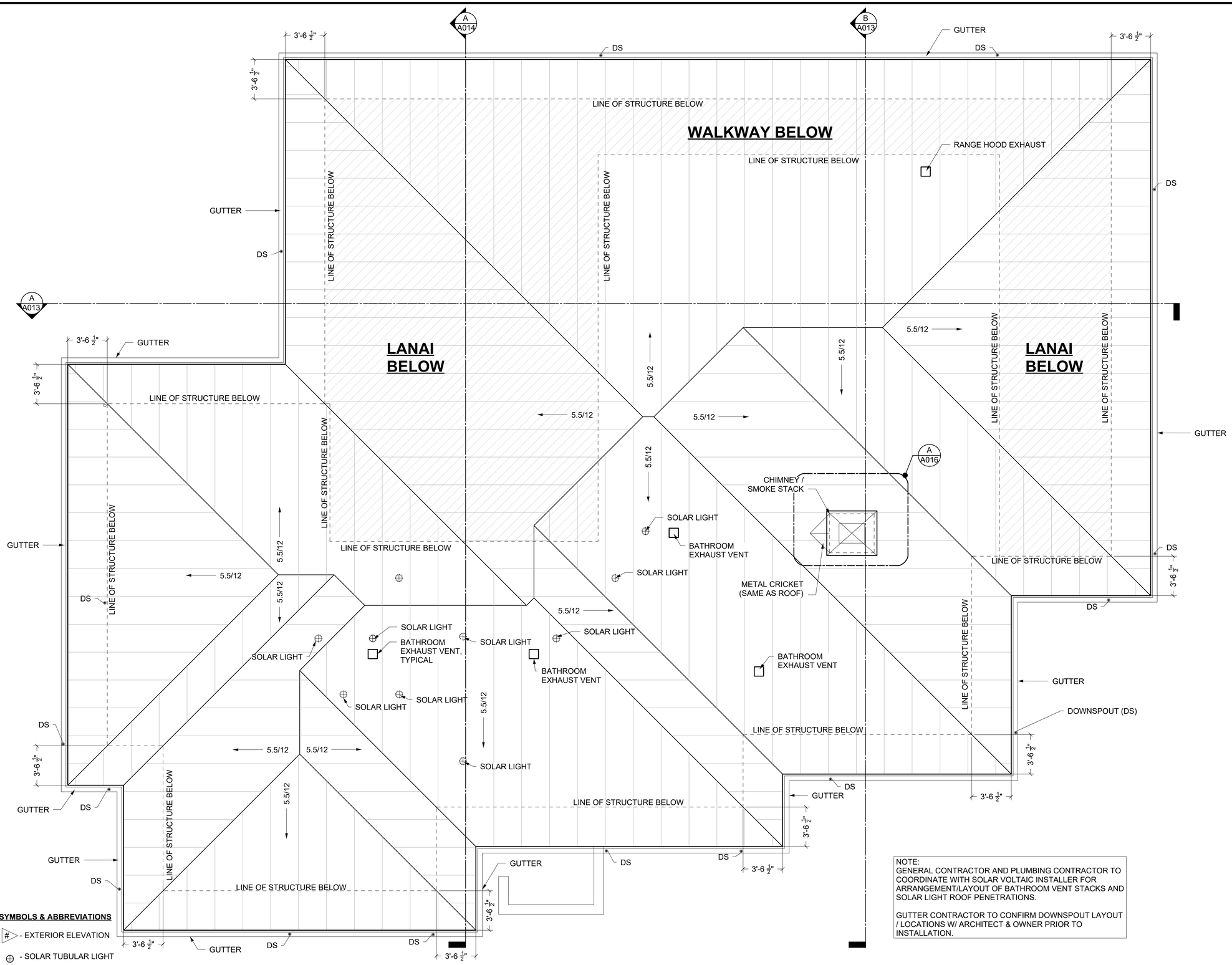
A005

REFLECTED CEILING PLAN

DATE: 5/26/2022

PERMIT SET



SYMBOLS & ABBREVIATIONS

- # - EXTERIOR ELEVATION
- - SOLAR TUBULAR LIGHT
- - VENT STACK

NOTE:
GENERAL CONTRACTOR AND PLUMBING CONTRACTOR TO COORDINATE WITH SOLAR VOLTAIC INSTALLER FOR ARRANGEMENT/LAYOUT OF BATHROOM VENT STACKS AND SOLAR LIGHT ROOF PENETRATIONS.

GUTTER CONTRACTOR TO CONFIRM DOWNSPOUT LAYOUT / LOCATIONS W/ ARCHITECT & OWNER PRIOR TO INSTALLATION.

A ROOF PLAN

SCALE: 1/4" = 1'

5' 0' 15'

K. Nichols Butterbaugh, Architect

STAMP

LICENSED PROFESSIONAL ARCHITECT No. 9421 HAWAII U.S.A.

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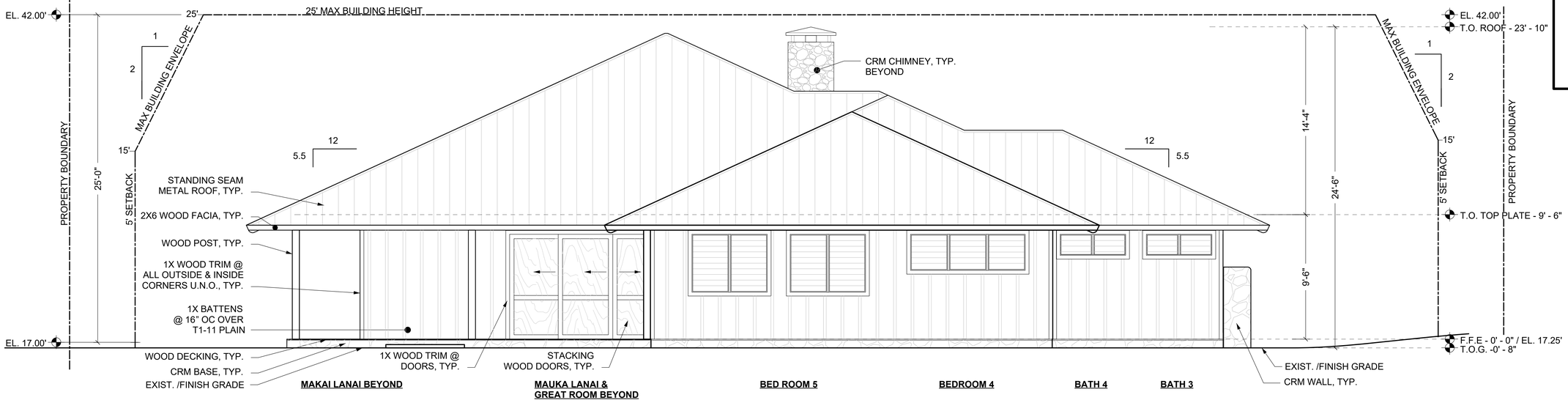
A006

ROOF PLAN

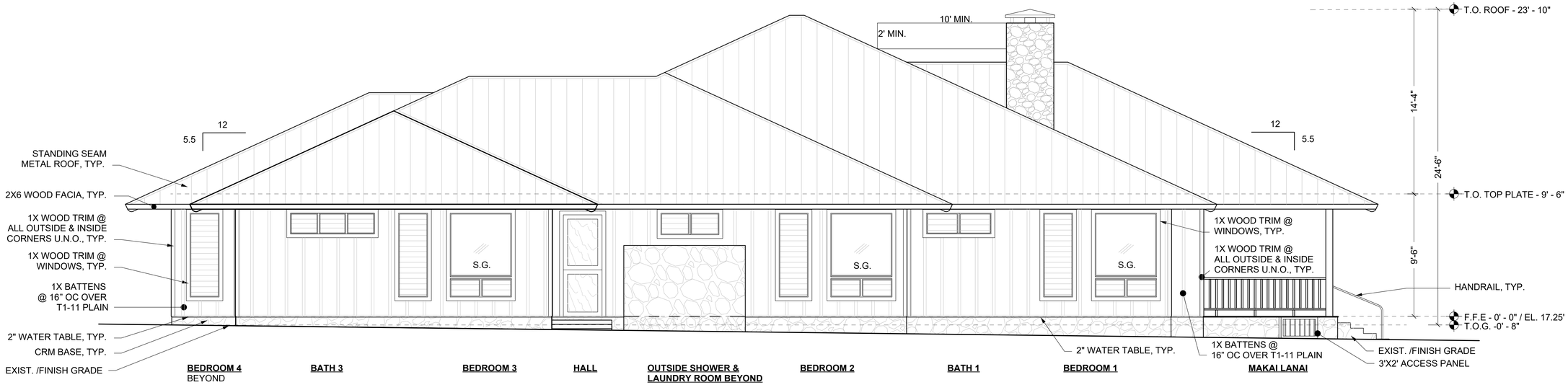
DATE: 5/26/2022

PERMIT SET



Ⓐ MAUKA ELEVATION

SCALE: 1/4" = 1' 5' 0' 15'



Ⓑ LAIE ELEVATION

SCALE: 1/4" = 1' 5' 0' 15'

FINISH NOTES:
1X4 TRIM @ WINDOWS
1X4 TRIM @ DOORS
1X4 TRIM @ CORNERS
1X3 BATTENS

K. Nichols Butterbaugh, Architect

STAMP

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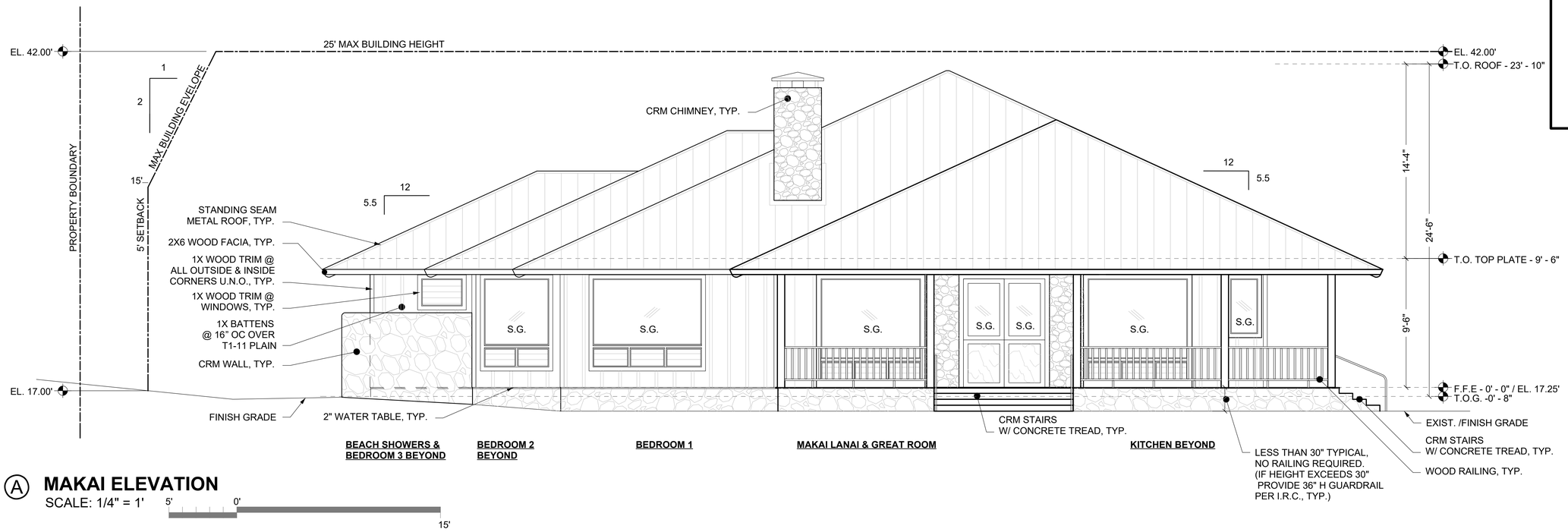
A007

EXTERIOR ELEVATIONS

DATE: 5/26/2022

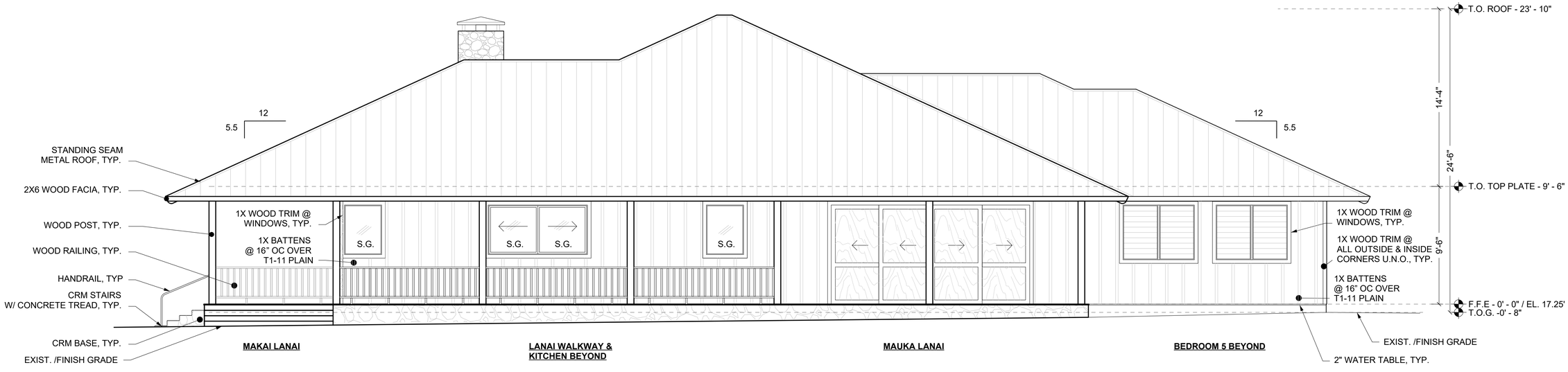
PERMIT SET



Ⓐ MAKAI ELEVATION

SCALE: 1/4" = 1'

5' 0' 15'



Ⓑ KAHUKU ELEVATION

SCALE: 1/4" = 1'

5' 0' 15'

TRIM NOTE:
1X4 TRIM @ WINDOWS
1X4 TRIM @ DOORS
1X4 TRIM @ CORNERS
1X3 BATTENS

K. Nichols Butterbaugh, Architect

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Honolulu, HI 96825-6211

Architect:

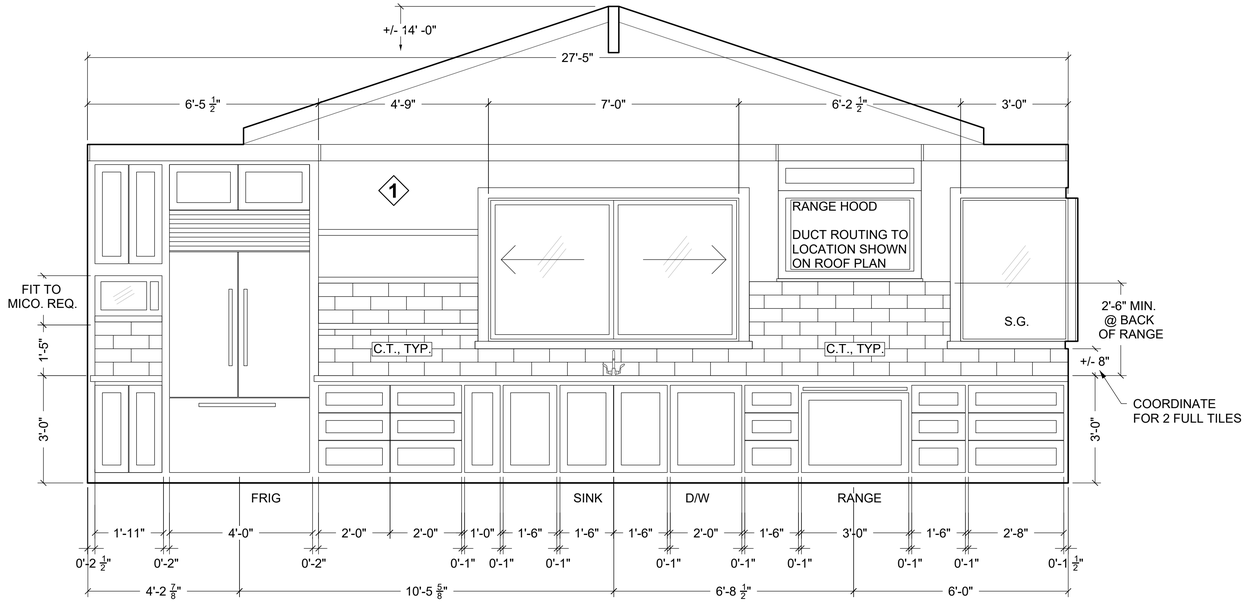
K. Nichols Butterbaugh
Office: (808) 262-1928
Email:
KNBArchitect@Gmail.com
Address:
137 A Kapaa street
Kailua, HI 96734

A008

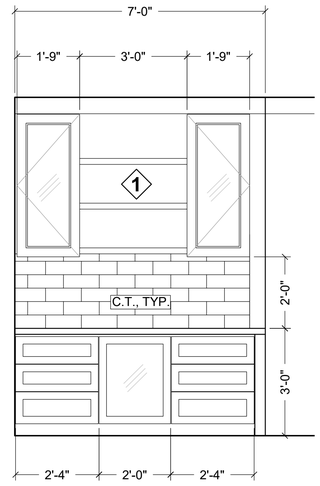
EXTERIOR ELEVATIONS

DATE: 5/26/2022

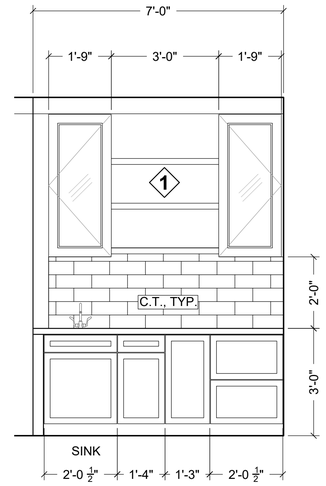
PERMIT SET



A KITCHEN ELEVATION
SCALE: 1/2" = 1'

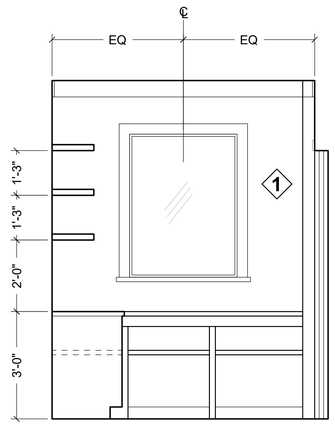


B JUICE BAR
SCALE: 1/2" = 1'



C WET BAR
SCALE: 1/2" = 1'

D MAKAI LIVING ROOM ELEVATION
SCALE: 1/2" = 1'



E PANTRY
SCALE: 1/2" = 1'

1 INTERIOR WALL NOTE:
1/2" MED EX PANEL
W/V-GROOVE @ 12" O.C., TYP.

TRIM NOTE:
1X6 WOOD TRIM @ WALL TO CEILING
1X6 WOOD TRIM @ BASEBOARD
1X4 WOOD TRIM @ WINDOWS
1X4 WOOD TRIM @ DOORS (UNO)
1X6 WOOD TRIM @ 8' H DOORS D1 & D6

CONTRACTOR NOTES:

CONTRACTOR SHALL VERIFY ALL INTERIOR CABINET LAYOUTS, HEIGHTS, DIMENSIONS, ETC., WITH SHOP DRAWINGS & APPLIANCE SPECIFICATIONS. NOTIFY ARCHITECT AND OWNER OF ALL CHANGES, DISCREPANCIES OR CONFLICTS PRIOR TO INSTALLATION.

SCALE BAR: 5' 0'

K. Nichols Butterbaugh, Architect

STAMP

EXP. 4.30.2024

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PROJECT SITE INFORMATION

Address:
56 229 Kamehameha Hwy
Kahuku, HI 96731

TMK: 5-6-001:077
Area (sq ft): 34,064
Area (acres): .7820
Lot Number: 1254

FEMA Flood Designation: X
Tsunami Evacuation Zone: Yes
SMA: In SMA
Zoning (LUO) R-5

PROJECT DESCRIPTION

New single family home at
56 229 Kamehameha Highway

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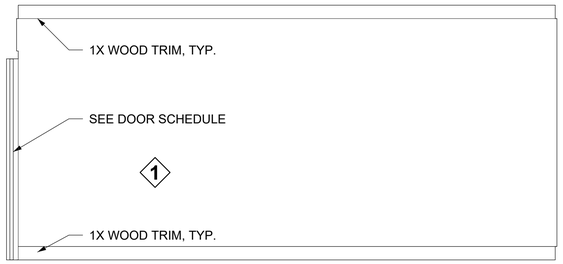
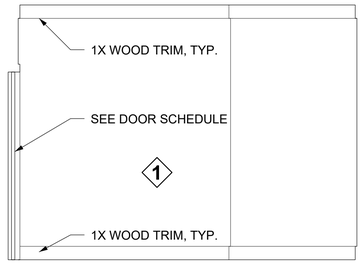
A009

KITCHEN, LIVING, DINING INTERIOR ELEVATIONS

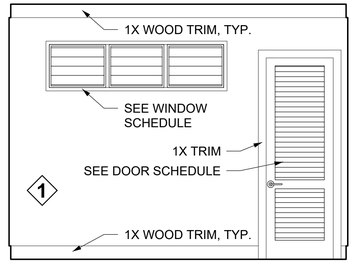
DATE: 5/26/2022



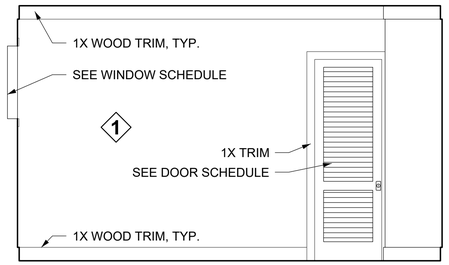
Ⓐ BEDROOM 1 TYP. ELEVATION
SCALE: 3/8" = 1'



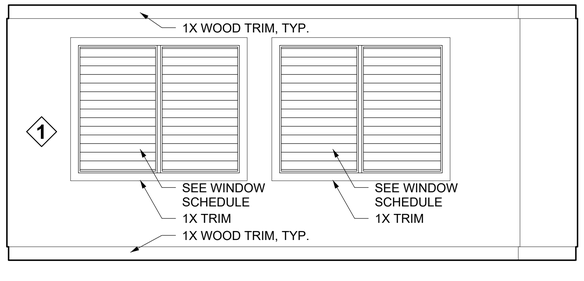
Ⓑ BEDROOM 2 TYP. ELEVATION
SCALE: 3/8" = 1'



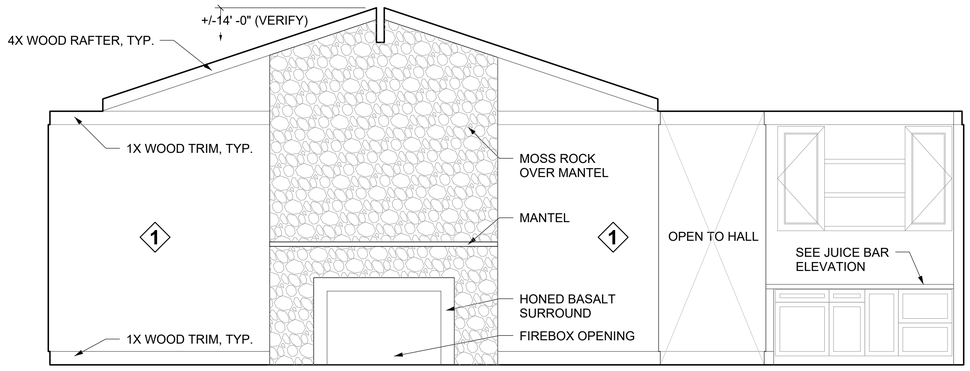
Ⓒ BEDROOM 3 TYP. ELEVATION
SCALE: 3/8" = 1'



Ⓓ BEDROOM 4 TYP. ELEVATION
SCALE: 3/8" = 1'



Ⓔ BEDROOM 5 TYP. ELEVATION
SCALE: 3/8" = 1'



Ⓕ LIVING ROOM CHIMNEY ELEVATION
SCALE: 3/8" = 1'

① INTERIOR WALL NOTE:
1/2" MED EX PANEL
W/V-GROOVE @ 12" O.C., TYP.

TRIM NOTE:
1X6 WOOD TRIM @ WALL TO CEILING
1X6 WOOD TRIM @ BASEBOARD
1X4 WOOD TRIM @ WINDOWS
1X4 WOOD TRIM @ DOORS (UNO)
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SCALE BAR: 5' 0'

PERMIT SET

K. Nichols Butterbaugh, Architect

STAMP

KAIMA NICHOLS BUTTERBAUGH LICENSED PROFESSIONAL ARCHITECT No. 9421 STATE OF HAWAII

EXP. 4.30.2024

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Office: (808) 262-1928
Email:
KNBArchitect@Gmail.com
Address:
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Kailua, HI 96734

A010

BEDROOMS & LIVING ROOM INTERIOR ELEVATIONS

DATE: 5/26/2022

BATHROOM FINISH NOTES:

ALL BATHROOMS TO HAVE WP GYP. BD., USE HARDIE BACKER BD. AT ALL WET AREAS, WITH WP MEMBRANE COATING APPLIED PER MANUFACTURERS SPECIFICATIONS PRIOR TO APPLICATION OF CT/STONE FINISH, TYP.

TRIM NOTE:
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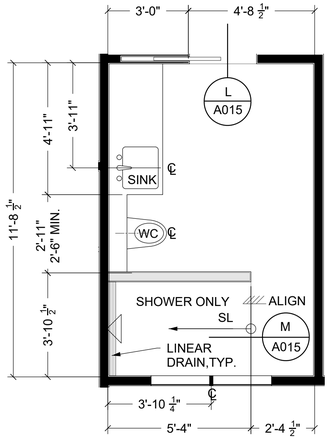
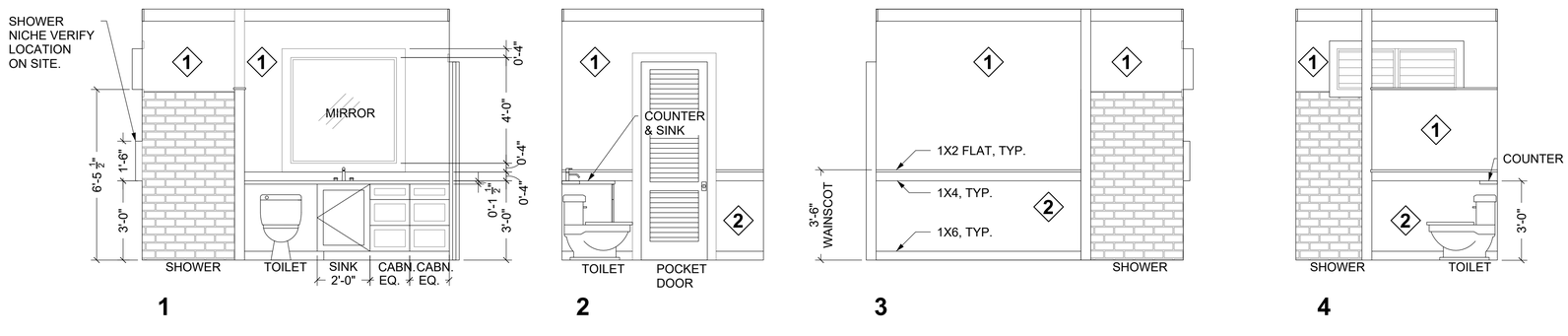
INTERIOR WALL NOTE:
1 1/2" MED EX PANEL W/V-GROOVE @ 12" O.C., TYP.
2 1/2" X 2 1/2" BATTEN @ 12 O.C. ALIGN/CENTER ON GROOVES ABOVE

PERMIT SET

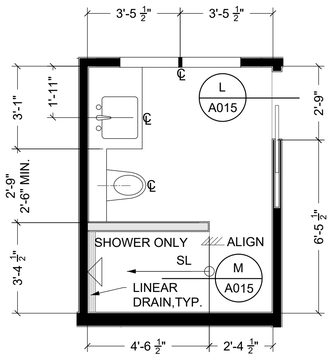


A BATHROOM 1 PLAN
SCALE: 3/8" = 1'

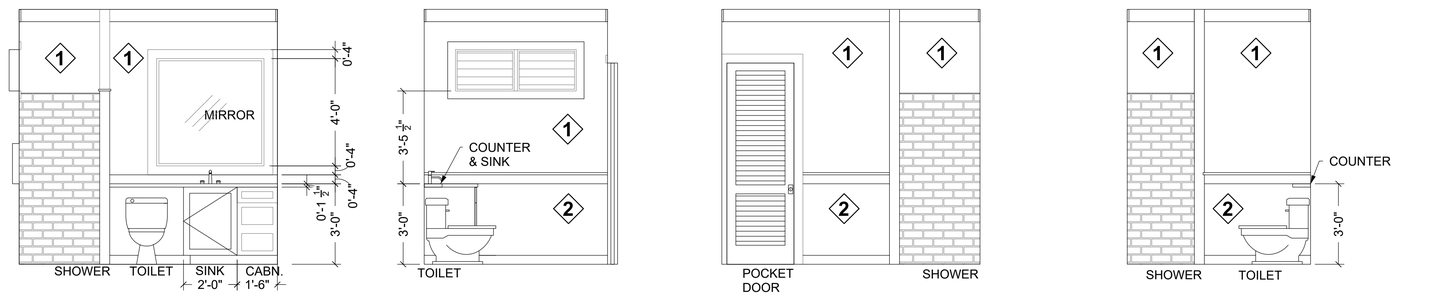


1 2 3 4

B BATHROOM 1 ELEVATIONS
SCALE: 3/8" = 1'

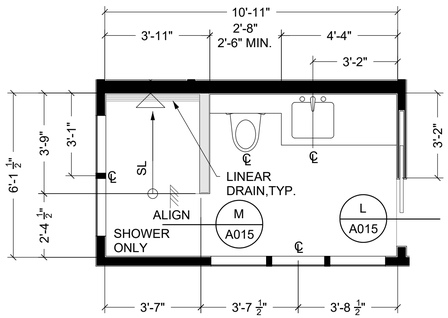


C BATHROOM 2 PLAN
SCALE: 3/8" = 1'

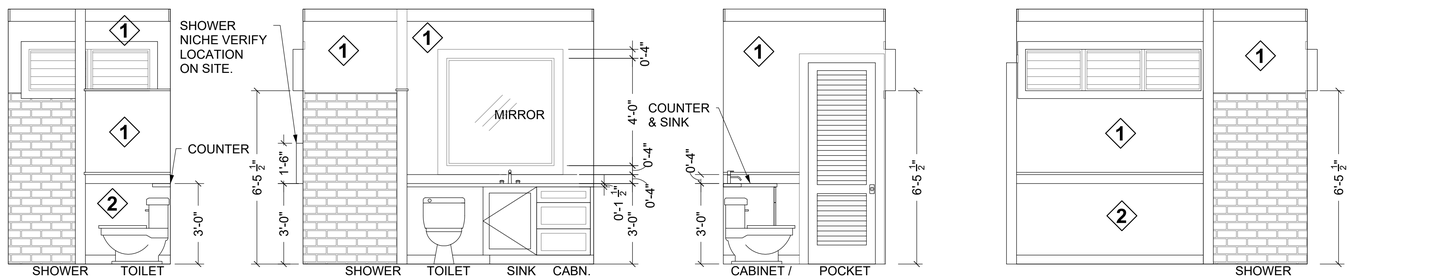


1 2 3 4

D BATHROOM 2 ELEVATIONS
SCALE: 3/8" = 1'



E BATHROOM 3
SCALE: 3/8" = 1'



1 2 3 4

F BATHROOM 3 ELEVATIONS
SCALE: 3/8" = 1'

INTERIOR ELEVATION KEY

SCALE BAR: 5' 0'

K. Nichols Butterbaugh, Architect

STAMP

EXP. 4.30.2024

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Office: (808) 262-1928
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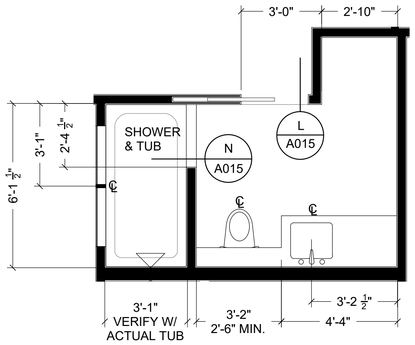
KNBArchitect@Gmail.com
Address:
137 A Kapaa street
Kailua, HI 96734

A011

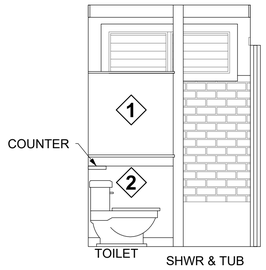
BATH ROOMS
ENLARGED PLAN & ELE.

DATE: 5/26/2022



Ⓐ BATHROOM 4

SCALE: 3/8" = 1'



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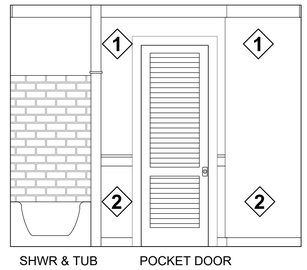

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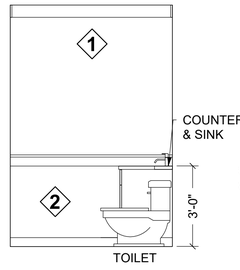

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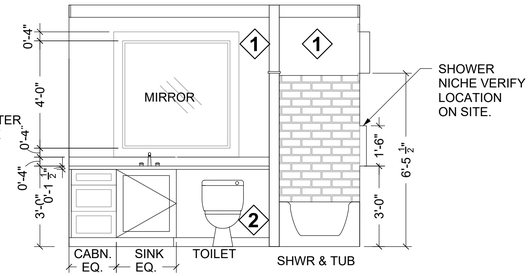

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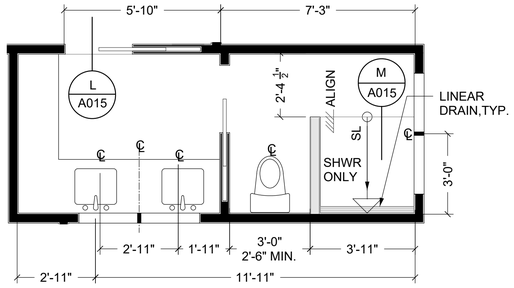
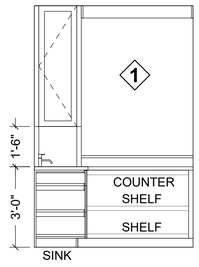
Ⓑ BATHROOM 4 ELEVATIONS

SCALE: 3/8" = 1'



Ⓒ BATHROOM 5 PLAN

SCALE: 3/8" = 1'



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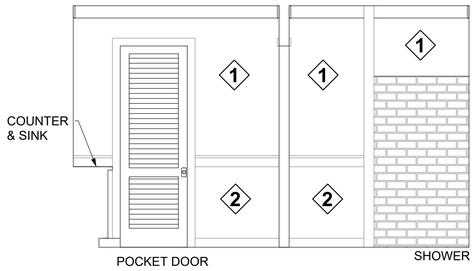

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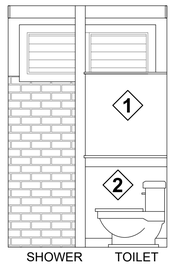

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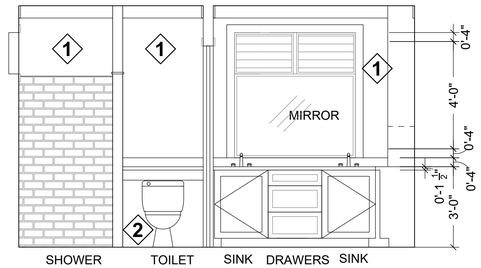

4

Ⓓ BATHROOM 5 ELEVATIONS

SCALE: 3/8" = 1'

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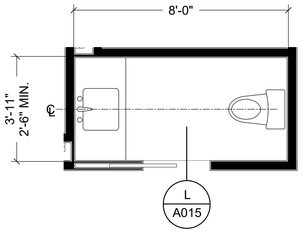
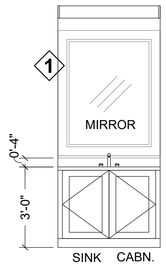


Ⓔ BATHROOM 6 PLAN

SCALE: 3/8" = 1'



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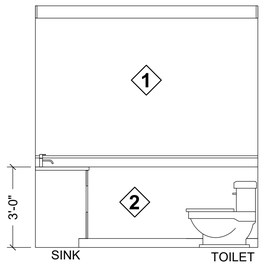

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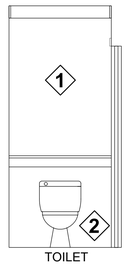

3

4

Ⓕ BATHROOM 6 ELEVATIONS

SCALE: 3/8" = 1'

TRIM NOTE:

1X6 WOOD TRIM @ WALL TO CEILING
1X6 WOOD TRIM @ BASEBOARD
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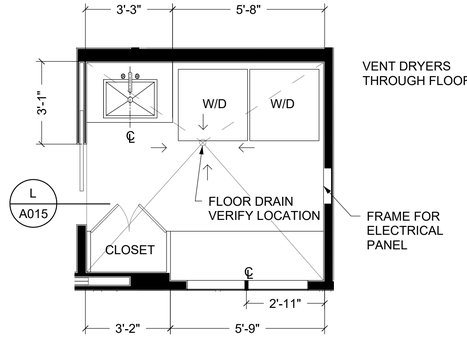
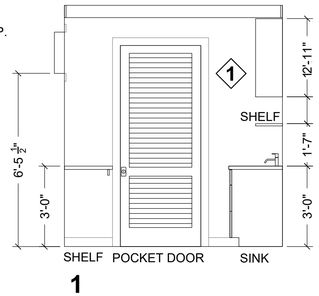


Ⓖ LAUNDRY ROOM PLAN

SCALE: 3/8" = 1'



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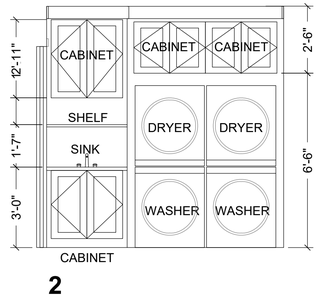

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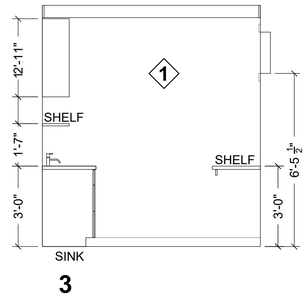

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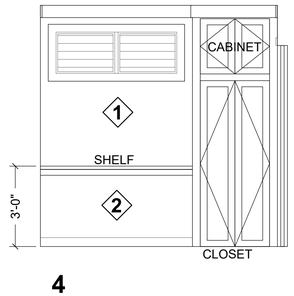

4

Ⓗ LAUNDRY ROOM ELEVATIONS

SCALE: 3/8" = 1'

INTERIOR ELEVATION KEY

SCALE BAR: 5' 0'

PERMIT SET

K. Nichols Butterbaugh, Architect

STAMP

EXP. 4.30.2024

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Architect:

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Address:
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Kailua, HI 96734

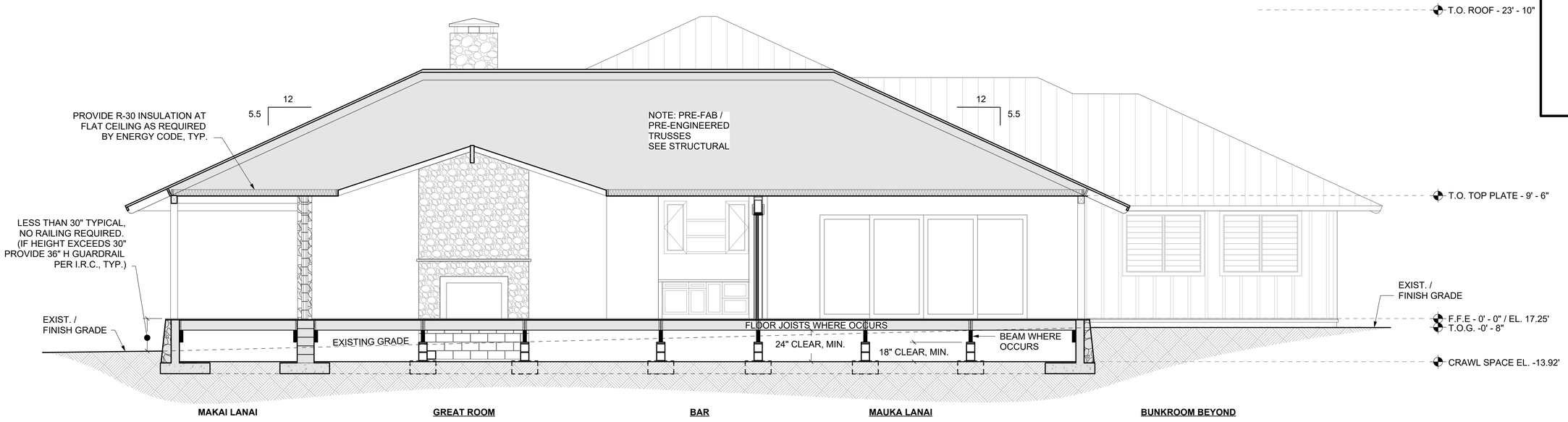
A012

PAGE 13 of 26

BATHS, LAUNDRY, ENLARGED PLAN & ELE.

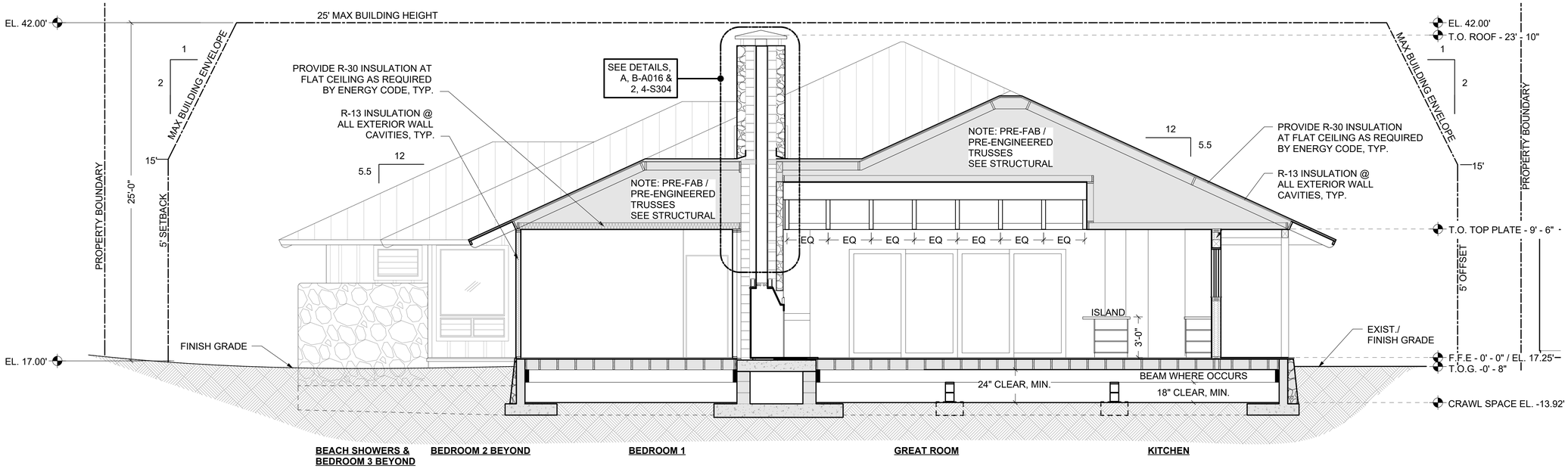
DATE: 5/26/2022

PERMIT SET



Ⓐ MAUKA - MAKAI - BUILDING SECTION

SCALE: 1/4" = 1' 5' 0' 15'



Ⓑ LIVING ROOM & BEDROOM 1 - BUILDING SECTION

SCALE: 1/4" = 1' 5' 0' 15'

K. Nichols Butterbaugh, Architect

STAMP

EXP. 4.30.2024

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PROJECT SITE INFORMATION

Address:
56 229 Kamehameha Hwy
Kahuku, HI 96731

TMK: 5-6-001:077
Area (sq ft): 34,064
Area (acres): .7820
Lot Number: 1254

FEMA Flood Designation: X
Tsunami Evacuation Zone: Yes
SMA: In SMA
Zoning (LUO) R-5

PROJECT DESCRIPTION

New single family home at
56 229 Kamehameha Highway

CONTACT

Client:
KE PIKI OHANA LLC

Email:

Address:
PO BOX 26211
Honolulu, HI 96825-6211

Architect:

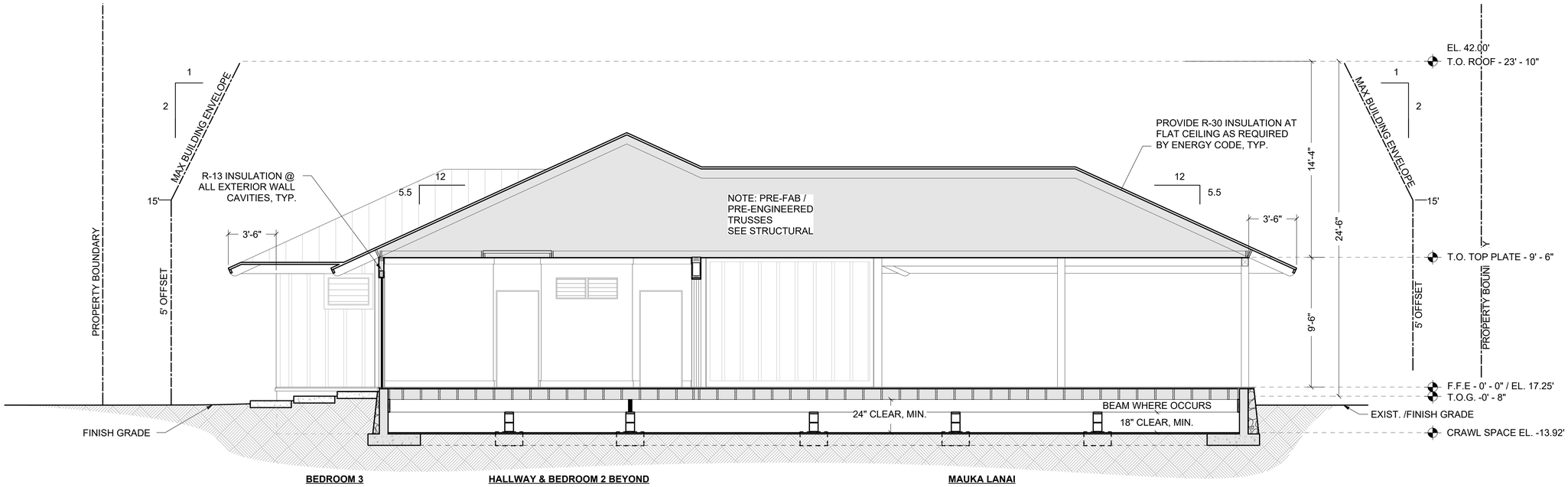
K. Nichols Butterbaugh
Office: (808) 262-1928
Email:
KNBArchitect@Gmail.com
Address:
137 A Kapaa street
Kailua, HI 96734

A013

BUILDING SECTIONS

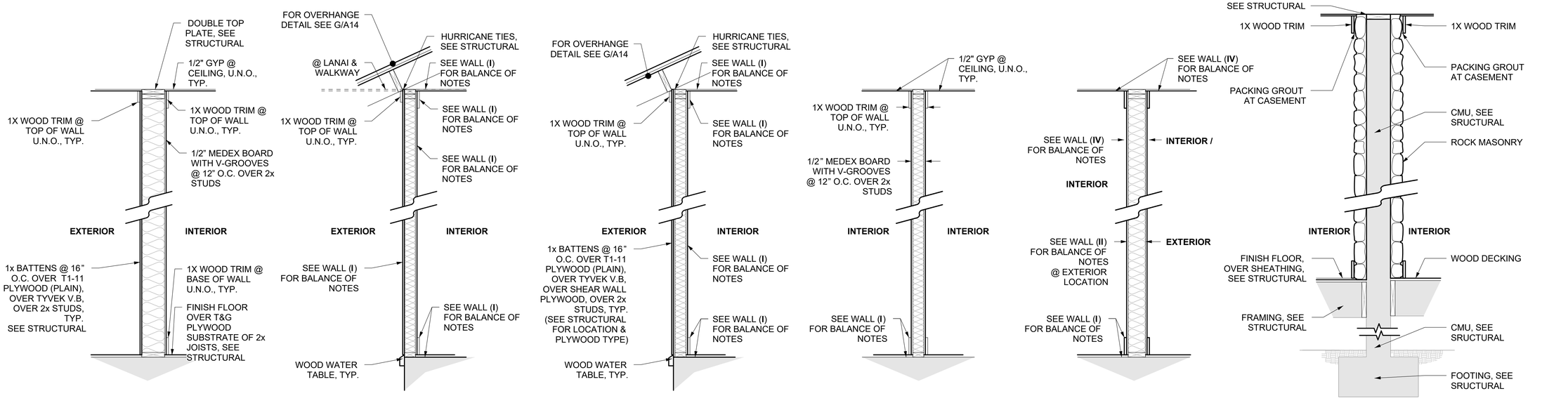
DATE: 5/26/2022

PERMIT SET



Ⓐ MAUKA LANAI & HALL WAY - BUILDING SECTION

SCALE: 1/4" = 1' 5' 0' 15'



WALL TYPE TAG * SEE PLAN FOR LOCATIONS

Ⓑ TYPICAL WALL SECTIONS

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

Ⓒ FIRE PLACE WALL SECTION

SCALE: 1/2" = 1' 1' 0' 3'

K. Nichols Butterbaugh, Architect

STAMP

EXP. 4.30.2024

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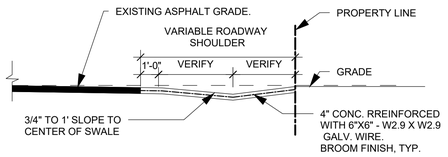
A014

BLDG & WALL SECT.

DATE: 5/26/2022

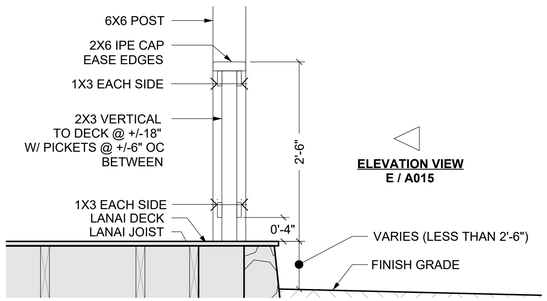
PERMIT SET



Ⓐ APRON & APPROACH SECTION

SCALE: 1/4" = 1'

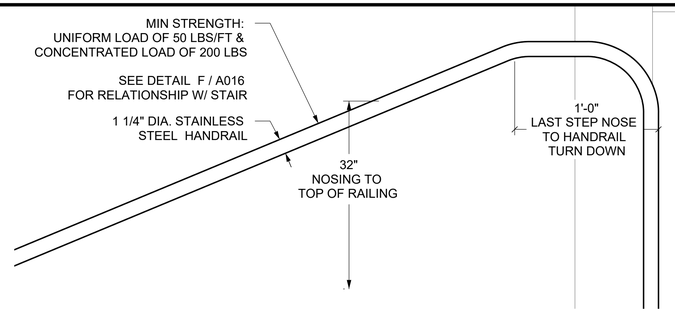
5' 0' 15'



Ⓑ WOOD RAILING SECTION DETAIL

SCALE: 1"=1'

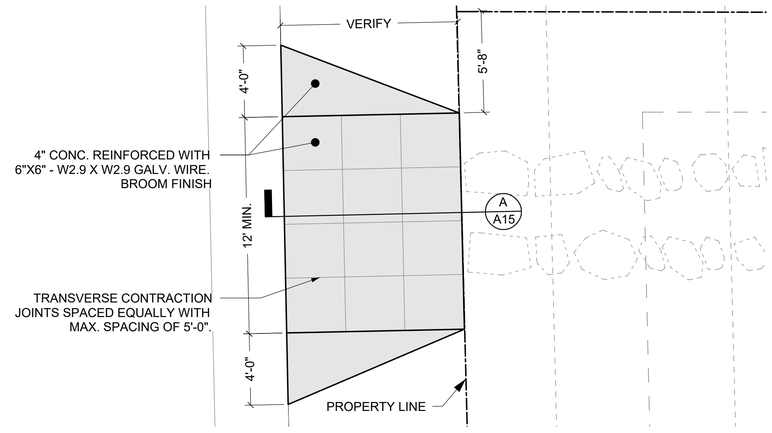
1' 0'



Ⓒ HANDRAIL DETAIL

SCALE: 1"=6"

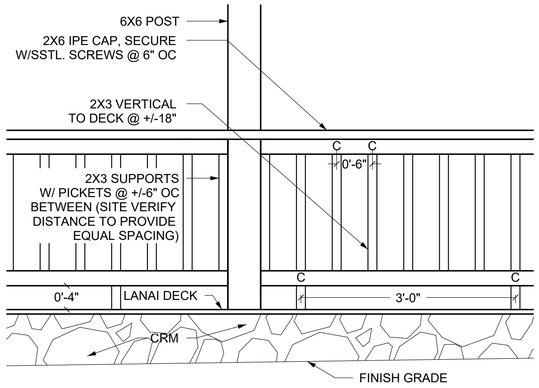
1' 0'



Ⓓ APRON & APPROACH PLAN

SCALE: 1/4" = 1'

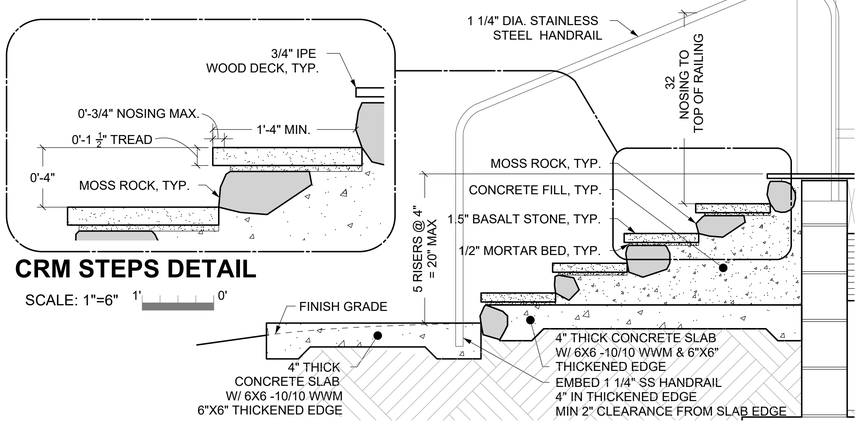
5' 0' 15'



Ⓔ WOOD RAILING ELEVATION DETAIL

SCALE: 1"=1'

1' 0'



CRM STEPS DETAIL

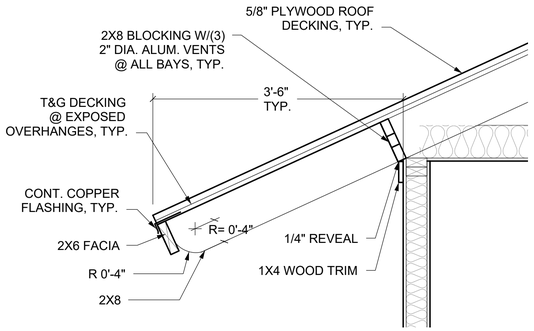
SCALE: 1"=6"

1' 0'

Ⓕ CRM STEPS SECTION

SCALE: 1"=1'

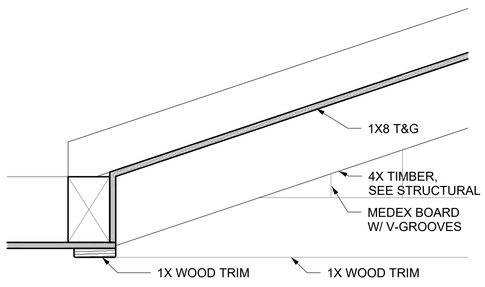
1' 0'



Ⓖ TYPICAL ROOF EAVE DETAIL

SCALE: 1" = 1'

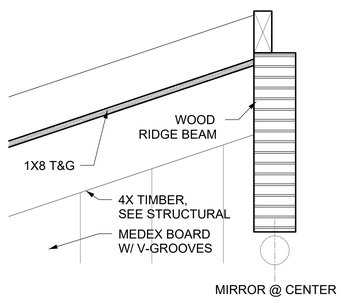
1' 0'



Ⓗ VAULT BASE TRIM

SCALE: 1" = 1'

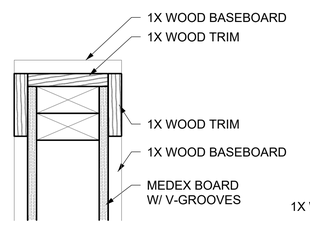
1' 0'



Ⓘ VAULT RIDGE TRIM

SCALE: 1" = 1'

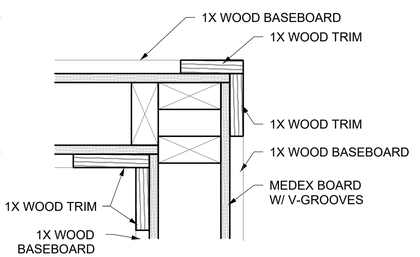
1' 0'



Ⓙ WALL END CAP TRIM

SCALE: 1" = 1'

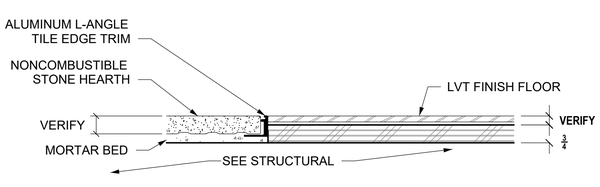
1' 0'



Ⓚ WALL COENER TRIM

SCALE: 1" = 1'

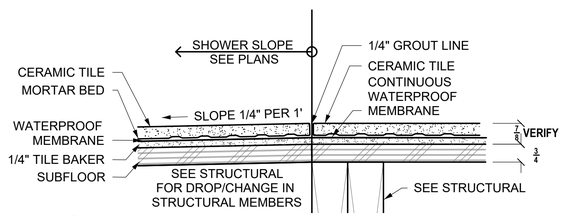
1' 0'



Ⓛ TILE TO LVT FINISH FLOOR TRANSITION

SCALE: 1" = 3"

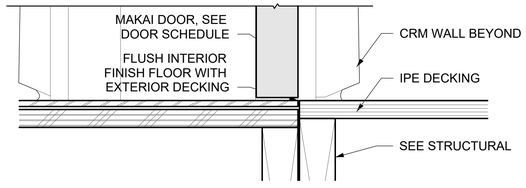
3" 0'



Ⓜ SHOWER TILE TO BATHROOM TILE

SCALE: 1" = 3"

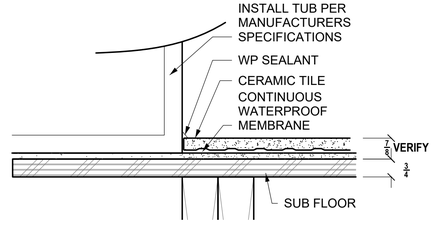
3" 0'



Ⓝ DWELLING TO LANAI

SCALE: 1" = 3"

3" 0'



Ⓝ DWELLING TO LANAI

SCALE: 1" = 3"

3" 0'

K. Nichols Butterbaugh, Architect

STAMP

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PROJECT SITE INFORMATION

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TMK: 5-6-001:077
Area (sq ft): 34,064
Area (acres): .7820
Lot Number: 1254

FEMA Flood Designation: X
Tsunami Evacuation Zone: Yes
SMA: In SMA
Zoning (LUO) R-5

PROJECT DESCRIPTION

New single family home at
56 229 Kamehameha Highway

CONTACT

Client:
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Email:

Address:
PO BOX 26211
Honolulu, HI 96825-6211

Architect:

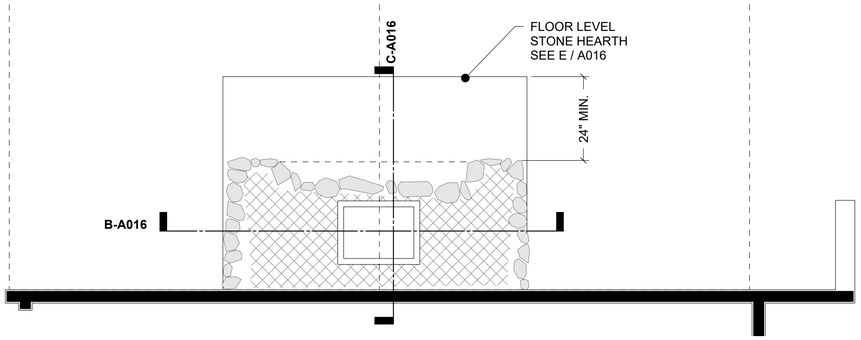
K. Nichols Butterbaugh
Office: (808) 262-1928
Email:
KNBArchitect@Gmail.com
Address:
137 A Kapaa street
Kailua, HI 96734

A015

INT. & EXT. DETAILS

DATE: 5/26/2022

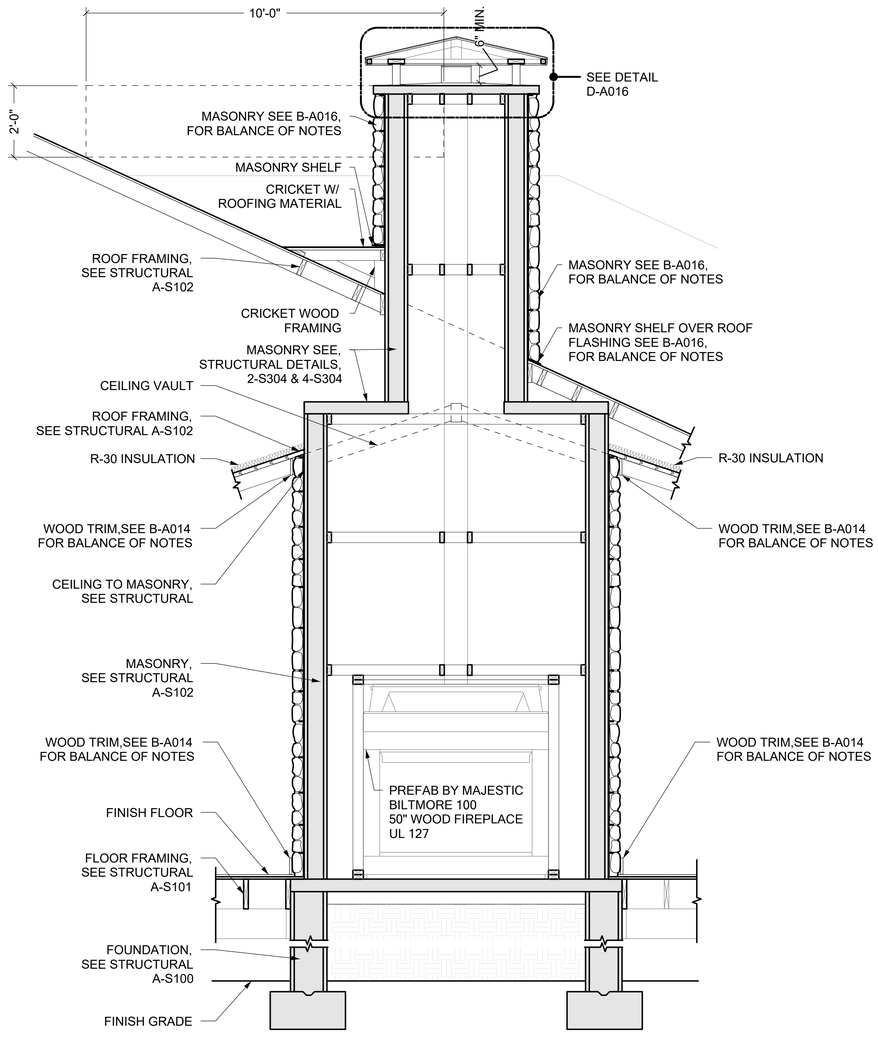
PERMIT SET



Ⓐ FIREPLACE PLAN

SCALE: 1/2" = 1'

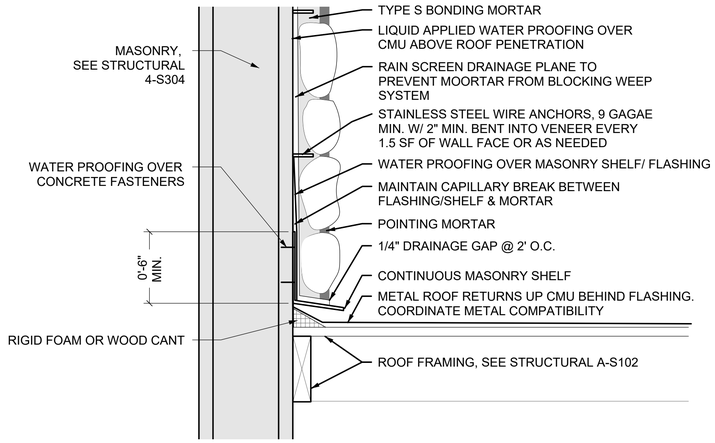
5' 0'



Ⓑ FIRE PLACE SECTION

SCALE: 1/2" = 1'

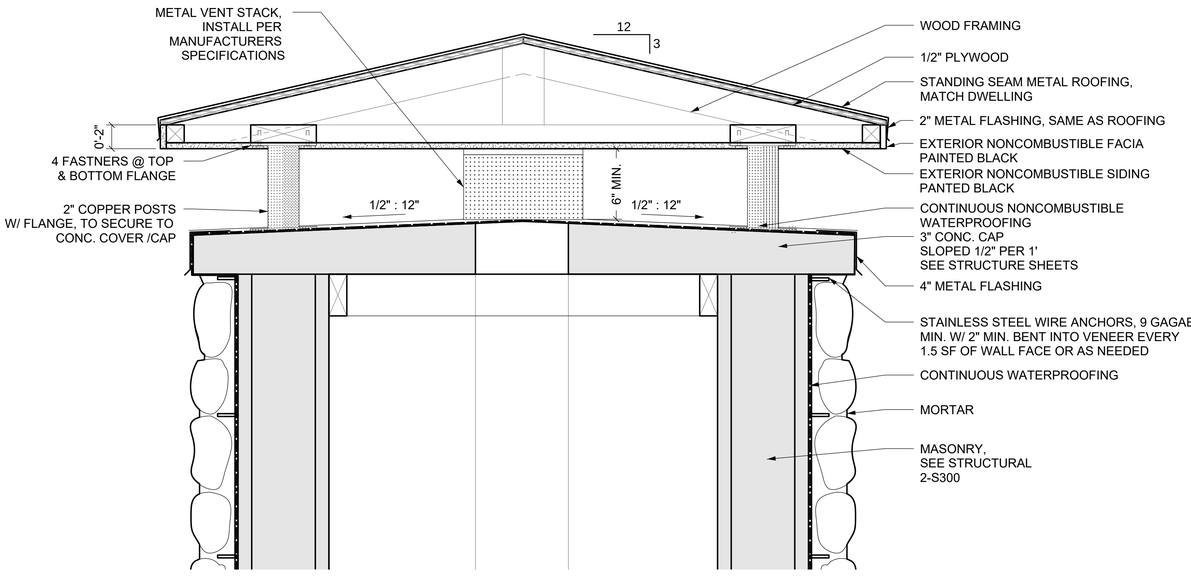
5' 0'



Ⓒ CHIMNEY TO ROOF DETAIL

SCALE: 1"=1'

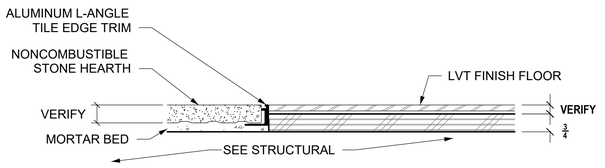
1' 0'



Ⓓ CHIMNEY SECTION DETAIL

SCALE: 1"=1'

6" 0'



Ⓔ STONE HEARTH TO LVT FINISH FLOOR TRANSITION

SCALE: 1" = 3"

3" 0'

K. Nichols Butterbaugh, Architect

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LICENSED PROFESSIONAL ARCHITECT No. 9421 KENNETH NICHOLS BUTTERBAUGH HAWAII U.S.A.

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Office: (808) 262-1928
Email:
KNBArchitect@Gmail.com
Address:
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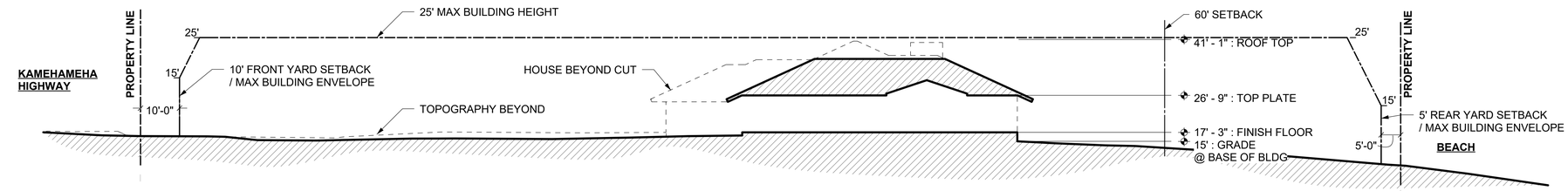
A016

PAGE 17 of 26

CHIMNEY DETAILS

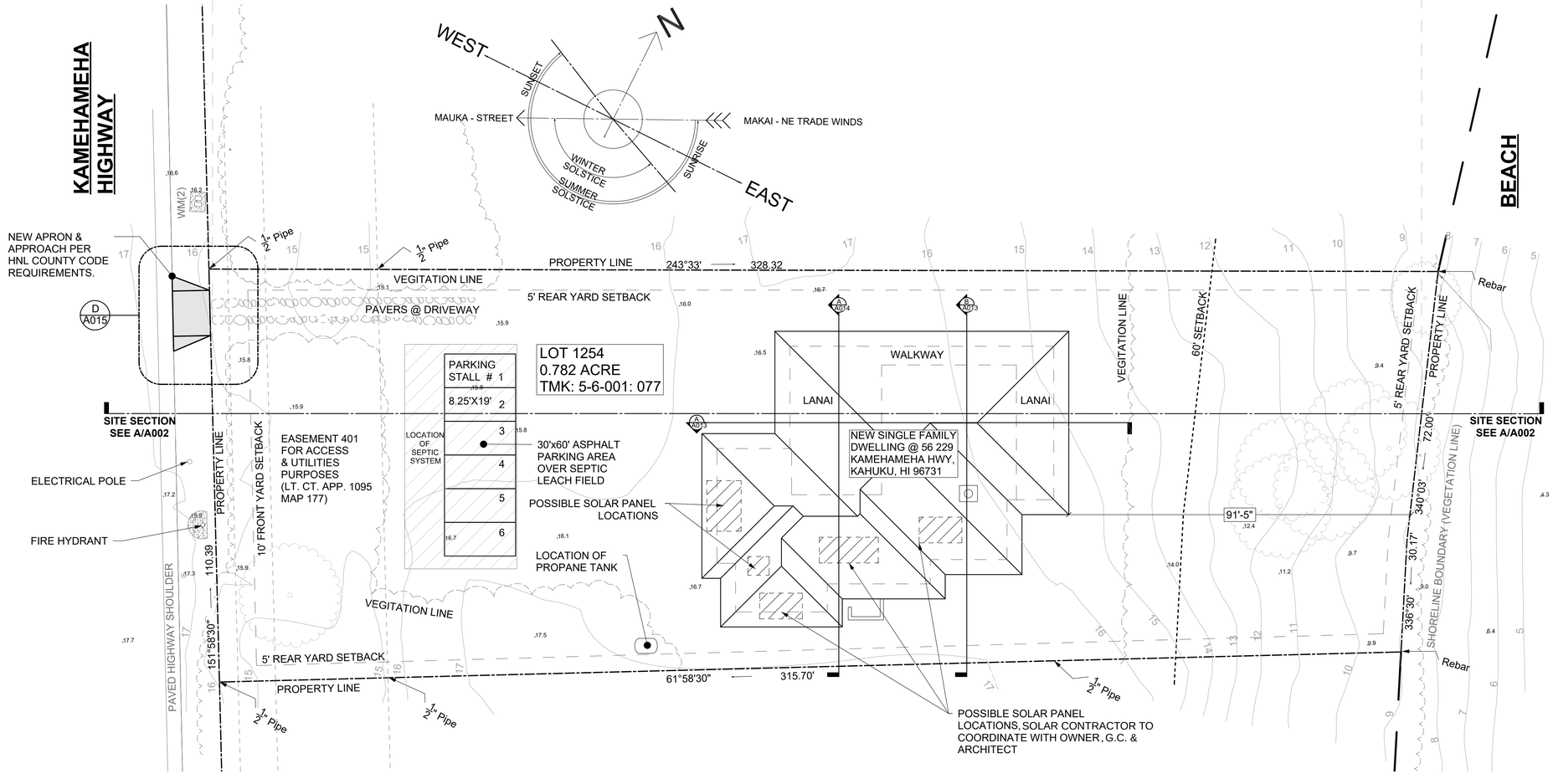
DATE: 5/26/2022

PERMIT SET



A SITE SECTION

SCALE: 1/16" = 1' 20' 0' 60'



B SITE PLAN

SCALE: 1/16" = 1' 20' 0' 60'

K. Nichols Butterbaugh, Architect

STAMP

KAMA K. NICHOLS BUTTERBAUGH LICENSED PROFESSIONAL ARCHITECT No. 9421 STATE OF HAWAII

EXP. 4.30.2024

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A002

PAGE 3 of 26

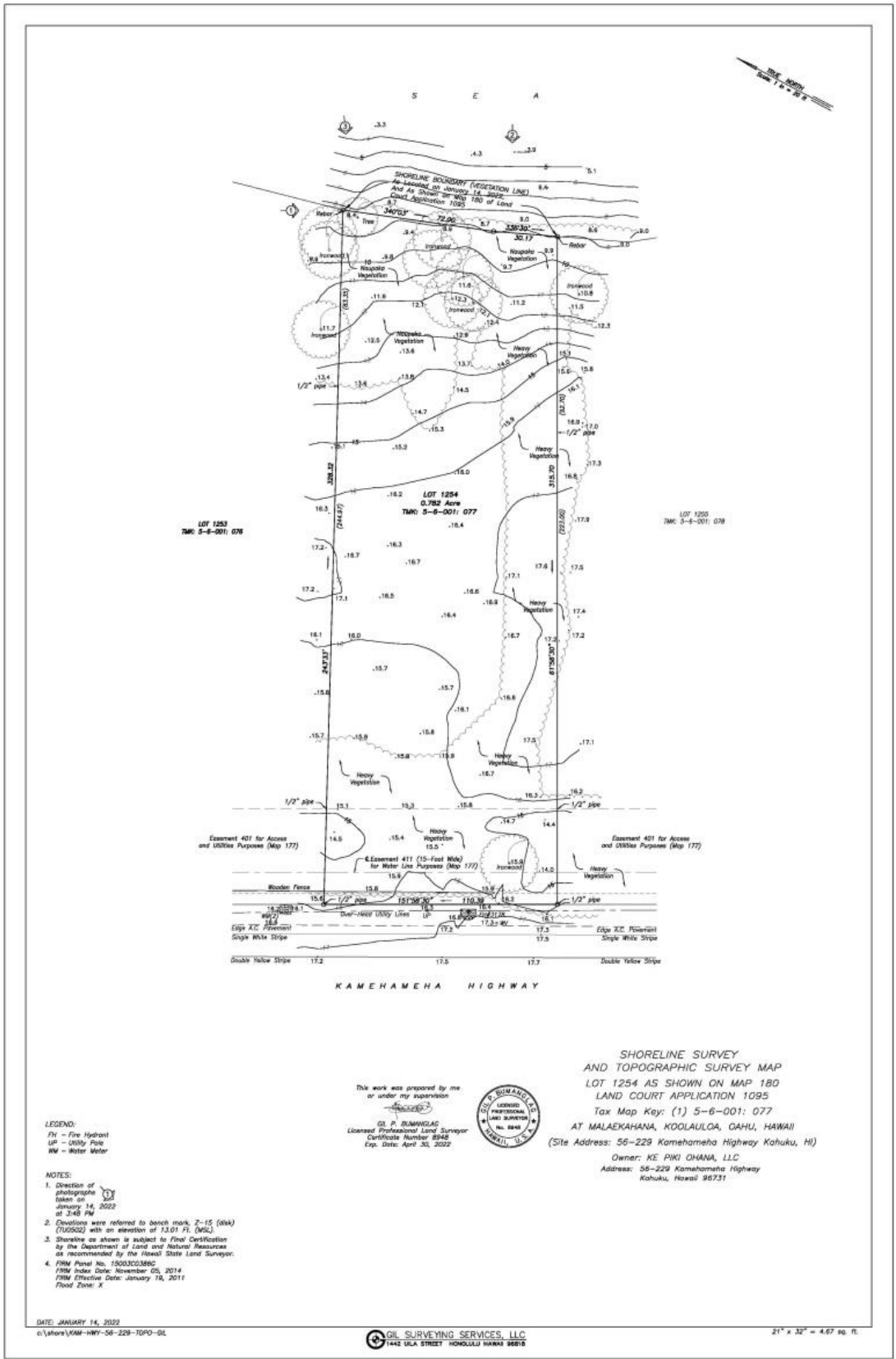
SITE PLAN & SECTION

DATE: 5/26/2022

APPENDIX B

SHORELINE DETERMINATION

Shoreline Determination and Setback Requirements



Shoreline Determination Close Up

The planned Ke Piki Ohana LLC property single family home development involves new construction of a single-family home. The new home construction will not encroach any further to the shoreline than the existing shoreline determination delineates and remains outside the 60' defined shoreline setback.

Below is the Survey Plan showing the topography of the site and the surveyed shoreline determination based on the high-water mark. Survey was January 14th 2022.

In the design set for the Ke Piki Ohana LLC home construction, this is the shoreline determination used, and the new construction honors the existing setback with no new construction in the setback area. No vegetation will be disturbed in the setback area, no grading or excavation, and the activity will be the placement of erosion barriers segmented along the makai property line to prevent any fill or materials from leaving the outside the construction zone and reaching the shoreline. These are temporary BMPS such as sediment logs or wind screens and will be removed after their intended protection needs wane.

APPENDIX C

BOTANICAL & FAUNAL REPORT

BIOLOGICAL ASSESSMENT - BOTANICAL AND FAUNAL SURVEY

Ke Piki Ohana LLC Property, 56-229 Kamehameha Highway, Kahuku, Oahu
TMK: 1-5-6-001:077

Prepared By: WHALE Environmental Services LLC

Prepared For: Ke Piki Ohana LLC

February 2022

BIOLOGICAL ASSESSMENT - BOTANICAL AND FAUNAL SURVEY

INTRODUCTION

The Ke Piki Ohana LLC Property is located at 56-229 Kamehameha Highway, Kahuku, Oahu, TMK: (1-5-6-001:077). The project area has its driveway frontage on Kamehameha Highway marking the mauka boundary and the Pacific Ocean boundary marking the makai boundary. The goal of the project is to construct a residential single family home on that same property. This biological and faunal assessment was initiated to ensure no biological resources would be significantly impacted by the project development.

CONTACT INFORMATION

Contact Information:
Property Name & Operator: Ke Piki Ohana LLC Property/ Ann and Jin Pietsch
Mailing Address: P.O. Box 26211, Honolulu, HI 96825
Phone: n/a
Email: abpietsch@gmail.com
808jpeach@gmail.com

SITE LOGISTICS

Site Description:
Location of Property: 56-229 Kamehameha Highway, Kahuku, HI 96731
Tax Map Key #(s): 1-5-6-001:077
Size of Property: approximately 0.782 acres
Type of Operation: Residential Single Family Construction
Annual Precipitation: ~31.21 inches (Online Rainfall Atlas of Hawai'i)
Elevation: 0-18 feet
Zoning: Residential
Flooding: 0.2% Annual chance flood hazard
Soils: Art: Artificial JaC Jaucas sands Slopes, 0-20% slope

SITE DESCRIPTION

The project area is situated in the Kahuku, Oahu region, with frontage on Kamehameha Highway. Most of the land is level and vegetated with mostly dense, grassed ground cover with lightly scattered shrubs and trees – mostly located on the perimeter with the interior areas mostly grassed. The shrubs and trees are classic shoreline plants and common to the region For the most part, there is a balance between the herbaceous layer, shrub layer and tree canopy, the site being mostly dominated by the ground layer of grass. The project elevation ranges from 0 to 18 feet above sea level averaging 10-16 feet. Annual rainfall averages 31 inches. Annual air temperature averages 79.6 degrees Fahrenheit. (Climate Kahuku - Hawaii and Weather averages Kahuku (usclimatedata.com))

Project site, Ke Piki Ohana LLC Property–56-229 Kamehameha Highway, Kahuku, HI 96731

Blue line is area surveyed.

The original vegetation on the site would have been a limited coastal zone given the shoreline position on the windward side of Oahu. Typical canopy species would have likely included milo, hau, kamani, perhaps noni and naupaka.

After the arrival of humans, a series of forces including fire, agriculture, forestry, and introduced plants, animals, and diseases transformed these common current sites to predominantly non-native vegetation.

It is unclear when the native tree canopy would have been removed. The fact that there is a band of ironwood (*casuarina equisitifolia*) along the perimeter of the site in a clearly planting line formation likely means that species was placed as a wind break from the shoreline to the forepart of the site to protect from ocean tradewinds for likely agricultural crop protection. It is believed that this area of Malaekahana was old grazing lands of Castle and Cooke. The rest of the property is mostly lawn areas with some areas grassed. The Kamehameha Highway entrance to the site is ironwood (*casuarina equisitifolia*), and hau (sea hibiscus) *Hibiscus tilaceus,* which is believed to be for screening purposes. The shoreline coastal berm is mainly naupaka *(scaevola servica)* and morning glories *(Hawaiian – hunakai, Latin – ipooea imperati)*,

SURVEY OBJECTIVES

The objectives of the survey were to:

- Document what plant and animal species occur on the site or may likely occur in the existing habitat.

- Document the status and abundance of each species.

- Determine the presence or likely occurrence of any native flora and fauna, particularly any which *are Federally-listed as Threatened or Endangered*. If such occur, identify what features of the habitat may be essential for these species.

- Determine if the project area contains any special habitats which if lost or altered might result in a significant negative impact on the flora and fauna in this part of the island.

SURVEY METHODS

A walk-through botanical survey method was used following horizontal-to-the shoreline transects in 50' wide swaths. The width surveyed was slightly varied based on vegetation locations, but was generally at least twenty-five feet on either side of a transect on this relatively open site. Notes on vegetative types were photo and word recorded.

Notes were made on plant species, distribution and abundance. Extra emphasis was placed on areas with high diversity (if present), such as gullies with ferns and other pockets of remnant native plants (*not present*). The route was surveyed on February 15th, 2022 and February 18th, 2022. Vegetation on the site is predominantly non-native, with two main habitat types. The midpoint section consists of an open lawn covered by grass as the dominant species. The perimeters of the site section is dominated by mixed trees, and shrub canopy and herbaceous layers of mostly introduced species common to the introduced plants to Hawaii but not common to native species.

REPRESENTATIVE PHOTOS

From the entrance to the site on the Kamehameha Highway to about the midpoint of the 0.782 acre site, the grounds are bare in some areas (driveway) or vegetated with stretches of common grass. Outside of the dominant grass understory in the mauka portion, there are several ironwood trees(*casuarina equisitifolia)*at the entrance *(see photos)* There are no native plants in the mauka section.

Between the mauka section and the makai section lays a mid-site area of grass with an ironwood trees(*casuarina equisitifolia*) tree canopy in a few areas that have been trimmed on the lower trunk areas. Also behind the ironwood canopy but before the coastal shoreline lies a region with other invasives inter-dispersed with the common grass. These include but are not limited to very scattered, but present are invasive and endemic herbaceous plants such as:

Johnny Jump-ups *(viola tricolor)*
Golden Crown-beard aster (*verbesina encelinides*)
Morning Glories *(ipomoea imperati)*
Seedling ʻKoa haole *(leucaena leucocephala)*
Goosefoot *(chenopodium oahuense)*
Assorted Sedges *(fimbristylis cymosa)*

MAKAI SECTION

The makai portion of the site is predominantly a sandy coastal zone with a dune-lining row of shrubs of naupaka *(scaevola servica)*. As well, on the perimaters of the site to the east, tree heliotrope *(tournefortia argenica)* was seen as well. Morning Glories *(ipomoea imperati)* were seen in open areas of the coastal berm.

Non-native shrubs are trying to grow in the few sunny openings, but also appear stunted. ʻKoa haole *(leucaena leucocephala)* is the most common of these, but less than of dozen of this normally highly invasive species are established. A few Hawaiian asters are in the area, along with the goosefoot and morning glories.

Most of the project area has been heavily impacted by previous human disturbances and is currently dominated by hardy non-native plants. None are of special conservation concern. No special native plant habitats occur on the project site that is not found elsewhere in this part of the island. The proposed project is not expected to have a significant negative impact on the botanical resources in this part of Oahu.

FAUNAL SURVEY METHODS

A walk-through survey method was conducted in conjunction with the botanical survey. Field observations were made with the aid of binoculars and by listening to vocalizations.

Notes were made on species, abundance, activities and location as well as observations of trails, tracks, scat and signs of feeding. Conspicuous insects were noted.

In addition, one dusk/evening visit was made to record crepuscular activities and vocalizations and to look for presence of Hawaiian Hoary Bats (*Lasiurus cinereus semotus*). Along with visually scanning the sky for bats, active ultrasonic bat detectors were used to help detect bats. None were observed.

The site was surveyed on February 15th, 2022 and February 18th, 2022. Dusk/Night visit was on February 18th, 2022.

Hawaiian Hoary Bats are present over all of Oahu, some of their highest numbers occur in forested sections of the mid-elevations, and they have been well documented from the Kahuku Training Area Army Reserve and at Peacock Flats in the Waianae Range. No bats were detected during the night survey for this project, which is outside of that common habitat region. As well, it is unlikely that they frequent this low elevation flat and barren area.

Hawaiian Hoary Bats roost in tall trees in sheltered areas, such as on the branch tips of mature Eucalyptus trees. The trees on this site are somewhat stunted by salt spray, or not suitable for habitat, and not all of species seen to host the bats. The bats give birth to and raise their young in the summer. Avoiding cutting large trees during the summer months will help minimize potential impact to young bats that have not yet learned to fly, though this is an unlikely scenario given unsuitable host species and no plans to affect perimeter tree species in construction plans.

There are no signs of game mammals that would have commonly been found within sites which would include feral pigs. There is a potential for feral pigs – no presence observed in places, and no scat was observed. Other mammals likely to utilize this property, but which were not observed or heard; include rats (*Rattus spp.*), mice (*Mus domesticus*), cats (*Felis domesticus*) and mongoose (*Herpestes javanicus*).

A complete inventory of the insects was beyond the scope of this survey. Conspicuous insects were noted and special effort was made to look for native insects of conservation concern. In general, there were few insects present found on-site. Perhaps the salt air, lack of wetlands and monotypic vegetation contributed to that.

Honey bees (Apis mellifera) were one of the only sighted insects. They could be heard buzzing in warm sunny areas and were observed visiting the naupaka flowers on the shoreline.

There were no detected galls on or leaves of trees that would appear to be chewed on. Vacancy of insect damage indicates insect presence is sparse. Common houseflies were detected off-site along the shoreline.

More intensive surveys would undoubtedly turn up many more cryptic species, though it is unlikely any would be of conservation concern.

Nishida, G. M. 2002. Hawaii Arthropod Checklist Fourth Edition. Bishop Museum Technical Report 22: iv+313 pp.

Palmer, D. D. 2003. Hawaii's Ferns and Fern Allies. University of Hawaii Press, Honolulu, HI.

Pyle, R.L., and P. Pyle. 2009. The Birds of the Hawaiian Islands: Occurrence, History, Distribution, and Status. B.P. Bishop Museum, Honolulu, HI, U.S.A. Version 1 (31 December 2009) http://hbs.bishopmuseum.org/birds/rlp-monograph

Wagner, W. L., D. R. Herbst, and S. H. Sohmer. 1999. Manual of the Flowering Plants of Hawaii. Univ. of Hawaii Press and Bishop Museum Press, Honolulu, HI.

APPENDIX D

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT (HAZMAT)

Government Records Report | 2022

With Platinum Review

Order Number: 67910

Report Generated: 02/25/2022

Project Name: KE PIKI OHANA LLC

Project Number: 2060501

KE PIKI OHANA LLC
56-229 Kamehameha Hwy
Kahuku, HI 96731

with Envirosite Atlas

2 Corporate Drive
Suite 450
Shelton, CT 06484
Toll Free: 866-211-2028
www.envirositecorp.com

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2022

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Envirosite Corporation has conducted a search of all reasonably ascertainable records in accordance with EPA's AAI (40 CFR Part 312) requirements and the ASTM E-1527-21 Environmental Site Assessments standard.

SUBJECT PROPERTY INFORMATION:

ADDRESS:

KE PIKI OHANA LLC
56-229 Kamehameha Hwy
Kahuku, HI 96731

COORDINATES:

Latitude (North):	21.665962 - 21°39'57.5"
Longitude (West):	-157.936576 - -157°56'11.7"
Universal Transverse Mercator:	Zone 4N
UTM X (Meters):	610027.40
UTM Y (Meters):	2396231.37
State Plane Coordinates:	5103 - Hawaii Zone 3 (US Survey Feet)
X Coordinate (Feet):	1661953.721 E
Y Coordinate (Feet):	181377.568 N

ELEVATION:

Elevation:	20 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH SUBJECT PROPERTY:

Subject Property Map: 21157-F8 Kahuku, HI
Most Recent Revision: 2017

MAP ID	SITE NAME	ADDRESS	DATABASE(S)	RELATIVE ELEVATION	DIRECTION / DISTANCE
1	Hawaiian Islands Humpback Whale Na...	21.754408, -157.978631	FEDLAND		SP
2	N R	56-155 KAMEHAMEHA HWY	ERNS	Higher	SE / 0.359 mi., 1899 ft.
3	MALAEKAHANA STATE RECREATION A...	UNKNOWN	ECHO, FRS, ICIS, INACTIVE PCS, PCS FACILITY	Lower	N / 0.459 mi., 2424 ft.
4	NA PUA MAKANI | NA PUA MAKANI WI...	56-380 KAMEHAMEHA HWY UNI...	ECHO, FRS, MANIFEST EPA, RCRA_VSQG	Lower	NW / 0.539 mi., 2845 ft.
5	Pier 12 Honolulu Harbor | Pier 12 and...	Honolulu Harbor | Pier 12...	HIST SPILLS 2 - HI, SHWS - HI	Higher	WSW / 0.550 mi., 2904...
6	LAIE MILITARY RES	21.661667, -157.945	FUDS	Higher	WSW / 0.587 mi., 3102...
7	N R	LAT: 21N 40.44' LONG: 157...	ERNS	Lower	NNE / 0.609 mi., 3214...
8	FRIENDS OF MALAEKAHANA	56-335 KAMEHAMEHA HWY	ECHO, FRS, RCRA_NONGEN	Lower	NW / 0.624 mi., 3293 ft.
9	FUDS Oahu Target Island	N R	I C - HI, SHWS - HI	Lower	ENE / 0.737 mi., 3892 ft.
10	N R	N R	ERNS	Lower	N / 0.771 mi., 4069 ft.
A11	MALAEKAHANA SRA KAHUKU SECTIO...	56-020 KAMEHAMEHA HWY	DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIS...	Higher	SSE / 0.830 mi., 4384 ft.
B12	K. NAITO	P.O. BOX 296	EPA UST, FRS, HIST LUST - HI	Lower	NW / 0.831 mi., 4390 ft.
B13	Kahuku Fire Station #13 | C&CH Kahu...	56-460 KAMEHAMEHA HWY	EPA UST, HIST LUST - HI, UST - HI	Lower	NW / 0.837 mi., 4422 ft.
B14	POMAI, INC.	56-156 KAMEHAMEHA HWY	EPA LUST	Lower	NW / 0.857 mi., 4524 ft.
B15	Kahuku Police Station	56-470 KAMEHAMEHA HWY	EPA UST, LUST - HI, UST - HI	Lower	NW / 0.857 mi., 4526 ft.
B16	Kahuku Police Station	56-470 KAMEHAMEHA HWY	EPA LUST	Lower	NW / 0.857 mi., 4526 ft.
17	OAHU ISLAND TARGET	21.662701, -157.923004	FUDS	Lower	ESE / 0.871 mi., 4601 ft.
A18	ZIONS SECURITIES CORP	55-730 KAMEHAMEHA HWY	EPA UST, FRS, HIST LUST - HI, UST - HI	Lower	SSE / 0.878 mi., 4639 ft.
19	POMAI, INC.	56-156 KAMEHAMEHA HWY	EPA UST, LUST - HI, UST - HI	Lower	WNW / 0.893 mi., 471...
20	OAHU BOMBING TARGETS	21.675833, -157.926389	FUDS	Lower	NE / 0.911 mi., 4813 ft.

SUBJECT PROPERTY SEARCH RESULTS:

The subject property was identified in the following records. For more information on this property, see Map Findings section on page 19.

SITE	DATABASE(S)	EPA ID
Hawaiian Islands Humpback Whale National Marine Sanctuary 21.754408, -157.978631 HI	FEDLAND	N/R

SEARCH RESULTS:

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS

EPA UST: Facilities listed in the EPA UST Finder database **6 SITES FOUND WITHIN 1 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
A11	*MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD*	*56-020 KAMEHAMEHA HWY*	*SSE / 0.830 mi., 4384 ft.*	*53*

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
B12	*K. NAITO*	*P.O. BOX 296*	*NW / 0.831 mi., 4390 ft.*	*70*
B13	*Kahuku Fire Station #13 | C&CH Kahuku Fire Station*	*56-460 KAMEHAMEHA HWY*	*NW / 0.837 mi., 4422 ft.*	*72*
B15	*Kahuku Police Station*	*56-470 KAMEHAMEHA HWY*	*NW / 0.857 mi., 4526 ft.*	*74*
A18	*ZIONS SECURITIES CORP*	*55-730 KAMEHAMEHA HWY*	*SSE / 0.878 mi., 4639 ft.*	*78*
19	*POMAI, INC.*	*56-156 KAMEHAMEHA HWY*	*WNW / 0.893 mi., 4716 ft.*	*81*

UST - HI: Underground storage tank listing **5 SITES FOUND WITHIN 1 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
A11	*MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD*	*56-020 KAMEHAMEHA HWY*	*SSE / 0.830 mi., 4384 ft.*	*53*
	- ID: Facility ID 9-200129	Status: N/A	Date: N/A	
	- ID: Tank ID 1	Status: Currently In Use	Date: Date Closed N/R	
	- ID: Tank ID 2	Status: Currently In Use	Date: Date Closed N/R	
	- ID: Tank ID R-1	Status: Permanently Out of Use	Date: Date Closed 1992-10-01	
	- ID: Tank ID R-2	Status: Permanently Out of Use	Date: Date Closed 1992-10-01	

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
B13	*Kahuku Fire Station #13 | C&CH Kahuku Fire Station*	*56-460 KAMEHAMEHA HWY*	*NW / 0.837 mi., 4422 ft.*	*72*
	- ID: Facility ID 9-203289	Status: N/A	Date: N/A	
	- ID: Tank ID 1	Status: Currently In Use	Date: Date Closed N/R	
B15	*Kahuku Police Station*	*56-470 KAMEHAMEHA HWY*	*NW / 0.857 mi., 4526 ft.*	*74*
	- ID: Facility ID 9-200123	Status: N/A	Date: N/A	
	- ID: Tank ID 3	Status: Currently in Use	Date: Date Closed N/R	

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS *(cont.)*

UST - HI: Underground storage tank listing **5 SITES FOUND WITHIN 1 MILE**

LOWER ELEVATION *(cont.)*

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
	- ID: Tank ID R-1	Status: Permanently Out of Use	Date: Date Closed 1994-08-18	
	- ID: Tank ID R-2	Status: Permanently Out of Use	Date: Date Closed 1994-08-18	
A18	*ZIONS SECURITIES CORP*	*55-730 KAMEHAMEHA HWY*	*SSE / 0.878 mi., 4639 ft.*	*78*
	- ID: Facility ID 9-202660	Status: N/A	Date: N/A	
	- ID: Tank ID R-1	Status: Permanently Out of Use	Date: Date Closed N/R	
	- ID: Tank ID R-2	Status: Permanently Out of Use	Date: Date Closed N/R	
19	*POMAI, INC.*	*56-156 KAMEHAMEHA HWY*	*WNW / 0.893 mi., 4716 ft.*	*81*
	- ID: Facility ID 9-202527	Status: N/A	Date: N/A	
	- ID: Tank ID R-1	Status: Permanently Out of Use	Date: Date Closed N/R	
	- ID: Tank ID R-2	Status: Permanently Out of Use	Date: Date Closed N/R	

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS

EPA LUST: Releases listed in the EPA UST Finder database **2 SITES FOUND WITHIN 1 MILE**

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
B14	POMAI, INC.	56-156 KAMEHAMEHA HWY	NW / 0.857 mi., 4524 ft.	*74*
B16	Kahuku Police Station	56-470 KAMEHAMEHA HWY	NW / 0.857 mi., 4526 ft.	*76*

LUST - HI: Leaking underground storage tank sites listing **2 SITES FOUND WITHIN 1 MILE**

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
B15	*Kahuku Police Station*	*56-470 KAMEHAMEHA HWY*	*NW / 0.857 mi., 4526 ft.*	*74*
	- ID: Facility ID 9-200123	Status: N/A	Date: N/A	
	- ID: Event ID 940185	Status: Site Cleanup Completed (NFA)	Date: 2001-12-12	
19	*POMAI, INC.*	*56-156 KAMEHAMEHA HWY*	*WNW / 0.893 mi., 4716 ft.*	*81*
	- ID: Facility ID 9-202527	Status: N/A	Date: N/A	
	- ID: Event ID 920040	Status: Site Cleanup Completed (NFA)	Date: 2000-05-05	

FEDERAL ERNS LIST

ERNS: Emergency Response Notification System records of reported spills **3 SITES FOUND WITHIN 1 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
2	N/R	56-155 KAMEHAMEHA HWY	SE / 0.359 mi., 1899 ft.	*19*

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
7	N/R	LAT: 21N 40.44' LONG: 157W 55.88'	NNE / 0.609 mi., 3214 ft.	*41*
10	N/R	N/R	N / 0.771 mi., 4069 ft.	*50*

FEDERAL RCRA GENERATORS LIST

RCRA_NONGEN: Resource Conservation and Recovery Act listing of licensed non-generators **1 SITE FOUND WITHIN 1 MILE**

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
8	*FRIENDS OF MALAEKAHANA*	*56-335 KAMEHAMEHA HWY*	*NW / 0.624 mi., 3293 ft.*	*43*
	- ID: HIP000140749	Status: No Violation/Inspections	Date: N/A	

RCRA_VSQG: Resource Conservation and Recovery Act listing of licensed very small quantity generators. **1 SITE FOUND WITHIN 1 MILE**

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
4	*NA PUA MAKANI | NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR) | Vestas American Wind Technology*	*56-380 KAMEHAMEHA HWY UNIT 58*	*NW / 0.539 mi., 2845 ft.*	*28*
	- ID: HIR000146266	Status: No Violation/Inspections	Date: N/A	

STATE- AND TRIBAL - EQUIVALENT CERCLIS

SHWS - HI: Listing of state hazardous waste sites **2 SITES FOUND WITHIN 1 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
5	*Pier 12 Honolulu Harbor | Pier 12 and Pier 15 Improvements*	*Honolulu Harbor | Pier 12 Honolulu Harbor*	*WSW / 0.550 mi., 2904 ft.*	*39*
	- ID: N/R	Status: N/R	Date: N/R	

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
9	*FUDS Oahu Target Island*	*N/R*	*ENE / 0.737 mi., 3892 ft.*	*47*
	- ID: Facility Registry Identifier N/R	Status: Response Ongoing	Date: N/R	

OTHER ASCERTAINABLE RECORDS

ECHO: ECHO is EPA Enforcement and Compliance History Online website to search for facilities in your community to assess their compliance with environmental regulations related to CAA, CWA, RCRA, & SDWA. **1 SITE FOUND WITHIN .5 MILE**

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
3	*MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS | MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS*	*UNKNOWN*	*N / 0.459 mi., 2424 ft.*	*22*

OTHER ASCERTAINABLE RECORDS *(cont.)*

FRS: Facility Registry Systems **1 SITE FOUND WITHIN .5 MILE**

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
3	*MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS | MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS*	*UNKNOWN*	*N / 0.459 mi., 2424 ft.*	*22*

FUDS: Defense sites that require cleanup **3 SITES FOUND WITHIN 1 MILE**

EQUAL/HIGHER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
6	LAIE MILITARY RES	21.661667, -157.945	WSW / 0.587 mi., 3102 ft.	*40*

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
17	OAHU ISLAND TARGET	21.662701, -157.923004	ESE / 0.871 mi., 4601 ft.	*77*
20	OAHU BOMBING TARGETS	21.675833, -157.926389	NE / 0.911 mi., 4813 ft.	*82*

ICIS: Comprised of all Federal Administrative and Judicial enforcement information [intended to replace PCS] by tracking enforcement and compliance information (also contains what used to be known as FFTS) **1 SITE FOUND WITHIN .5 MILE**

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
3	*MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS | MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS*	*UNKNOWN*	*N / 0.459 mi., 2424 ft.*	*22*

INACTIVE PCS: Inactive Permitted facilities to discharge wastewater **1 SITE FOUND WITHIN .5 MILE**

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
3	*MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS | MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS*	*UNKNOWN*	*N / 0.459 mi., 2424 ft.*	*22*

OTHER ASCERTAINABLE RECORDS *(cont.)*

PCS FACILITY: Permitted facilities to discharge wastewater (Federal equivalent to NPDES) **1 SITE FOUND WITHIN .5 MILE**

LOWER ELEVATION

MAP ID	SITE NAME	SITE ADDRESS	DIRECTION/DISTANCE	PAGE
3	*MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS | MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS*	*UNKNOWN*	*N / 0.459 mi., 2424 ft.*	*22*

No unmappable sites reported.

DATABASE(S) WITH NO MAPPED SITES:

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

ARCHIVED RCRA TSDF	Archived Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities
RCRA_TSDF	Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS

AST PBS	ASTs at Bulk Petroleum Terminals
FEMA UST	FEMA Underground Storage Tanks
HIST INDIAN UST R6	Historical Underground Storage Tanks on Indian Land in EPA Region 6
HIST INDIAN UST R7	Historical Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R1	Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN UST R10	Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN UST R2	Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN UST R4	Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN UST R5	Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN UST R6	Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN UST R7	Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R8	Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN UST R9	Underground Storage Tanks on Indian Land in EPA Region 9
AST - HI	Aboveground Storage Tanks
HIST AST - HI	Historical Aboveground Storage Tanks

FEDERAL CERCLIS LIST

CERCLIS NFRAP	Comprehensive Environmental Response Compensation and Liability Act No Further Remedial Action Planned
CERCLIS-HIST	Comprehensive Environmental Response Compensation and Liability Act
EPA SAA	EPA Superfund Alternative Approach
FEDERAL FACILITY	Federal Facility sites
SEMS_8R_ACTIVE SITES	Sites on SEMS Active Site Inventory
SEMS_8R_ARCHIVED SITES	Sites on SEMS Archived Site Inventory

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS	Hazardous Waste Corrective Action
HIST CORRACTS 2	Historical Hazardous Waste Corrective Action

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL	Delisted National Priority List
DELISTED PROPOSED NPL	Delisted proposed National Priority List
SEMS_DELETED NPL	Sites Deleted from National Priorities List

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

EPA LF MOP	EPA Landfill Methane Outreach Project Database

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS

HIST INDIAN LUST R4	Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 4
HIST INDIAN LUST R8	Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN LUST R2	Leaking Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land in EPA Region 9
HIST LUST - HI	Historical Leaking Underground Storage Tanks

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C	Engineering Controls
FED I C	Institutional Controls
RCRA IC_EC	RCRA sites with Institutional and Engineering Controls

FEDERAL RCRA GENERATORS LIST

HIST RCRA_CESQG	Historical Resource Conservation and Recovery Act_Conditionally Exempt Small Quantity Generators
HIST RCRA_LQG	Historical Resource Conservation and Recovery Act_ Large Quantity Generators
HIST RCRA_NONGEN	Historical Resource Conservation and Recovery Act_Non Generators
HIST RCRA_SQG	Historical Resource Conservation and Recovery Act_Small Quantity Generators
RCRA_LQG	Resource Conservation and Recovery Act_ Large Quantity Generators
RCRA_SQG	Resource Conservation and Recovery Act_Small Quantity Generators

FEDERAL NPL SITE LIST

NPL	National Priority List
NPL EPA R1 GIS	GIS for EPA Region 1 NPL
NPL EPA R3 GIS	GIS for EPA Region 3 NPL
NPL EPA R6 GIS	GIS for EPA Region 6 NPL
NPL EPA R8 GIS	GIS for EPA Region 8 NPL
NPL EPA R9 GIS	GIS for EPA Region 9 NPL
PART NPL	Part National Priority List
PROPOSED NPL	Proposed National Priority List
SEMS_FINAL NPL	Sites included on the Final National Priorities List
SEMS_PROPOSED NPL	Sites Proposed to be Added to the National Priorities List

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS	Tribal Brownfields
BROWNFIELDS - HI	Brownfields

STATE INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

I C - HI	Institutional Controls

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

SWF LF CLOSED - HI	Closed Solid Waste Facilities and Landfills
SWF/LF - HI	Solid Waste Facilities and Landfills

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VCP - HI	Voluntary Cleanup Program

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES	EPA ACRES Brownfields
FED BROWNFIELDS	Federal Brownfields

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL	DOJ Clandestine Drug Labs
US HIST CDL	Historical Clandestine Drug Labs

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8	Historical Open Dump Inventory
INDIAN ODI R8	Open Dump Inventory
ODI	Open Dump Inventory
TRIBAL ODI	Indian Open Dump Inventory Sites

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT)	Hazardous Materials Information Reporting Systems
HIST SPILLS - HI	Historical Spills
HIST SPILLS 2 - HI	Historical Spills
SPILLS - HI	Spills

LOCAL LAND RECORDS

LIENS 2	CERCLA Lien Information

OTHER ASCERTAINABLE RECORDS

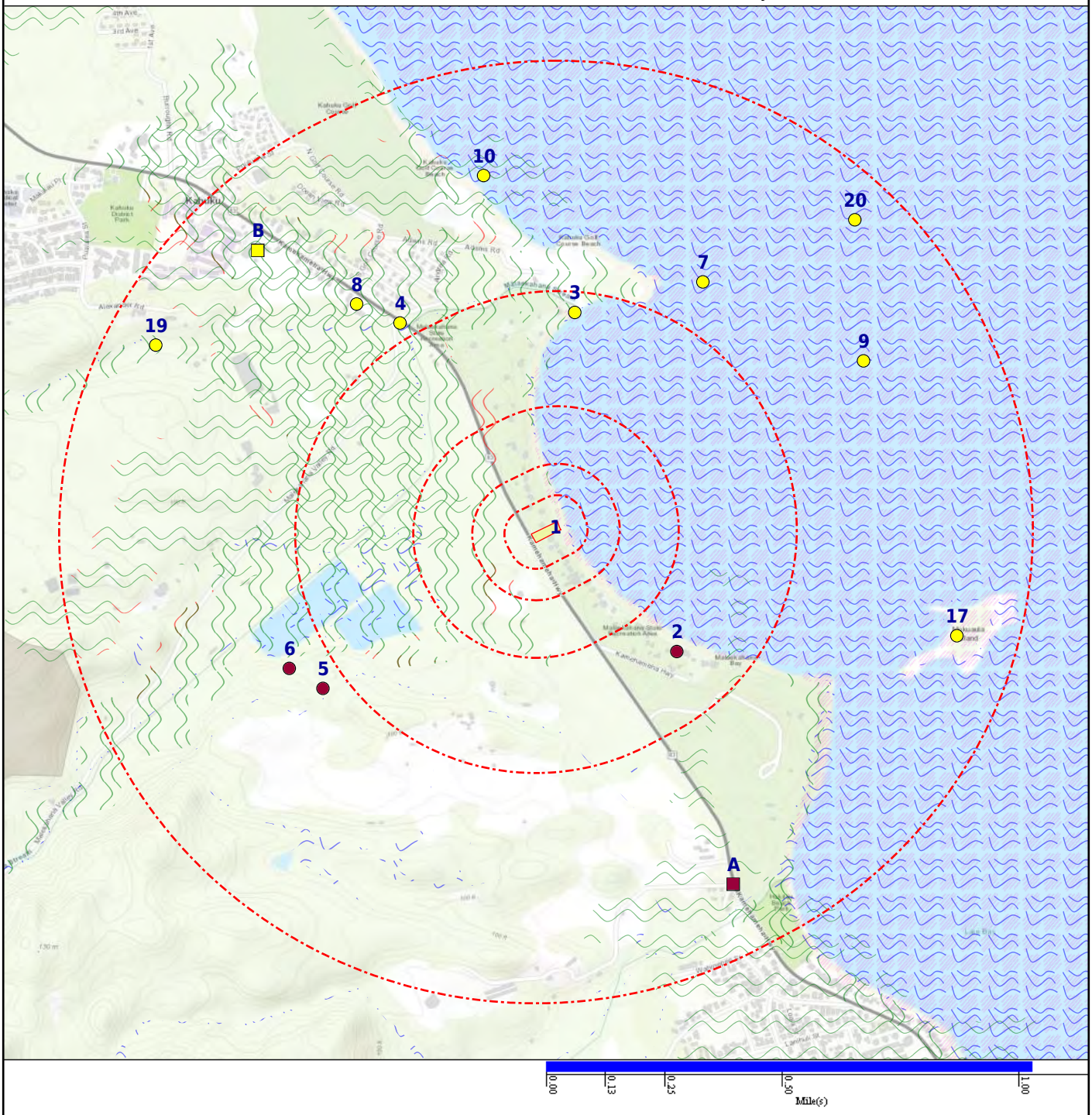
AFS	Air Facility Systems
ALT FUELING	Alternative Fueling Stations
BRS	Biennial Reporting Systems
CDC HAZDAT	Hazardous Substance Release and Health Effects Information
COAL ASH DOE	Coal Ash: Department of Energy
COAL ASH EPA	Coal Ash: Environmental Protection Agency
COAL GAS	Coal Gas Plants
CONSENT (DECREES)	Superfund Consent Decree
CORRECTIVE ACTIONS_2020	Wastes - Hazardous Waste - Corrective Action
DEBRIS EPA LF	EPA Disaster Debris Landfill Sites
DEBRIS EPA SWRCY	EPA Disaster Debris Recovery Sites
DOD	Department of Defense
DOT OPS	Department of Transportation Office of Pipeline Safety
ENOI	Electronic Notice of Intent
EPA FUELS	EPA Fuels Registration, Reporting, and Compliance List
EPA OSC	EPA On-Site Coordinator
EPA WATCH	EPA Watch List
FA HWF	Financial Assurance for Hazardous Waste Facilities
FTTS	FIFRA/TSCA Tracking System
FTTS INSP	FIFRA/TSCA Tracking System: Inspections
HIST AFS	Historical Air Facility Systems
HIST AFS 2	Historical Air Facility Systems
HIST DOD	Department of Defense historical sites
HIST LEAD_SMELTER	Historical Lead Smelter Sites
HIST MLTS	Historical Material Licensing Tracking Systems
HIST PCB TRANS	Historical Polychlorinated Biphenyl (PCB) Facilities
HIST PCS ENF	Historical Enforced Permit Compliance Facilities
HIST PCS FACILITY	Historical Permit Compliance Facilities
HIST SSTS	Historical Section 7 Tracking Systems
HWC DOCKET	Hazardous Waste Compliance Docket
INDIAN RESERVATION	American Indian Lands
LUCIS	Land Use Control Information Systems
LUCIS 2	Land Use Control Information Systems 2
MANIFEST EPA	EPA Hazardous Waste Manifests
MINE OPERATIONS	Mines list from USGS
MINES	Mines

OTHER ASCERTAINABLE RECORDS *(cont.)*

MINES USGS	Mines list from USGS
MLTS	Material Licensing Tracking Systems
NPL AOC	Areas related to NPL remediation sites
NPL LIENS	National Priority List Liens
OSHA	Occupational Safety & Health Administration
PADS	PCB Activity Database Systems
PCB TRANSFORMER	Polychlorinated Biphenyl (PCB) Waste
PCS ENF	Enforced Permit Compliance Facilities
PFAS NPL	PFAS NPL Sites
PFAS TRIS	PFAS TRIS Sites
PFAS UCMR3	PFAS UCMR Samples
RAATS	RCRA Administrative Action Tracking Systems
RADINFO	Radiation Information Systems
RMP	Risk Management Plans
ROD	Record of Decision
SCRD DRYCLEANERS	SCRD Drycleaners
SEMS_SMELTER	Sites on SEMS Potential Smelter Activity
SSTS	Section 7 Tracking Systems
STORMWATER	Storm Water Permits
TOSCA-PLANT	Toxic Substance Control Act: Plants
TRIS	Toxic Release Inventory Systems
UMTRA	Uranium Mill Tailing Sites
VAPOR	EPA Vapor Intrusion
AIRS - HI	Air permits
DRYCLEANERS - HI	Drycleaners

SUBJECT NAME: KE PIKI OHANA LLC
ADDRESS: 56-229 Kamehameha Hwy, Kahuku, HI, 96731
LAT/LONG: 21.665962 / -157.936576

PREPARED FOR: Historical Information Gatherers
ORDER #: 67910
REPORT DATE: February 25, 2022



SUBJECT NAME: KE PIKI OHANA LLC
ADDRESS: 56-229 Kamehameha Hwy, Kahuku, HI, 96731
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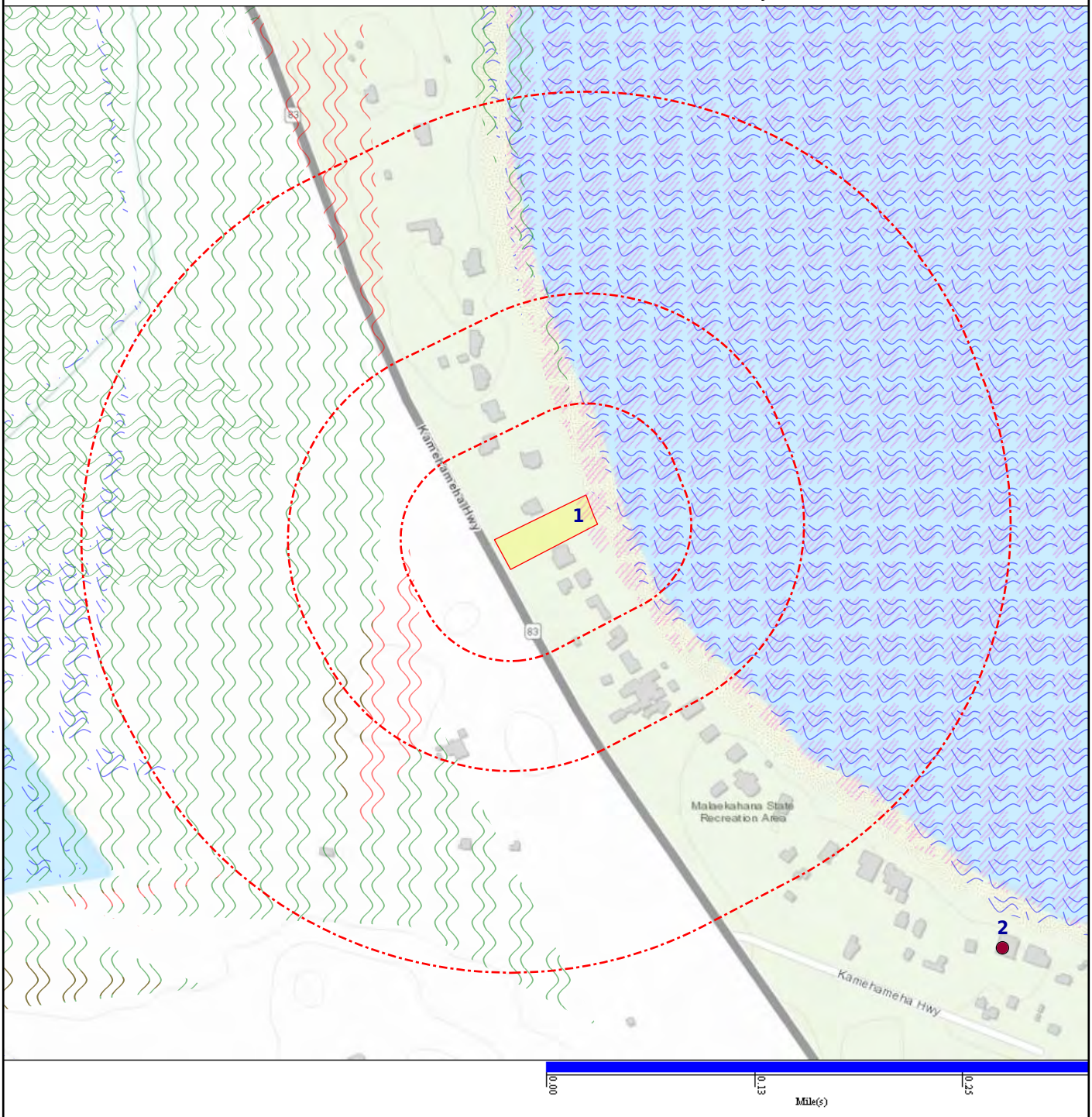


- Subject Property
- Department of Defense (No Data)
- FEMA FloodZone 100
- National Priority List (No Data)
- Equal/Higher Elevation
- DFIRM Floodzone 100
- FEMA FloodZone 500
- NWI
- Lower Elevation
- DFIRM Floodzone 500
- Historical DOD (No Data)
- CDC HAZDAT (No Data)
- Federal Lands
- Indian Reservation (No Data)

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST								
ARCHIVED RCRA TSDF		1.000	0	0	0	0	--	0
RCRA_TSDF		1.000	0	0	0	0	--	0
FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS								
AST PBS		0.500	0	0	0	--	--	0
EPA UST		1.000	0	0	0	6	--	6
FEMA UST		1.000	0	0	0	0	--	0
HIST INDIAN UST R6		0.500	0	0	0	--	--	0
HIST INDIAN UST R7		1.000	0	0	0	0	--	0
INDIAN UST R1		1.000	0	0	0	0	--	0
INDIAN UST R10		1.000	0	0	0	0	--	0
INDIAN UST R2		1.000	0	0	0	0	--	0
INDIAN UST R4		1.000	0	0	0	0	--	0
INDIAN UST R5		1.000	0	0	0	0	--	0
INDIAN UST R6		1.000	0	0	0	0	--	0
INDIAN UST R7		1.000	0	0	0	0	--	0
INDIAN UST R8		1.000	0	0	0	0	--	0
INDIAN UST R9		1.000	0	0	0	0	--	0
AST - HI		0.500	0	0	0	--	--	0
HIST AST - HI		0.500	0	0	0	--	--	0
UST - HI		1.000	0	0	0	5	--	5
FEDERAL CERCLIS LIST								
CERCLIS NFRAP		1.000	0	0	0	0	--	0
CERCLIS-HIST		1.000	0	0	0	0	--	0
EPA SAA		1.000	0	0	0	0	--	0
FEDERAL FACILITY		1.000	0	0	0	0	--	0
SEMS_8R_ACTIVE SITES		1.000	0	0	0	0	--	0
SEMS_8R_ARCHIVED SITES		1.000	0	0	0	0	--	0
FEDERAL RCRA CORRACTS FACILITIES LIST								
CORRACTS		1.000	0	0	0	0	--	0
HIST CORRACTS 2		1.000	0	0	0	0	--	0
FEDERAL DELISTED NPL SITE LIST								
DELISTED NPL		1.000	0	0	0	0	--	0
DELISTED PROPOSED NPL		1.000	0	0	0	0	--	0
SEMS_DELETED NPL		1.000	0	0	0	0	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS								
EPA LF MOP		0.500	0	0	0	--	--	0
FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS								
EPA LUST		1.000	0	0	0	2	--	2
HIST INDIAN LUST R4		1.000	0	0	0	0	--	0
HIST INDIAN LUST R8		1.000	0	0	0	0	--	0
INDIAN LUST R1		1.000	0	0	0	0	--	0
INDIAN LUST R10		1.000	0	0	0	0	--	0
INDIAN LUST R2		1.000	0	0	0	0	--	0
INDIAN LUST R4		1.000	0	0	0	0	--	0
INDIAN LUST R5		1.000	0	0	0	0	--	0
INDIAN LUST R6		1.000	0	0	0	0	--	0
INDIAN LUST R7		1.000	0	0	0	0	--	0
INDIAN LUST R8		1.000	0	0	0	0	--	0
INDIAN LUST R9		1.000	0	0	0	0	--	0
HIST LUST - HI		0.500	0	0	0	--	--	0
LUST - HI		1.000	0	0	0	2	--	2
FEDERAL ERNS LIST								
ERNS		1.000	0	0	1	2	--	3
FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES								
FED E C		0.500	0	0	0	--	--	0
FED I C		0.500	0	0	0	--	--	0
RCRA IC_EC		0.500	0	0	0	--	--	0
FEDERAL RCRA GENERATORS LIST								
HIST RCRA_CESQG		1.000	0	0	0	0	--	0
HIST RCRA_LQG		1.000	0	0	0	0	--	0
HIST RCRA_NONGEN		1.000	0	0	0	0	--	0
HIST RCRA_SQG		1.000	0	0	0	0	--	0
RCRA_LQG		1.000	0	0	0	0	--	0
RCRA_NONGEN		1.000	0	0	0	1	--	1
RCRA_SQG		1.000	0	0	0	0	--	0
RCRA_VSQG		1.000	0	0	0	1	--	1
FEDERAL NPL SITE LIST								
NPL		1.000	0	0	0	0	--	0
NPL EPA R1 GIS		1.000	0	0	0	0	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
FEDERAL NPL SITE LIST *(cont.)*								
NPL EPA R3 GIS		1.000	0	0	0	0	--	0
NPL EPA R6 GIS		1.000	0	0	0	0	--	0
NPL EPA R8 GIS		1.000	0	0	0	0	--	0
NPL EPA R9 GIS		1.000	0	0	0	0	--	0
PART NPL		1.000	0	0	0	0	--	0
PROPOSED NPL		1.000	0	0	0	0	--	0
SEMS_FINAL NPL		1.000	0	0	0	0	--	0
SEMS_PROPOSED NPL		1.000	0	0	0	0	--	0
STATE AND TRIBAL BROWNFIELD SITES								
TRIBAL BROWNFIELDS		0.500	0	0	0	--	--	0
BROWNFIELDS - HI		0.500	0	0	0	--	--	0
STATE INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES								
I C - HI		0.500	0	0	0	--	--	0
STATE- AND TRIBAL - EQUIVALENT CERCLIS								
SHWS - HI		1.000	0	0	0	2	--	2
STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS								
SWF LF CLOSED - HI		0.500	0	0	0	--	--	0
SWF/LF - HI		0.500	0	0	0	--	--	0
STATE AND TRIBAL VOLUNTARY CLEANUP SITES								
VCP - HI		0.500	0	0	0	--	--	0
LOCAL BROWNFIELD LISTS								
BROWNFIELDS-ACRES		0.500	0	0	0	--	--	0
FED BROWNFIELDS		0.500	0	0	0	--	--	0
LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES								
FED CDL		0.500	0	0	0	--	--	0
US HIST CDL		0.500	0	0	0	--	--	0
LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES								
HIST INDIAN ODI R8		0.500	0	0	0	--	--	0
INDIAN ODI R8		0.500	0	0	0	--	--	0
ODI		0.500	0	0	0	--	--	0
TRIBAL ODI		0.500	0	0	0	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
RECORDS OF EMERGENCY RELEASE REPORTS								
HMIRS (DOT)		1.000	0	0	0	0	--	0
HIST SPILLS - HI		0.500	0	0	0	--	--	0
HIST SPILLS 2 - HI		0.500	0	0	0	--	--	0
SPILLS - HI		1.000	0	0	0	0	--	0
LOCAL LAND RECORDS								
LIENS 2		0.500	0	0	0	--	--	0
OTHER ASCERTAINABLE RECORDS								
AFS		0.500	0	0	0	--	--	0
ALT FUELING		0.500	0	0	0	--	--	0
BRS		0.500	0	0	0	--	--	0
CDC HAZDAT		1.000	0	0	0	0	--	0
COAL ASH DOE		0.500	0	0	0	--	--	0
COAL ASH EPA		0.500	0	0	0	--	--	0
COAL GAS		1.000	0	0	0	0	--	0
CONSENT (DECREES)		1.000	0	0	0	0	--	0
CORRECTIVE ACTIONS_2020		0.500	0	0	0	--	--	0
DEBRIS EPA LF		0.500	0	0	0	--	--	0
DEBRIS EPA SWRCY		0.500	0	0	0	--	--	0
DOD		1.000	0	0	0	0	--	0
DOT OPS		0.500	0	0	0	--	--	0
ECHO		0.500	0	0	1	--	--	1
ENOI		0.500	0	0	0	--	--	0
EPA FUELS		0.500	0	0	0	--	--	0
EPA OSC		0.500	0	0	0	--	--	0
EPA WATCH		0.500	0	0	0	--	--	0
FA HWF		0.500	0	0	0	--	--	0
FEDLAND	X	1.000	0	0	0	0	--	1
FRS		0.500	0	0	1	--	--	1
FTTS		0.500	0	0	0	--	--	0
FTTS INSP		0.500	0	0	0	--	--	0
FUDS		1.000	0	0	0	3	--	3
HIST AFS		0.500	0	0	0	--	--	0
HIST AFS 2		0.500	0	0	0	--	--	0
HIST DOD		1.000	0	0	0	0	--	0
HIST LEAD_SMELTER		0.500	0	0	0	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
OTHER ASCERTAINABLE RECORDS *(cont.)*								
HIST MLTS		0.500	0	0	0	--	--	0
HIST PCB TRANS		0.500	0	0	0	--	--	0
HIST PCS ENF		0.500	0	0	0	--	--	0
HIST PCS FACILITY		0.500	0	0	0	--	--	0
HIST SSTS		0.500	0	0	0	--	--	0
HWC DOCKET		0.500	0	0	0	--	--	0
ICIS		0.500	0	0	1	--	--	1
INACTIVE PCS		0.500	0	0	1	--	--	1
INDIAN RESERVATION		1.000	0	0	0	0	--	0
LUCIS		0.500	0	0	0	--	--	0
LUCIS 2		0.500	0	0	0	--	--	0
MANIFEST EPA		0.500	0	0	0	--	--	0
MINE OPERATIONS		0.500	0	0	0	--	--	0
MINES		0.500	0	0	0	--	--	0
MINES USGS		0.500	0	0	0	--	--	0
MLTS		0.500	0	0	0	--	--	0
NPL AOC		1.000	0	0	0	0	--	0
NPL LIENS		0.500	0	0	0	--	--	0
OSHA		0.500	0	0	0	--	--	0
PADS		0.500	0	0	0	--	--	0
PCB TRANSFORMER		0.500	0	0	0	--	--	0
PCS ENF		0.500	0	0	0	--	--	0
PCS FACILITY		0.500	0	0	1	--	--	1
PFAS NPL		0.500	0	0	0	--	--	0
PFAS TRIS		0.500	0	0	0	--	--	0
PFAS UCMR3		0.500	0	0	0	--	--	0
RAATS		0.500	0	0	0	--	--	0
RADINFO		0.500	0	0	0	--	--	0
RMP		0.500	0	0	0	--	--	0
ROD		1.000	0	0	0	0	--	0
SCRD DRYCLEANERS		0.500	0	0	0	--	--	0
SEMS_SMELTER		0.500	0	0	0	--	--	0
SSTS		0.500	0	0	0	--	--	0
STORMWATER		0.500	0	0	0	--	--	0
TOSCA-PLANT		0.500	0	0	0	--	--	0
TRIS		0.500	0	0	0	--	--	0

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	TOTAL MAPPED
OTHER ASCERTAINABLE RECORDS *(cont.)*								
UMTRA		0.500	0	0	0	--	--	0
VAPOR		0.500	0	0	0	--	--	0
AIRS - HI		0.500	0	0	0	--	--	0
DRYCLEANERS - HI		0.500	0	0	0	--	--	0

Map Id: 1
Direction:
Distance:
Elevation:
Relative:

Site Name : Hawaiian Islands Humpback Whale National Marine Sanctuary
21.754408, -157.978631
HI

Database(s) : [FEDLAND]

Envirosite ID: 43567341
EPA ID: N/R

FEDLAND

Facility Name :	Hawaiian Islands Humpback Whale National Marine Sanctuary
Facility Address :	HI
Source Date :	2020-01-21
Category :	Marine
Loc Name :	Hawaiian Islands Humpback Whale National Marine Sanctuary
Owner Name :	DESG
Local Owner :	Unknown
Owner Type :	DESG
Manager Type :	FED
Manager Name :	NOAA
Local Manager :	NOAA National Marine Sanctuary Program
Designation Type :	MPA
Local Designation :	National Marine Sanctuary
GIS Acres :	874067
Source Protected Area ID :	NMS9
WDPA Site :	220003
Public Access :	OA
Access Source :	GAP - NOAA
GAP Status Date :	2017
GAP Status :	2
GAP Status Source :	GAP - NOAA
IUCN Category Date :	2020
IUCN Category :	IV
IUCN Category Source :	NOAA
Date of Establishment :	1992
Access Date :	2017
Easement Holder :	N/R
Easement Holder Type :	N/R
Comments :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	2021-12-13

Map Id: 2
Direction: SE
Distance: 0.359 mi., 1899 ft.
Elevation: 23 ft.
Relative: Higher

Site Name : N/R
56-155 KAMEHAMEHA HWY
OAHU, HI 96731

Database(s) : [ERNS]

Envirosite ID: 1921061
EPA ID: N/R

ERNS

Facility Address :	56-155 KAMEHAMEHA HWY, OAHU, HI 96731
County :	HONOLULU

Incident Information

Incident Date Time :	2015-08-01 11:00:00
Type of Incident :	UNKNOWN SHEEN
Incident Cause :	UNKNOWN

Map Id: 2
Direction: SE
Distance: 0.359 mi., 1899 ft.
Elevation: 23 ft.
Relative: Higher

Site Name : N/R
56-155 KAMEHAMEHA HWY
OAHU, HI 96731

Database(s) : [ERNS] ***(cont.)***

Envirosite ID: 1921061
EPA ID: N/R

ERNS ***(cont.)***

Incident DTG :	DISCOVERED
Incident Location :	UNKNOWN SHEEN INCIDENT
Sequence Number :	1124675
Potential Flag :	N
Description of Incident :	CALLER STATED THAT THERE WAS ONE TAR BALL THAT WAS STEPPED ON AT THE BEACH.
Last Date in Agency List :	2015-12-23

Incident Response Summary

Date Time Received :	2015-08-03 18:57:11
Date Time Completed :	2015-08-03 19:02:40
Call Type :	Incident
Source :	TELEPHONE
Responsible Company :	N/R
Responsible Org Type :	UNKNOWN
Responsible City :	N/R
Responsible State :	XX
Responsible Zip :	N/R

Incident Details Summary

Remedial Action :	CALLER HAD A HARD TIME GETTING THE MATERIAL OFF THEIR FEET.
Medium :	PACIFIC OCEAN
Medium Description :	WATER
Body of Water :	MALAEKAHANA STATE RECREATIONAL AREA
Weather Conditions :	UNKNOWN
Water Temperature :	N/R
Water Supply Contaminated :	U
Waterway Closed :	N
Waterway Description :	N/R

Additional Incident Details Summary

Actual Amount :	N/R
Actual Amount Units :	N/R
Capacity of Tank :	N/R
Capacity of Tank Units :	N/R
Continuous Release Begin Date :	N/R
Continuous Release End Date :	N/R
Continuous Release Change Date :	N/R
Continuous Release Permit :	N/R
Continuous Release Type :	N/R
Description of Tank :	N/R
Device Operational :	U
DOT Crossing Number :	N/R
DOT Regulated :	U
NPDES :	N/R
NPDES Compliance :	U
Pipeline Aboveground :	ABOVE
Pipeline Covered :	U
Pipeline Type :	N/R
Tank ID :	N/R
Tank Regulated :	U

Map Id: 2
Direction: SE
Distance: 0.359 mi., 1899 ft.
Elevation: 23 ft.
Relative: Higher

Site Name : N/R
56-155 KAMEHAMEHA HWY
OAHU, HI 96731

Database(s) : [ERNS] ***(cont.)***

Envirosite ID: 1921061
EPA ID: N/R

ERNS ***(cont.)***

Tank Regulated by : N/R

Materials Involved Summary
- Name of Material : UNKNOWN OIL
- CAS Number : 000000-00-0
- Amount of Material : 0
- Unit of Measure : UNKNOWN AMOUNT
- UN Number : N/R
- CHRIS Code : OUN
- Reached Water : YES
- Amount in Water : 0
- Unit of Measure (Reach Water) : UNKNOWN AMOUNT

Additional Materials Involved Summary
- Name of Material : N/R
- CAS Number : N/R
- CHRIS Code : N/R
- Upper Bounds : N/R
- Upper Bounds Unit : N/R
- Upper Bounds Rate : N/R

Trains Details
- Train Name Number : N/R
- Train Type : N/R
- Train Speed : N/R
- Train Direction : N/R
- Number Locomotives : N/R
- Number Cars : N/R
- Number Derailed : N/R
- Track Speed : N/R
- Railroad Name : N/R
- Non Compliance with Hazmat : N/R

Derailed Units Summary
- Train Name Number : N/R
- Car Number : N/R
- Car Content : N/R
- Position in Train : N/R
- Derailed Type : N/R

Vessels Details
- Vessel Name : N/R
- Vessel Type : N/R
- Vessel Length : N/R
- Hull Construction : N/R
- Fuel Capacity : N/R
- Fuel on Board : N/R

Map Id: 2
Direction: SE
Distance: 0.359 mi., 1899 ft.
Elevation: 23 ft.
Relative: Higher

Site Name : N/R
56-155 KAMEHAMEHA HWY
OAHU, HI 96731

Database(s) : [ERNS] ***(cont.)***

Envirosite ID: 1921061
EPA ID: N/R

ERNS ***(cont.)***

Cargo Capacity :	N/R
Cargo on Board :	N/R
Is Vessel Aground :	N/R
Flag :	N/R
Breadth :	N/R
Draught :	N/R
Fuel Capacity Units :	N/R
Fuel on Board Units :	N/R
Cargo Capacity Units :	N/R
Cargo on Board Units :	N/R

Mobile Details

Vehicle Own Fuel Capacity :	N/R
Cargo Capacity :	N/R
Amount of Cargo on Board :	N/R
Hazmat Carrier :	N/R
Carrier Licensed :	N/R
Noncompliance with Hazmat :	N/R
Mobile Type :	N/R
Cargo Capacity Units :	N/R
Amount of Cargo on Board Units :	N/R
Vehicle Year :	N/R
Vehicle Make :	N/R
Vehicle Model :	N/R
Vehicle Number :	N/R
Trailer Number :	N/R

Map Id: 3
Direction: N
Distance: 0.459 mi., 2424 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS | MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS
UNKNOWN
UNKNOWN, HI

Database(s) : [ECHO, FRS, ICIS, INACTIVE PCS, PCS FACILITY]

Envirosite ID: 16648046
EPA ID: N/R

ECHO

Facility Name :	MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS
Facility Address :	HI 00000
County :	N/R
Last Inspection Date :	N/R
Registry ID :	110070263520
FIPS Code :	15003
EPA Region :	09

Map Id: 3
Direction: N
Distance: 0.459 mi., 2424 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS | MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS
UNKNOWN
UNKNOWN, HI

Database(s) : [ECHO, FRS, ICIS, INACTIVE PCS, PCS FACILITY] ***(cont.)***

Envirosite ID: 16648046
EPA ID: N/R

ECHO ***(cont.)***

Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	_____
Collection Method :	N/R
Reference Point :	POINT WHERE SUBSTANCE IS RELEASED
Accuracy Meters :	36366
Derived Tribes :	N/R
Derived HUC :	20060000
Derived WBD :	N/R
Derived STCTY FIPS :	15003
Derived Zip :	96731
Derived CD113 :	02
Derived CB2010 :	150030102024000
MYRTK Universe :	NNN
NPDES IDs :	HIF012060 HIF012577
CWA Permit Types :	Minor
CWA Compliance Tracking :	On
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	0
CWA Current Compliance Status :	No Violation Identified
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	_____
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	N/R
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R

Map Id: 3
Direction: N
Distance: 0.459 mi., 2424 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS | MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS
UNKNOWN
UNKNOWN, HI

Database(s) : [ECHO, FRS, ICIS, INACTIVE PCS, PCS FACILITY] ***(cont.)***

Envirosite ID: 16648046
EPA ID: N/R

ECHO ***(cont.)***

Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	Y
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeak Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	Y
SDWIS Flag :	N
RCRA Flag :	N
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	N
Latitude :	21.668968
Longitude :	-157.936738
Last Date in Agency List :	2022-01-17

FRS

Facility Name :	MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS
Facility Address :	UNKNOWN, UNKNOWN, HI 00000
County :	N/R

Site Details

Registry ID :	110070263520
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	2021-12-17

Source Description

Source Description :

The NPDES module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

FRS Environmental Interest

Source and System ID :	ICIS - HIF012060 ICIS - HIF012577

Map Id: 3
Direction: N
Distance: 0.459 mi., 2424 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS | MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS
UNKNOWN
UNKNOWN, HI

Database(s) : [ECHO, FRS, ICIS, INACTIVE PCS, PCS FACILITY] ***(cont.)***

Envirosite ID: 16648046
EPA ID: N/R

ICIS

Facility Name : MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS
Facility Address : UNKNOWN, UNKNOWN, HI 00000

Site Details
NPDES ID : HIF012060
ICIS Facility Interest ID : 3600930611
Facility UIN : 110070263520
Facility Type Code : State Government
Impaired Waters : 303(D) Listed
Latitude : 21.672917
Longitude : -157.935611
Last Date in Agency List : 2022-01-12

Facility NAICS
NAICS Code : N/R
NAICS Description : N/R

Facility SIC
SIC Code : N/R
SIC Description : N/R

Facility Name : MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS
Facility Address : UNKNOWN, UNKNOWN, HI 00000

Site Details
NPDES ID : HIF012577
ICIS Facility Interest ID : 3601191344
Facility UIN : 110070263520
Facility Type Code : State Government
Impaired Waters : 303(D) Listed
Latitude : 21.672917
Longitude : -157.935611
Last Date in Agency List : 2022-01-12

Facility NAICS
NAICS Code : N/R
NAICS Description : N/R

Map Id: 3
Direction: N
Distance: 0.459 mi., 2424 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS | MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS
UNKNOWN
UNKNOWN, HI

Database(s) : [ECHO, FRS, ICIS, INACTIVE PCS, PCS FACILITY] ***(cont.)***

Envirosite ID: 16648046
EPA ID: N/R

ICIS ***(cont.)***

Facility SIC

SIC Code :	N/R
SIC Description :	N/R

INACTIVE PCS

Issue Date :	2018-08-21
Original Issue Date :	2018-08-21
Effective Date :	2018-08-21
Expiration Date :	2018-12-05
Retirement Date :	N/R
Termination Date :	N/R
Issuing Agency :	Hawaii Dept of Health, Clean Water Branch
Agency Type :	State
Activity ID :	3601532164
External Permit Number :	HIF012060
Facility Type Indicator :	NON-POTW
Permit Type :	General Permit Covered Facility-NPDES)
Major Minor Status :	N
Permit Status :	Expired
Total Design Flow Number :	N/R
Actual Average Flow Number :	N/R
State Water Body :	N/R
State Water Body Name :	PACIFIC OCEAN
Permit Name :	State of Hawaii
Permit Comp Status :	Y
RNC Tracking :	Y
Master External Permit Number :	HIR100000
TMDL Interface :	N/R
EDMR Authorization :	N
Pretreatment Indicator :	N/R
Last Date in Agency List :	2019-05-07

PCS FACILITY

Issue Date :	2019-12-26
Original Issue Date :	2019-12-26
Effective Date :	2019-12-26
Expiration Date :	2024-02-08
Retirement Date :	N/R
Termination Date :	N/R
Issuing Agency :	Hawaii Dept of Health, Clean Water Branch
Agency Type :	State
Activity ID :	3602178749
External Permit Number :	N/R
Facility Type Indicator :	NON-POTW
Permit Type :	General Permit Covered Facility-NPDES)
Major Minor Status :	N
Permit Status :	Effective
Total Design Flow Number :	N/R
Actual Average Flow Number :	N/R
State Water Body :	N/R
State Water Body Name :	KAHAWAINUI STREAM

Map Id: 3
Direction: N
Distance: 0.459 mi., 2424 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS | MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS
UNKNOWN
UNKNOWN, HI

Database(s) : [ECHO, FRS, ICIS, INACTIVE PCS, PCS FACILITY] ***(cont.)***

Envirosite ID: 16648046
EPA ID: N/R

PCS FACILITY ***(cont.)***

Permit Name :	State of Hawaii
Permit Comp Status :	Y
RNC Tracking :	Y
Master External Permit Number :	HIR100000
TMDL Interface :	N/R
EDMR Authorization :	N
Pretreatment Indicator :	N/R
Last Date in Agency List :	2022-01-14

Issue Date :	2019-06-28
Original Issue Date :	2018-08-21
Effective Date :	2019-06-28
Expiration Date :	2024-02-08
Retirement Date :	N/R
Termination Date :	N/R
Issuing Agency :	Hawaii Dept of Health, Clean Water Branch
Agency Type :	State
Activity ID :	3601963067
External Permit Number :	N/R
Facility Type Indicator :	NON-POTW
Permit Type :	General Permit Covered Facility-NPDES)
Major Minor Status :	N
Permit Status :	Effective
Total Design Flow Number :	N/R
Actual Average Flow Number :	N/R
State Water Body :	N/R
State Water Body Name :	PACIFIC OCEAN
Permit Name :	State of Hawaii
Permit Comp Status :	N/R
RNC Tracking :	Y
Master External Permit Number :	HIR100000
TMDL Interface :	N/R
EDMR Authorization :	N
Pretreatment Indicator :	N/R
Last Date in Agency List :	2022-01-14

Issue Date :	2018-08-21
Original Issue Date :	2018-08-21
Effective Date :	2018-08-21
Expiration Date :	2018-12-05
Retirement Date :	2019-06-27
Termination Date :	N/R
Issuing Agency :	Hawaii Dept of Health, Clean Water Branch
Agency Type :	State
Activity ID :	3601532164
External Permit Number :	N/R
Facility Type Indicator :	NON-POTW
Permit Type :	General Permit Covered Facility-NPDES)
Major Minor Status :	N
Permit Status :	Administratively Continued
Total Design Flow Number :	N/R

Map Id: 3
Direction: N
Distance: 0.459 mi., 2424 ft.
Elevation: 4 ft.
Relative: Lower

Site Name :	MALAEKAHANA STATE RECREATION AREA KAHUKU SECTION PARK IMPROVEMENTS | MALAEKAHANA STATE RECREATION AREA KALANAI SECTION PARK IMPROVEMENTS UNKNOWN UNKNOWN, HI
Database(s) :	[ECHO, FRS, ICIS, INACTIVE PCS, PCS FACILITY] ***(cont.)***

Envirosite ID: 16648046
EPA ID: N/R

PCS FACILITY ***(cont.)***

Actual Average Flow Number :	N/R
State Water Body :	N/R
State Water Body Name :	PACIFIC OCEAN
Permit Name :	State of Hawaii
Permit Comp Status :	Y
RNC Tracking :	Y
Master External Permit Number :	HIR100000
TMDL Interface :	N/R
EDMR Authorization :	N
Pretreatment Indicator :	N/R
Last Date in Agency List :	2022-01-14

Map Id: 4
Direction: NW
Distance: 0.539 mi., 2845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name :	NA PUA MAKANI | NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR) | Vestas American Wind Technology 56-380 KAMEHAMEHA HWY UNIT 58 KAHUKU | Kahuku, HI 96731
Database(s) :	[ECHO, FRS, MANIFEST EPA, RCRA_VSQG]

Envirosite ID: 36599127
EPA ID: HIR000146266

ECHO

Facility Name :	NA PUA MAKANI
Facility Address :	56-380 KAMEHAMEHA HWY UNIT 58, KAHUKU, HI 96731
County :	HONOLULU
Last Inspection Date :	N/R
Registry ID :	110070030568
FIPS Code :	15003
EPA Region :	09
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	_____

Map Id: 4
Direction: NW
Distance: 0.539 mi., 2845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : NA PUA MAKANI | NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR) | Vestas American Wind Technology
56-380 KAMEHAMEHA HWY UNIT 58
KAHUKU | Kahuku, HI 96731

Database(s) : [ECHO, FRS, MANIFEST EPA, RCRA_VSQG] ***(cont.)***

Envirosite ID: 36599127
EPA ID: HIR000146266

ECHO ***(cont.)***

Collection Method :	N/R
Reference Point :	N/R
Accuracy Meters :	N/R
Derived Tribes :	N/R
Derived HUC :	20060000
Derived WBD :	200600000201
Derived STCTY FIPS :	15003
Derived Zip :	96731
Derived CD113 :	02
Derived CB2010 :	150030101003001
MYRTK Universe :	NNN
NPDES IDs :	HIF011484
CWA Permit Types :	Minor
CWA Compliance Tracking :	On
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	0
CWA Current Compliance Status :	No Violation Identified
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	_____
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	221115 - Wind Electric Power Generation
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeak Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	Y
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R

Map Id: 4
Direction: NW
Distance: 0.539 mi., 2845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : NA PUA MAKANI | NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR) | Vestas American Wind Technology
56-380 KAMEHAMEHA HWY UNIT 58
KAHUKU | Kahuku, HI 96731

Database(s) : [ECHO, FRS, MANIFEST EPA, RCRA_VSQG] ***(cont.)***

Envirosite ID: 36599127
EPA ID: HIR000146266

ECHO ***(cont.)***

Active Flag :	Y
NAA Flag :	N
Latitude :	21.671991
Longitude :	-157.968389
Last Date in Agency List :	2021-04-16
Last Inspection Date :	N/R
Registry ID :	N/R
FIPS Code :	N/R
EPA Region :	09
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	_____
Collection Method :	Zip Code Centroid
Reference Point :	N/R
Accuracy Meters :	10000
Derived Tribes :	N/R
Derived HUC :	N/R
Derived WBD :	N/R
Derived STCTY FIPS :	N/R
Derived Zip :	N/R
Derived CD113 :	N/R
Derived CB2010 :	N/R
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R

Map Id: 4
Direction: NW
Distance: 0.539 mi., 2845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : NA PUA MAKANI | NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR) | Vestas American Wind Technology
56-380 KAMEHAMEHA HWY UNIT 58
KAHUKU | Kahuku, HI 96731

Database(s) : [ECHO, FRS, MANIFEST EPA, RCRA_VSQG] ***(cont.)***

Envirosite ID: 36599127
EPA ID: HIR000146266

ECHO ***(cont.)***

CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	221115 - Wind Electric Power Generation
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeak Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	N
Latitude :	21.67814
Longitude :	-157.953609
Last Date in Agency List :	2020-12-31

Facility Name :	NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR)
Facility Address :	56-380 KAMEHAMEHA HWY UNIT 58, KAHUKU, HI 96731
County :	HONOLULU

Last Inspection Date :	N/R
Registry ID :	110070030568
FIPS Code :	15003
EPA Region :	09
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified

Map Id: 4
Direction: NW
Distance: 0.539 mi., 2845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : NA PUA MAKANI | NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR) | Vestas American Wind Technology
56-380 KAMEHAMEHA HWY UNIT 58
KAHUKU | Kahuku, HI 96731

Database(s) : [ECHO, FRS, MANIFEST EPA, RCRA_VSQG] ***(cont.)***

Envirosite ID: 36599127
EPA ID: HIR000146266

ECHO ***(cont.)***

Three-Year Compliance Status :	_____
Collection Method :	N/R
Reference Point :	POINT WHERE SUBSTANCE IS RELEASED
Accuracy Meters :	17866
Derived Tribes :	N/R
Derived HUC :	20060000
Derived WBD :	200600000201
Derived STCTY FIPS :	15003
Derived Zip :	96731
Derived CD113 :	02
Derived CB2010 :	150030101003001
MYRTK Universe :	NNN
NPDES IDs :	HIF011484
CWA Permit Types :	Minor
CWA Compliance Tracking :	On
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	0
CWA Current Compliance Status :	No Violation Identified
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	_____
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	221115 - Wind Electric Power Generation
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeak Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	Y
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N

Map Id: 4
Direction: NW
Distance: 0.539 mi., 2845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : NA PUA MAKANI | NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR) | Vestas American Wind Technology
56-380 KAMEHAMEHA HWY UNIT 58
KAHUKU | Kahuku, HI 96731

Database(s) : [ECHO, FRS, MANIFEST EPA, RCRA_VSQG] ***(cont.)***

Envirosite ID: 36599127
EPA ID: HIR000146266

ECHO ***(cont.)***

Major Flag :	N/R
Active Flag :	Y
NAA Flag :	N
Latitude :	21.671991
Longitude :	-157.968389
Last Date in Agency List :	2022-01-17

FRS

Facility Name :	NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR)
Facility Address :	56-380 KAMEHAMEHA HWY UNIT 58, KAHUKU, HI 96731
County :	HONOLULU

Site Details

Registry ID :	110070030568
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	2021-12-17

Source Description

Source Description :

The NPDES module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID :	ICIS - HIF011484 RCRAINFO - HIR000146266

MANIFEST EPA

Manifest Details

Manifest Number :	006297495GBF

Map Id: 4
Direction: NW
Distance: 0.539 mi., 2845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : NA PUA MAKANI | NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR) | Vestas American Wind Technology
56-380 KAMEHAMEHA HWY UNIT 58
KAHUKU | Kahuku, HI 96731

Database(s) : [ECHO, FRS, MANIFEST EPA, RCRA_VSQG] ***(cont.)***

Envirosite ID: 36599127
EPA ID: HIR000146266

MANIFEST EPA ***(cont.)***

Shipped Date :	2020-10-15
Updated Date :	2020-12-14
Received Date :	2020-11-23
Status :	Signed
Generator ID :	HIR000146266
Generator Name :	Vestas American Wind Technology
Generator Address :	56-380 Kamehameha Hwy Unit 58, Kahuku, HI 96731
Generator Mailing :	56-380 Kamehameha Hwy Unit 58, Kahuku, HI 96731
Generator Contact :	Vestas American Wind Technology
Destination ID :	NED981723513
Destination Name :	Clean Harbors Environmental Services, Inc.
Destination Mailing :	2247 South Highway 71, Kimball, NE 69145
Destination Address :	2247 South Highway 71, Kimball, NE 69145
Destination Contact :	N/R
Submission Type :	DataImage5Copy
Origin Type :	Service
Manifest Residue :	N
Rejection :	N
Last Date in Agency List :	2022-01-14

Waste Details

Waste Line Number :	1
Is DOT Hazardous :	Y
DOT ID Number :	UN1993
DOT Information :	UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S. (ISOPROPYL ALCOHOL, XYLENE), 3, PG II
Non Waste Description :	N/R
Quantity :	3 Pounds
Quantity Tons, Acute, Non-Acute :	0.0015, 0, 0.0015
Quantity Kg, Acute, Non-Acute :	0, 1.360545
Management Method :	H040 - INCINERATION
Is EPA Waste :	Y
Federal Code :	D001
State Code :	N/R

Waste Line Number :	2
Is DOT Hazardous :	Y
DOT ID Number :	UN1760
DOT Information :	RQ, UN1760, WASTE CORROSIVE LIQUIDS, N.O.S. (AMINES), 8, PG II (D002)
Non Waste Description :	N/R
Quantity :	150 Pounds
Quantity Tons, Acute, Non-Acute :	0.075, 0, 0.075
Quantity Kg, Acute, Non-Acute :	0, 68.02725
Management Method :	H040 - INCINERATION
Is EPA Waste :	Y
Federal Code :	D002
State Code :	N/R

Map Id: 4
Direction: NW
Distance: 0.539 mi., 2845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : NA PUA MAKANI | NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR) | Vestas American Wind Technology
56-380 KAMEHAMEHA HWY UNIT 58
KAHUKU | Kahuku, HI 96731

Database(s) : [ECHO, FRS, MANIFEST EPA, RCRA_VSQG] ***(cont.)***

Envirosite ID: 36599127
EPA ID: HIR000146266

MANIFEST EPA ***(cont.)***

Waste Line Number :	3
Is DOT Hazardous :	Y
DOT ID Number :	UN3082
DOT Information :	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (COPPER, ZINC OXIDE), 9, PG III, 'MARINE POLLUTANT'
Non Waste Description :	N/R
Quantity :	75 Pounds
Quantity Tons, Acute, Non-Acute :	0.0375, 0, 0.0375
Quantity Kg, Acute, Non-Acute :	0, 34.013626
Management Method :	H040 - INCINERATION
Is EPA Waste :	N
Federal Code :	N/R
State Code :	N/R

Manifest Details

Manifest Number :	011767732FLE
Shipped Date :	2020-09-09
Updated Date :	2021-01-08
Received Date :	2020-10-06
Status :	Corrected
Generator ID :	HIR000146266
Generator Name :	NA PUA MAKANI
Generator Address :	56-380 KAMEHAMEHA HWY UNIT 58, KAHUKU, HI 96731
Generator Mailing :	56-380 KAMEHAMEHA HWY UNIT 58, KAHUKU, HI 96731
Generator Contact :	N/R
Destination ID :	TXD055135388
Destination Name :	SET ENVIRONMENTAL
Destination Mailing :	5738 CHESWOOD ST, HOUSTON, TX 77087-4002
Destination Address :	5738 CHESWOOD ST, HOUSTON, TX 77087-4002
Destination Contact :	N/R
Submission Type :	DataImage5Copy
Origin Type :	Web
Manifest Residue :	N
Rejection :	N
Last Date in Agency List :	2022-01-14

Waste Details

Waste Line Number :	1
Is DOT Hazardous :	Y
DOT ID Number :	UN1080
DOT Information :	UN1080, SULFUR HEXAFLUORIDE, 2.2
Non Waste Description :	N/R
Quantity :	4200 Pounds
Quantity Tons, Acute, Non-Acute :	2.1, 0, 2.1
Quantity Kg, Acute, Non-Acute :	0, 1904.763
Management Method :	H100 - PHYSICAL TREATMENT ONLY
Is EPA Waste :	N
Federal Code :	N/R

Map Id: 4
Direction: NW
Distance: 0.539 mi., 2845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : NA PUA MAKANI | NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR) | Vestas American Wind Technology
56-380 KAMEHAMEHA HWY UNIT 58
KAHUKU | Kahuku, HI 96731

Database(s) : [ECHO, FRS, MANIFEST EPA, RCRA_VSQG] ***(cont.)***

Envirosite ID: 36599127
EPA ID: HIR000146266

MANIFEST EPA ***(cont.)***

State Code : TX - OUTS7011

Manifest Details

Manifest Number :	006297357GBF
Shipped Date :	2020-09-01
Updated Date :	2020-11-02
Received Date :	2020-10-13
Status :	Signed
Generator ID :	HIR000146266
Generator Name :	Vestas American Wind Technology
Generator Address :	56-380 Kamehameha Hwy Unit 58, Kahuku, HI 96731
Generator Mailing :	56-380 Kamehameha Hwy Unit 58, Kahuku, HI 96731
Generator Contact :	Vestas American Wind Technology
Destination ID :	NED981723513
Destination Name :	Clean Harbors Environmental Services, Inc.
Destination Mailing :	2247 South Highway 71, Kimball, NE 69145
Destination Address :	2247 South Highway 71, Kimball, NE 69145
Destination Contact :	N/R
Submission Type :	DataImage5Copy
Origin Type :	Service
Manifest Residue :	N
Rejection :	N
Last Date in Agency List :	2022-01-14

Waste Details

Waste Line Number :	1
Is DOT Hazardous :	Y
DOT ID Number :	UN2924
DOT Information :	RQ, UN2924, WASTE FLAMMABLE LIQUIDS, CORROSIVE, N.O.S. (OIL BASED PAINT, CURING AGENT), 3, (8), PG II (D001)
Non Waste Description :	N/R
Quantity :	160 Pounds
Quantity Tons, Acute, Non-Acute :	0.08, 0, 0.08
Quantity Kg, Acute, Non-Acute :	0, 72.5624
Management Method :	H040 - INCINERATION
Is EPA Waste :	Y
Federal Code :	D001
State Code :	N/R

Waste Line Number :	2
Is DOT Hazardous :	Y
DOT ID Number :	UN1760
DOT Information :	UN1760, WASTE CORROSIVE LIQUIDS, N.O.S. (AMINES, PHENOL), 8, PG III
Non Waste Description :	N/R
Quantity :	8 Pounds
Quantity Tons, Acute, Non-Acute :	0.004, 0, 0.004
Quantity Kg, Acute, Non-Acute :	0, 3.6281202

Map Id: 4
Direction: NW
Distance: 0.539 mi., 2845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : NA PUA MAKANI | NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR) | Vestas American Wind Technology
56-380 KAMEHAMEHA HWY UNIT 58
KAHUKU | Kahuku, HI 96731

Database(s) : [ECHO, FRS, MANIFEST EPA, RCRA_VSQG] ***(cont.)***

Envirosite ID: 36599127
EPA ID: HIR000146266

MANIFEST EPA ***(cont.)***

Management Method :	H040 - INCINERATION
Is EPA Waste :	Y
Federal Code :	D002
State Code :	N/R
Waste Line Number :	3
Is DOT Hazardous :	N
DOT ID Number :	N/R
DOT Information :	N/R
Non Waste Description :	NONE, MATERIAL NOT REGULATED BY DOT, N/A, NONE
Quantity :	25 Pounds
Quantity Tons, Acute, Non-Acute :	0.0125, 0, 0.0125
Quantity Kg, Acute, Non-Acute :	0, 11.337875
Management Method :	H040 - INCINERATION
Is EPA Waste :	N
Federal Code :	N/R
State Code :	N/R

RCRA_VSQG

Facility Name :	NA PUA MAKANI
Facility Address :	56-380 KAMEHAMEHA HWY UNIT 58, KAHUKU, HI 96731
County :	HONOLULU
Date Form Received by Agency :	2020-08-17
EPA ID :	HIR000146266
Mailing Address :	56-380 KAMEHAMEHA HWY UNIT 58, KAHUKU, HI 96731
Contact :	JONATHAN W WEITZEL
Contact Address :	56-380 KAMEHAMEHA HWY UNIT 58, KAHUKU, HI 96731
Contact Country :	US
Contact Telephone :	509-899-2037
Contact Email :	JONWE@VESTAS.COM
EPA Region :	09
Land Type :	State
Source Type :	Notification
Classification :	Very Small Quantity Generator

Description :

Handlers that generate 100 kilograms or less of hazardous waste per calendar month, and accumulate 1000 kg or less of hazardous waste at any time; or generate one kilogram or less of acutely hazardous waste per calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste;or generate 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulate at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste.

Last Date in Agency List : 2022-01-25

Map Id: 4
Direction: NW
Distance: 0.539 mi., 2845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : NA PUA MAKANI | NA PUA MAKANI WIND PROJECT, SUBPROJECT A (DLNR) | Vestas American Wind Technology
56-380 KAMEHAMEHA HWY UNIT 58
KAHUKU | Kahuku, HI 96731

Database(s) : [ECHO, FRS, MANIFEST EPA, RCRA_VSQG] ***(cont.)***

Envirosite ID: 36599127
EPA ID: HIR000146266

RCRA_VSQG ***(cont.)***

Owner/Operator Summary

Owner/Operator Name :	MALAEKAHANA HUI WEST, LLC
Owner/Operator Address :	P.O. BOX 279, KAHUKU, HI 96731
Owner/Operator Country :	US
Owner/Operator Telephone :	808-679-7641
Owner/Operator Email :	AARONCAMPBEL@GMAIL.COM
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Owner
Owner/Operator Start Date :	N/R
Owner/Operator End Date :	N/R

Owner/Operator Name :	VESTAS AMERICAN WIND TECHNOLOGY
Owner/Operator Address :	1417 NW EVERETT ST, PORTLAND, OR 97209
Owner/Operator Country :	US
Owner/Operator Telephone :	503-327-2000
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Operator
Owner/Operator Start Date :	N/R
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N/R
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N
Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Hazardous Waste Summary

Waste Code / Name :	D001 - IGNITABLE WASTE

Notices of Violations Summary

Regulation Violated :	N

Map Id: 5
Direction: WSW
Distance: 0.550 mi., 2904 ft.
Elevation: 43 ft.
Relative: Higher

Site Name : Pier 12 Honolulu Harbor | Pier 12 and Pier 15 Improvements
Honolulu Harbor | Pier 12 Honolulu Harbor
Honolulu, HI 96817

Database(s) : [HIST SPILLS 2 - HI, SHWS - HI]

Envirosite ID: 40194436
EPA ID: N/R

HIST SPILLS 2 - HI

Facility Name :	Pier 12 Honolulu Harbor
Facility Address :	Honolulu Harbor, Honolulu, 96817
Case Number :	19950505-1
Activity End Date :	N/R
HID Number :	N/R
Facility Registry Identifier :	N/R
Activity Type :	Response
Activity Lead :	Terry Corpus
Activity Result :	SOSC NFA
Substances :	N/R
Quantity :	N/R
Lead and Program :	HEER EP&R
National Response Center Incident Report:	N/R
Organization :	N/R
Location Island :	Oahu
Supplemental Location :	Honolulu Harbor Pier 12
EP&R Environmental Interest :	Pier 12 Honolulu Harbor
Was coordination needed on or off scene?:	N/R
Last Date in Agency List :	2018-07-17
Tax Map Key :	N/R

SHWS - HI

Facility Name :	Pier 12 and Pier 15 Improvements
Facility Address :	Pier 12 Honolulu Harbor, Honolulu
County :	Oahu

Site Details

SDAR Environmental Interest Name :	N/R
Supplemental Location Text :	N/R
HID Number :	N/R
Facility Registry Identifier :	N/R
Program Full Name :	State
Potential Hazard and Controls :	Hazard Undetermined
Assessment :	Assessment
Priority :	Medium
Nature of Contamination :	N/R
Nature of Residual Contamination :	N/R
Response :	N/R
Response Action Completed :	N/R
Lead Agency :	HEER Office
Use Restrictions :	N/R
Description of Restrictions :	N/R
Engineering Control :	N/R
Institutional Control :	N/R
Date Issued :	N/R
Within Designated Areawide Contamination:	N/R

Map Id: 5
Direction: WSW
Distance: 0.550 mi., 2904 ft.
Elevation: 43 ft.
Relative: Higher

Site Name : Pier 12 Honolulu Harbor | Pier 12 and Pier 15 Improvements
Honolulu Harbor | Pier 12 Honolulu Harbor
Honolulu, HI 96817

Database(s) : [HIST SPILLS 2 - HI, SHWS - HI] ***(cont.)***

Envirosite ID: 40194436
EPA ID: N/R

SHWS - HI ***(cont.)***

Document Date :	N/R
Document Number :	N/R
Document Subject :	N/R
Site Closure Document :	N/R
Project Manager :	N/R
Unit :	N/R
Last Activity :	N/R
Number of Acres :	N/R
Status :	Ongoing
Contact Information :	N/R
Latitude :	21.661059
Longitude :	-157.943921
Last Date in Agency List :	2021-12-06

Tax Map Key Information

Tax Map Key :	N/R
Description of Portion :	N/R

Map Id: 6
Direction: WSW
Distance: 0.587 mi., 3102 ft.
Elevation: 32 ft.
Relative: Higher

Site Name : LAIE MILITARY RES
21.661667, -157.945
LAIE, HI

Database(s) : [FUDS]

Envirosite ID: 31220685
EPA ID: N/R

FUDS

Facility Name :	LAIE MILITARY RES
Facility Address :	LAIE, HI
County :	HONOLULU
FUDS Property ID :	H09HI0197
FUDS Installation ID :	HI99799F393500
Status :	Properties without projects
NPL Status :	Not on the NPL
Current Owner :	N/R
Eligibility :	Eligible
FUDS Property have project :	No
EPA Region :	09
Congressional District :	02
District :	Honolulu District (POH)
EMS Map Link :	Click here for hyperlink provided by the agency.
Latitude :	21.661667
Longitude :	-157.945
Fiscal Year :	2019
Last Date in Agency List :	2022-02-16

Map Id: 7
Direction: NNE
Distance: 0.609 mi., 3214 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : N/R
LAT: 21N 40.44' LONG: 157W 55.88'
HONOLULU, HI

Database(s) : [ERNS]

Envirosite ID: 1923214
EPA ID: N/R

ERNS

Facility Address :	LAT: 21N 40.44' LONG: 157W 55.88', HONOLULU, HI
County :	HONOLULU

Incident Information

Incident Date Time :	2016-07-04 20:30:00
Type of Incident :	VESSEL
Incident Cause :	VESSEL SINKING
Incident DTG :	OCCURRED
Incident Location :	GOAT ISLAND
Sequence Number :	1152417
Potential Flag :	N
Description of Incident :	DIESEL FUEL DISCHARGED FROM A CAPSIZED VESSEL.
Last Date in Agency List :	2016-10-05

Incident Response Summary

Date Time Received :	2016-07-05 04:24:00
Date Time Completed :	2016-07-05 04:28:00
Call Type :	Incident
Source :	TELEPHONE
Responsible Company :	N/R
Responsible Org Type :	PRIVATE CITIZEN
Responsible City :	N/R
Responsible State :	XX
Responsible Zip :	N/R

Incident Details Summary

Remedial Action :	THE PEOPLE THAT WERE ONBOARD ARE BEING INTERVIEWED. IMD IS RESPONDING IN THE MORNING.
Medium :	LAIE BAY
Medium Description :	WATER
Body of Water :	LAIE BAY
Weather Conditions :	N/R
Water Temperature :	N/R
Water Supply Contaminated :	U
Waterway Closed :	N
Waterway Description :	N/R

Additional Incident Details Summary

Actual Amount :	N/R
Actual Amount Units :	N/R
Capacity of Tank :	N/R
Capacity of Tank Units :	N/R
Continuous Release Begin Date :	N/R
Continuous Release End Date :	N/R
Continuous Release Change Date :	N/R
Continuous Release Permit :	N/R
Continuous Release Type :	N/R

Map Id: 7
Direction: NNE
Distance: 0.609 mi., 3214 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : N/R
LAT: 21N 40.44' LONG: 157W 55.88'
HONOLULU, HI

Database(s) : [ERNS] ***(cont.)***

Envirosite ID: 1923214
EPA ID: N/R

ERNS ***(cont.)***

Description of Tank :	N/R
Device Operational :	U
DOT Crossing Number :	N/R
DOT Regulated :	U
NPDES :	N/R
NPDES Compliance :	U
Pipeline Aboveground :	ABOVE
Pipeline Covered :	U
Pipeline Type :	N/R
Tank ID :	N/R
Tank Regulated :	U
Tank Regulated by :	N/R

Materials Involved Summary

Name of Material :	OIL: DIESEL
CAS Number :	000000-00-0
Amount of Material :	100
Unit of Measure :	GALLON(S)
UN Number :	N/R
CHRIS Code :	ODS
Reached Water :	YES
Amount in Water :	100
Unit of Measure (Reach Water) :	GALLON(S)

Additional Materials Involved Summary

Name of Material :	N/R
CAS Number :	N/R
CHRIS Code :	N/R
Upper Bounds :	N/R
Upper Bounds Unit :	N/R
Upper Bounds Rate :	N/R

Trains Details

Train Name Number :	N/R
Train Type :	N/R
Train Speed :	N/R
Train Direction :	N/R
Number Locomotives :	N/R
Number Cars :	N/R
Number Derailed :	N/R
Track Speed :	N/R
Railroad Name :	N/R
Non Compliance with Hazmat :	N/R

Derailed Units Summary

Train Name Number :	N/R
Car Number :	N/R
Car Content :	N/R
Position in Train :	N/R

Map Id: 7
Direction: NNE
Distance: 0.609 mi., 3214 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : N/R
LAT: 21N 40.44' LONG: 157W 55.88'
HONOLULU, HI

Database(s) : [ERNS] ***(cont.)***

Envirosite ID: 1923214
EPA ID: N/R

ERNS ***(cont.)***

Derailed Type :	N/R

Vessels Details

Vessel Name :	MAKANANI
Vessel Type :	FISHING
Vessel Length :	40
Hull Construction :	N/R
Fuel Capacity :	N/R
Fuel on Board :	100
Cargo Capacity :	N/R
Cargo on Board :	N/R
Is Vessel Aground :	N
Flag :	N/R
Breadth :	N/R
Draught :	N/R
Fuel Capacity Units :	N/R
Fuel on Board Units :	GALLON(S)
Cargo Capacity Units :	N/R
Cargo on Board Units :	N/R

Mobile Details

Vehicle Own Fuel Capacity :	N/R
Cargo Capacity :	N/R
Amount of Cargo on Board :	N/R
Hazmat Carrier :	N/R
Carrier Licensed :	N/R
Noncompliance with Hazmat :	N/R
Mobile Type :	N/R
Cargo Capacity Units :	N/R
Amount of Cargo on Board Units :	N/R
Vehicle Year :	N/R
Vehicle Make :	N/R
Vehicle Model :	N/R
Vehicle Number :	N/R
Trailer Number :	N/R

Map Id: 8
Direction: NW
Distance: 0.624 mi., 3293 ft.
Elevation: 10 ft.
Relative: Lower

Site Name : FRIENDS OF MALAEKAHANA
56-335 KAMEHAMEHA HWY
LAIE, HI 96762

Database(s) : [ECHO, FRS, RCRA_NONGEN]

Envirosite ID: 1927114
EPA ID: N/R

ECHO

Facility Name :	FRIENDS OF MALAEKAHANA
Facility Address :	56-335 KAMEHAMEHA HWY, LAIE, HI 96762
County :	HONOLULU

Map Id: 8
Direction: NW
Distance: 0.624 mi., 3293 ft.
Elevation: 10 ft.
Relative: Lower

Site Name : FRIENDS OF MALAEKAHANA
56-335 KAMEHAMEHA HWY
LAIE, HI 96762

Database(s) : [ECHO, FRS, RCRA_NONGEN] ***(cont.)***

Envirosite ID: 1927114
EPA ID: N/R

ECHO ***(cont.)***

Last Inspection Date :	2012-01-30
Registry ID :	110046086221
FIPS Code :	15003
EPA Region :	09
Inspection Count :	0
Last Inspection Days :	3611
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	_____
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters :	50
Derived Tribes :	N/R
Derived HUC :	20060000
Derived WBD :	200600000201
Derived STCTY FIPS :	15003
Derived Zip :	96762
Derived CD113 :	02
Derived CB2010 :	150030102024001
MYRTK Universe :	NNN
NPDES IDs :	N/R
CWA Permit Types :	N/R
CWA Compliance Tracking :	N/R
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	N/R
CWA Current Compliance Status :	N/R
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R
Facility NAICS :	721211 - RV (Recreational Vehicle) Parks and Campgrounds
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	2012-01-30
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R

Map Id: 8
Direction: NW
Distance: 0.624 mi., 3293 ft.
Elevation: 10 ft.
Relative: Lower

Site Name : FRIENDS OF MALAEKAHANA
56-335 KAMEHAMEHA HWY
LAIE, HI 96762

Database(s) : [ECHO, FRS, RCRA_NONGEN] ***(cont.)***

Envirosite ID: 1927114
EPA ID: N/R

ECHO ***(cont.)***

Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeak Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	N
SDWIS Flag :	N
RCRA Flag :	Y
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	N
Latitude :	21.6566
Longitude :	-157.930784
Last Date in Agency List :	2022-01-17

FRS

Facility Name :	FRIENDS OF MALAEKAHANA
Facility Address :	56-335 KAMEHAMEHA HWY, LAIE, HI 96762
County :	HONOLULU

Site Details

Registry ID :	110046086221
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	2021-12-17

Source Description

Source Description :

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA. RCRAInfo also supports generation of the National Hazardous Waste Biennial Report. All generators and treatment, storage, and disposal facilities who handle hazardous waste are required to report to the EPA Administrator at least once every two years to support creation of the Biennial Report.

FRS Environmental Interest

Source and System ID :	RCRAINFO - HIP000140749

RCRA_NONGEN

Facility Name :	FRIENDS OF MALAEKAHANA
Facility Address :	56-335 KAMEHAMEHA HWY, LAIE, HI 96762

Map Id: 8
Direction: NW
Distance: 0.624 mi., 3293 ft.
Elevation: 10 ft.
Relative: Lower

Site Name : FRIENDS OF MALAEKAHANA
56-335 KAMEHAMEHA HWY
LAIE, HI 96762

Database(s) : [ECHO, FRS, RCRA_NONGEN] ***(cont.)***

Envirosite ID: 1927114
EPA ID: N/R

RCRA_NONGEN ***(cont.)***

County :	HONOLULU
Date Form Received by Agency :	2012-05-14
EPA ID :	HIP000140749
Mailing Address :	P.O. BOX 305, LAIE, HI 96762
Contact :	CRAIG CHAPMAN
Contact Address :	P.O. BOX 305, LAIE, HI 96762
Contact Country :	US
Contact Telephone :	808-293-1736
Contact Email :	CHAPMANHI1@YAHOO.COM
EPA Region :	09
Land Type :	State
Source Type :	Notification
Classification :	Not a generator, verified
Description :	Not a generator, verified
Last Date in Agency List :	2022-01-26

Owner/Operator Summary

Owner/Operator Name :	CRAIG CHAPMAN
Owner/Operator Address :	N/R
Owner/Operator Country :	US
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	Private
Owner/Operator Type :	Operator
Owner/Operator Start Date :	1994-01-01
Owner/Operator End Date :	N/R

Owner/Operator Name :	STATE OF HAWAII, DLNR
Owner/Operator Address :	N/R
Owner/Operator Country :	US
Owner/Operator Telephone :	N/R
Owner/Operator Email :	N/R
Owner/Operator Fax :	N/R
Legal Status :	State
Owner/Operator Type :	Owner
Owner/Operator Start Date :	1977-01-01
Owner/Operator End Date :	N/R

Handler Activities Summary

U.S. Importer of Hazardous Waste :	N
Mixed Waste (Haz. and Radioactive) :	N
Recycler of Hazardous Waste :	N
Transporter of Hazardous Waste :	N
Treater, Storer or Disposer of HW :	N
Underground Injection Activity :	N
On-site Burner Exemption :	N
Furnace Exemption :	N
Used Oil Fuel Burner :	N
Used Oil Processor :	N

Map Id: 8
Direction: NW
Distance: 0.624 mi., 3293 ft.
Elevation: 10 ft.
Relative: Lower

Site Name : FRIENDS OF MALAEKAHANA
56-335 KAMEHAMEHA HWY
LAIE, HI 96762

Database(s) : [ECHO, FRS, RCRA_NONGEN] ***(cont.)***

Envirosite ID: 1927114
EPA ID: N/R

RCRA_NONGEN ***(cont.)***

Used Oil Refiner :	N
Used Oil Fuel Marketer to Burner :	N
Used Oil Specification Marketer :	N
Used Oil Transfer Facility :	N
Used Oil Transporter :	N

Historical Generators

Date Form Received by Agency :	2012-02-14
Facility Name :	FRIENDS OF MALAEKAHANA
Classification :	Small Quantity Generator

Notices of Violations Summary

Regulation Violated :	N

Evaluation Action Summary

Evaluation Date :	2012-01-30
Evaluation :	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of Violation :	N/R
Date Achieved Compliance :	N/R
Evaluation Lead Agency :	State

Map Id: 9
Direction: ENE
Distance: 0.737 mi., 3892 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : FUDS Oahu Target Island
N/R
HI

Database(s) : [I C - HI, SHWS - HI]

Envirosite ID: 16623809
EPA ID: N/R

I C - HI

Facility Name :	FUDS Oahu Target Island
Facility Address :	N/R
County :	Oahu

Site Details

SDAR Environmental Interest Name :	FUDS Oahu Target Island
Supplemental Location Text :	N/R
HID Number :	N/R
Facility Registry Identifier :	N/R
Program Full Name :	Defense and State Memorandum of Agreement
Potential Hazard and Controls :	Hazard Managed With Controls
Assessment :	Response Necessary
Priority :	Medium
Nature of Contamination :	Found: Ordnance & explosives

Map Id: 9
Direction: ENE
Distance: 0.737 mi., 3892 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : FUDS Oahu Target Island
N/R
HI

Database(s) : [I C - HI, SHWS - HI] ***(cont.)***

Envirosite ID: 16623809
EPA ID: N/R

I C - HI ***(cont.)***

Nature of Residual Contamination :	N/R
Response :	Response Ongoing
Response Action Completed :	N/R
Lead Agency :	HEER
Use Restrictions :	Controls Required to Manage Contamination
Description of Restrictions :	N/R
Engineering Control :	N/R
Institutional Control :	Government - Hawaii Dept. of Health Letter Issued
Date Issued :	2008-12-04
Within Designated Areawide Contamination:	N/R
Document Date :	N/R
Document Number :	N/R
Document Subject :	N/R
Site Closure Document :	N/R
Project Manager :	Paul Chong
Unit :	N/R
Last Activity :	N/R
Number of Acres :	N/R
Status :	N/R
Contact Information :	(808) 586-4249, 2385 Waimano Home Rd, Pearl City, HI 96782
Latitude :	N/R
Longitude :	N/R
Last Date in Agency List :	2019-06-05

Tax Map Key Information

Tax Map Key :	143001008
Description of Portion :	Mokulua Point
Tax Map Key :	144008004
Description of Portion :	Kapapa Island
Tax Map Key :	144009004
Description of Portion :	Mokumanu Island
Tax Map Key :	156001001
Description of Portion :	Kihewamoku Island
Tax Map Key :	N/R
Description of Portion :	Kahuku Point

SHWS - HI

Facility Name :	FUDS Oahu Target Island
Facility Address :	N/R
County :	Oahu

Map Id: 9
Direction: ENE
Distance: 0.737 mi., 3892 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : FUDS Oahu Target Island
N/R
HI

Database(s) : [I C - HI, SHWS - HI] ***(cont.)***

Envirosite ID: 16623809
EPA ID: N/R

SHWS - HI ***(cont.)***

Site Details

SDAR Environmental Interest Name :	FUDS Oahu Target Island
Supplemental Location Text :	N/R
HID Number :	N/R
Facility Registry Identifier :	N/R
Program Full Name :	N/R
Potential Hazard and Controls :	Hazard Managed With Controls
Assessment :	Response Necessary
Priority :	Medium
Nature of Contamination :	Found: Ordnance & explosives
Nature of Residual Contamination :	N/R
Response :	Response Ongoing
Response Action Completed :	N/R
Lead Agency :	HEER
Use Restrictions :	Controls Required to Manage Contamination
Description of Restrictions :	N/R
Engineering Control :	N/R
Institutional Control :	Government - Hawaii Dept. of Health Letter Issued
Date Issued :	2008-12-04
Within Designated Areawide Contamination:	N/R
Document Date :	N/R
Document Number :	N/R
Document Subject :	N/R
Site Closure Document :	N/R
Project Manager :	Paul Chong
Unit :	N/R
Last Activity :	N/R
Number of Acres :	N/R
Status :	N/R
Contact Information :	(808) 586-4249, 2385 Waimano Home Rd, Pearl City, HI 96782
Latitude :	N/R
Longitude :	N/R
Last Date in Agency List :	2019-06-05

Tax Map Key Information

Tax Map Key :	143001008
Description of Portion :	Mokulua Point
Tax Map Key :	144008004
Description of Portion :	Kapapa Island
Tax Map Key :	144009004
Description of Portion :	Mokumanu Island
Tax Map Key :	156001001
Description of Portion :	Kihewamoku Island
Tax Map Key :	N/R
Description of Portion :	Kahuku Point

Map Id: 10
Direction: N
Distance: 0.771 mi., 4069 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : N/R
N/R
HI

Database(s) : [ERNS]

Envirosite ID: 43344774
EPA ID: N/R

ERNS

Facility Address : HI
County : HONOLULU

Incident Information
Incident Date Time : 2021-10-23 12:23:00
Type of Incident : STORAGE TANK
Incident Cause : UNKNOWN
Incident DTG : DISCOVERED
Incident Location : KAHUKU BEACH - PACIFIC OCEAN
Sequence Number : 1320242
Potential Flag : Y

Description of Incident : CALLER IS REPORTING A POTENTIAL DISCHARGE FROM A DRUM THAT WAS OBSERVED FLOATING IN THE PACIFIC OCEAN AT THE COORDINATES PROVIDED. THE CONTENTS OF THE DRUM ARE UNKNOWN AT THIS TIME.

Last Date in Agency List : 2022-02-02

Incident Response Summary
Date Time Received : 2021-10-23 18:33:00
Date Time Completed : 2021-10-23 18:46:00
Call Type : Incident
Source : TELEPHONE
Responsible Company : N/R
Responsible Org Type : UNKNOWN
Responsible City : N/R
Responsible State : XX
Responsible Zip : N/R

Incident Details Summary
Remedial Action : HAZMAT TEAM 1 WITH HFD FOR ASSESSMENT
Medium : PACIFIC OCEAN
Medium Description : WATER
Body of Water : PACIFIC OCEAN
Weather Conditions : N/R
Water Temperature : N/R
Water Supply Contaminated : U
Waterway Closed : N
Waterway Description : N/R

Additional Incident Details Summary
Actual Amount : N/R
Actual Amount Units : N/R
Capacity of Tank : 55
Capacity of Tank Units : GALLON(S)
Continuous Release Begin Date : N/R
Continuous Release End Date : N/R
Continuous Release Change Date : N/R

Map Id: 10
Direction: N
Distance: 0.771 mi., 4069 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : N/R
N/R
HI

Database(s) : [ERNS] ***(cont.)***

Envirosite ID: 43344774
EPA ID: N/R

ERNS ***(cont.)***

Continuous Release Permit :	N/R
Continuous Release Type :	N/R
Description of Tank :	BLUE 55 GALLON DRUM
Device Operational :	U
DOT Crossing Number :	N/R
DOT Regulated :	U
NPDES :	N/R
NPDES Compliance :	U
Pipeline Aboveground :	ABOVE
Pipeline Covered :	U
Pipeline Type :	N/R
Tank ID :	N/R
Tank Regulated :	U
Tank Regulated by :	N/R

Materials Involved Summary

Name of Material :	UNKNOWN MATERIAL
CAS Number :	000000-00-0
Amount of Material :	0
Unit of Measure :	UNKNOWN AMOUNT
UN Number :	N/R
CHRIS Code :	UNK
Reached Water :	YES
Amount in Water :	0
Unit of Measure (Reach Water) :	UNKNOWN AMOUNT

Additional Materials Involved Summary

Name of Material :	N/R
CAS Number :	N/R
CHRIS Code :	N/R
Upper Bounds :	N/R
Upper Bounds Unit :	N/R
Upper Bounds Rate :	N/R

Trains Details

Train Name Number :	N/R
Train Type :	N/R
Train Speed :	N/R
Train Direction :	N/R
Number Locomotives :	N/R
Number Cars :	N/R
Number Derailed :	N/R
Track Speed :	N/R
Railroad Name :	N/R
Non Compliance with Hazmat :	N/R

Derailed Units Summary

Train Name Number :	N/R
Car Number :	N/R

Map Id: 10
Direction: N
Distance: 0.771 mi., 4069 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : N/R
N/R
HI

Database(s) : [ERNS] ***(cont.)***

Envirosite ID: 43344774
EPA ID: N/R

ERNS ***(cont.)***

Car Content :	N/R
Position in Train :	N/R
Derailed Type :	N/R

Vessels Details

Vessel Name :	N/R
Vessel Type :	N/R
Vessel Length :	N/R
Hull Construction :	N/R
Fuel Capacity :	N/R
Fuel on Board :	N/R
Cargo Capacity :	N/R
Cargo on Board :	N/R
Is Vessel Aground :	N/R
Flag :	N/R
Breadth :	N/R
Draught :	N/R
Fuel Capacity Units :	N/R
Fuel on Board Units :	N/R
Cargo Capacity Units :	N/R
Cargo on Board Units :	N/R

Mobile Details

Vehicle Own Fuel Capacity :	N/R
Cargo Capacity :	N/R
Amount of Cargo on Board :	N/R
Hazmat Carrier :	N/R
Carrier Licensed :	N/R
Noncompliance with Hazmat :	N/R
Mobile Type :	N/R
Cargo Capacity Units :	N/R
Amount of Cargo on Board Units :	N/R
Vehicle Year :	N/R
Vehicle Make :	N/R
Vehicle Model :	N/R
Vehicle Number :	N/R
Trailer Number :	N/R

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI]

Envirosite ID: 1922021
EPA ID: N/R

DEBRIS EPA SWRCY

Facility Name :	Laie Refuse Convenience Center
Facility Address :	56-020 Kamehameha Hwy, Laie, HI 96762
Phone :	808-293-8714
Region :	9
Recovery :	Yes
Landfill :	No
C D :	No
Composting :	No
Demolition :	No
Electronic :	No
HHW :	No
Metals :	No
Tires :	No
Transfer Station :	Yes
Vehicles :	No
LF C D :	No
LF HW :	No
LF MSW :	No
Latitude :	21.65581
Longitude :	-157.930606
Last Date in Agency List :	2022-02-02

ECHO

Facility Name :	C&CH LAIE CORP YARD
Facility Address :	56-020 KAMEHAMEHA HWY, LAIE, HI 96762
County :	HONOLULU
Last Inspection Date :	N/R
Registry ID :	110013772346
FIPS Code :	15003
EPA Region :	09
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	0
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation
Three-Year Compliance Status :	N/R
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

ECHO ***(cont.)***

Reference Point :	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters :	50
Derived Tribes :	N/R
Derived HUC :	20060000
Derived WBD :	N/R
Derived STCTY FIPS :	15003
Derived Zip :	96762
Derived CD113 :	02
Derived CB2010 :	150030102024001
MYRTK Universe :	NNN
NPDES IDs :	HIF000521
CWA Permit Types :	Minor
CWA Compliance Tracking :	Off
CWA NAICS :	N/R
CWA SICS :	9999
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	0
CWA Current Compliance Status :	No Violation
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	9999
Facility NAICS :	N/R
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	N/R
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N
US Mexico Border Flag :	N/R
Chesapeak Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	Y
SDWIS Flag :	N
RCRA Flag :	N

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

ECHO ***(cont.)***

TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	N/R
Latitude :	21.6566
Longitude :	-157.930784
Last Date in Agency List :	2017-01-27
Facility Name :	LAIE CORPORATION YARD
Facility Address :	56-020 KAMEHAMEHA HWY, LAIE, HI 96762
County :	HONOLULU
Last Inspection Date :	N/R
Registry ID :	110013772346
FIPS Code :	15003
EPA Region :	09
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	N/R
Three-Year Compliance Status :	N/R
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters :	50
Derived Tribes :	N/R
Derived HUC :	20060000
Derived WBD :	200600000201
Derived STCTY FIPS :	15003
Derived Zip :	96762
Derived CD113 :	02
Derived CB2010 :	150030102024001
MYRTK Universe :	NNN
NPDES IDs :	HIF000521
CWA Permit Types :	Minor
CWA Compliance Tracking :	Off
CWA NAICS :	N/R
CWA SICS :	9999
CWA Inspection Count :	N/R

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

ECHO ***(cont.)***

CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	0
CWA Current Compliance Status :	Terminated Permit
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	N/R
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	9999
Facility NAICS :	N/R
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	Y
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeak Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	Y
SDWIS Flag :	N
RCRA Flag :	N
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	N/R
NAA Flag :	N
Latitude :	21.6566
Longitude :	-157.930784
Last Date in Agency List :	2022-01-17

Facility Name :	MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS
Facility Address :	56-020 KAMEHAMEHA HIGHWAY, LAIE, HI 96762
County :	HONOLULU

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

ECHO ***(cont.)***

Last Inspection Date :	N/R
Registry ID :	110060354067
FIPS Code :	15003
EPA Region :	09
Inspection Count :	0
Last Inspection Days :	N/R
Informal Count :	0
Last Informal Action Date :	N/R
Formal Action Count :	0
Last Formal Action Date :	N/R
Total Penalties :	0
Penalty Count :	N/R
Last Penalty Date :	N/R
Last Penalty Amount :	N/R
QTRS IN NC :	0
Programs IN SNC :	0
Current Compliance Status :	No Violation Identified
Three-Year Compliance Status :	_____
Collection Method :	ADDRESS MATCHING-HOUSE NUMBER
Reference Point :	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters :	50
Derived Tribes :	N/R
Derived HUC :	20060000
Derived WBD :	200600000201
Derived STCTY FIPS :	15003
Derived Zip :	96762
Derived CD113 :	02
Derived CB2010 :	150030102024001
MYRTK Universe :	NNN
NPDES IDs :	HIF010511
CWA Permit Types :	Minor
CWA Compliance Tracking :	On
CWA NAICS :	N/R
CWA SICS :	N/R
CWA Inspection Count :	N/R
CWA Last Inspection Days :	N/R
CWA Informal Count :	N/R
CWA Formal Action Count :	N/R
CWA Last Formal Action Date :	N/R
CWA Penalties :	N/R
CWA Last Penalty Date :	N/R
CWA Last Penalty Amount :	N/R
CWA Quarters IN NC :	0
CWA Current Compliance Status :	No Violation Identified
CWA Current SNC Flag :	N
CWA 13 Quarters Compliance Status :	_____
CWA 13 Quarters Effluent Exceedances:	N/R
CWA Three-Year QNCR Codes :	N/R
DFR URL :	Click here for hyperlink provided by the agency.
Facility SIC :	N/R

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

ECHO ***(cont.)***

Facility NAICS :	N/R
Facility Last Inspection EPA Date :	N/R
Facility Last Inspection State Date :	N/R
Facility Last Formal Act EPA Date :	N/R
Facility Last Formal Act State Date :	N/R
Facility Last Informal Act EPA Date :	N/R
Facility Last Informal Act State Date:	N/R
Facility Federal Agency :	N/R
TRI Reporter :	N/R
Facility Imp Water Flag :	Y
Current SNC Flag :	N
Indian County Flag :	N
Federal Flag :	N/R
US Mexico Border Flag :	N/R
Chesapeak Bay Flag :	N/R
AIR Flag :	N
NPDES Flag :	Y
SDWIS Flag :	N
RCRA Flag :	N
TRI Flag :	N
GHG Flag :	N
Major Flag :	N/R
Active Flag :	Y
NAA Flag :	N
Latitude :	21.6566
Longitude :	-157.930784
Last Date in Agency List :	2022-01-17

EPA UST

Facility Name :	C&CH LAIE CORP YARD
Facility Address :	56-020 KAMEHAMEHA HWY, Laie, Hawaii 96762
County :	N/R
Facility ID :	HI9-200129
Facility Status :	Open UST(s)
Open USTs :	2
Closed USTs :	2
Temporarily Out of Service USTs :	0
Date of Last Inspection :	N/R
EPA Region :	9
Tribe :	N/R
Facility ID 2 :	N/R
Latitude :	21.655944999999999
Longitude :	-157.931079000000011
Last Date in Agency List :	2021-12-27

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

EPA UST ***(cont.)***

Tank Details

Tank ID :	HI9-2001291
Tank Status :	Open
Installation Date :	1992-11-01
Removal Date :	N/R
Capacity :	2500
Substances :	Diesel
Tank Wall Type :	N/R

Tank ID :	HI9-2001292
Tank Status :	Open
Installation Date :	1992-11-01
Removal Date :	N/R
Capacity :	1000
Substances :	Gasoline
Tank Wall Type :	N/R

Tank ID :	HI9-200129R-1
Tank Status :	Closed
Installation Date :	1967-01-01
Removal Date :	N/R
Capacity :	1500
Substances :	Diesel
Tank Wall Type :	N/R

Tank ID :	HI9-200129R-2
Tank Status :	Closed
Installation Date :	1967-01-01
Removal Date :	N/R
Capacity :	500
Substances :	Diesel
Tank Wall Type :	N/R

FRS

Facility Name :	LAIE CORPORATION YARD
Facility Address :	56-020 KAMEHAMEHA HWY, LAIE, HI 96762
County :	HONOLULU

Site Details

Registry ID :	110013772346
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	2021-12-17

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

FRS ***(cont.)***

Source Description
Source Description :

The Environmental Health Warehouse (EHW) contains the Hawaii Department of Health - Environmental Health Administration's (HDOH-EHA) environmental data. The web-based application allows EHA to inquire about sites in Hawaii that are regulated by the administration due to activities that affect the environment, regardless of the regulation or program that directly monitors those activities. The system allows users a consolidated view of sites without disrupting the underlying source systems or the staff involved as they process their day-to-day workload. The EHW offers geo-spatial and tabular inquiry, mapping, reconciliation/data consolidation, and GIS services.
The NPDES module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

FRS Environmental Interest
Source and System ID :

HI-EHW - 7324
HI-EHW - 7325
ICIS - HIF000521

Facility Name :
MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS
Facility Address :
56-020 KAMEHAMEHA HIGHWAY, LAIE, HI 96762
County :
HONOLULU

Site Details
Registry ID :
110060354067
FRS Facility URL :
Click here for hyperlink provided by the agency.
Last Date in Agency List :
2021-12-17

Source Description

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

FRS ***(cont.)***

Source Description : The Environmental Health Warehouse (EHW) contains the Hawaii Department of Health - Environmental Health Administration's (HDOH-EHA) environmental data. The web-based application allows EHA to inquire about sites in Hawaii that are regulated by the administration due to activities that affect the environment, regardless of the regulation or program that directly monitors those activities. The system allows users a consolidated view of sites without disrupting the underlying source systems or the staff involved as they process their day-to-day workload. The EHW offers geo-spatial and tabular inquiry, mapping, reconciliation/data consolidation, and GIS services.
The NPDES module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

FRS Environmental Interest
Source and System ID : HI-EHW - 14845
ICIS - HIF010511

HIST LUST - HI

Facility Name : C&CH LAIE CORP YARD
Facility Address : 56-020 KAMEHAMEHA HWY, Laie, HI 96762

Installed Date : 1992-11-01
Facility ID : 9-200129
Tank ID : 2A
Tank Status Description : Currently In Use
Tank Capacity : 1000
Substance Description : Gasoline
Date Closed : N/R
Organization Name : C&CH Dept of Facility Maintenacne
Organization Address : 650 S king St, 11th Flr, Laie, HI 96762
Last Date in Agency List : 2014-03-04

Installed Date : 1992-11-01
Facility ID : 9-200129
Tank ID : 1A
Tank Status Description : Currently In Use
Tank Capacity : 2500
Substance Description : Diesel
Date Closed : N/R
Organization Name : C&CH Dept of Facility Maintenacne

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

HIST LUST - HI ***(cont.)***

Organization Address :	650 S king St, 11th Flr, Laie, HI 96762
Last Date in Agency List :	2014-03-04
Installed Date :	1967-01-01
Facility ID :	9-200129
Tank ID :	R-1
Tank Status Description :	Permanently Out of Use
Tank Capacity :	1500
Substance Description :	Diesel
Date Closed :	1992-10-01
Organization Name :	C&CH Dept of Facility Maintenacne
Organization Address :	650 S king St, 11th Flr, Laie, HI 96762
Last Date in Agency List :	2014-03-04
Installed Date :	1967-01-01
Facility ID :	9-200129
Tank ID :	R-2
Tank Status Description :	Permanently Out of Use
Tank Capacity :	500
Substance Description :	Diesel
Date Closed :	1992-10-01
Organization Name :	C&CH Dept of Facility Maintenacne
Organization Address :	650 S king St, 11th Flr, Laie, HI 96762
Last Date in Agency List :	2014-03-04

HIST PCS ENF

Facility Name :	LAIE CORPORATION YARD
Facility Address :	56-020 KAMEHAMEHA HWY, LAIE, HI 96762
Effective Date :	2005-01-01
Expiration Date :	2009-12-31
NPDES ID :	HIF000521
FRS Facility Site ID :	1532997
Primary Facility SIC Code :	9999
Primary Facility SIC Description :	Nonclassifiable Establishments
Current Major/Minor Status :	Minor
Facility Type Description :	N/R
Facility Non-Government Contact Name:	N/R
Facility Non-Gov Addresses :	N/R
Total Actual Average Flow (MGD) :	N/R
Total App. Design Flow (MGD) :	N/R
Pretreat Program Required Indicator :	N/R
State Water Body :	N/R
State Water Body Name :	N/R
Tribal Land Code :	N/R
Tribal Land Name :	N/R

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

HIST PCS ENF ***(cont.)***

Contact Office Telephone Number :	N/R
Permit Non-Gov Addresses :	56-020 KAMEHAMEHA HWY
Permit Non-Government Contact Name :	N/R
Permit Type Description :	General Permit Covered Facility
Last Date in Agency List :	2015-01-15
Facility Name :	MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS
Facility Address :	56-020 KAMEHAMEHA HIGHWAY, LAIE, HI 96762
Effective Date :	2014-07-23
Expiration Date :	2018-12-05
NPDES ID :	HIF010511
FRS Facility Site ID :	3402360813
Primary Facility SIC Code :	N/R
Primary Facility SIC Description :	N/R
Current Major/Minor Status :	Minor
Facility Type Description :	State Government
Facility Non-Government Contact Name:	N/R
Facility Non-Gov Addresses :	N/R
Total Actual Average Flow (MGD) :	N/R
Total App. Design Flow (MGD) :	N/R
Pretreat Program Required Indicator :	N/R
State Water Body :	N/R
State Water Body Name :	MALAEKAHANA STREAM, PACIFIC OCEAN- MALAEKAHANA STA
Tribal Land Code :	N/R
Tribal Land Name :	N/R
Contact Office Telephone Number :	N/R
Permit Non-Gov Addresses :	UNKNOWN
Permit Non-Government Contact Name :	N/R
Permit Type Description :	General Permit Covered Facility
Last Date in Agency List :	2015-01-15
Effective Date :	2014-07-23
Expiration Date :	2018-12-05
NPDES ID :	HIF010511
FRS Facility Site ID :	3402360813
Primary Facility SIC Code :	N/R
Primary Facility SIC Description :	N/R
Current Major/Minor Status :	Minor
Facility Type Description :	State Government
Facility Non-Government Contact Name:	N/R
Facility Non-Gov Addresses :	N/R
Total Actual Average Flow (MGD) :	N/R
Total App. Design Flow (MGD) :	N/R
Pretreat Program Required Indicator :	N/R
State Water Body :	N/R

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

HIST PCS ENF ***(cont.)***

State Water Body Name :	MALAEKAHANA STREAM, PACIFIC OCEAN- MALAEKAHANA STA
Tribal Land Code :	N/R
Tribal Land Name :	N/R
Contact Office Telephone Number :	N/R
Permit Non-Gov Addresses :	N/R
Permit Non-Government Contact Name :	N/R
Permit Type Description :	General Permit Covered Facility
Last Date in Agency List :	2015-01-15

HIST PCS FACILITY

Facility Name :	LAIE CORPORATION YARD
Facility Address :	56-020 KAMEHAMEHA HWY, LAIE, HI 96762
County :	N/R
FRS Facility Site ID :	1532997
NPDES ID :	HIF000521
Current Major/Minor Status :	Minor
Facility Type Description :	N/R
Permit Type :	General Permit Covered Facility
Primary Facility SIC Code :	9999
Primary Facility SIC Description :	Nonclassifiable Establishments
Total Actual Average Flow (MGD) :	N/R
Total App. Design Flow (MGD) :	N/R
Pretreat Prog Req'd Indicator Description:	N/R
State Water Body Number :	N/R
State Water Body Name :	N/R
Effective Date :	2005-01-01 00:00:00
Expiration Date :	2009-12-31 00:00:00
Tribal Land Code :	N/R
Tribal Land Name :	N/R
Facility Contact Name :	N/R
Contact Number :	N/R
Contact Address :	N/R
Permit Contact Name :	N/R
Permit Contact Address :	56-020 KAMEHAMEHA HWY, LAIE, HI 96762
Latitude :	21.6562
Longitude :	-157.930658
Last Date in Agency list :	2014-12-10

ICIS

Facility Name :	LAIE CORPORATION YARD
Facility Address :	56-020 KAMEHAMEHA HWY, LAIE, HI 96762

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

ICIS ***(cont.)***

Site Details

NPDES ID :	HIF000521
ICIS Facility Interest ID :	7419088
Facility UIN :	110013772346
Facility Type Code :	N/R
Impaired Waters :	303(D) Listed
Latitude :	21.6562
Longitude :	-157.930658
Last Date in Agency List :	2022-01-12

Facility NAICS

NAICS Code :	N/R
NAICS Description :	N/R

Facility SIC

SIC Code :	9999
SIC Description :	Nonclassifiable Establishments

Facility Name :	MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS
Facility Address :	56-020 KAMEHAMEHA HIGHWAY, LAIE, HI 96762

Site Details

NPDES ID :	HIF010511
ICIS Facility Interest ID :	3400094259
Facility UIN :	110060354067
Facility Type Code :	State Government
Impaired Waters :	303(D) Listed
Latitude :	21.6566
Longitude :	-157.930784
Last Date in Agency List :	2022-01-12

Facility NAICS

NAICS Code :	N/R
NAICS Description :	N/R

Facility SIC

SIC Code :	N/R
SIC Description :	N/R

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

INACTIVE PCS

Issue Date :	2005-01-01
Original Issue Date :	2000-05-18
Effective Date :	2005-01-01
Expiration Date :	2009-12-31
Retirement Date :	N/R
Termination Date :	2005-10-27
Issuing Agency :	N/R
Agency Type :	State
Activity ID :	20011108
External Permit Number :	HIF000521
Facility Type Indicator :	NON-POTW
Permit Type :	General Permit Covered Facility-NPDES)
Major Minor Status :	N
Permit Status :	Terminated
Total Design Flow Number :	N/R
Actual Average Flow Number :	N/R
State Water Body :	N/R
State Water Body Name :	N/R
Permit Name :	LAIE CORPORATION YARD
Permit Comp Status :	N
RNC Tracking :	Y
Master External Permit Number :	HIR100000
TMDL Interface :	N/R
EDMR Authorization :	N
Pretreatment Indicator :	N/R
Last Date in Agency List :	2022-01-14

Issue Date :	2014-07-23
Original Issue Date :	2014-07-23
Effective Date :	2014-07-23
Expiration Date :	2018-12-05
Retirement Date :	N/R
Termination Date :	N/R
Issuing Agency :	Hawaii Dept of Health, Clean Water Branch
Agency Type :	State
Activity ID :	3400271684
External Permit Number :	HIF010511
Facility Type Indicator :	NON-POTW
Permit Type :	General Permit Covered Facility-NPDES)
Major Minor Status :	N
Permit Status :	Expired
Total Design Flow Number :	N/R
Actual Average Flow Number :	N/R
State Water Body :	N/R
State Water Body Name :	MALAEKAHANA STREAM, PACIFIC OCEAN- MALAEKAHANA STA
Permit Name :	State of Hawaii
Permit Comp Status :	Y
RNC Tracking :	Y
Master External Permit Number :	HIR100000

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

INACTIVE PCS ***(cont.)***

TMDL Interface :	N/R
EDMR Authorization :	N
Pretreatment Indicator :	N/R
Last Date in Agency List :	2022-01-14

PCS FACILITY

Issue Date :	2014-07-23
Original Issue Date :	2014-07-23
Effective Date :	2014-07-23
Expiration Date :	2018-12-05
Retirement Date :	N/R
Termination Date :	N/R
Issuing Agency :	Hawaii Dept of Health, Clean Water Branch
Agency Type :	State
Activity ID :	3400271684
External Permit Number :	HIF010511
Facility Type Indicator :	NON-POTW
Permit Type :	General Permit Covered Facility-NPDES)
Major Minor Status :	N
Permit Status :	Administratively Continued
Total Design Flow Number :	N/R
Actual Average Flow Number :	N/R
State Water Body :	N/R
State Water Body Name :	MALAEKAHANA STREAM, PACIFIC OCEAN- MALAEKAHANA STA
Permit Name :	State of Hawaii
Permit Comp Status :	Y
RNC Tracking :	Y
Master External Permit Number :	HIR100000
TMDL Interface :	N/R
EDMR Authorization :	N
Pretreatment Indicator :	N/R
Last Date in Agency List :	2019-02-26

UST - HI

Facility Name :	C&CH LAIE CORPORATION YARD
Facility Address :	56-020 KAMEHAMEHA HWY, Laie, HI 96762

Site Details

Facility ID :	9-200129
Formal Name :	C&CH Dept of Facility Maintenacne
Address :	455 Kokea St, Laie, HI 96762
Latitude Measure :	21.655945
Longitude Measure :	-157.931079
Horizontal Collection Method Name :	GPS
Horizontal Reference Datum Name :	NAD83
Last Date in Agency List :	2021-10-25

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

UST - HI ***(cont.)***

Facility ID :	9-200129
Formal Name :	City and County of Honolulu
Address :	1000 Uluohia Street, Suite 215, Laie, HI 96762
Latitude Measure :	21.655945
Longitude Measure :	-157.931079
Horizontal Collection Method Name :	GPS
Horizontal Reference Datum Name :	NAD83
Last Date in Agency List :	2021-10-25

Tank Details

Installed Date :	1992-11-01
Date Closed :	N/R
Tank ID :	2
Tank Status :	Currently In Use
Tank Capacity :	1000
Product :	Gasohol

Installed Date :	1992-11-01
Date Closed :	N/R
Tank ID :	1
Tank Status :	Currently In Use
Tank Capacity :	2500
Product :	Diesel

Installed Date :	1967-01-01
Date Closed :	1992-10-01
Tank ID :	R-2
Tank Status :	Permanently Out of Use
Tank Capacity :	500
Product :	Diesel

Installed Date :	1967-01-01
Date Closed :	1992-10-01
Tank ID :	R-1
Tank Status :	Permanently Out of Use
Tank Capacity :	1500
Product :	Diesel

Facility Name :	C&CH LAIE CORP YARD
Facility Address :	56-020 KAMEHAMEHA HWY, Laie, HI 96762

Map Id: A11
Direction: SSE
Distance: 0.830 mi., 4384 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : MALAEKAHANA SRA KAHUKU SECTION PARK IMPROVEMENTS AND REPAIRS | LAIE CORPORATION YARD | C&CH LAIE CORP YARD
56-020 KAMEHAMEHA HWY
LAIE | Laie, HI 96762

Database(s) : [DEBRIS EPA SWRCY, ECHO, EPA UST, FRS, HIST LUST - HI, HIST PCS ENF, HIST PCS FACILITY, ICIS, INACTIVE PCS, PCS FACILITY, UST - HI] ***(cont.)***

Envirosite ID: 1922021
EPA ID: N/R

UST - HI ***(cont.)***

Site Details

Facility ID :	9-200129
Formal Name :	C&CH Dept of Facility Maintenacne
Address :	455 Kokea St, Laie, HI 96762
Latitude Measure :	21.655945
Longitude Measure :	-157.931079
Horizontal Collection Method Name :	GPS
Horizontal Reference Datum Name :	NAD83
Last Date in Agency List :	2022-02-08

Tank Details

Installed Date :	1992-11-01
Date Closed :	N/R
Tank ID :	2
Tank Status :	Currently In Use
Tank Capacity :	1000
Product :	Gasoline

Installed Date :	1992-11-01
Date Closed :	N/R
Tank ID :	1
Tank Status :	Currently In Use
Tank Capacity :	2500
Product :	Diesel

Installed Date :	1967-01-01
Date Closed :	1992-10-01
Tank ID :	R-1
Tank Status :	Permanently Out of Use
Tank Capacity :	1500
Product :	Diesel

Installed Date :	1967-01-01
Date Closed :	1992-10-01
Tank ID :	R-2
Tank Status :	Permanently Out of Use
Tank Capacity :	500
Product :	Diesel

Map Id: B12
Direction: NW
Distance: 0.831 mi., 4390 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : K. NAITO
P.O. BOX 296
Kapaau | KAPAAU, HI 96755

Database(s) : [EPA UST, FRS, HIST LUST - HI]

Envirosite ID: 33121709
EPA ID: N/R

EPA UST

Facility Name :	K. NAITO
Facility Address :	P.O. BOX 296, Kapaau, Hawaii 96755
County :	N/R
Facility ID :	HI9-601881
Facility Status :	Closed UST(s)
Open USTs :	0
Closed USTs :	4
Temporarily Out of Service USTs :	0
Date of Last Inspection :	N/R
EPA Region :	9
Tribe :	N/R
Facility ID 2 :	N/R
Latitude :	20.236713900000041
Longitude :	-155.812161199999991
Last Date in Agency List :	2021-12-27

Tank Details

Tank ID :	HI9-601881R-1
Tank Status :	Closed
Installation Date :	N/R
Removal Date :	N/R
Capacity :	N/R
Substances :	Gasoline
Tank Wall Type :	N/R
Tank ID :	HI9-601881R-2
Tank Status :	Closed
Installation Date :	N/R
Removal Date :	N/R
Capacity :	N/R
Substances :	Gasoline
Tank Wall Type :	N/R
Tank ID :	HI9-601881R-3
Tank Status :	Closed
Installation Date :	N/R
Removal Date :	N/R
Capacity :	N/R
Substances :	Gasoline
Tank Wall Type :	N/R
Tank ID :	HI9-601881R-4
Tank Status :	Closed
Installation Date :	N/R
Removal Date :	N/R
Capacity :	N/R
Substances :	Other
Tank Wall Type :	N/R

Map Id: B12
Direction: NW
Distance: 0.831 mi., 4390 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : K. NAITO
P.O. BOX 296
Kapaau | KAPAAU, HI 96755

Database(s) : [EPA UST, FRS, HIST LUST - HI] ***(cont.)***

Envirosite ID: 33121709
EPA ID: N/R

FRS

Facility Name :	K. NAITO
Facility Address :	P.O. BOX 296, KAPAAU, HI 96755
County :	HAWAII

Site Details

Registry ID :	110055394773
FRS Facility URL :	Click here for hyperlink provided by the agency.
Last Date in Agency List :	2021-12-17

Source Description

Source Description :

The Environmental Health Warehouse (EHW) contains the Hawaii Department of Health - Environmental Health Administration's (HDOH-EHA) environmental data. The web-based application allows EHA to inquire about sites in Hawaii that are regulated by the administration due to activities that affect the environment, regardless of the regulation or program that directly monitors those activities. The system allows users a consolidated view of sites without disrupting the underlying source systems or the staff involved as they process their day-to-day workload. The EHW offers geo-spatial and tabular inquiry, mapping, reconciliation/data consolidation, and GIS services.

FRS Environmental Interest

Source and System ID :	HI-EHW - 5317

HIST LUST - HI

Facility Name :	K. NAITO
Facility Address :	P.O. BOX 296, Kapaau, HI 96755
Installed Date :	N/R
Facility ID :	9-601881
Tank ID :	R-2
Tank Status Description :	Permanently Out of Use
Tank Capacity :	0
Substance Description :	Gasoline
Date Closed :	1988-05-01
Organization Name :	K. NAITO
Organization Address :	P. O. BOX 296, Kapaau, HI 96755
Last Date in Agency List :	2014-03-04

Installed Date :	N/R
Facility ID :	9-601881
Tank ID :	R-4
Tank Status Description :	Permanently Out of Use
Tank Capacity :	0
Substance Description :	Other
Date Closed :	1988-05-01
Organization Name :	K. NAITO
Organization Address :	P. O. BOX 296, Kapaau, HI 96755
Last Date in Agency List :	2014-03-04

Map Id: B12
Direction: NW
Distance: 0.831 mi., 4390 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : K. NAITO
P.O. BOX 296
Kapaau | KAPAAU, HI 96755

Database(s) : [EPA UST, FRS, HIST LUST - HI] ***(cont.)***

Envirosite ID: 33121709
EPA ID: N/R

HIST LUST - HI ***(cont.)***

Installed Date :	N/R
Facility ID :	9-601881
Tank ID :	R-1
Tank Status Description :	Permanently Out of Use
Tank Capacity :	0
Substance Description :	Gasoline
Date Closed :	1988-05-01
Organization Name :	K. NAITO
Organization Address :	P. O. BOX 296, Kapaau, HI 96755
Last Date in Agency List :	2014-03-04

Installed Date :	N/R
Facility ID :	9-601881
Tank ID :	R-3
Tank Status Description :	Permanently Out of Use
Tank Capacity :	0
Substance Description :	Gasoline
Date Closed :	1988-05-01
Organization Name :	K. NAITO
Organization Address :	P. O. BOX 296, Kapaau, HI 96755
Last Date in Agency List :	2014-03-04

Map Id: B13
Direction: NW
Distance: 0.837 mi., 4422 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : Kahuku Fire Station #13 | C&CH Kahuku Fire Station
56-460 KAMEHAMEHA HWY
KAHUKU, HI 96731

Database(s) : [EPA UST, HIST LUST - HI, UST - HI]

Envirosite ID: 43186636
EPA ID: N/R

EPA UST

Facility Name :	Kahuku Fire Station #13
Facility Address :	56-460 KAMEHAMEHA HWY, Kahuku, Hawaii 96731
County :	N/R

Facility ID :	HI9-203289
Facility Status :	Open UST(s)
Open USTs :	1
Closed USTs :	0
Temporarily Out of Service USTs :	0
Date of Last Inspection :	N/R
EPA Region :	9
Tribe :	N/R
Facility ID 2 :	N/R
Latitude :	21.674730000000000
Longitude :	-157.945850000000007
Last Date in Agency List :	2021-12-27

Map Id: B13
Direction: NW
Distance: 0.837 mi., 4422 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : Kahuku Fire Station #13 | C&CH Kahuku Fire Station
56-460 KAMEHAMEHA HWY
KAHUKU, HI 96731

Database(s) : [EPA UST, HIST LUST - HI, UST - HI] ***(cont.)***

Envirosite ID: 43186636
EPA ID: N/R

EPA UST ***(cont.)***

Tank Details

Tank ID :	HI9-2032891
Tank Status :	Open
Installation Date :	1985-02-01
Removal Date :	N/R
Capacity :	1000
Substances :	Diesel
Tank Wall Type :	N/R

HIST LUST - HI

Facility Name :	C&CH Kahuku Fire Station
Facility Address :	56-460 KAMEHAMEHA HWY, Kahuku, HI 96731
Installed Date :	1985-02-01
Facility ID :	9-203289
Tank ID :	1
Tank Status Description :	Currently In Use
Tank Capacity :	1000
Substance Description :	Diesel
Date Closed :	N/R
Organization Name :	City and County of Honolulu
Organization Address :	560 S King st, Kahuku, HI 96731
Last Date in Agency List :	2014-03-04

UST - HI

Facility Name :	Kahuku Fire Station #13
Facility Address :	56-460 KAMEHAMEHA HWY, Kahuku, HI 96731

Site Details

Facility ID :	9-203289
Formal Name :	C&C HNL Fire Dept
Address :	560 South King Street, Kahuku, HI 96731
Latitude Measure :	21.67473
Longitude Measure :	-157.94585
Horizontal Collection Method Name :	GPS
Horizontal Reference Datum Name :	NAD83
Last Date in Agency List :	2022-02-08

Tank Details

Installed Date :	1985-02-01
Date Closed :	N/R
Tank ID :	1
Tank Status :	Currently In Use
Tank Capacity :	1000
Product :	Diesel

Map Id: B14
Direction: NW
Distance: 0.857 mi., 4524 ft.
Elevation: 15 ft.
Relative: Lower

Site Name : POMAI, INC.
56-156 KAMEHAMEHA HWY
KAHUKU, HI

Database(s) : [EPA LUST]

Envirosite ID: 42982326
EPA ID: N/R

EPA LUST

Facility Name :	POMAI, INC.
Facility Address :	56-156 KAMEHAMEHA HWY, Kahuku, Hawaii
County :	N/R
Facility ID :	HI9-202527
LUST ID :	HI920040
Reported Date :	N/R
Status :	No Further Action
Substance :	N/R
Closed With Residual Contamination (Tribal Only):	N/R
NFA_Letter (Tribal Only) :	N/R
Tribe (Tribal Only) :	N/R
EPA Region :	9
Estimated Population within 1500ft :	37
Estimated Private Domestic Wells within 1500ft:	0
Within Source Water Protection Area (SPA):	No
SPA Public Water System and Facility ID:	N/R
SPA Water Type :	N/R
SPA Facility Type :	N/R
SPA HUC12 :	N/R
Within Groundwater Wellhead Protection Area (WHPA):	No
WHPA Public Water System and Facility ID:	N/R
WHPA Water Type :	N/R
WHPA Facility Type :	N/R
WHPA HUC12 :	N/R
Within Estimated 100-year Floodplain:	N/R
Latitude :	21.660556900000000
Longitude :	-157.933655100000010
Last Date in Agency List :	2022-01-04

Map Id: B15
Direction: NW
Distance: 0.857 mi., 4526 ft.
Elevation: 15 ft.
Relative: Lower

Site Name : Kahuku Police Station
56-470 KAMEHAMEHA HWY
KAHUKU, HI 96731

Database(s) : [EPA UST, LUST - HI, UST - HI]

Envirosite ID: 42984335
EPA ID: N/R

EPA UST

Facility Name :	Kahuku Police Station
Facility Address :	56-470 KAMEHAMEHA HWY, Kahuku, Hawaii 96731
County :	N/R
Facility ID :	HI9-200123
Facility Status :	Open UST(s)

Map Id: B15
Direction: NW
Distance: 0.857 mi., 4526 ft.
Elevation: 15 ft.
Relative: Lower

Site Name : Kahuku Police Station
56-470 KAMEHAMEHA HWY
KAHUKU, HI 96731

Database(s) : [EPA UST, LUST - HI, UST - HI] ***(cont.)***

Envirosite ID: 42984335
EPA ID: N/R

EPA UST ***(cont.)***

Open USTs :	1
Closed USTs :	2
Temporarily Out of Service USTs :	0
Date of Last Inspection :	N/R
EPA Region :	9
Tribe :	N/R
Facility ID 2 :	N/R
Latitude :	21.674513999999999
Longitude :	-157.946513000000010
Last Date in Agency List :	2021-12-27

Tank Details

Tank ID :	HI9-2001233
Tank Status :	Open
Installation Date :	1995-05-01
Removal Date :	N/R
Capacity :	12000
Substances :	Gasoline
Tank Wall Type :	N/R

Tank ID :	HI9-200123R-1
Tank Status :	Closed
Installation Date :	1986-01-01
Removal Date :	N/R
Capacity :	2000
Substances :	Gasoline
Tank Wall Type :	N/R

Tank ID :	HI9-200123R-2
Tank Status :	Closed
Installation Date :	1986-01-01
Removal Date :	N/R
Capacity :	4000
Substances :	Gasoline
Tank Wall Type :	N/R

LUST - HI

Facility Name :	Kahuku Police Station
Facility Address :	56-470 KAMEHAMEHA HWY, Kahuku, HI 96731

Status Date :	2001-12-12
Status :	Site Cleanup Completed (NFA)
Facility ID :	9-200123
Event ID :	940185
Project Officer :	Shunsheng Fu
Last Date in Agency List :	2022-02-11

UST - HI

Facility Name :	Kahuku Police Station
Facility Address :	56-470 KAMEHAMEHA HWY, Kahuku, HI 96731

Map Id: B15
Direction: NW
Distance: 0.857 mi., 4526 ft.
Elevation: 15 ft.
Relative: Lower

Site Name : Kahuku Police Station
56-470 KAMEHAMEHA HWY
KAHUKU, HI 96731

Database(s) : [EPA UST, LUST - HI, UST - HI] ***(cont.)***

Envirosite ID: 42984335
EPA ID: N/R

UST - HI ***(cont.)***

Site Details

Facility ID :	9-200123
Formal Name :	C&C of Honolulu, Dept of Facility Maintenance
Address :	1000 Uluohia St, Suite 215, Kahuku, HI 96731
Latitude Measure :	21.674514
Longitude Measure :	-157.946513
Horizontal Collection Method Name :	GPS
Horizontal Reference Datum Name :	NAD83
Last Date in Agency List :	2022-02-08

Tank Details

Installed Date :	1995-05-01
Date Closed :	N/R
Tank ID :	3
Tank Status :	Currently in Use
Tank Capacity :	12000
Product :	Gasoline

Installed Date :	1986-01-01
Date Closed :	1994-08-18
Tank ID :	R-2
Tank Status :	Permanently Out of Use
Tank Capacity :	4000
Product :	Gasoline

Installed Date :	1986-01-01
Date Closed :	1994-08-18
Tank ID :	R-1
Tank Status :	Permanently Out of Use
Tank Capacity :	2000
Product :	Gasoline

Map Id: B16
Direction: NW
Distance: 0.857 mi., 4526 ft.
Elevation: 15 ft.
Relative: Lower

Site Name : Kahuku Police Station
56-470 KAMEHAMEHA HWY
KAHUKU, HI

Database(s) : [EPA LUST]

Envirosite ID: 43012350
EPA ID: N/R

EPA LUST

Facility Name :	Kahuku Police Station
Facility Address :	56-470 KAMEHAMEHA HWY, Kahuku, Hawaii
County :	N/R

Facility ID :	HI9-200123
LUST ID :	HI940185

Map Id: B16
Direction: NW
Distance: 0.857 mi., 4526 ft.
Elevation: 15 ft.
Relative: Lower

Site Name : Kahuku Police Station
56-470 KAMEHAMEHA HWY
KAHUKU, HI

Database(s) : [EPA LUST] ***(cont.)***

Envirosite ID: 43012350
EPA ID: N/R

EPA LUST ***(cont.)***

Reported Date :	N/R
Status :	No Further Action
Substance :	N/R
Closed With Residual Contamination (Tribal Only):	N/R
NFA_Letter (Tribal Only) :	N/R
Tribe (Tribal Only) :	N/R
EPA Region :	9
Estimated Population within 1500ft :	252
Estimated Private Domestic Wells within 1500ft:	0
Within Source Water Protection Area (SPA):	No
SPA Public Water System and Facility ID:	N/R
SPA Water Type :	N/R
SPA Facility Type :	N/R
SPA HUC12 :	N/R
Within Groundwater Wellhead Protection Area (WHPA):	No
WHPA Public Water System and Facility ID:	N/R
WHPA Water Type :	N/R
WHPA Facility Type :	N/R
WHPA HUC12 :	N/R
Within Estimated 100-year Floodplain:	N/R
Latitude :	21.675516720000001
Longitude :	-157.946084600000006
Last Date in Agency List :	2022-01-04

Map Id: 17
Direction: ESE
Distance: 0.871 mi., 4601 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : OAHU ISLAND TARGET
21.662701, -157.923004
MOKUAUIA, HI

Database(s) : [FUDS]

Envirosite ID: 31181002
EPA ID: N/R

FUDS

Facility Name :	OAHU ISLAND TARGET
Facility Address :	MOKUAUIA, HI
County :	HONOLULU
FUDS Property ID :	H09HI0264
FUDS Installation ID :	HI99799F399400
Status :	Properties with projects
NPL Status :	Not on the NPL
Current Owner :	N/R
Eligibility :	Eligible
FUDS Property have project :	Yes
EPA Region :	09
Congressional District :	02

Map Id: 17
Direction: ESE
Distance: 0.871 mi., 4601 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : OAHU ISLAND TARGET
21.662701, -157.923004
MOKUAUIA, HI

Database(s) : [FUDS] ***(cont.)***

Envirosite ID: 31181002
EPA ID: N/R

FUDS ***(cont.)***

District :	Honolulu District (POH)
EMS Map Link :	Click here for hyperlink provided by the agency.
Latitude :	21.662701
Longitude :	-157.923004
Fiscal Year :	2019
Last Date in Agency List :	2022-02-16

Map Id: A18
Direction: SSE
Distance: 0.878 mi., 4639 ft.
Elevation: 11 ft.
Relative: Lower

Site Name : ZIONS SECURITIES CORP
55-730 KAMEHAMEHA HWY
Laie | LAIE, HI 96762

Database(s) : [EPA UST, FRS, HIST LUST - HI, UST - HI]

Envirosite ID: 1920209
EPA ID: N/R

EPA UST

Facility Name :	ZIONS SECURITIES CORP
Facility Address :	55-730 KAMEHAMEHA HWY, Laie, Hawaii 96762
County :	N/R
Facility ID :	HI9-202660
Facility Status :	Closed UST(s)
Open USTs :	0
Closed USTs :	2
Temporarily Out of Service USTs :	0
Date of Last Inspection :	N/R
EPA Region :	9
Tribe :	N/R
Facility ID 2 :	N/R
Latitude :	21.654458999999999
Longitude :	-157.930371000000008
Last Date in Agency List :	2021-12-27

Tank Details

Tank ID :	HI9-202660R-1
Tank Status :	Closed
Installation Date :	N/R
Removal Date :	N/R
Capacity :	1000
Substances :	Gasoline
Tank Wall Type :	N/R
Tank ID :	HI9-202660R-2
Tank Status :	Closed
Installation Date :	N/R
Removal Date :	N/R
Capacity :	1000

Map Id: A18
Direction: SSE
Distance: 0.878 mi., 4639 ft.
Elevation: 11 ft.
Relative: Lower

Site Name : ZIONS SECURITIES CORP
55-730 KAMEHAMEHA HWY
Laie | LAIE, HI 96762

Database(s) : [EPA UST, FRS, HIST LUST - HI, UST - HI] ***(cont.)***

Envirosite ID: 1920209
EPA ID: N/R

EPA UST ***(cont.)***

Substances : Gasoline
Tank Wall Type : N/R

FRS

Facility Name : ZIONS SECURITIES CORP
Facility Address : 55-730 KAMEHAMEHA HWY, LAIE, HI 96762
County : HONOLULU

Site Details
Registry ID : 110046209483
FRS Facility URL : Click here for hyperlink provided by the agency.
Last Date in Agency List : 2014-03-25

Source Description

Source Description :

The Environmental Health Warehouse (EHW) contains the Hawaii Department of Health - Environmental Health Administration's (HDOH-EHA) environmental data. The web-based application allows EHA to inquire about sites in Hawaii that are regulated by the administration due to activities that affect the environment, regardless of the regulation or program that directly monitors those activities. The system allows users a consolidated view of sites without disrupting the underlying source systems or the staff involved as they process their day-to-day workload. The EHW offers geo-spatial and tabular inquiry, mapping, reconciliation/data consolidation, and GIS services.

FRS Environmental Interest
Source and System ID : HI-EHW - 14096

HIST LUST - HI

Facility Name : ZIONS SECURITIES CORP
Facility Address : 55-730 KAMEHAMEHA HWY, Laie, HI 96762

Installed Date : N/R
Facility ID : 9-202660
Tank ID : R-1
Tank Status Description : Permanently Out of Use
Tank Capacity : 1000
Substance Description : Gasoline
Date Closed : N/R
Organization Name : ZIONS SECURITIES CORP
Organization Address : 55-510 KAMEHAMEHA HWY, Laie, HI 96762
Last Date in Agency List : 2014-03-04

Installed Date : N/R
Facility ID : 9-202660
Tank ID : R-2
Tank Status Description : Permanently Out of Use

Map Id: A18
Direction: SSE
Distance: 0.878 mi., 4639 ft.
Elevation: 11 ft.
Relative: Lower

Site Name : ZIONS SECURITIES CORP
55-730 KAMEHAMEHA HWY
Laie | LAIE, HI 96762

Database(s) : [EPA UST, FRS, HIST LUST - HI, UST - HI] ***(cont.)***

Envirosite ID: 1920209
EPA ID: N/R

HIST LUST - HI ***(cont.)***

Tank Capacity :	1000
Substance Description :	Gasoline
Date Closed :	N/R
Organization Name :	ZIONS SECURITIES CORP
Organization Address :	55-510 KAMEHAMEHA HWY, Laie, HI 96762
Last Date in Agency List :	2014-03-04

UST - HI

Facility Name :	ZIONS SECURITIES CORP
Facility Address :	55-730 KAMEHAMEHA HWY, Laie, HI 96762

Site Details

Facility ID :	9-202660
Formal Name :	ZIONS SECURITIES CORP
Address :	55-510 KAMEHAMEHA HWY, Laie, HI 96762
Latitude Measure :	N/R
Longitude Measure :	N/R
Horizontal Collection Method Name :	N/R
Horizontal Reference Datum Name :	N/R
Last Date in Agency List :	2022-02-08

Tank Details

Installed Date :	N/R
Date Closed :	N/R
Tank ID :	R-1
Tank Status :	Permanently Out of Use
Tank Capacity :	1000
Product :	Gasoline

Installed Date :	N/R
Date Closed :	N/R
Tank ID :	R-2
Tank Status :	Permanently Out of Use
Tank Capacity :	1000
Product :	Gasoline

Map Id: 19
Direction: WNW
Distance: 0.893 mi., 4716 ft.
Elevation: 14 ft.
Relative: Lower

Site Name : POMAI, INC.
56-156 KAMEHAMEHA HWY
KAHUKU, HI 96731

Database(s) : [EPA UST, LUST - HI, UST - HI]

Envirosite ID: 42944207
EPA ID: N/R

EPA UST

Facility Name :	POMAI, INC.
Facility Address :	56-156 KAMEHAMEHA HWY, Kahuku, Hawaii 96731
County :	N/R
Facility ID :	HI9-202527
Facility Status :	Closed UST(s)
Open USTs :	0
Closed USTs :	2
Temporarily Out of Service USTs :	0
Date of Last Inspection :	N/R
EPA Region :	9
Tribe :	N/R
Facility ID 2 :	N/R
Latitude :	21.667382000000000
Longitude :	-157.938183000000009
Last Date in Agency List :	2021-12-27

Tank Details

Tank ID :	HI9-202527R-1
Tank Status :	Closed
Installation Date :	1975-12-31
Removal Date :	N/R
Capacity :	1500
Substances :	Diesel
Tank Wall Type :	N/R
Tank ID :	HI9-202527R-2
Tank Status :	Closed
Installation Date :	1975-12-30
Removal Date :	N/R
Capacity :	1500
Substances :	Gasoline
Tank Wall Type :	N/R

LUST - HI

Facility Name :	POMAI, INC.
Facility Address :	56-156 KAMEHAMEHA HWY, Kahuku, HI 96731
Status Date :	2000-05-05
Status :	Site Cleanup Completed (NFA)
Facility ID :	9-202527
Event ID :	920040
Project Officer :	Renato Maniulit
Last Date in Agency List :	2022-02-11

UST - HI

Facility Name :	POMAI, INC.
Facility Address :	56-156 KAMEHAMEHA HWY, Kahuku, HI 96731

Map Id: 19
Direction: WNW
Distance: 0.893 mi., 4716 ft.
Elevation: 14 ft.
Relative: Lower

Site Name : POMAI, INC.
56-156 KAMEHAMEHA HWY
KAHUKU, HI 96731

Database(s) : [EPA UST, LUST - HI, UST - HI] ***(cont.)***

Envirosite ID: 42944207
EPA ID: N/R

UST - HI ***(cont.)***

Site Details

Facility ID :	9-202527
Formal Name :	HALEKULANI CORPORATION
Address :	700 BISHOP ST, SUITE 1115, Kahuku, HI 96731
Latitude Measure :	21.667382
Longitude Measure :	-157.938183
Horizontal Collection Method Name :	Address Matching
Horizontal Reference Datum Name :	NAD83
Last Date in Agency List :	2022-02-08

Tank Details

Installed Date :	1975-12-31
Date Closed :	N/R
Tank ID :	R-1
Tank Status :	Permanently Out of Use
Tank Capacity :	1500
Product :	Diesel

Installed Date :	1975-12-30
Date Closed :	N/R
Tank ID :	R-2
Tank Status :	Permanently Out of Use
Tank Capacity :	1500
Product :	Gasoline

Map Id: 20
Direction: NE
Distance: 0.911 mi., 4813 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : OAHU BOMBING TARGETS
21.675833, -157.926389
ISLAND OF OAHU, HI

Database(s) : [FUDS]

Envirosite ID: 31181003
EPA ID: N/R

FUDS

Facility Name :	OAHU BOMBING TARGETS
Facility Address :	ISLAND OF OAHU, HI
County :	HONOLULU
FUDS Property ID :	H09HI0472
FUDS Installation ID :	HI99799F989700
Status :	Properties without projects
NPL Status :	Not on the NPL
Current Owner :	N/R
Eligibility :	Eligible
FUDS Property have project :	No
EPA Region :	09
Congressional District :	02
District :	Honolulu District (POH)

Map Id: 20
Direction: NE
Distance: 0.911 mi., 4813 ft.
Elevation: 0 ft.
Relative: Lower

Site Name : OAHU BOMBING TARGETS
21.675833, -157.926389
ISLAND OF OAHU, HI

Database(s) : [FUDS] ***(cont.)***

Envirosite ID: 31181003
EPA ID: N/R

FUDS ***(cont.)***

EMS Map Link :	Click here for hyperlink provided by the agency.
Latitude :	21.675833
Longitude :	-157.926389
Fiscal Year :	2019
Last Date in Agency List :	2022-02-16

No unmappable sites reported.

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

ARCHIVED RCRA TSDF: Resource Conservation and Recovery Act hazardous waste transportation storage disposal and treatment facilities

Agency Version Date: 12/30/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/28/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 12/30/2021

RCRA_TSDF: Resource Conservation and Recovery Act hazardous waste transportation storage disposal and treatment facilities

Agency Version Date: 12/30/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/28/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 12/30/2021

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS

AST PBS: Bulk petroleum terminals with a total bulk storage capacity of 50,000 barrels or more.

Agency Version Date: 02/22/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 05/20/2022
Agency: Department of Homeland Security
Agency Contact: 202-853-5361
Most Recent Contact: 02/22/2022

EPA UST: Facilities listed in the EPA UST Finder database

Agency Version Date: 11/19/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 05/12/2022
Agency: EPA
Agency Contact: (202) 566-1667
Most Recent Contact: 02/15/2022

FEMA UST: FEMA underground storage tank listing

Agency Version Date: 10/08/2021
Agency Update Frequency: Varies
Planned Next Contact: 04/01/2022
Agency: FEMA
Agency Contact: 202-212-5283
Most Recent Contact: 01/04/2022

HIST INDIAN UST R6: Historical Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 12/03/2021
Agency Update Frequency: Semi Annually
Planned Next Contact: 03/01/2022
Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 12/03/2021

HIST INDIAN UST R7: Historical Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 08/10/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 05/12/2022
Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 02/15/2022

INDIAN UST R1: Underground Storage Tanks on Indian Land in EPA Region 1

Agency Version Date: 01/18/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 04/15/2022
Agency: U.S. Environmental Protection Agency Region 1
Agency Contact: 855-246-3642
Most Recent Contact: 10/18/2021

INDIAN UST R10: Underground Storage Tanks on Indian Land in EPA Region 10

Agency Version Date: 02/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 05/12/2022
Agency: U.S. Environmental Protection Agency Region 10
Agency Contact: 855-246-3642
Most Recent Contact: 02/14/2022

FEDERAL, STATE, AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

INDIAN UST R2: Underground Storage Tanks on Indian Land in EPA Region 2

Agency Version Date: 12/07/2016
Agency Update Frequency: Quarterly
Planned Next Contact: 04/19/2022
Agency: U.S. Environmental Protection Agency Region 2
Agency Contact: 855-246-3642
Most Recent Contact: 01/21/2022

INDIAN UST R4: Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 11/18/2021
Agency Update Frequency: Semi Annually
Planned Next Contact: 05/12/2022
Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 02/14/2022

INDIAN UST R5: Underground Storage Tanks on Indian Land in EPA Region 5

Agency Version Date: 11/04/2021
Agency Update Frequency: Varies
Planned Next Contact: 04/28/2022
Agency: U.S. Environmental Protection Agency Region 5
Agency Contact: 855-246-3642
Most Recent Contact: 01/31/2022

INDIAN UST R6: Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 12/03/2021
Agency Update Frequency: Semi Annually
Planned Next Contact: 03/01/2022
Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 12/03/2021

INDIAN UST R7: Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 01/31/2022
Agency Update Frequency: Varies
Planned Next Contact: 04/28/2022
Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 01/31/2022

INDIAN UST R8: Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 01/17/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 04/14/2022
Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 01/17/2022

INDIAN UST R9: Underground Storage Tanks on Indian Land in EPA Region 9

Agency Version Date: 01/17/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 04/14/2022
Agency: U.S. Environmental Protection Agency Region 9
Agency Contact: 855-246-3642
Most Recent Contact: 01/17/2022

AST - HI: Aboveground storage tank listing

Agency Version Date: 12/20/2021
Agency Update Frequency: No Update
Planned Next Contact: 03/17/2022
Agency: Hawaii Fire Department
Agency Contact: 808-640-3728
Most Recent Contact: 12/20/2021

HIST AST - HI: Historical list of Aboveground storage tank listing

Agency Version Date: 07/09/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 04/01/2022
Agency: Hawaii Fire Department
Agency Contact: 808-640-3728
Most Recent Contact: 01/05/2022

UST - HI: Underground storage tank listing

Agency Version Date: 01/18/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 04/15/2022
Agency: Hawai'i State Department of Health
Agency Contact: 808-586-4226
Most Recent Contact: 01/18/2022

FEDERAL CERCLIS LIST

CERCLIS NFRAP: The CERCLIS sites with No Further Remedial Action Planned from the CERCLIS program database. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013.

Agency Version Date: 10/25/2013
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 01/28/2022

CERCLIS-HIST: The CERCLIS program database contains information on the assessment and remediation of federal hazardous waste sites. The Environmental Protection Agency decommissioned the CERCLIS data in 2014. The last update was November 12, 2013.

Agency Version Date: 10/29/2013
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 01/28/2022

EPA SAA: Listing of Sites with Superfund Alternative Approach Agreements.

Agency Version Date: 11/01/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/25/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 01/27/2022

FEDERAL FACILITY: Sites where Federal Facilities Restoration and Reuse Office (FFRRO) arranged cleanup for Base Closure and Property Transfer at Federal Facilities

Agency Version Date: 11/02/2021
Agency Update Frequency: Varies
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8712
Most Recent Contact: 01/28/2022

SEMS_8R_ACTIVE SITES: The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. NPL sites include latitude and longitude information. For non-NPL sites, a brief site status is provided.

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/28/2022

SEMS_8R_ARCHIVED SITES: The Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time.

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/28/2022

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases

Agency Version Date: 12/30/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/28/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 12/30/2021

HIST CORRACTS 2: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 05/23/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 02/24/2022

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL: National Priority List of sites that were delisted and no longer require action

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/28/2022

DELISTED PROPOSED NPL: Sites that have been delisted from the proposed National Priority List

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/28/2022

SEMS_DELETED NPL: All Deleted National Priority List Sties

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/28/2022

FEDERAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

EPA LF MOP: Sites in the EPA Landfill Methane Outreach Program

Agency Version Date: 12/29/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/25/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 12/29/2021

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS

EPA LUST: Releases listed in the EPA UST Finder database

Agency Version Date: 11/19/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 05/12/2022
Agency: EPA
Agency Contact: (202) 566-1667
Most Recent Contact: 02/15/2022

HIST INDIAN LUST R4: Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 08/23/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 05/12/2022
Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 02/15/2022

HIST INDIAN LUST R8: Historical Leaking Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 08/16/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 05/04/2022
Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 02/07/2022

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land in EPA Region 1

Agency Version Date: 10/21/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/15/2022
Agency: U.S. Environmental Protection Agency Region 1
Agency Contact: 855-246-3642
Most Recent Contact: 01/18/2022

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land in EPA Region 10

Agency Version Date: 02/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 05/12/2022
Agency: U.S. Environmental Protection Agency Region 10
Agency Contact: 855-246-3642
Most Recent Contact: 02/14/2022

FEDERAL, STATE, AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

INDIAN LUST R2: Leaking Underground Storage Tanks on Indian Land in EPA Region 2

Agency Version Date: 12/07/2016
Agency Update Frequency: Quarterly
Planned Next Contact: 04/19/2022
Agency: U.S. Environmental Protection Agency Region 2
Agency Contact: 855-246-3642
Most Recent Contact: 01/21/2022

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land in EPA Region 4

Agency Version Date: 11/18/2021
Agency Update Frequency: Semi Annually
Planned Next Contact: 05/12/2022
Agency: U.S. Environmental Protection Agency Region 4
Agency Contact: 855-246-3642
Most Recent Contact: 02/14/2022

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land in EPA Region 5

Agency Version Date: 01/31/2022
Agency Update Frequency: Varies
Planned Next Contact: 04/28/2022
Agency: U.S. Environmental Protection Agency Region 5
Agency Contact: 855-246-3642
Most Recent Contact: 01/31/2022

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land in EPA Region 6

Agency Version Date: 02/03/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 05/02/2022
Agency: U.S. Environmental Protection Agency Region 6
Agency Contact: 855-246-3642
Most Recent Contact: 02/03/2022

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land in EPA Region 7

Agency Version Date: 08/10/2021
Agency Update Frequency: Varies
Planned Next Contact: 04/28/2022
Agency: U.S. Environmental Protection Agency Region 7
Agency Contact: 855-246-3642
Most Recent Contact: 01/31/2022

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land in EPA Region 8

Agency Version Date: 02/04/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 05/03/2022
Agency: U.S. Environmental Protection Agency Region 8
Agency Contact: 855-246-3642
Most Recent Contact: 02/04/2022

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land in EPA Region 9

Agency Version Date: 01/17/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 04/14/2022
Agency: U.S. Environmental Protection Agency Region 9
Agency Contact: 855-246-3642
Most Recent Contact: 01/17/2022

HIST LUST - HI: List of leaking underground storage tank sites that are no longer in current agency list.

Agency Version Date: 01/10/2018
Agency Update Frequency: Annually
Planned Next Contact: 04/01/2022
Agency: Hawaii State Department of Health
Agency Contact: 808-586-4226
Most Recent Contact: 01/05/2022

LUST - HI: Leaking underground storage tank sites listing

Agency Version Date: 01/20/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 04/18/2022
Agency: Hawai'i State Department of Health
Agency Contact: 808-586-4226
Most Recent Contact: 01/20/2022

FEDERAL ERNS LIST

ERNS: Emergency Response Notification System records of reported spills

Agency Version Date: 01/21/2022
Agency Update Frequency: Annually
Planned Next Contact: 04/19/2022
Agency: National Response Center United States Coast Guard
Agency Contact: N/R
Most Recent Contact: 01/21/2022

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C: Federal listing of remediation sites with engineering controls

Agency Version Date: 02/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 05/20/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 02/22/2022

FED I C: Federal listing of remediation sites with institutional controls

Agency Version Date: 02/22/2022
Agency Update Frequency: Varies
Planned Next Contact: 05/20/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 02/22/2022

RCRA IC_EC: Sites with institutional or engineering controls related to Resource Conservation and Recovery Act

Agency Version Date: 02/04/2022
Agency Update Frequency: Varies
Planned Next Contact: 05/03/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 02/04/2022

FEDERAL RCRA GENERATORS LIST

HIST RCRA_CESQG: List of Resource Conservation and Recovery Act licensed conditionally exempt small quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 05/23/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 02/24/2022

HIST RCRA_LQG: List of Resource Conservation and Recovery Act licensed large quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 05/23/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 02/24/2022

HIST RCRA_NONGEN: List of Resource Conservation and Recovery Act licensed non-generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 05/23/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 02/24/2022

HIST RCRA_SQG: List of Resource Conservation and Recovery Act licensed small quantity generators that are no longer in current agency list.

Agency Version Date: 10/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 05/23/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 02/24/2022

FEDERAL RCRA GENERATORS LIST (cont.)

RCRA_LQG: Resource Conservation and Recovery Act listing of licensed large quantity generators

Agency Version Date: 12/30/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/28/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 12/30/2021

RCRA_NONGEN: Resource Conservation and Recovery Act listing of licensed non-generators

Agency Version Date: 12/30/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/28/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 12/30/2021

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators

Agency Version Date: 12/30/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/28/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 12/30/2021

RCRA_VSQG: Resource Conservation and Recovery Act listing of licensed very small quantity generators.

Agency Version Date: 12/30/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/28/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 215-814-2469
Most Recent Contact: 12/30/2021

FEDERAL NPL SITE LIST

NPL: List of priority contaminated sites among identified releases or threatened releases of hazardous substances pollutants or contaminants nationally

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/28/2022

NPL EPA R1 GIS: Geospatial data for the Environmental Protection Agency Region 1 National Priority List subject to environmental regulation

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 01/28/2022

NPL EPA R3 GIS: Geospatial data for the Environmental Protection Agency Region 3 National Priority List subject to environmental regulation

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 01/28/2022

NPL EPA R6 GIS: Geospatial data for the Environmental Protection Agency Region 6 National Priority List subject to environmental regulation

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 01/28/2022

NPL EPA R8 GIS: Geospatial data for the Environmental Protection Agency Region 8 National Priority List subject to environmental regulation

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 01/28/2022

FEDERAL NPL SITE LIST (cont.)

NPL EPA R9 GIS: Geospatial data for the Environmental Protection Agency Region 9 National Priority List subject to environmental regulation

Agency Version Date: 08/06/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-2132
Most Recent Contact: 01/28/2022

PART NPL: Sites that are a part of an National Priority List site referred to as the parent site

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/28/2022

PROPOSED NPL: Sites that have been proposed for the National Priority List

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/28/2022

SEMS_FINAL NPL: All Included National Priority List Sites

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/28/2022

SEMS_PROPOSED NPL: All Proposed National Priority List Sites

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/28/2022

STATE AND TRIBAL BROWNFIELD SITES

TRIBAL BROWNFIELDS: Tribal brownfield remediation site listing

Agency Version Date: 02/10/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 03/16/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 12/21/2021

BROWNFIELDS - HI: Listing of brownfield remediation sites

Agency Version Date: 12/03/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/01/2022
Agency: Hawai'i State Department of Health
Agency Contact: 808-586-4249
Most Recent Contact: 12/03/2021

STATE INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

I C - HI: Remediation sites with institutional controls

Agency Version Date: 12/03/2021
Agency Update Frequency: Semi Annually
Planned Next Contact: 03/01/2022
Agency: Hawai'i State Department of Health
Agency Contact: 808-586-4249
Most Recent Contact: 12/03/2021

STATE- AND TRIBAL - EQUIVALENT CERCLIS

SHWS - HI: Listing of state hazardous waste sites

Agency Version Date: 12/03/2021
Agency Update Frequency: Semi Annually
Planned Next Contact: 03/01/2022
Agency: Hawai'i State Department of Health
Agency Contact: 808-586-4226
Most Recent Contact: 12/03/2021

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

SWF LF CLOSED - HI: Closed solid waste facilities and landfill listing

Agency Version Date: 05/26/2021
Agency Update Frequency: Semi Annually
Planned Next Contact: 05/12/2022
Agency: Hawai'i State Department of Health
Agency Contact: 808-586-4226
Most Recent Contact: 02/14/2022

SWF/LF - HI: Solid waste facility and landfill listing

Agency Version Date: 11/06/2020
Agency Update Frequency: Semi Annually
Planned Next Contact: 04/11/2022
Agency: Hawai'i State Department of Health
Agency Contact: 808-586-4226
Most Recent Contact: 01/13/2022

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VCP - HI: Voluntary cleanup program remediation sites listing

Agency Version Date: 12/03/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/01/2022
Agency: Hawai'i State Department of Health
Agency Contact: 808-586-4249
Most Recent Contact: 12/03/2021

LOCAL BROWNFIELD LISTS

BROWNFIELDS-ACRES: EPA Brownfields Assessment, Cleanup and Redevelopment Exchange System.

Agency Version Date: 09/17/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/10/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 12/14/2021

FED BROWNFIELDS: Federal brownfield remediation sites

Agency Version Date: 07/30/2021
Agency Update Frequency: Semi Annually
Planned Next Contact: 04/21/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 01/24/2022

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL: The U.S. Department of Justice listing of clandestine drug lab locations

Agency Version Date: 01/12/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 04/11/2022
Agency: U.S. Department of Justice
Agency Contact: 202-307-7610
Most Recent Contact: 01/12/2022

US HIST CDL: The U.S. Department of Justice historical listing of clandestine drug lab locations

Agency Version Date: 08/05/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 05/16/2022
Agency: U.S. Department of Justice
Agency Contact: 202-307-7610
Most Recent Contact: 02/16/2022

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HIST INDIAN ODI R8: List of Region 8 Indian land open dump inventory sites maintained within the STARS program that is no longer in current agency list.

Agency Version Date: 11/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 04/07/2022
Agency: Indian Health Service
Agency Contact: 855-246-3642
Most Recent Contact: 01/11/2022

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES (cont.)

INDIAN ODI R8: Region 8 Indian land open dump inventory sites maintained within the STARS program

Agency Version Date: 01/28/2022
Agency Update Frequency: Varies
Planned Next Contact: 04/26/2022
Agency: Indian Health Service
Agency Contact: 855-246-3642
Most Recent Contact: 01/28/2022

ODI: Open dump inventory sites

Agency Version Date: 10/03/2017
Agency Update Frequency: No Update
Planned Next Contact: 05/10/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 02/11/2022

TRIBAL ODI: Indian land open dump inventory for all regions

Agency Version Date: 02/21/2022
Agency Update Frequency: Varies
Planned Next Contact: 05/19/2022
Agency: Indian Health Service
Agency Contact: 301-443-3593
Most Recent Contact: 02/21/2022

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT): Hazardous Material spills reported by the Department of Transportation

Agency Version Date: 12/22/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/18/2022
Agency: U.S. Department of Transportation
Agency Contact: (202) 366-4996
Most Recent Contact: 12/22/2021

HIST SPILLS - HI: List of oil and hazardous material spills report sites that are no longer in current agency list.

Agency Version Date: 07/17/2018
Agency Update Frequency: Annually
Planned Next Contact: 05/06/2022
Agency: Hawaii State Department of Health
Agency Contact: 808-586-4249
Most Recent Contact: 02/08/2022

HIST SPILLS 2 - HI: List of oil and hazardous material spills reported through June of 2015.

Agency Version Date: 08/06/2019
Agency Update Frequency: Varies
Planned Next Contact: 05/16/2022
Agency: Hawaii State Department of Health
Agency Contact: 808-586-4249
Most Recent Contact: 02/16/2022

SPILLS - HI: Incidents from the HEER Emergency Response System

Agency Version Date: 01/19/2022
Agency Update Frequency: Varies
Planned Next Contact: 04/18/2022
Agency: Hawaii State Department of Health
Agency Contact: 808-586-4249
Most Recent Contact: 01/19/2022

LOCAL LAND RECORDS

LIENS 2: Comprehensive Environmental Response Compensation and Liability Act sites with liens

Agency Version Date: 05/11/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 03/16/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 800-424-9346
Most Recent Contact: 12/20/2021

OTHER ASCERTAINABLE RECORDS

AFS: Air Facility Systems Quarterly Extract

Agency Version Date: 01/31/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 04/28/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/31/2022

OTHER ASCERTAINABLE RECORDS (cont.)

ALT FUELING: Alternative Fueling Stations by fuel type.

Agency Version Date: 12/29/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/25/2022
Agency: U.S. Department of Energy
Agency Contact: N/R
Most Recent Contact: 12/29/2021

BRS: Reporting of hazardous waste generation and management from large quantity generators

Agency Version Date: 12/30/2021
Agency Update Frequency: Biennial
Planned Next Contact: 03/28/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/30/2021

CDC HAZDAT: The Agency for Toxic Substances and Disease Registry's Hazardous Substance Release/Health Effects Database.

Agency Version Date: 08/21/2020
Agency Update Frequency: Varies
Planned Next Contact: 04/26/2022
Agency: Agency for Toxic Substances and Disease Registry
Agency Contact: 770-488-6399
Most Recent Contact: 01/28/2022

COAL ASH DOE: List of existing and planned generators with 1 megawatt or greater of combined capacity that are utilizing coal ash impoundments.

Agency Version Date: 09/29/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/22/2022
Agency: Department of Energy
Agency Contact: (202) 586-8800
Most Recent Contact: 12/24/2021

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

Agency Version Date: 02/18/2021
Agency Update Frequency: Varies
Planned Next Contact: 04/29/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 02/01/2022

COAL GAS: Manufactured Gas Plant locations

Agency Version Date: 01/07/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 04/05/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 01/07/2022

CONSENT (DECREES): Legal decisions regarding responsibility for Superfund locations

Agency Version Date: 11/02/2021
Agency Update Frequency: Varies
Planned Next Contact: 04/26/2022
Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 01/28/2022

CORRECTIVE ACTIONS_2020: In 2009 the EPA created the 2020 Corrective Action Baseline list of contaminated or potentially contaminated sites with a cleanup goal to complete 95% by the year 2020. The names on the list indicate the facility owners who may or may not have caused the contamination.

Agency Version Date: 12/21/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 04/19/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 01/21/2022

DEBRIS EPA LF: EPA list of designated landfill facilities for the safe disposal of disaster debris.

Agency Version Date: 01/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 04/12/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 01/14/2022

OTHER ASCERTAINABLE RECORDS (cont.)

DEBRIS EPA SWRCY: EPA list of facilities for the safe recovery, recycling, and disposal of disaster debris.

Agency Version Date: 01/14/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 04/12/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 01/14/2022

DOD: Department of Defense sites from the Protected Areas Database (PAD-US)

Agency Version Date: 11/02/2021
Agency Update Frequency: Varies
Planned Next Contact: 04/26/2022
Agency: United States Geologic Survey (USGS)
Agency Contact: 1-888-275-8747
Most Recent Contact: 01/28/2022

DOT OPS: Incident Data Report

Agency Version Date: 11/18/2021
Agency Update Frequency: Varies
Planned Next Contact: 05/12/2022
Agency: U.S. Department of Transportation
Agency Contact: (202) 366-4996
Most Recent Contact: 02/14/2022

ECHO: ECHO is EPA Enforcement and Compliance History Online website to search for facilities in your community to assess their compliance with environmental regulations related to CAA, CWA, RCRA, & SDWA.

Agency Version Date: 12/24/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/22/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 202-566-1667
Most Recent Contact: 12/24/2021

ENOI: The Electronic Notice of Intent (eNOI) database contains construction sites and industrial facilities that submit permit requests to EPA for Construction General Permits (CGP) and Multi-Sector General Permits (MSGP).

Agency Version Date: 03/19/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/08/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/10/2021

EPA FUELS: List of companies and facilities registered to participate in EPA Fuel Programs under Title 40 CFR Part 80.

Agency Version Date: 02/04/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 05/03/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 02/04/2022

EPA OSC: Listing of oil spills and hazardous substance release sites requiring EPA On-Site Coordinators.

Agency Version Date: 09/24/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/17/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 12/21/2021

EPA WATCH: The EPA Watch List was used to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. EPA maintained the lists from 2011 - 2013.

Agency Version Date: 02/09/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 03/16/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 12/20/2021

FA HWF: Hazardous Waste Facilities with Financial Assurance

Agency Version Date: 01/06/2022
Agency Update Frequency: Varies
Planned Next Contact: 04/04/2022
Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 01/06/2022

OTHER ASCERTAINABLE RECORDS (cont.)

FEDLAND: Federal Lands from the Protected Areas Database (PAD-US)

Agency Version Date: 11/02/2021
Agency Update Frequency: Varies
Planned Next Contact: 04/26/2022
Agency: United States Geologic Survey (USGS)
Agency Contact: 1-888-275-8747
Most Recent Contact: 01/28/2022

FRS: Facility Registry Systems

Agency Version Date: 11/15/2021
Agency Update Frequency: Varies
Planned Next Contact: 05/06/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 02/09/2022

FTTS: Tracking of administrative and enforcement activities related to FIFRA/TSCA

Agency Version Date: 04/06/2013
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 04/01/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-2280
Most Recent Contact: 01/05/2022

FTTS INSP: Tracking of inspections related to FIFRA/TSCA

Agency Version Date: 05/08/2017
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 03/25/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-2280
Most Recent Contact: 12/30/2021

FUDS: Defense sites that require cleanup

Agency Version Date: 02/07/2022
Agency Update Frequency: Varies
Planned Next Contact: 05/05/2022
Agency: US Army Corps of Engineering
Agency Contact: (202) 761-0011
Most Recent Contact: 02/07/2022

HIST AFS: List of Air Facility Systems Quarterly Extract that are no longer in current agency list.

Agency Version Date: 06/14/2019
Agency Update Frequency: Quarterly
Planned Next Contact: 03/16/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/20/2021

HIST AFS 2: List of Air Facility Systems Quarterly Extract that are no longer in current agency list.

Agency Version Date: 11/26/2018
Agency Update Frequency: Quarterly
Planned Next Contact: 04/14/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/18/2022

HIST DOD: Department of Defense historical sites

Agency Version Date: 08/17/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 04/26/2022
Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 01/28/2022

HIST LEAD_SMELTER: List of former lead smelter sites that is no longer in current agency list.

Agency Version Date: 12/12/2018
Agency Update Frequency: Annually
Planned Next Contact: 04/01/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/05/2022

HIST MLTS: List of sites in possession/use of radioactive materials regulated by NRC that is no longer in current agency list.

Agency Version Date: 07/13/2016
Agency Update Frequency: Annually
Planned Next Contact: 04/11/2022
Agency: Nuclear Regulatory Commission
Agency Contact: (800) 397-4209
Most Recent Contact: 01/12/2022

OTHER ASCERTAINABLE RECORDS (cont.)

HIST PCB TRANS: List of PCB Disposal Facilities that are no longer in current agency list.

Agency Version Date: 01/18/2018
Agency Update Frequency: No Update
Planned Next Contact: 05/03/2022
Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 02/04/2022

HIST PCS ENF: List of permitted facilities to discharge wastewater (Federal equivalent to NPDES) that are no longer in current agency list.

Agency Version Date: 12/08/2018
Agency Update Frequency: Annually
Planned Next Contact: 05/17/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 02/18/2022

HIST PCS FACILITY: List of Permitted facilities to discharge wastewater (Federal equivalent to NPDES) that are no longer in current agency list.

Agency Version Date: 12/18/2018
Agency Update Frequency: Annually
Planned Next Contact: 05/17/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 02/18/2022

HIST SSTS: List of tracking of facilities who produce pesticides and their quantity that are no longer in current agency list.

Agency Version Date: 02/13/2019
Agency Update Frequency: Annually
Planned Next Contact: 05/06/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 02/08/2022

HWC DOCKET: Listing of Federal facilities which are managing or have managed hazardous waste; or have had a release of hazardous waste.

Agency Version Date: 11/09/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 05/03/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 564-2307
Most Recent Contact: 02/03/2022

ICIS: Comprised of all Federal Administrative and Judicial enforcement information [intended to replace PCS] by tracking enforcement and compliance information (also contains what used to be known as FFTS)

Agency Version Date: 12/28/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/25/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/28/2021

INACTIVE PCS: Inactive Permitted facilities to discharge wastewater

Agency Version Date: 12/28/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/25/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 12/28/2021

INDIAN RESERVATION: American Indian Lands from the Protected Areas Database (PAD-US)

Agency Version Date: 01/28/2022
Agency Update Frequency: Varies
Planned Next Contact: 04/26/2022
Agency: United States Geologic Survey (USGS)
Agency Contact: 1-888-275-8747
Most Recent Contact: 01/28/2022

LUCIS: Land Use Control Information Systems

Agency Version Date: 12/21/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/18/2022
Agency: Department of the Navy: BRAC PMO
Agency Contact: (619) 532-0900
Most Recent Contact: 12/21/2021

OTHER ASCERTAINABLE RECORDS (cont.)

LUCIS 2: Land Use Control Information Systems

Agency Version Date: 01/17/2018
Agency Update Frequency: No Longer Maintained
Planned Next Contact: 05/03/2022
Agency: Department of the Navy: BRAC PMO
Agency Contact: (619) 532-0900
Most Recent Contact: 02/04/2022

MANIFEST EPA: EPA Hazardous Waste Electronic Manifest System (e-Manifest)

Agency Version Date: 11/12/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 05/06/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 02/08/2022

MINE OPERATIONS: Mine plants and operations for commodities monitored by the National Minerals Information Center of the USGS

Agency Version Date: 02/11/2022
Agency Update Frequency: Varies
Planned Next Contact: 05/10/2022
Agency: USGS Mineral Resources Program
Agency Contact: (703) 648-5953
Most Recent Contact: 02/11/2022

MINES: Mines Master Index Files

Agency Version Date: 12/29/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/28/2022
Agency: Department of Labor
Agency Contact: (202) 693-9400
Most Recent Contact: 12/29/2021

MINES USGS: Listing of all active mines and mineral plants in 2003

Agency Version Date: 11/17/2021
Agency Update Frequency: Varies
Planned Next Contact: 05/10/2022
Agency: USGS Mineral Resources Program
Agency Contact: (703) 648-5953
Most Recent Contact: 02/11/2022

MLTS: Sites in possession/use of radioactive materials regulated by NRC

Agency Version Date: 10/26/2021
Agency Update Frequency: Varies
Planned Next Contact: 04/19/2022
Agency: Nuclear Regulatory Commission
Agency Contact: (800) 397-4209
Most Recent Contact: 01/21/2022

NPL AOC: Areas of Concern related to NPL remediation sites

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: Environmental Protection Agency
Agency Contact: N/R
Most Recent Contact: 01/28/2022

NPL LIENS: National Priority List of sites with Liens

Agency Version Date: 11/02/2021
Agency Update Frequency: Varies
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/28/2022

OSHA: OSHA's listing of inspections violations and fatality information

Agency Version Date: 12/27/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/24/2022
Agency: Occupational Safety & Health Administration
Agency Contact: 800-321-6742
Most Recent Contact: 12/27/2021

PADS: Listing of generators transporters commercial store/ brokers and disposers of PCB

Agency Version Date: 01/28/2022
Agency Update Frequency: Varies
Planned Next Contact: 04/26/2022
Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 01/28/2022

OTHER ASCERTAINABLE RECORDS (cont.)

PCB TRANSFORMER: Disposal and Storage of Polychlorinated Biphenyl (PCB) Waste

Agency Version Date: 11/16/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 05/10/2022
Agency: Environmental Protection Agency
Agency Contact: (703) 308-8404
Most Recent Contact: 02/11/2022

PCS ENF: Permitted facilities to discharge wastewater (Federal equivalent to NPDES)

Agency Version Date: 12/28/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/25/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 12/28/2021

PCS FACILITY: Permitted facilities to discharge wastewater (Federal equivalent to NPDES)

Agency Version Date: 12/28/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/25/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-6582
Most Recent Contact: 12/28/2021

PFAS NPL: List of NPL sites with PFAS or PFOA contamination

Agency Version Date: 01/05/2022
Agency Update Frequency: Quarterly
Planned Next Contact: 04/01/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/05/2022

PFAS TRIS: List of TRIS sites where PFAS or PFOA are used/manufactured/ treated/ transported/released.

Agency Version Date: 12/28/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/25/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/28/2021

PFAS UCMR3: List of PWS wells sampled for Unregulated Contaminant Monitoring Rule (UCMR)

Agency Version Date: 12/10/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/08/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 12/10/2021

RAATS: Listing of major violators with enforcement actions issued under RCRA. Includes administrative and civil actions filed by the EPA. This dataset is no longer maintained.

Agency Version Date: 09/23/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/18/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/20/2022

RADINFO: EPA regulated facilities with radiation and radioactive materials

Agency Version Date: 08/01/2019
Agency Update Frequency: Varies
Planned Next Contact: 04/06/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 01/10/2022

RMP: Facilities producing/handling/ process/ distribute/ store specific chemicals report plans required by the Clean Air Act

Agency Version Date: 01/04/2022
Agency Update Frequency: Monthly
Planned Next Contact: 04/01/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 564-2534
Most Recent Contact: 01/04/2022

ROD: Permanent remedy at an NPL site

Agency Version Date: 11/02/2021
Agency Update Frequency: Varies
Planned Next Contact: 04/26/2022
Agency: Environmental Protection Agency
Agency Contact: (800) 424-9346
Most Recent Contact: 01/28/2022

OTHER ASCERTAINABLE RECORDS (cont.)

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners

Agency Version Date: 09/09/2021
Agency Update Frequency: No Update
Planned Next Contact: 03/02/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/06/2021

SEMS_SMELTER: This report includes sites that have smelting-related, or potentially smelting-related, indicators in the SEMS database. The report includes information on the site location as well as contaminants of concern.

Agency Version Date: 11/02/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 04/26/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 703-603-8867
Most Recent Contact: 01/28/2022

SSTS: Tracking of facilities who produce pesticides and their quantity

Agency Version Date: 12/10/2021
Agency Update Frequency: Annually
Planned Next Contact: 03/08/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/10/2021

STORMWATER: Permitted storm water sites

Agency Version Date: 12/21/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/18/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/21/2021

TOSCA-PLANT: Plants controlled by the Toxic Substance Control Act

Agency Version Date: 12/16/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/14/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/16/2021

TRIS: Information regarding toxic chemicals that are being used/manufactured/ treated/ transported/released into the environment

Agency Version Date: 12/28/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/25/2022
Agency: Environmental Protection Agency
Agency Contact: (202) 566-1667
Most Recent Contact: 12/28/2021

UMTRA: Uranium Recovery Sites

Agency Version Date: 07/08/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/25/2022
Agency: United States Nuclear Regulatory Commission
Agency Contact: (301) 415-8200
Most Recent Contact: 12/29/2021

VAPOR: EPA Vapor Intrusion Database

Agency Version Date: 03/19/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/08/2022
Agency: U.S. Environmental Protection Agency
Agency Contact: 855-246-3642
Most Recent Contact: 12/09/2021

AIRS - HI: Facilities with air permits

Agency Version Date: 03/31/2021
Agency Update Frequency: Varies
Planned Next Contact: 03/04/2022
Agency: Hawai'i State Department of Health
Agency Contact: 808-586-4200
Most Recent Contact: 12/07/2021

OTHER ASCERTAINABLE RECORDS (cont.)

DRYCLEANERS - HI: Drycleaner facility listing

Agency Version Date: 03/31/2021
Agency Update Frequency: Quarterly
Planned Next Contact: 03/04/2022

Agency: Hawai'i State Department of Health
Agency Contact: 808-586-4226
Most Recent Contact: 12/07/2021

SUBJECT PROPERTY ADDRESS:

KE PIKI OHANA LLC
56-229 Kamehameha Hwy
Kahuku, HI 96731

SUBJECT PROPERTY COORDINATES:

Latitude(North):	21.665962 - 21°39'57.5"
Longitude(West):	-157.936576 - -157°56'11.7"
Universal Transverse Mercator:	Zone 4N
UTM X (Meters):	610027.40
UTM Y (Meters):	2396231.37
State Plane Coordinates:	5103 - Hawaii Zone 3 (US Survey Feet)
X Coordinate (Feet):	1661953.721 E
Y Coordinate (Feet):	181377.568 N

ELEVATION:

Elevation:	20 ft. above sea level

USGS TOPOGRAPHIC MAP:

Subject Property Map:	21157-F8 Kahuku, HI
Most Recent Revision:	2017

GEOHYDROLOGY DATA:

SUBJECT PROPERTY TOPOGRAPHY:

Topographic Gradient: South

DFIRM FLOOD ZONE:

	DFIRM Flood
Subject Property County:	Electronic Data:
HONOLULU	Yes - refer to the PROPERTY PROXIMITY MAP and AREA MAP
Flood Plain Panel at Subject Property:	15003C0045H (Eff. date 11/5/2014)
Additional Panels in search area:	No available data

FEMA FLOOD ZONE:

	FEMA Flood
Subject Property County:	Electronic Data:
HONOLULU	Yes - refer to the PROPERTY PROXIMITY MAP and AREA MAP
Flood Plain Panel at Subject Property:	1500010015C
Additional Panels in search area:	1500010005B 1500010010A

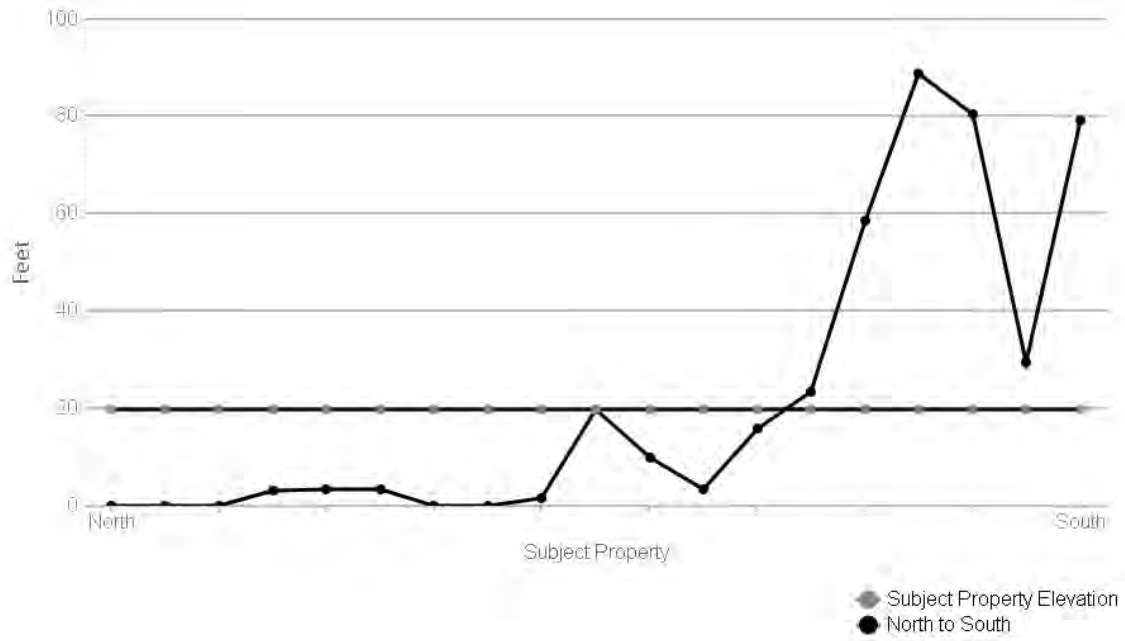
NATIONAL WETLAND INVENTORY:

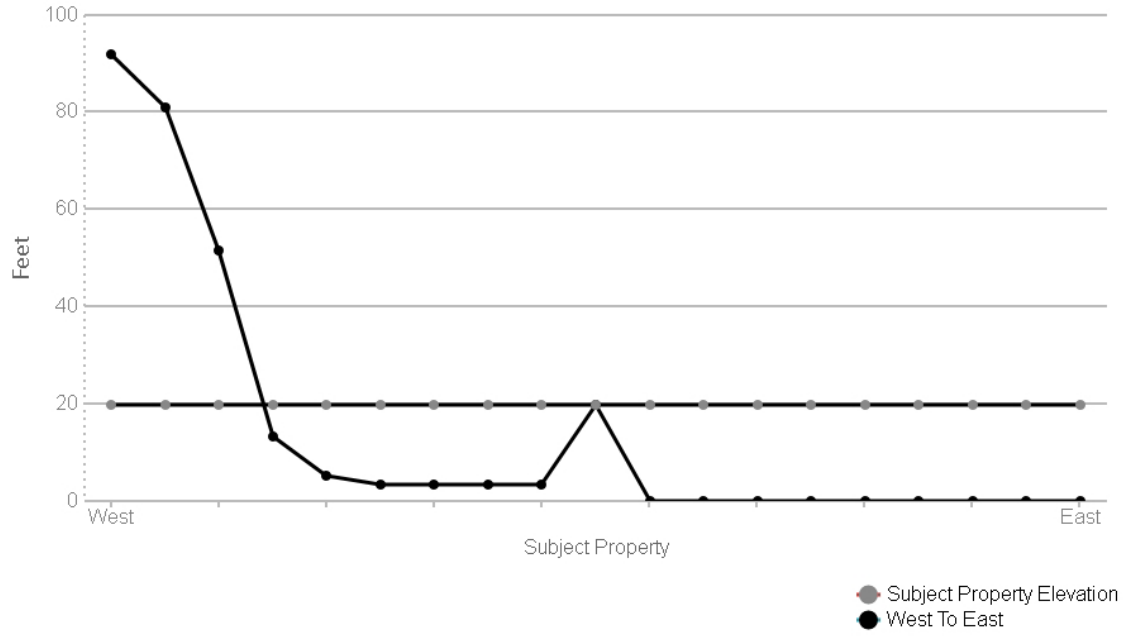
	NWI Electronic
NWI Quad at Subject Property:	Data Coverage:
Kahuku	Yes - refer to the Geological Findings Map

LITHOSTRATIGRAPHIC INFORMATION:

ROCK STRATIGRAPHIC UNIT:		GEOLOGIC AGE IDENTIFICATION
Era:	No available data	Category: No available data
System:	No available data	
Series:	No available data	
Code:	No available data	

SURROUNDING ELEVATION PROFILES:





SUBJECT NAME: KE PIKI OHANA LLC
ADDRESS: 56-229 Kamehameha Hwy, Kahuku, HI, 96731
LAT/LONG: 21.665962 / -157.936576

PREPARED FOR: Historical Information Gatherers
ORDER #: 67910
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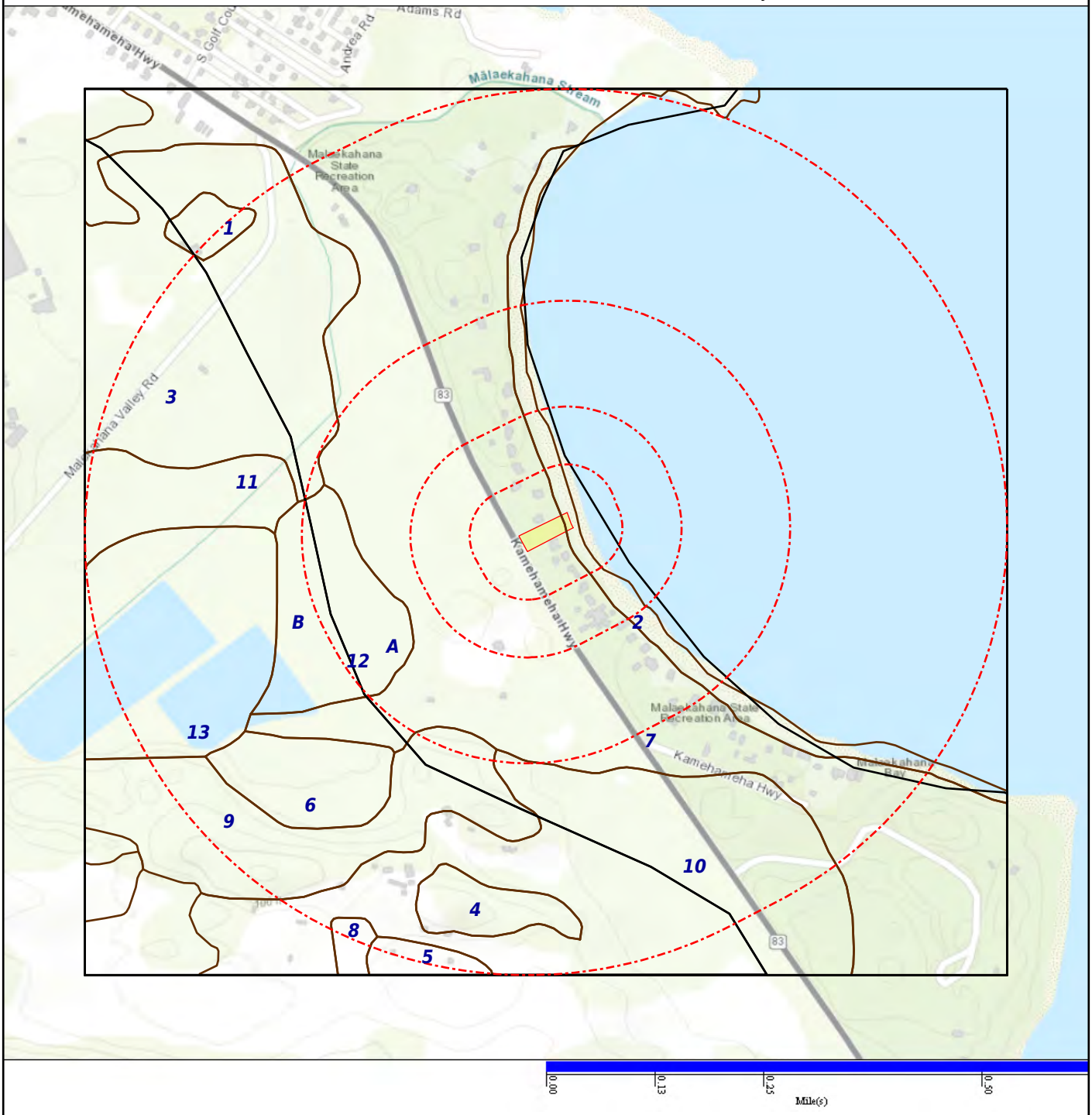


SOIL COMPOSITION IN GENERAL AREA OF SUBJECT PROPERTY:

Agency source: Soil Conservation Service, US Department of Agriculture

SOIL MAP ID 1	SSURGO
USDA Soil Name	Lahaina,Series
USDA Soil Texture	No data
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-18	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	5.6-6.5
2	18-38	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	5.6-6.5
3	38-58	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and	1.41-14	5.6-6.5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
3	38-58	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14	5.6-6.5
4	58-79	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14	5.6-6.5
5	79-117	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14	5.6-6.5
6	117-152	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM	1.41-14	5.6-6.5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
6	117-152	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	test D 2487, in ASTM, 1984).	1.41-14	5.6-6.5

SOIL MAP ID 2 **SSURGO**

USDA Soil Name	Beaches,Miscellaneous area
USDA Soil Texture	Coarse sand
Hydrologic Soil Group	Not Reported
Soil Drainage Class	Excessively drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Not Reported

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-15	Coarse sand	Granular materials (35% or less passing No. 200), fine sand. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	42.34-141	6.1-7.8
2	15-152	Coarse sand	Granular materials (35% or less passing No. 200), fine sand. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil	42.34-141	6.1-7.8

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	15-152	Coarse sand	Transportation Officials, 1984.	material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	42.34-141	6.1-7.8

SOIL MAP ID 3 **SSURGO**

USDA Soil Name	Mokuleia,Series
USDA Soil Texture	Clay loam
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-41	Clay loam	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14	6.6-7.3
2	41-150	Sand	Granular materials (35% or less passing No. 200), fine sand. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	42.34-141	7.9-8.4

SOIL MAP ID 4	SSURGO
USDA Soil Name	Coral outcrop, Miscellaneous area
USDA Soil Texture	Not Reported
Hydrologic Soil Group	Not Reported
Soil Drainage Class	Excessively drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Not Reported

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-152		No data	No data	1.41-42	0-0

SOIL MAP ID 5	SSURGO
USDA Soil Name	Lahaina,Series
USDA Soil Texture	No data
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-18	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	5.6-6.5
2	18-38	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size	4.23-42.34	5.6-6.5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	18-38	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	5.6-6.5
3	38-58	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14	5.6-6.5
4	58-79	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14	5.6-6.5
5	79-117	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14	5.6-6.5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
6	117-152	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14	5.6-6.5

SOIL MAP ID 6 **SSURGO**

USDA Soil Name	Keaau,Series
USDA Soil Texture	Clay
Hydrologic Soil Group	C
Soil Drainage Class	Poorly drained
Hydric Classification	15
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-38	Clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14.11	7.4-7.8
2	38-86	Clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction	0.42-4.23	7.4-7.8

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	38-86	Clay	and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-4.23	7.4-7.8
3	86-99		No data	No data	42.34-705	0-0
4	99-145	Sand	Granular materials (35% or less passing No. 200), fine sand. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	141.14-705	7.9-8.4

SOIL MAP ID 7 **SSURGO**

USDA Soil Name	Jaucas,Series
USDA Soil Texture	Sand
Hydrologic Soil Group	A
Soil Drainage Class	Excessively drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Low

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-33	Sand	Granular materials (35% or less passing No. 200), fine sand. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	42.34-141	6.6-7.3
2	33-56	Sand	Granular materials	Reference: This is a	42.34-141	6.6-8.4

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	33-56	Sand	(35% or less passing No. 200), fine sand. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	42.34-141	6.6-8.4
3	56-152	Sand	Granular materials (35% or less passing No. 200), fine sand. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	42.34-141	6.6-8.4

SOIL MAP ID 8 **SSURGO**

USDA Soil Name	Coral outcrop, Miscellaneous area
USDA Soil Texture	Not Reported
Hydrologic Soil Group	Not Reported
Soil Drainage Class	Excessively drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Not Reported

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-152		No data	No data	1.41-42	0-0

SOIL MAP ID 9	SSURGO
USDA Soil Name	Coral outcrop, Miscellaneous area
USDA Soil Texture	Not Reported
Hydrologic Soil Group	Not Reported
Soil Drainage Class	Excessively drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Not Reported

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-152		No data	No data	1.41-42	0-0

SOIL MAP ID 10	SSURGO
USDA Soil Name	Lahaina,Series
USDA Soil Texture	No data
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-18	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	5.6-6.5
2	18-38	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size	4.23-42.34	5.6-6.5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	18-38	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	5.6-6.5
3	38-58	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14	5.6-6.5
4	58-79	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14	5.6-6.5
5	79-117	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14	5.6-6.5

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
6	117-152	No data	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14	5.6-6.5

SOIL MAP ID 11 **SSURGO**

USDA Soil Name	Haleiwa,Series
USDA Soil Texture	Silty clay
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	15
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-43	Silty clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays, (liquid limit is 50% or more), Elastic Silt. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14	6.1-6.5
2	43-165	Silty clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway	FINE-GRAINED SOILS, Silts and clays, (liquid limit is 50% or more), Elastic Silt. Reference: This is a classification of soil material designed for general construction	4.23-14	6.6-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	43-165	Silty clay	and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-14	6.6-7.3

SOIL MAP ID 12 **SSURGO**

USDA Soil Name	Keaau,Series
USDA Soil Texture	Clay
Hydrologic Soil Group	C
Soil Drainage Class	Poorly drained
Hydric Classification	15
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-38	Clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	1.41-14.11	7.4-7.8
2	38-86	Clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is 50% or more), Fat Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in	0.42-4.23	7.4-7.8

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
2	38-86	Clay	Silt-Clay materials (more than 35% passing No. 200), clayey soils. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	organic matter (ASTM test D 2487, in ASTM, 1984).	0.42-4.23	7.4-7.8
3	86-99		No data	No data	42.34-705	0-0
4	99-145	Sand	Granular materials (35% or less passing No. 200), fine sand. Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	141.14-705	7.9-8.4

SOIL MAP ID 13 **SSURGO**

USDA Soil Name	Kawaihapai,Series
USDA Soil Texture	Clay loam
Hydrologic Soil Group	A
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-30	Clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and	4.23-42.34	6.6-7.3

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-30	Clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	6.6-7.3
2	30-56	Clay loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	FINE-GRAINED SOILS, Silts and clays (liquid limit is less than 50%), Lean Clay. Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	4.23-42.34	6.6-7.3
3	56-81	Sandy loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	14.11-141.14	6.1-7.3
4	81-137	Sandy loam	Reference: This is a classification of soil material for highway and airfield construction (Procedure M 145-73 in Am. Assoc. of State Highway and Transportation Officials, 1984.	Reference: This is a classification of soil material designed for general construction purposes. It is dependent on the particle size distribution of the <75 mm, the liquid limit, and the plasticity index and on whether the soil material is high in organic matter (ASTM test D 2487, in ASTM, 1984).	14.11-141.14	6.1-7.3

SOIL MAP ID A	STATSGO
USDA Soil Name	Lithic Ustorthents,Taxon above family
USDA Soil Texture	Not Reported
Hydrologic Soil Group	D
Soil Drainage Class	Well drained
Hydric Classification	6
Corrosion Potential - Uncoated Steel	High

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-6		No data	No data	1.4114-14.1143	6.1-7.3
2	6-60	Silty clay	No data	No data	1.4114-14.1143	6.1-7.3
3	60-64		No data	No data	0.4234-14.1143	No data

SOIL MAP ID B	STATSGO
USDA Soil Name	Wahiawa,Series
USDA Soil Texture	Silty clay
Hydrologic Soil Group	B
Soil Drainage Class	Well drained
Hydric Classification	0
Corrosion Potential - Uncoated Steel	Moderate

Layer	Depth (inches)	Soil Texture	AASHTO Group	Unified Soil Description	Saturated Hydraulic Conductivity micro m/sec	Soil Reaction pH
1	0-12	Silty clay	No data	No data	14.1143-42.343	5.1-6
2	12-60	Silty clay	No data	No data	14.1143-42.343	5.6-7.3

WATER AGENCY DATA:

WATER AGENCY SEARCH DISTANCES:

DATABASE:	SEARCH DISTANCE (MILES):
NWIS	1.000
PWS	1.000

DISTANCE TO NEAREST:	DISTANCE:
NWIS	0.114 mi / 600 ft
PWS	N/A

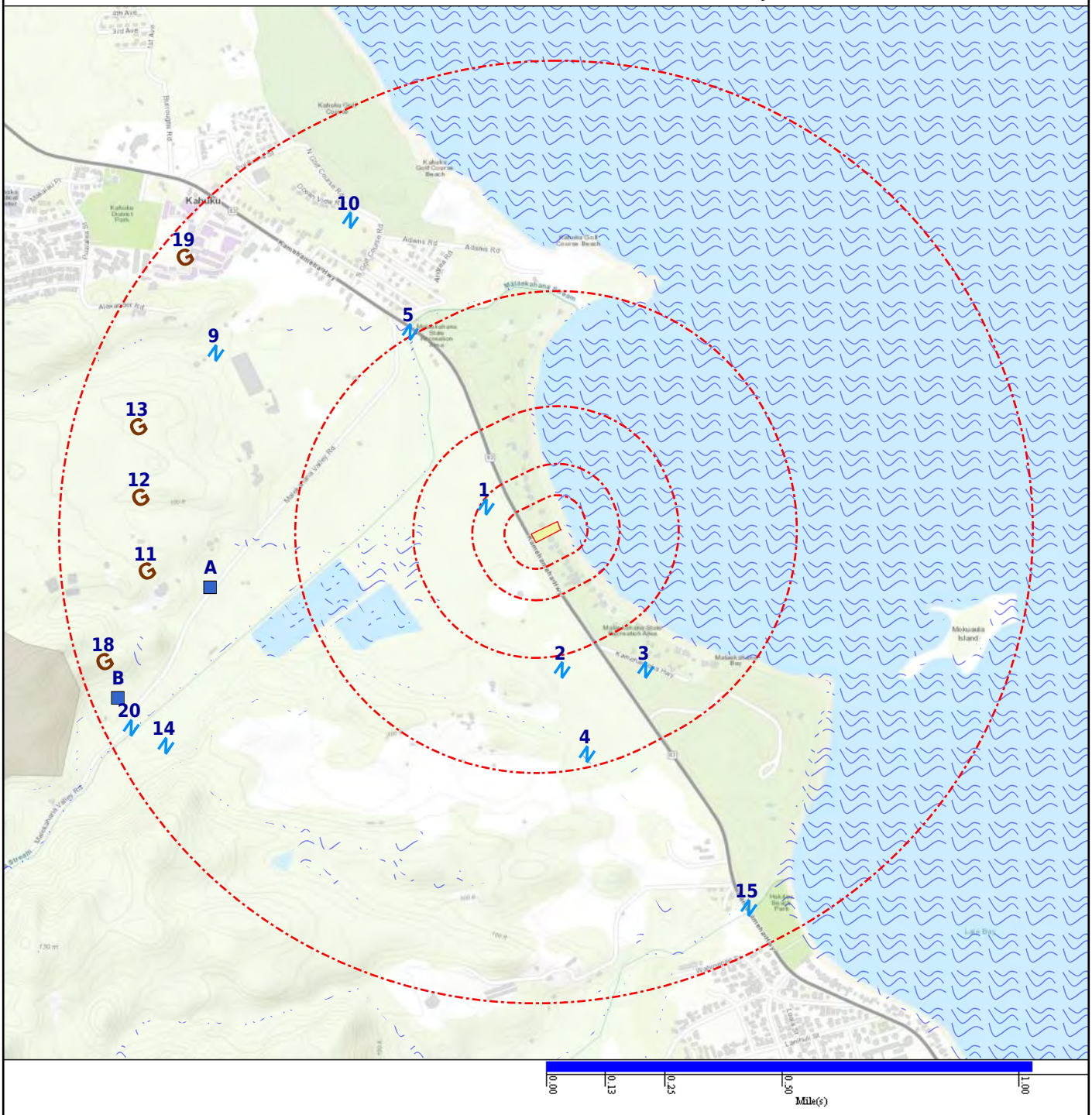
FEDERAL WATER AGENCY DATA SUMMARY:

MAP ID:	WELL ID:	LOCATION FROM SP:
1	214012157562901	< 1/8 Mile WNW
2	213953157562001	1/4 - 1/2 Mile S
3	213953157561001	1/4 - 1/2 Mile SE
4	213932157560701	1/4 - 1/2 Mile S
5	214020157562801	1/2 - 1 Mile NW
A6	214003157570100	1/2 - 1 Mile W
A7	214003157570101	1/2 - 1 Mile W
A8	214003157570201	1/2 - 1 Mile W
9	214029157570101	1/2 - 1 Mile WNW
10	214045157564501 | 214045157564502 | 214045157564503	1/2 - 1 Mile NW
14	213944157570701	1/2 - 1 Mile WSW
15	16308500	1/2 - 1 Mile SSE
B16	213950157571203	1/2 - 1 Mile WSW
B17	213950157571202	1/2 - 1 Mile WSW
20	16310501	1/2 - 1 Mile WSW
B21	213950157571300 | 213950157571301 | 213950157571304	1/2 - 1 Mile WSW

Note: PWS System location is not always the same as well location.

SUBJECT NAME: KE PIKI OHANA LLC
ADDRESS: 56-229 Kamehameha Hwy, Kahuku, HI, 96731
LAT/LONG: 21.665962 / -157.936576

PREPARED FOR: Historical Information Gatherers
ORDER #: 67910
REPORT DATE: February 25, 2022



Map Id: 1
Direction: WNW
Distance: 0.114 mi., 601 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : 214012157562901
21.666686, -157.938611
HI

Database(s) : [NWIS]

Envirosite ID: 16645446
EPA ID: N/R

NWIS

Site Identification Number :	214012157562901
Site Type :	Well
Station Name :	3-4056-01 Malaekahana (W358), Oahu, HI
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	3
Method Altitude Determined :	Interpolated from Digital Elevation Model
Altitude Accuracy :	1
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	328
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.666686
Longitude :	-157.938611
Last Date in Agency List :	2021-12-15

Map Id: 2
Direction: S
Distance: 0.286 mi., 1509 ft.
Elevation: 8 ft.
Relative: Lower

Site Name : 213953157562001
21.661556, -157.936133
HI

Database(s) : [NWIS]

Envirosite ID: 16652064
EPA ID: N/R

NWIS

Site Identification Number :	213953157562001
Site Type :	Well
Station Name :	3-3956-01 W363
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	18.00
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.661556
Longitude :	-157.936133
Last Date in Agency List :	2021-12-15

Map Id: 3
Direction: SE
Distance: 0.356 mi., 1879 ft.
Elevation: 17 ft.
Relative: Lower

Site Name : 213953157561001
21.661556, -157.933356
HI

Database(s) : [NWIS]

Envirosite ID: 16652063
EPA ID: N/R

NWIS

Site Identification Number :	213953157561001
Site Type :	Well
Station Name :	3-3956-02 W364
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	9.07
Method Altitude Determined :	Level or other surveyed method.
Altitude Accuracy :	.1
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	Flat surface
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYNYNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	364
Hole Depth :	364
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	1971-10-01
Water-Quality Data End Date :	1975-05-02
Water-Quality Data Count :	16
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	0
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	21.661556
Longitude :	-157.933356
Last Date in Agency List :	2021-12-15

Map Id: 4
Direction: S
Distance: 0.477 mi., 2520 ft.
Elevation: 20 ft.
Relative: Higher

Site Name : 213932157560701
21.658889, -157.935278
HI

Database(s) : [NWIS]

Envirosite ID: 16645445
EPA ID: N/R

NWIS

Site Identification Number :	213932157560701
Site Type :	Well
Station Name :	3-3956-08 Laie Deep Monitor, Oahu, HI
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	20
Method Altitude Determined :	Interpolated from Digital Elevation Model
Altitude Accuracy :	5
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	Y Y
National Aquifer :	N/R
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	860
Hole Depth :	N/R
Source of Depth Data :	A
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	2004
Field Water-level Measurements End Date:	2004-03-30
Field Water-Level Measurements Count:	2
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	21.658889
Longitude :	-157.935278
Last Date in Agency List :	2021-12-15

Map Id: 5
Direction: NW
Distance: 0.509 mi., 2687 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : 214020157562801
21.672222, -157.941111
HI

Database(s) : [NWIS]

Envirosite ID: 16647190
EPA ID: N/R

NWIS

Site Identification Number :	214020157562801
Site Type :	Stream
Station Name :	Malaekahana Stream at Hwy 83, Laie, Oahu, HI
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	3
Method Altitude Determined :	Interpolated from Digital Elevation Model
Altitude Accuracy :	5
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	N/R
Data-Other GW Files :	N/R
National Aquifer :	N/R
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	2014-01-07
Water-Quality Data End Date :	2016-11-29
Water-Quality Data Count :	3
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	0
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	21.672222
Longitude :	-157.941111
Last Date in Agency List :	2021-12-15

Map Id: A6
Direction: W
Distance: 0.680 mi., 3593 ft.
Elevation: 13 ft.
Relative: Lower

Site Name : 214003157570100
21.664333, -157.947522
HI

Database(s) : [NWIS]

Envirosite ID: 16652066
EPA ID: N/R

NWIS

Site Identification Number :	214003157570100
Site Type :	Multiple wells
Station Name :	3-4057-07 ,10
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	16
Method Altitude Determined :	N/R
Altitude Accuracy :	1
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	NYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.664333
Longitude :	-157.947522
Last Date in Agency List :	2021-12-15

Map Id: A7
Direction: W
Distance: 0.681 mi., 3596 ft.
Elevation: 10 ft.
Relative: Lower

Site Name : 214003157570101
21.664167, -157.9475
HI

Database(s) : [NWIS]

Envirosite ID: 16646307
EPA ID: N/R

NWIS

Site Identification Number :	214003157570101
Site Type :	Well
Station Name :	3-4057-07 Kahuku P12 (W361-A), Oahu, HI
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	10
Method Altitude Determined :	Interpolated from Digital Elevation Model
Altitude Accuracy :	5
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1925
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	306
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.664167
Longitude :	-157.9475
Last Date in Agency List :	2021-12-15

Map Id: A8
Direction: W
Distance: 0.699 mi., 3689 ft.
Elevation: 17 ft.
Relative: Lower

Site Name : 214003157570201
21.664167, -157.947778
HI

Database(s) : [NWIS]

Envirosite ID: 16645071
EPA ID: N/R

NWIS

Site Identification Number :	214003157570201
Site Type :	Well
Station Name :	3-4057-10 Kahuku P-12A Battery (W361-B), Oahu, HI
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	14
Method Altitude Determined :	Interpolated from Digital Elevation Model
Altitude Accuracy :	5
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1937
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	378
Hole Depth :	378
Source of Depth Data :	O
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.664167
Longitude :	-157.947778
Last Date in Agency List :	2021-12-15

Map Id: 9
Direction: WNW
Distance: 0.777 mi., 4105 ft.
Elevation: 13 ft.
Relative: Lower

Site Name : 214029157570101
21.671556, -157.947522
HI

Database(s) : [NWIS]

Envirosite ID: 16666467
EPA ID: N/R

NWIS

Site Identification Number :	214029157570101
Site Type :	Well
Station Name :	3-4057-06 W357
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	15.14
Method Altitude Determined :	Level or other surveyed method.
Altitude Accuracy :	.1
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	Flat surface
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1929-01-01
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	1971-10-01
Water-Quality Data End Date :	1980-11-28
Water-Quality Data Count :	31
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	0
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	21.671556
Longitude :	-157.947522
Last Date in Agency List :	2021-12-15

Map Id: 10
Direction: NW
Distance: 0.781 mi., 4126 ft.
Elevation: 12 ft.
Relative: Lower

Site Name : 214045157564501 | 214045157564502 | 214045157564503
21.675722, -157.943078
HI

Database(s) : [NWIS]

Envirosite ID: 16666469
EPA ID: N/R

NWIS

Site Identification Number :	214045157564503
Site Type :	Test hole not completed as a well
Station Name :	3-4056.01C
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	8.00
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	3
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1980-03-13
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYNNNYNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	100
Hole Depth :	100
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1980-03-13
Field Water-level Measurements End Date:	1980-03-13
Field Water-Level Measurements Count:	1
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	21.675722
Longitude :	-157.943078
Last Date in Agency List :	2021-12-15

Site Identification Number :	214045157564504
Site Type :	Test hole not completed as a well
Station Name :	3-4056.01D

Map Id: 10
Direction: NW
Distance: 0.781 mi., 4126 ft.
Elevation: 12 ft.
Relative: Lower

Site Name : 214045157564501 | 214045157564502 | 214045157564503
21.675722, -157.943078
HI

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 16666469
EPA ID: N/R

NWIS ***(cont.)***

Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	8.00
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	3
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1980-02-25
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYNNNYNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	100
Hole Depth :	100
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1980-02-25
Field Water-level Measurements End Date:	1980-02-25
Field Water-Level Measurements Count:	1
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	21.675722
Longitude :	-157.943078
Last Date in Agency List :	2021-12-15

Site Identification Number :	214045157564501
Site Type :	Test hole not completed as a well
Station Name :	3-4056.01A
Agency :	U.S. Geological Survey
District :	N/R
State :	HI

Map Id: 10
Direction: NW
Distance: 0.781 mi., 4126 ft.
Elevation: 12 ft.
Relative: Lower

Site Name : 214045157564501 | 214045157564502 | 214045157564503
21.675722, -157.943078
HI

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 16666469
EPA ID: N/R

NWIS ***(cont.)***

County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	8.00
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	3
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1980-02-21
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYNNNYNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	100
Hole Depth :	100
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1980-02-21
Field Water-level Measurements End Date:	1980-02-21
Field Water-Level Measurements Count:	1
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	21.675722
Longitude :	-157.943078
Last Date in Agency List :	2021-12-15

Site Identification Number :	214045157564502
Site Type :	Test hole not completed as a well
Station Name :	3-4056.01B
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R

Map Id: 10
Direction: NW
Distance: 0.781 mi., 4126 ft.
Elevation: 12 ft.
Relative: Lower

Site Name : 214045157564501 | 214045157564502 | 214045157564503
21.675722, -157.943078
HI

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 16666469
EPA ID: N/R

NWIS ***(cont.)***

Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	8.00
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	3
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1980-03-05
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYNNNYNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	100
Hole Depth :	100
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1980-03-05
Field Water-level Measurements End Date:	1980-03-05
Field Water-Level Measurements Count:	1
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	21.675722
Longitude :	-157.943078
Last Date in Agency List :	2021-12-15

Site Identification Number :	214045157564506
Site Type :	Test hole not completed as a well
Station Name :	3-4056.01F
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	8.00

Map Id: 10
Direction: NW
Distance: 0.781 mi., 4126 ft.
Elevation: 12 ft.
Relative: Lower

Site Name : 214045157564501 | 214045157564502 | 214045157564503
21.675722, -157.943078
HI

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 16666469
EPA ID: N/R

NWIS ***(cont.)***

Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	3
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1980-03-31
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYNNNYNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	100
Hole Depth :	100
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1980-03-31
Field Water-level Measurements End Date:	1980-03-31
Field Water-Level Measurements Count:	1
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	21.675722
Longitude :	-157.943078
Last Date in Agency List :	2021-12-15

Site Identification Number :	214045157564505
Site Type :	Test hole not completed as a well
Station Name :	3-4056.01E
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	8.00
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	3
Altitude Datum :	Local Mean Sea Level

Map Id: 10
Direction: NW
Distance: 0.781 mi., 4126 ft.
Elevation: 12 ft.
Relative: Lower

Site Name : 214045157564501 | 214045157564502 | 214045157564503
21.675722, -157.943078
HI

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 16666469
EPA ID: N/R

NWIS ***(cont.)***

Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNO
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1980-03-28
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYNNNYNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	100
Hole Depth :	100
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	0
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	1980-03-28
Field Water-level Measurements End Date:	1980-03-28
Field Water-Level Measurements Count:	1
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	21.675722
Longitude :	-157.943078
Last Date in Agency List :	2021-12-15

Map Id: 11
Direction: W
Distance: 0.819 mi., 4326 ft.
Elevation: 105 ft.
Relative: Higher

Site Name : WINDMILL
21.664667, -157.94975
KAHUKU, HI

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 37119889
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2020-08-11
Action :	Change
FAA Study Number :	2016WTW11526OE
OBS Number :	15-022267
Obstacle Type :	WINDMILL

Map Id: 11
Direction: W
Distance: 0.819 mi., 4326 ft.
Elevation: 105 ft.
Relative: Higher

Site Name : WINDMILL
21.664667, -157.94975
KAHUKU, HI

Database(s) : [DIGITAL OBSTACLE] ***(cont.)***

Envirosite ID: 37119889
EPA ID: N/R

DIGITAL OBSTACLE ***(cont.)***

City Name :	KAHUKU
State Identifier :	HI
Country Identifier :	USA
Type of Lighting :	Synchronized Red Lighting
Verification Status :	Verified
Quantity :	1
Mark Indicator :	White Paint Only
Above Ground Level Height (Feet) :	00568
Above Mean Sea Level Height (Feet) :	00655
Horizontal Accuracy :	+-250'
Vertical Accuracy :	+-50'
Latitude :	21 39 52.80N
Longitude :	157 56 59.10W

Map Id: 12
Direction: W
Distance: 0.833 mi., 4397 ft.
Elevation: 80 ft.
Relative: Higher

Site Name : WINDMILL
21.667, -157.949972
KAHUKU, HI

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 37119930
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2020-08-11
Action :	Change
FAA Study Number :	2016WTW11527OE
OBS Number :	15-022264
Obstacle Type :	WINDMILL
City Name :	KAHUKU
State Identifier :	HI
Country Identifier :	USA
Type of Lighting :	Synchronized Red Lighting
Verification Status :	Verified
Quantity :	1
Mark Indicator :	White Paint Only
Above Ground Level Height (Feet) :	00568
Above Mean Sea Level Height (Feet) :	00649
Horizontal Accuracy :	+-250'
Vertical Accuracy :	+-50'
Latitude :	21 40 01.20N
Longitude :	157 56 59.90W

Map Id: 13
Direction: WNW
Distance: 0.866 mi., 4571 ft.
Elevation: 92 ft.
Relative: Higher

Site Name : WINDMILL
21.669222, -157.950056
KAHUKU, HI

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 37121543
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2020-08-11
Action :	Change
FAA Study Number :	2016WTW11528OE
OBS Number :	15-022265
Obstacle Type :	WINDMILL
City Name :	KAHUKU
State Identifier :	HI
Country Identifier :	USA
Type of Lighting :	Synchronized Red Lighting
Verification Status :	Verified
Quantity :	1
Mark Indicator :	White Paint Only
Above Ground Level Height (Feet) :	00568
Above Mean Sea Level Height (Feet) :	00658
Horizontal Accuracy :	+-250'
Vertical Accuracy :	+-50'
Latitude :	21 40 09.20N
Longitude :	157 57 00.20W

Map Id: 14
Direction: WSW
Distance: 0.905 mi., 4779 ft.
Elevation: 21 ft.
Relative: Higher

Site Name : 213944157570701
21.659167, -157.949167
HI

Database(s) : [NWIS]

Envirosite ID: 16646313
EPA ID: N/R

NWIS

Site Identification Number :	213944157570701
Site Type :	Well
Station Name :	3-3957-07 Kahuku P-6 (W362-1), Oahu, HI
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	23
Method Altitude Determined :	Interpolated from Digital Elevation Model
Altitude Accuracy :	10
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1937
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R

Map Id: 14
Direction: WSW
Distance: 0.905 mi., 4779 ft.
Elevation: 21 ft.
Relative: Higher

Site Name : 213944157570701
21.659167, -157.949167
HI

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 16646313
EPA ID: N/R

NWIS ***(cont.)***

Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	397
Hole Depth :	397
Source of Depth Data :	O
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.659167
Longitude :	-157.949167
Last Date in Agency List :	2021-12-15

Map Id: 15
Direction: SSE
Distance: 0.918 mi., 4845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : 16308500
21.654028, -157.929944
HI

Database(s) : [NWIS]

Envirosite ID: 16642784
EPA ID: N/R

NWIS

Site Identification Number :	16308500
Site Type :	Stream
Station Name :	Kahawainui Str at Laie, Oahu, HI
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	1
Method Altitude Determined :	Interpolated from Digital Elevation Model
Altitude Accuracy :	1
Altitude Datum :	Local Mean Sea Level

Map Id: 15
Direction: SSE
Distance: 0.918 mi., 4845 ft.
Elevation: 4 ft.
Relative: Lower

Site Name : 16308500
21.654028, -157.929944
HI

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 16642784
EPA ID: N/R

NWIS ***(cont.)***

Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	Stream channel
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNA
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	5.45
Contributing Drainage Area :	N/R
Data Reliability :	N/R
Data-Other GW Files :	NNNNNNNN
National Aquifer :	N/R
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	1997
Peak-Streamflow Data End Date :	2020-04-13
Peak-Streamflow Data Count :	21
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	0
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	0
Latitude :	21.654028
Longitude :	-157.929944
Last Date in Agency List :	2021-12-15

Map Id: B16
Direction: WSW
Distance: 0.935 mi., 4935 ft.
Elevation: 33 ft.
Relative: Higher

Site Name : 213950157571203
21.660833, -157.950556
HI

Database(s) : [NWIS]

Envirosite ID: 16647189
EPA ID: N/R

NWIS

Site Identification Number :	213950157571203
Site Type :	Well
Station Name :	3-3957-03 Kahuku P3A-2 (W362-C), Oahu, HI
Agency :	U.S. Geological Survey
District :	N/R
State :	HI

Map Id: B16
Direction: WSW
Distance: 0.935 mi., 4935 ft.
Elevation: 33 ft.
Relative: Higher

Site Name : 213950157571203
21.660833, -157.950556
HI

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 16647189
EPA ID: N/R

NWIS ***(cont.)***

County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	33
Method Altitude Determined :	Interpolated from Digital Elevation Model
Altitude Accuracy :	1.6
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.660833
Longitude :	-157.950556
Last Date in Agency List :	2021-12-15

Map Id: B17
Direction: WSW
Distance: 0.939 mi., 4957 ft.
Elevation: 31 ft.
Relative: Higher

Site Name : 213950157571202
21.660722, -157.950578
HI

Database(s) : [NWIS]

Envirosite ID: 16652061
EPA ID: N/R

NWIS

Site Identification Number :	213950157571202
Site Type :	Well
Station Name :	3-3957-02 W362-B
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	32.00
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.660722
Longitude :	-157.950578
Last Date in Agency List :	2021-12-15

Map Id: 18
Direction: WSW
Distance: 0.947 mi., 5002 ft.
Elevation: 123 ft.
Relative: Higher

Site Name : WINDMILL
21.661806, -157.951139
KAHUKU, HI

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 37108715
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2020-08-11
Action :	Change
FAA Study Number :	2016WTW11525OE
OBS Number :	15-022263
Obstacle Type :	WINDMILL
City Name :	KAHUKU
State Identifier :	HI
Country Identifier :	USA
Type of Lighting :	Synchronized Red Lighting
Verification Status :	Verified
Quantity :	1
Mark Indicator :	White Paint Only
Above Ground Level Height (Feet) :	00568
Above Mean Sea Level Height (Feet) :	00680
Horizontal Accuracy :	+-250'
Vertical Accuracy :	+-50'
Latitude :	21 39 42.50N
Longitude :	157 57 04.10W

Map Id: 19
Direction: NW
Distance: 0.949 mi., 5010 ft.
Elevation: 17 ft.
Relative: Lower

Site Name : POLE
21.674583, -157.9485
KAHUKU, HI

Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 1924018
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2010-12-22
Action :	Add
FAA Study Number :	2010AWP04960OE
OBS Number :	15-020046
Obstacle Type :	POLE
City Name :	KAHUKU
State Identifier :	HI
Country Identifier :	USA
Type of Lighting :	None
Verification Status :	Verified
Quantity :	1
Mark Indicator :	None
Above Ground Level Height (Feet) :	00100
Above Mean Sea Level Height (Feet) :	00113
Horizontal Accuracy :	+-20'
Vertical Accuracy :	+-20'
Latitude :	21 40 28.50N
Longitude :	157 56 54.60W

Map Id: 20
Direction: WSW
Distance: 0.952 mi., 5025 ft.
Elevation: 27 ft.
Relative: Higher

Site Name : 16310501
21.659722, -157.950306
HI

Database(s) : [NWIS]

Envirosite ID: 16643940
EPA ID: N/R

NWIS

Site Identification Number :	16310501
Site Type :	Stream
Station Name :	Malaekahana Str at alt 30 ft nr Kahuku, Oahu, HI
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	30
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NANNNNNNNNNNNNNNNNNNNNNNNNNNA
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	4.06
Contributing Drainage Area :	N/R
Data Reliability :	N/R
Data-Other GW Files :	NNNNNNNN
National Aquifer :	N/R
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	0
Peak-Streamflow Data Begin Date :	1958-10-23
Peak-Streamflow Data End Date :	2020-04-13
Peak-Streamflow Data Count :	62
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	0
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	0
Site-Visit Data Begin Date :	1982-03-21
Site-Visit Data End Date :	2014-07-21
Site-Visit Data Count :	10
Latitude :	21.659722
Longitude :	-157.950306
Last Date in Agency List :	2021-12-15

Map Id: B21
Direction: WSW
Distance: 0.955 mi., 5045 ft.
Elevation: 36 ft.
Relative: Higher

Site Name : 213950157571300 | 213950157571301 | 213950157571304
21.660722, -157.950856
HI

Database(s) : [NWIS]

Envirosite ID: 16652062
EPA ID: N/R

NWIS

Site Identification Number :	213950157571304
Site Type :	Well
Station Name :	3-3957-04 W362-D
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	32.00
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.660722
Longitude :	-157.950856
Last Date in Agency List :	2021-12-15

Site Identification Number :	213950157571301
Site Type :	Well
Station Name :	3-3957-01 W362-A

Map Id: B21
Direction: WSW
Distance: 0.955 mi., 5045 ft.
Elevation: 36 ft.
Relative: Higher

Site Name : 213950157571300 | 213950157571301 | 213950157571304
21.660722, -157.950856
HI

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 16652062
EPA ID: N/R

NWIS ***(cont.)***

Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	32.00
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Data have been checked by the reporting agency.
Data-Other GW Files :	YYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.660722
Longitude :	-157.950856
Last Date in Agency List :	2021-12-15

Site Identification Number :	213950157571305
Site Type :	Well
Station Name :	3-3957-05 W362-E
Agency :	U.S. Geological Survey
District :	N/R
State :	HI

Map Id: B21
Direction: WSW
Distance: 0.955 mi., 5045 ft.
Elevation: 36 ft.
Relative: Higher

Site Name : 213950157571300 | 213950157571301 | 213950157571304
21.660722, -157.950856
HI

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 16652062
EPA ID: N/R

NWIS ***(cont.)***

County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	32.00
Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1930-01-01
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	373
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.660722
Longitude :	-157.950856
Last Date in Agency List :	2021-12-15

Site Identification Number :	213950157571300
Site Type :	Multiple wells
Station Name :	3-3957-01 TO 06
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R

Map Id: B21
Direction: WSW
Distance: 0.955 mi., 5045 ft.
Elevation: 36 ft.
Relative: Higher

Site Name : 213950157571300 | 213950157571301 | 213950157571304
21.660722, -157.950856
HI

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 16652062
EPA ID: N/R

NWIS ***(cont.)***

Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	32
Method Altitude Determined :	N/R
Altitude Accuracy :	1
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	NYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.660722
Longitude :	-157.950856
Last Date in Agency List :	2021-12-15

Site Identification Number :	213950157571306
Site Type :	Well
Station Name :	3-3957-06 W362-F
Agency :	U.S. Geological Survey
District :	N/R
State :	HI
County :	Honolulu County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	KAHUKU, HI
Scale of Location Map :	24000
Altitude of Gage/Land Surface :	32.00

Map Id: B21
Direction: WSW
Distance: 0.955 mi., 5045 ft.
Elevation: 36 ft.
Relative: Higher

Site Name : 213950157571300 | 213950157571301 | 213950157571304
21.660722, -157.950856
HI

Database(s) : [NWIS] ***(cont.)***

Envirosite ID: 16652062
EPA ID: N/R

NWIS ***(cont.)***

Method Altitude Determined :	Interpolated from topographic map.
Altitude Accuracy :	5
Altitude Datum :	Local Mean Sea Level
Hydrologic Unit :	Oahu
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Flags for Instruments at Site :	NNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	1930-01-01
Date Site Established or Inventoried:	N/R
Drainage Area :	N/R
Contributing Drainage Area :	N/R
Data Reliability :	Unchecked data.
Data-Other GW Files :	YYNNNNNN
National Aquifer :	Hawaii volcanic-rock aquifers
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	384
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	N/R
Peak-Streamflow Data Begin Date :	N/R
Peak-Streamflow Data End Date :	N/R
Peak-Streamflow Data Count :	N/R
Water-Quality Data Begin Date :	N/R
Water-Quality Data End Date :	N/R
Water-Quality Data Count :	N/R
Field Water-Level Measurements Begin Date:	N/R
Field Water-level Measurements End Date:	N/R
Field Water-Level Measurements Count:	N/R
Site-Visit Data Begin Date :	N/R
Site-Visit Data End Date :	N/R
Site-Visit Data Count :	N/R
Latitude :	21.660722
Longitude :	-157.950856
Last Date in Agency List :	2021-12-15

RADON DATA:

STATE SOURCE: No Available Data

FEDERAL AREA RADON INFORMATION FOR: No Available Data

NUMBER OF SAMPLE SITES: No Available Data

FEDERAL EPA RADON ZONE FOR HONOLULU COUNTY: Zone = 3

Note: Zone 1 indoor average level > 4 pCI/L

: Zone 2 indoor average level > = 2 pCI/L and <= 4 pCI/L

: Zone 3 indoor average < 2 pCI/L

HIST PWS ENF
Historical Public Water Supply locations with Enforcement Violations
Environmental Protection Agency
(800) 426-4791
List of Safe Drinking Water Information Systems (SDWIS) with enforcement violations that are no longer in current agency list.

NWIS
National Water Information Systems
United States Geological Society
(703) 648-5953
Information on all water resources for the United States. This database contains all current and historical data for the nation.

PWS
Public Water Supply
Environmental Protection Agency
(800) 426-4791
Safe drinking water information Systems

PWS ENF
Public Water Supply locations with Enforcement Violations
Environmental Protection Agency
(800) 426-4791
Safe drinking water information Systems with enforcememnt violations

FLOOD Q3
Flood data
Environmental Protection Agency
(202) 566-1667
Q3 Flood Data

HYDROLOGIC UNIT
Hydrologic Unit Maps
USGS
The United States Geological Survey created a hierarchical system of hydrologic units originally called regions, sub-regions, accounting units, and cataloging units. Each unit was assigned a unique Hydrologic Unit Code (HUC). As first implemented the system had 21 regions, 221 subregions, 378 accounting units, and 2,264 cataloging units. Over time the system was changed and expanded. As of 2010 there are six levels in the hierarchy, represented by hydrologic unit codes from 2 to 12 digits long, called regions, subregions, basins, subbasins, watersheds, and subwatersheds. The table below describes the system's hydrologic unit levels and their characteristics, along with example names and codes.

WETLANDS NWI
National Wetland Inventory
U.S. Fish and Wildlife Service
(703) 358-2171
Wetland Inventory for the United States

SSURGO
Detailed Soil Data Map
Natural Resources Conservation Service: U.S. Department of Agriculture
(202) 690-4985
Detailed Soil Data Map

STATSGO & MUI
General Soil Data Map
Natural Resources Conservation Service: U.S. Department of Agriculture
(202) 690-4985
General Soil Data Map

USGS GEOLOGIC AGE
USGS Digital Data Series DDS
Natural Resources Conservation Service: U.S. Department of Agriculture
(202) 690-4985
USGS Digital Data Series DDS: Geologic Age and Rock Stratigraphic Unit

RADON
National Radon Database
U.S. Environmental Protection Agency
215-814-2469
A study of the EPA/State Residential Radon Survey and the National Residential Radon Survey.

RADON EPA
RADON EPA
U.S. Environmental Protection Agency
215-814-2469
EPA list of Radon zones

AIRPORT FACILITIES
Airport landing facilities
Federal Aviation Administration
(866) 835-5322
Airport landing facilities

BASINS
Better Assessment Science Integrating point & Non-point Sources
U.S. Environmental Protection Agency
855-246-3642
Integrated geographical information system national watershed data and environmental assessment known as Better Assessment Science Integrating point & Non-point Sources

DIGITAL OBSTACLE
Obstacles of interest to aviation users
Federal Aviation Administration
855-379-6518
The Digital Obstacle File describes all known obstacles of interest to aviation users in the U.S. with limited coverage of the Pacific the Caribbean Canada and Mexico. The obstacles are assigned unique numerical identifiers; accuracy codes and listed in order of ascending latitude within each state or area by FAA Region.

EPICENTERS
National Geographical Data Center
National Geographical Data Center
303-497-6826
List of recent and historic earthquakes and information.

FLOOD DFIRM
National Flood Hazard Layer Database
Federal Emergency Management Agency
The National Flood Hazard Layer Database (NFHL) is a computer database that contains the flood hazard map information from FEMAs Flood Map Modernization program. These map data are from Digital Flood Insurance Rate Map (DFIRM) databases and Letters of Map Revision.

APPENDIX

E:Aerial Imagery

Site boundaries shown in red are approximate

KE PIKI OHANA LLC 56-229 Kamehameha Highway Kahuku, HI	N	**2017** HIG Project # 2060501 Client Project # Approximate Scale 1: 6,000 (1"=500') www.historicalinfo.com	HIG

Site boundaries shown in red are approximate

KE PIKI OHANA LLC
56-229 Kamehameha Highway
Kahuku, HI

N

2008

HIG Project # 2060501
Client Project #
Approximate Scale 1: 6,000 (1"=500')
www.historicalinfo.com

HIG

Site boundaries shown in red are approximate

KE PIKI OHANA LLC
56-229 Kamehameha Highway
Kahuku, HI

N

2005

HIG Project # 2060501
Client Project #
Approximate Scale 1: 6,000 (1"=500')
www.historicalinfo.com

HIG

Site boundaries shown in red are approximate

KE PIKI OHANA LLC
56-229 Kamehameha Highway
Kahuku, HI

N

2000

HIG Project # 2060501
Client Project #
Approximate Scale 1: 6,000 (1"=500')
www.historicalinfo.com

HIG

Site boundaries shown in red are approximate

KE PIKI OHANA LLC
56-229 Kamehameha Highway
Kahuku, HI

N

1993

HIG Project # 2060501
Client Project #
Approximate Scale 1: 6,000 (1"=500')
www.historicalinfo.com

HIG

Site boundaries shown in red are approximate

KE PIKI OHANA LLC
56-229 Kamehameha Highway
Kahuku, HI

N

1977

HIG Project # 2060501
Client Project #
Approximate Scale 1: 6,000 (1"=500')
www.historicalinfo.com

HIG

Site boundaries shown in red are approximate

KE PIKI OHANA LLC
56-229 Kamehameha Highway
Kahuku, HI

N

1974

HIG Project # 2060501
Client Project #
Approximate Scale 1: 6,000 (1"=500')
www.historicalinfo.com

HIG

Site boundaries shown in red are approximate

KE PIKI OHANA LLC 56-229 Kamehameha Highway Kahuku, HI	N	**1965** HIG Project # 2060501 Client Project # Approximate Scale 1: 6,000 (1"=500') www.historicalinfo.com	HIG

Site boundaries shown in red are approximate

KE PIKI OHANA LLC
56-229 Kamehameha Highway
Kahuku, HI

N

1962

HIG Project # 2060501
Client Project #
Approximate Scale 1: 6,000 (1"=500')
www.historicalinfo.com

HIG

Site boundaries shown in red are approximate

KE PIKI OHANA LLC
56-229 Kamehameha Highway
Kahuku, HI

N

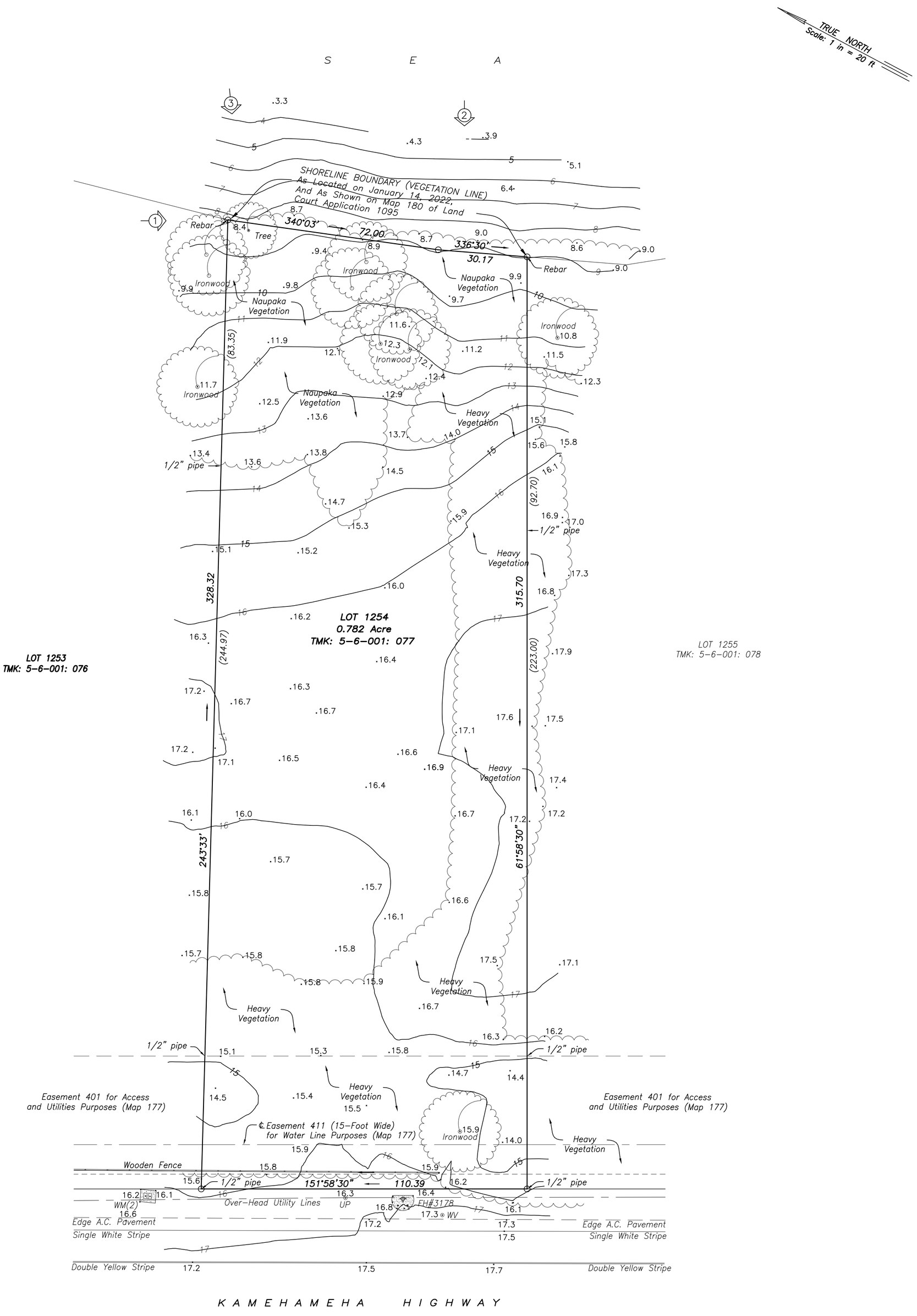
1951

HIG Project # 2060501
Client Project #
Approximate Scale 1: 6,000 (1"=500')
www.historicalinfo.com

HIG

APPENDIX

F: Site Photos, Topographical Map,
Flood Hazard Map
& Soil Mapping



LEGEND:

FH – Fire Hydrant
UP – Utility Pole
WM – Water Meter

NOTES:

1. Direction of photographs taken on January 14, 2022 at 3:48 PM
2. Elevations were referred to bench mark, Z-15 (disk) (TU0502) with an elevation of 13.01 Ft. (MSL).
3. Shoreline as shown is subject to Final Certification by the Department of Land and Natural Resources as recommended by the Hawaii State Land Surveyor.
4. FIRM Panel No. 15003C0386G
   FIRM Index Date: November 05, 2014
   FIRM Effective Date: January 19, 2011
   Flood Zone: X

This work was prepared by me or under my supervision

GIL P. BUMANGLAG
Licensed Professional Land Surveyor
Certificate Number 8948
Exp. Date: April 30, 2022

GIL P. BUMANGLAG
LICENSED PROFESSIONAL LAND SURVEYOR
No. 8948
HAWAII, U.S.A.

SHORELINE SURVEY AND TOPOGRAPHIC SURVEY MAP

LOT 1254 AS SHOWN ON MAP 180
LAND COURT APPLICATION 1095

Tax Map Key: (1) 5-6-001: 077

AT MALAEKAHANA, KOOLAULOA, OAHU, HAWAII

(Site Address: 56-229 Kamehameha Highway Kahuku, HI)

Owner: KE PIKI OHANA, LLC

Address: 56-229 Kamehameha Highway
Kahuku, Hawaii 96731

DATE: JANUARY 14, 2022

c:\shore\KAM-HWY-56-229-TOPO-GIL

GIL SURVEYING SERVICES, LLC
1442 UILA STREET HONOLULU HAWAII 96818

21" x 32" = 4.67 sq. ft.

APPENDIX

G: References

References

U.S. Environmental Protection Agency: Rules for All Appropriate Inquiries

U.S. F&W National Wetlands Inventory: https://www.fws.gov/wetlands/

Historical Information Gatherers: www.historicalinfo.com

National Center for Environmental Health: https://www.cdc.gov/nceh/data.htm

Flood Hazard Assessment Tool: http://gis.hawaiinfip.org/FHAT/

ArcMap GIS Oahu: https://www.arcgis.com/home/webmap/viewer.html?webmap=402854e56d044454a35c4a458d09bd78

Drone Mapping Guidance: https://www.digmap.com/ & https://www.dronezon.com/learn-about-drones-quadcopters/multispectral-sensor-drones-in-farming-yield-big-benefits/

Hydrology: https://waterdata.usgs.gov/nwis/inventory/?site_no=16200000&agency_cd=USGS

Soils: https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=HI

APPENDIX

H: Resume

Mark Howland

Principal Program Manager
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Education

- ✓ B.S. Biology – Southeastern Massachusetts University (now UMASS Dartmouth)
- ✓ M.S. Public Affairs with concentration in Environmental Policy – UMASS Boston

Highlights/Certifications/Professional Training

- ✓ Certified Project Manager,
- ✓ Natural Resource Management and Land Rehabilitation;
- ✓ NEPA Specialist and Pollution Investigator under 21E, Phase Levels 1-3;
- ✓ Wetlands and Wildlife Biologist; EA, EIR, and EIS development;
- ✓ BioMimicry Designer;
- ✓ Erosion Control Professional,
- ✓ Stormwater Mitigation Expert;
- ✓ Aquaculture and Hydroponics Specialist,
- ✓ Senior Principal Engineer- Environment, Senior Program Manager/Group Leader;
- ✓ CEO, COO and Principal Office Manager.
- ✓ Honolulu Authority for Rapid Transportation (HART) Voting Board Member

Awards/Recognition

- ✓ Winner of EPA Environmental Technology Innovator Award for erosion control product development in 1999
- ✓ Winner of EPA Environmental Technology Innovator Award for stormwater mitigation design in 1998.
- ✓ EPA Environmental Merit Award in 2000.
- ✓ Business Development Leader selected by State and Federal Government for Trade Missions to France, England, Northern Ireland, Ireland, Germany, Japan, China and Australia to represent the environmental industry.
- ✓ ACECH Design Award 2012 for pollution mitigation design.

Years of Experience

40+

Security Clearance

LEVEL: Confidential, DoD CAD card issued for Army/Air Force work

Professional Summary

Technical, Management and Cooperative Abilities and Skills

Staff Management, Contracts and Budgets

Office management, executive policies, budgetary planning and processing, grant and contract development, employee hiring and staff supervision. Familiarity with Army, Marine, and Air Force contracting. Responsibilities include performance management of staff of 14, development of materials, documents, briefs and handouts, as well as equipment, and budgets. Past budgetary responsibility with levels in excess of $22 million. Have managed staffs as large as 33 employees, and projects with $25-$100 million budgets. Public Policy experience (State Representative) in the Legislature ($30 billion budget) and Municipal (Selectman) levels ($18 million budget). Chair of the Board of

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Selectmen, Chair of Municipal Board of Health, Chair of Soil Conservation Zoning Board, Municipal Personnel Committee member, Police Commissioner. Chair Conservation Commission (2 communities), Conservation Agent (4 communities). Program Management with both immediate staff supervision and with remote located technical teams/individuals for assembling projects for client fulfillment. Interactive environmental contract experience with the military (Army, Air Force, Marines) and decades of experience in the environmental field.

NEPA Experience

NEPA documentation, permit application and investigative studies with preparation and review. Federal work with the USDA/NRCS, DoD/Army, Air Force, Army OEA, ACOE, EPA and other federal agencies. State Agencies work in the Northeast U.S., Florida and Hawai'i such as here in Hawai'i with the HDOT, HDOH CWB, HDOH HEER, DOFAW, DBEDT, HDOA, DNLR, CZM, and DAR. Private NEPA work for utility companies such as L3 Communications, MFS Network Technologies, Verizon, ComElectric and others. Local work with C&C of Honolulu agencies such as Mayor's Office, OED, HART, DPP, ENV. Comparable experience with counterpart agencies in states from Maryland to Maine (Northeast corridor) and Florida (Disney). Environmental Compliance (Qa/Qc) for base operations with the Army and Air Force.

Instructional Experience

- ✓Lecturer, Cape Cod Community College – aquaculture
- ✓Lecturer, UMASS Dartmouth – aquaculture and hydroponics, environmental policy
- ✓Lecturer – Wellesley College – environmental policy
- ✓Past President, Intl. Erosion Control Assoc. – seminar in erosion control and stormwater management
- ✓Adjunct Professor, HPU – Environmental Impact Assessments Course – ESA, EA, EIS

Natural Resource Management

Natural resource management, wetland delineations, wildlife habitat studies, wildlife hazard assessments (WHA), environmental impact statements, environmental assessments, environmental baseline studies, coastal studies, wetland replication and restoration services, wetland species nursery management, wetland and wildlife protection products, experience in land rehabilitation practices, wildlife biology, botany, forestry and other types of applied ecology. All work environments from tropics to alpine. Ability to work in rough terrain under extreme weather conditions. Project count over the last four decades in this field in excess of 28,000 studies conducted by self or under my direction as owner of firm(s).

Communications and Public Relations

Ability to make public presentations on technical issues and policy directives. As a Selectman and State Representative, attended, conducted, organized and presented public hearings, seminars, organizational forums and Q & A sessions. As a Manager, Business Owner and Corporate Group Leader, responsibility was for client interactions, client presentations, public presentations, community outreach and technical presentations. Interaction with community groups, federal, state and local agencies, DoD decision makers, State and Federal legislative bodies and committees. Example is the presentation of a Lesson Learned PowerPoint demonstration to the North Shore Neighborhood Board on behalf of the U.S. Army U.S. Garrison Hawai'i on advances in stormwater and erosion control methods used during Army land rehabilitation efforts.

Hazardous Materials Coordination

Spill prevention plans, along with pollution prevention studies, and hazardous materials and waste mitigation.

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Environmental Site Assessments, 21Es, Phase I and Phase II hazardous materials studies and worked on projects where environmental remediation activities were conducted serving as the site overseer and controlling the hazardous materials testing regime. Experienced in characterizing soil, air and water HazMat incidents.

Stormwater Mitigation and Erosion Control

Drainage calculations, erosion control designs and products, stormwater mitigation designs and products, slope and bank stabilization designs and products, Stormwater Mitigation Plans, Storm Water Pollution Prevention Plans (SWPPP), erosion control monitoring plans, mitigation monitoring plans (MMP), Best Management Practices (BMP) plans.

Sustainability

Environmental audits, energy audits and lighting inventories, lumen analysis, sustainability studies, baseline environmental management systems, identify and research sustainability initiatives as related to energy, water, waste, design, sourcing, decision-making and marketing/education. Prioritized implementation of sustainability projects to maximize cost savings and green marketing promotion. Developed LEED grant applications to support sustainability initiatives.

Renewable Energy – Wind, Solar, Biomass and innovations

Experience in renewable energy source selection of wind, solar or biomass based on need, client preference and siting. Familiar with large wind and small wind systems as well as solar thermal and solar photovoltaic. Environmental permitting, environmental impacts and regulatory compliance. Work with energy balancing systems such as harmonic filters, sensors, timers, etc…Fatal Flaw or Critical Issues Analysis and siting reviews. Onshore and Offshore experience. Public involvement and baseline studies for wildlife issues, habitat mapping, modeling, visual impact analysis and mitigation and monitoring plans.

Permitting

Prepared applications and support documentation for all environmental permits such as shoreline setback variances, noise permits, special management area permits, CZM and floodplain permits, 404/401 permits, MS4 approvals, NPDES applications, Notice of Intents, Records of Environmental Consideration, Requests for Determinations, EA, EIR and EIS etc…

Horticulture and Crop Technology

Experience with a variety of crop technologies. Expertise in aquaculture, hydroponics and traditional greenhouse operations. Grew up in traditional greenhouse operations business with a wide variety of plant and shrub species such as geraniums, poinsettias, chrysanthemums, annuals, perennials, herbs and more. Owner and Operator of New England's largest wetland plant nursery with over 400 species cultivated from seed or cuttings. Owner and Operator of aquaculture operations for trout and prawn species. Owner and operator of hydroponics facilities often integrated with aquaculture operations in an aquaponics setting with species such as strawberries, mache lettuce, haricot vert green beans, oyster mushrooms and over 500 other cultivars. Experienced with Green Roof Technology, diverse growing systems, water management and a host of other operational parameters of growing systems.

Biomimicry Design

Biomimicry principles offer "fresh architectural solutions" for landscapes such as coastal areas susceptible to flooding. Biomimicry is using designs that draw inspiration from the intricate ways that plants and animals have adapted to their situations over hundreds of millions of years. Award-winning eco-designs expertise using Biomimicry principles. Award winning designer of BioFence ™ – the biodegradable siltation fence and the

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Howland Swale ™ – the EPA award winning stormwater mitigation design presented by VP Al Gore. Hawaii's 2013 ACECH award for pollution mitigation design in Hawaii for dry dock copper and zinc discharges mitigation at the Campbell Industrial Park.

Geographical Information Systems

Experience with geographical information systems such as ESRI/ArcMap, GPS usage of (GIS) and GPS (Trimble) equipment. Have a working knowledge and experience with a variety of computer software and technologies, including GIS software. Developed skills in data collection, use of geographical position systems (GPS), and database development.

Marine Environment Experience

Experience with coastal environs such as dock and pier studies, shellfish inventories, beach erosion mitigation designs. Associate member of New England Fisheries Development Council and Aquaculture Coordinator and Public Outreach Coordinator for the New England Fisheries Steering Committee. Worked with many fisheries trade groups, fishermen organizations, fish processors, vessel operators, Coast Guard, NMFS, NOAA and state agencies. Sample project was an EIS for the undersea fiber optic cable from Green Hill Beach in Rhode Island to London for habitat impact, current impact, vessel interference, maintenance issues and more…

Aquaculture and Hydroponic Experience

Operator and Manager of Aquaculture and Hydroponics operations. Experience with the culture of over 400 species including but not limited to trout, prawns, oysters, mussels, haricot vert, mache lettuce, strawberries, etc… all with integrated aquaponic systems.

Greenscaping and BioEngineering

Experience with environmental appraisal and design enhancement of land and properties. Designed environmental improvements for water management, land maintenance, aesthetics appeal and environmental correctness. Work on resort properties such as hotels and golf courses to design green roofs, songbird gardens, stormwater gardens, porous pavements, wildlife buffer and research zones and greenscaping maintenance alternatives to grass. Considered one of the nation's top experts in stormwater bioengineering designs for pollution mitigation at residential, commercial and governmental facilities. Complete project management from visionary design to concept development to implementation to post-construction review. Cost appraisal of both implementation costs and value-added bioengineering's present and future values. Sample project was as the lead design consultant for WED Enterprises (Disney) for "*The Land"* exhibit at EPCOT Center, Florida and environmental assessment consultant for Disney Imagineering in Tokyo Disney, Japan; EuroDisney, France and future hotel/resort sites in Kauai and South Carolina.

Policy

Ability to work with diverse issues that may not fall under established practices or guidelines. Ability to resolve complex issues by working with stakeholder organizations and to find creative solutions to land use requirements with environmental compliance and conservation goals. Written and oral communication skills. Have the ability to work independently with limited supervision. Board of Health Chairman, Soil and Land Conservation Zoning Board Chairman, Police Commissioner. Personnel Board member.

Present Experience

Present – COO/Chief Biologist, WHALE Environmental Services, LLC, North Shore, Oahu 2009-present

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Professional Duties - wetland and wildlife expert, aquatic design, environmental and energy audits and inventories, land rehabilitation specialist, erosion control and stormwater mitigation specialist and environmental design and planning.

Current and past 2014-2021project(s): Environmental Audit for Turtle Bay Resort; Environmental Coordination Services for Environmental Management System implementation at Turtle Bay Resort. Energy Audit and Implementation; EIS for Biomass facility siting; Energy Audits for HECO DR program; and private firm energy audits. DLNR West Maui Coral Reef Resiliency Study. Named Conservation Champion of Turtle Bay Resort in May 2014. Waimea Valley Environmental and Energy Coordination Services. DOFAW Phase I Keana Point, NELHA DBEDT Biota and Benthic Study, HDOA/ABC Phase I 77 acres Dole Foods; OHA Energy Consultant; Leidos Contract for NEPA Office Development; C&C of Honolulu DoD Project Coordinator for Community Interaction, HDOT – A Wildlife Hazard Assessment, Kalaeloa Airport, DOFAW – Waihee Ridge Trail EA, Turtle Bay Forest/Landscape Management and Safety Plan; HDOA/ABC Phase I 287 acres Dole Foods, HDOA/ABC Phase I 900 acres Dole Foods, HDOA/ADC Phase I 89 acres UH Hawaii, HDLNR/F&W Phase I 800 acres Molokai; DOFAW Wood Utilization Analysis, DOFAW – Forest Products Price Analysis; DOFAW – EA Lower Waiohuli Trails, Coca Cola Mapunapuna – NPDES work and Water Source Viability Study, Daniel K. Inouye Intl. Airport Stormwater Monitoring.

Selected Previous Experience

Hawaii Business Development and Program Manager, URS 2013-2014

Professional Duties – Responsible for URS Business Development interests in Federal Interactions. Dual role serving as Project Manager and Program Manager for URS awarded contracts. Client interaction, technical expertise and subject matter expert for various projects and project team review and supervision. Key services provided to DoD clients such as Navy, Army, Marines and Air Force; and federal agencies such as USFW, NRCS, EPA, FAA, NOAA and NMFS.

Division Manager for Environmental & Planning Services, URS, Honolulu Hawaii. 2012-2013

Professional Duties–Principal-in-Charge to manage the URS Honolulu Office staff in the Environmental & Planning Services division. Responsibility to manage federal, state, local and private projects. Develop and implements strategic marketing plans with proposal preparation and presentation to the government, industrial and private market sectors. Significant HEPA and NEPA interactions along with state and federal agency regulatory compliance. Environmental and Planning Division leadership for project teams conducting environmental compliance, site assessment & remediation, GIS support services, environmental sciences, sustainability, planning and military solutions. Supervise team leaders, responsible for the day-to-day operations of the group comprised of project managers, technical specialists and junior level planners. Responsible for hiring, staff utilization, group sales goals, mentoring, financial control, quality assurance and business development and marketing.

Permits Coordinator, Honolulu Authority for Rapid Transportation (HART), Honolulu, Oahu – Honolulu Rail Transit Project *2011-2012*

Professional Duties – Coordinated the Permits Program at HART, responsible for oversight of all 12,000+ permits for the Oahu Rail Project including but not limited to environmental permits such as

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shoreline setback variances, noise permits, special management area permits, CZM and floodplain permits, 404/401 permits, MS4 approvals, NPDES applications, etc… Also responsible for general construction permitting along with coordination with contractor resident engineers, regulatory agencies on City and County, State and Federal levels and other affected parties. Familiar with Oracle's Primavera P6 Enterprise Project Portfolio Management and scheduling and CMS Contracts Management System. HART HazMat liaison and auditor for Phase I, Phase II and Hazardous Materials (HazMat) studies and submittals.

Selected Previous Projects

Program Manager, NEPA Specialist WHALE Environmental Services LLC
Project Name: Technical Assistance to Air Force Natural Resources Program
Company work was performed for: U.S. Air Force/TEAM Integrated Engineering, LLC
Hickam Air Force Base, Oahu *August 2009 – August 2010*

Professional Duties - Managed TEAM IE's Global Engineering, Integration and Technical Assistance (GEITA) contract. Provided and supervised NEPA and NHPA personnel at the Air Force's Natural Resources Program at Hickam Air Force Base. Support, assist, and facilitate implementation of regulatory environmental programs. Provided expertise in the preparation of environmental baseline studies, environmental audit of joint basing requirements, environmental permits, and coordination with historical and architectural needs. Coordinate and monitor NEPA efforts. Ensure Air Force interests are represented and composed of the following: real estate site review and planning, and interaction with consultants, and federal and government civil servants of US Air Force agencies and others. Wrote Environmental Baseline Studies and Joint Base Pearl Harbor/Hickam Environmental Base Closure Plan under an AFCEE $230,000 contract.

Selected Previous Projects

Senior Principal Engineer - Environment, ITAM Coordinator, Directorate of Planning, Training, Mobilization, and Security (DPTMS) U.S. Army, Schofield Barracks Company work was performed for: General Dynamics Informational Technology at *Schofield Barracks, Kahuku Training Area, South Range, East Range, Kunia Training Area, Makua Training Area, Dillingham Air Field, Pohakuloa Training Area. Coordination with Marine Training Programs at Camp Smith and Kaneohe Base.* *August 2008-August 2010*

Professional Duties - Managed the U.S. Army's Hawaii Garrison's Integrated Training Areas Management (ITAM) program, coordinated, executed, and assisted in all ITAM program components, including Land Rehabilitation and Management (LRAM), Range and Training Land Assessment (RTLA), Training Requirements Integration (TRI), Sustainable Range Awareness (SRA), and Geographic Information Systems (GIS). Direct, support, assist and facilitate implementation of regulatory environmental programs. Provided expertise in the preparation of scopes of work for land inventory and monitoring, land rehabilitation projects and management, environmental awards, and training/environmental integration requirements. Prepared Independent Government Cost Estimates (IGCEs), Statements of Work (SOWs) and Requests for Statement of Qualifications (SOQs). Selected firms for contracts based on submissions. Coordinate and monitor NEPA efforts that affect the Directorate of Planning, Training, Mobilization and Security (DPTMS) and other military agencies in the region. Ensure DPTMS interests are represented and composed of the following: 5 year Master

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Planning Cycles, real estate site review and planning, and interaction with DPW Facilities, USAGHI, Kaneohe Marine Base Hawaii, consultants, and federal and government civil servants of US Army agencies and others. Coordinate mitigation and workarounds between users (DPTMS) and federal agencies such as EPA, NRCS, and ACOE. Coordinated permitting activities with State of Hawaii DOH. Conduct basic environmental assessments, environmental impact statements, records of environmental consideration, review permit approvals, and file notice of intents. Provided information to support installation command decisions. Worked with military training schedules to help insure that training lands are available in sufficient quality and land status to successfully accomplish the requested training. Experience in land management of over 153,000 acres of US Hawaii Army training lands on Oahu and the Big Island. Reviewed NEPA documents, assists in project scoping efforts, updates program management modules and provides expertise and assistance to the DPTMS Range Division Office staff. Coordinates with the USAGHI Installation environmental staff to assist the Installation land managers in making informed land management decisions and coordinating military land use requirements. Sought new funding sources for Army land restoration projects. Succeeded in acquiring $22 million for new projects.

Selected Previous Projects

Land Rehabilitation and Maintenance Coordinator (LRAM), Directorate of Planning, Training, Mobilization, and Security (DPTMS) U.S. Army, Schofield Barracks Company work was performed for: Colorado State University's Center for Environmental Management of Military Lands (CEMML) at *Schofield Barracks, Kahuku Training Area, South Range, East Range, Kunia Training Area, Makua Training Area, Dillingham Air Field, Coordination with Marine Training Programs at Kahuku Training Area for Marines from Kaneohe Base.* *August 2007-August 2008*

Professional Duties - Support, assist, and facilitate implementation of regulatory environmental programs. Provided expertise in the preparation of scopes of work for land rehabilitation projects and management, and training/environmental integration requirements. Coordinate and monitor NEPA efforts that affect DPTMS and other military agencies in the region. Ensure DPTMS interests are represented with interaction with DPW Facilities, USAGHI, Kaneohe Marine Base Hawaii, consultants, and federal and government civil servants of US Army agencies and others. Coordinated permitting activities with State of Hawaii DOH and Section 106 consultations. Conduct basic environmental assessments, environmental impact statements, records of environmental consideration, review permit approvals, and file notice of intents. Provided information to support installation command decisions. Worked with military training schedules to help insure that training lands are available in sufficient quality and land status to successfully accomplish the requested training. Reviewed NEPA documents, assists in project scoping efforts, updates program management modules and provides expertise and assistance to the DPTMS Range Division Office staff.

Other Sample Projects

Program Manager, Chief Biologist, Environmental Research Corps
Company work was performed for: Kiewit Pacific
Drum Road, Kawailoa, Oahu *January 2008-April 2010*
Environmental Consultant responsible for the preparation of General Best Management Plan (BMP) plan for $39 million

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dollar Army Corps of Engineers Drum Road construction project. Duties included field investigations of site-specific BMP needs for erosion control needs, design, stormwater mitigation needs as exhibited by the development of a Storm Water Pollution Prevention Plan (SWPPP), and NEPA permit narratives. Also responsible for QA/QC for BMP implementation by Kiewit Pacific.

Other Sample Projects
Owner/Operator, BioMass Farms
Company work was performed for: P A Landers
Wetland Replication - Carver Massachusetts *Project: October 2002 - November 2004*
Cultivated, transplanted and matured over 400 wetland species for use in a ten acre wetland restoration project. Worked at establishing multi-functional wetlands with all three plant layers – herbaceous, shrub and tree as well as establish correct hydrology and soil regimes. Species induced obligates, facultative wet and facultative species as well as upland species of trees and plants for buffer and wildlife enhancement. Installation of erosion control measures such as BioFence – biodegradable siltation fencing, and Curlex – slope stabilization erosion blankets. Soil enhancements such as mycorizzae fungi, moisture retention agents, organic fertilizers, pest deterrents were employed.

Other Sample Projects
Owner/Operator, Environmental Research Corps
Company work was performed for: IONICS
Saline Marine Environment Mitigation, Bermuda *Project: October 1999 - January 2000*
Design/Construct of a saline mitigation structure for a desalinization plant in Bermuda. IONICS processed seawater to create fresh water for drinking purposes resulted in a waste flow of byproduct of extreme salinized waters. With the use of salt-loving species with large bio-uptakes such as rosemary, successfully reduced high salt levels in discarded desalinization waters back to natural seawater levels. Also completed the EIS for that discharge and the placement and permitting of an under-lagoon fiber optic cable to tie control of the system to the main desalinization plants EMS.

Other Sample Projects
Owner/Operator, New England AquaFarms, Inc.
Company work was performed for: Shaw's Supermarkets
Rhode Island & Massachusetts *Project: 1980 - 1983*
Cultivation of rainbow and brown trout to specific market size for supermarkets sales of farm to table fish species. Designed and erected in-store holding tanks for rainbow trout to insure freshness and the ability to provide a source for "trout en blue" a gourmet dish that requires an less-than-an-hour fish to create a reaction with the protective gelatinous cover on the fish skin reacting with vinegar to turn "blue". Complete design and implementation of aeration and filtrations systems.

Other Sample Projects
Owner/Operator, WHALE Environmental Services LLC *Project: February 2011 -present*
Company work was performed for: Turtle Bay Resort
Environmental and Energy Audit; Environmental Coordination Services for sustainability implementation, Kahuku, HI
Conducted Environmental Audit using EPA's 7 parameter method for evaluation. Expanded audit to detail energy aspects including lighting inventory, runtime analysis and lumen analysis. Assisted in the selection of renewable energy sources such as Solar PV and Bio Carbonization Units. Completed financial analysis of energy implementation designs and efforts.

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Prepared feasibility studies for various energy and water management scenarios. Saved TBR over $1.4M/yr. in costs.

Other Sample Projects

Program Manager, Chief Biologist, Environmental Research Corps
Company work was performed for: WorldCom/MFS Network Technologies
Northeast US Corridor *Project: January 1998-April 2000*

Environmental Consultant responsible for the preparation of all wetlands delineations (2132 locations), wildlife habitat studies and environmental impact statements for fiber optic cable placement of the 1200 mile EZ toll system in New Jersey and the main fiber optic cable East coast backbone line from Washington DC to Green Hill Beach, Rhode Island to London England. Responsible for all federal, state and county/municipal permitting for cable trenching, directional bores and undersea placement.

Sample of Services provided by Environmental Research Corps/WHALE Environmental Services LLC that formed the basis for company contracts on over 28,000 projects.

Array of Services

Wetland Delineations	***Wetland Design & Computer Modeling***
Wetlands Replication & Plantings	***Wetlands Restoration & Mitigation***
Wetlands Maintenance & Management	***Water Quality Monitoring***
Expert Witness	***Site Walks and Public Hearings***
Riverfront Area Delineations	***Environmental Impact Reports***
Natural Resource Inventories	***Wildlife Habitat Designs***
Refuge Construction & Habitat Enhancement	***Vernal Pool Certification***
Endangered Species Review & Wildlife Checklists	***Water Gardens Creation***
Specialized Plantings and Seed Mixtures for Wildlife	***Wildlife Area Evaluations, HCP(s), WHA(s), WEP(s)***
Wildlife Mitigation Products & Barriers	***Sources for Wildlife Enhancing Materials***
Preliminary Assessment of Pollution	***Calculations of Pollution Potential***
Review of Federal and State Files	***Design of Mitigation Structures***
Environmental Audits & Sustainability Reports	***Silt and Sediment Control Products***
Specialists in Constructed Wetlands for Clean-up	***Wetland Impact Solutions***
Constructed Wetlands for Stormwater Runoff	***Stormwater Calculations and Computation***
Review of Stormwater Designs	***Verification of Site Development Modeling***
Inventory of Stormwater Runoff Products	***Water Saving Products***
Specialists in Commercial Pollution Mitigation	***Specialists in Residential Subdivision Runoff***
Narratives for regulatory submission on erosion	***Erosion Potential Calculations and Computation***
Review of Erosion Control Plans	***Inventory of Erosion Control Products***
Specialists in Bank Stabilization	***Leaders in Erosion Control Designs***
Coastal and Inland Wetlands Solutions	***Coastal and Inland Bank Stabilization***
Dock and Pier Impact Studies	***Shellfish Inventories***
Maintenance & Management of Planted Areas	***Permitting and As-Built Narratives***
Design of replication/restoration areas	***Invasive Species and Weed control***
Detailed investigations of hydrology and soil types	***Energy Audits and Inventories***

APPENDIX E

EROSION & SEDIMENTATION CONTROL PLAN

Introduction

The Ke Piki Ohana LLC Property is intending to use this Erosion and Sediment Control (ESCP) plan in coordination with its planned SMA Major submission in coordination with its Environmental Assessment (EA) submission. This ESCP plan is prepared in accordance with Industry Standards. No pollutants shall be allowed to discharge to adjacent waterways directly or indirectly via any storm drain conveyance system or other potential pathway(s) such as sheet flow or concentrated channels. DPP's Building Department will be notified when the site is ready for the initial BMP inspection to ensure that all proper BMPs would be in place two (2) weeks prior to the start of construction activities. A final inspection will be conducted to at the conclusion of the construction activities on-site.

Plan Components

ESCPs includes a narrative section and plan sheets - some of the required content may not be known at the time of contract development (e.g., final building footprints, runoff discharge locations, off-site support areas, etc…) and must be added by the contractor as required by the contract and Permit once construction begins. It is important that each ESCP plan identify site specific risks that may impact waters of the state to ensure the contractor can design, plan for, and bid anticipated work. While there is no required format for an ESCP, there is required content.

The following information must be included in every ESCP narrative:

- **Co-potential impact**s to waters of the state, such as; topography, climate, drainage, soil type, vegetation, waterbody impairment, existing contamination etc.
- **Potential erosion problem areas –** high risk or hard to manage areas or work activities.
- **Planning elements –** include a risk analysis and BMP selections made to manage risks.
- **Construction schedule –** include information about construction phasing relevant to erosion and sediment control and a general BMP implementation schedule.
- **Contingency planning –** identify actions to be taken if performance goals are not achieved.
- **Engineering/Architect drawings and calculations** – include for designed structures like ponds or landscaping areas. (*may be submitted later with the building plans for the Building Permit submission)*.

This plan is prepared for the construction of a residential single family home construction in Kahuku, Hawaii. Construction is intended for 2022/2023 and will commence once all necessary permits have been obtained. The development is on privately owned land with permits to be obtained from the C&C of Honolulu DPP Building Department, who will have the review function of this ESCP.

Submitted by:

Ke Piki Ohana LLC
Date: March 2022

EROSION SEDIMENT CONTROL PLAN NARRATIVE

Ke Piki Ohana LLC Property Residential Single Family Home Construction

Submitted to: **C&C of Honolulu DPP Building Department**

Date: March 2022

ESCP Designer:

WHALE Environmental Services, LLC

Why use an Erosion and Sedimentation Control Plan?

Erosion and sediment control is much more than silt fence and hay bales. Prior to developing an Erosion and Sediment Control Plan (ESCP), it is important to have minimized the areas of disturbed soils and the duration of exposure. It is also imperative to control water at up-slope site perimeters, control water on-site, control sediment on-site, and control sediment at the downslope site perimeters. An ESCP is the final element in the erosion and sediment control planning process and a necessary component of building permit application. The ESCP ensures that sediment transport is addressed in one of the most crucial stages of the project: the planning stage. A good erosion prevention and sediment control plan first minimizes the extent of disturbance by focusing on erosion control (*minimizing disturbed areas, seeding, mulching, matting*) by controlling the amount of soil that can run off and by stabilizing exposed soil. Sediment control measures (*i.e. stabilized construction entrances*) are identified and installed; and then there will be a focus on any sediment that has escaped erosion control measures. Erosion prevention measures are far more effective than sediment control measures (*such as silt fence*) and should be the primary focus of any ESCP. An ESCP has five primary components:

1. Location map (USGS and other)
2. Existing conditions site plan
3. Grading plan and construction timetable
4. Erosion prevention and sediment control site plan and timetable
5. Narrative briefly describing the four plans

The location map shows the proximity of the site to any surface water bodies, roads, etc. and should include a USGS or Aerial map, as well as a map of greater detail. The existing conditions site plan shows the grading and features as they exist. It should also include a soils map for the existing conditions. The grading plan and construction timetable shows the proposed finished contours and addresses sequencing of the project, a key component of erosion control. The timetable does not have to contain specific dates, but should show how each phase of the project relates to the others. This preliminary plan also shows that you have taken steps to minimize the amount of exposed soil at any time. The erosion prevention and sediment control site plan and timetable should be prepared using the grading plan as a base. The site plan used for construction will depict the location of all erosion and sediment control measures recommended by this ESCP and include a timetable of charts the sequencing of control measures. It may be possible to combine the landscaping, grading and erosion control plans. The narrative should briefly describe the four plans; highlight erosion control measures and why they will be effective, site characteristics, and erosion control done in the planning stages, such as phasing the project.

PROJECT INFORMATION

Project name: Ke Piki Ohana LLC Property *(residential development)*
Transfer of Coverage: *Yes/**No*** Permittee: *Ann & Jim Pietsch, Ke Piki Ohana LLC*
Max Elevation Above Sea Level: Eighteen (18) feet

1. Location Map showing property lines of the project, critical natural or man-made features within 3000 feet of the project, including streams, ponds, wetlands, roads, buildings, and utilities sufficient nearby features to allow reviewer to locate the site for an inspection.

Overall Location Map

As can be seen in this overall location map, the Ke Piki Ohana LLC facility lies at the street address of 56-229 Kamehameha Highway, Kahuku HI 96731.

The proposed building site is the layout presented in the conceptual design for the property found in the appendixes (3), Adjacent properties are the Pacific Ocean **East**, and the Kamehameha Highway **West. North & South** are occupied residential lots

As can be seen, the site is already vacant, graded in the past and has a mostly pervious grass surface. There will be minimal grading for the site construction as the existing surface requires only minor grading. The site is very level.

2. Existing Conditions Topographical and Aerial Imagery Plan

- existing topographic contours (5 feet or smaller interval),
- drainage-ways if present,
- water features if present,
- general vegetative cover types within 200 feet of water features (e.g. field, hardwood forest, grass etc.) vegetative cover types in all proposed disturbance areas and areas receiving and treating runoff from the construction site as shown on aerial imagery,
- soil map and key,
- identified sensitive areas (e.g. steep slopes, erodible soils, wet areas),
- structures, roads, utilities,
- north arrow, scale, date, elevation datum, and
- property lines

The proposed construction layout plan in ***Appendix 3*** of the DEA (Conceptual Design), which has these details as well as including the present survey map found in ***Appendix 4*** of the DEA. The historical aerial imagery details are shown in the Environmental Site Assessment, which is found in ***Appendix 7*** of the DEA. References to locations outside of this section are purely for reduction of file size of the DEA and to avoid duplication.

3. Grading Plan and Construction Timetable
   - existing and proposed topographic contours seen in ***Appendix 7 - the ESA***
   - limits of soil disturbance and method to be used for demarcation of these limits on site
     There is minimal soil disturbance, soil entry largely limited to insertion of foundation materials into the existing soils or concrete slabs for the new dwelling. The Geotechnical Report is also included ***Appendix 7*** *of the DEA. Any excess soil from any activities will be removed from the site. Amount is expected to be minimal.*
   - areas of various construction phases, including sequential and concurrent activities
     Sequencing is expected to be assembly of the new residential components including grading and foundation work using the proposed conceptual layout shown in ***Appendix 3*** *of the DEA,* ***,*** *followed by assembly on-site of the carport-garage conversion, followed by refinishing of driveways in the forepart of the site*
   - proposed structures, roads, utilities ***Appendixes 3 & 4***
   - location of topsoil stockpiles, staging areas, equipment storage, and refueling/maintenance areas and stump disposal areas ***TBD***
   - location of disposal areas for excess soil (include map if off-site) ***TBD***
   - boundaries for undisturbed riparian buffers ***See Shoreline Setback map in Appendix 2 in the DEA***
   - north arrow, scale, date, elevation datum ***Appendix 7*** topo
   - property lines ***Appendix 3 & 4 DEA***

4. Erosion Prevention and Sediment Control Plan
   - limits of soil disturbance
     Soil disturbance is limited to excavation and insertion of concrete supports.
   - riparian conservation buffer limits and method to be used for demarcation
     *The site has a shoreline setback of sixty (60) feet. No runoff is directed to marine waters. As the site lies in a Shoreline Management Area (****SMA****) and construction is over $500,000, a* ***SMA Major*** *application is being developed, with a request for approval of the work under that permit by the DPP.*
   - location of all structural erosion and sediment control measures and details
     Site Specific BMPs proposed are a sediment sock barrier along the shoreline to minimize construction dust movement into the ocean and prevent erosive action of the shoreline bank or existing dock; and additional filter sock/sediment log placement along edges of the work area and staggered in 50' interval down the slope to the shoreline – all during construction periods.
   - location of areas to be hosting BMPs, seeded and mulched areas, and other BMPs are located in ***Appendix C***
   - stormwater pathways *surface evaporation on remaining pervious surfaces contained by perimeter berms*
   - erosion control matting on slopes greater than 3:1 ***Appendix C***
   - no hay bales or silt fence running across contours or in areas of concentrated flow ***Sediment logs are more effective and will be described in detail in Appendix C.***
   - chart of inspection and maintenance schedule of all control measures

The on-site Environmental Compliance Officer (Builder) conducts weekly inspections and documents the inspection's logs maintained in their office.

- name and phone number of on-site coordinator
  TBD
- storm sewer inlets adequately protected (detail required) ***N/A***
- stabilized construction entrance shown (detail required) ***Water truck or trailer on-site for transport washdown***
- north arrow, scale, date, elevation datum
  As seen above, and also found in ***Appendixes A, B, C***

5. Narrative

General description of project

- project description
  The purpose of the project is to construct a single family residential structure in the same shoreline limits for construction in the uplands (shoreline setbacks – in place). The project lies with a SMA (Shoreline Management Area), and a SMA Major Application is being prepared for the residential single family construction.
- site description
  All of the terrain has level topography with slopes generally 0 to 8.0 percent. There is likeliness of low erosion potential under present site conditions given the majority of the site is very level. As such, appendix 3 will outline the BMPs and erosive prevention measures.
- site drainage characteristics (up and down-gradient)
  The site utilizes filter berms on the throughout the site to contain runoff on to the site's surface where it will dissipates via evaporation or permeation. **Details Appendix 3**
- drainage, waterways, bodies of water
  Surface sheet flow only with minimal travel distance as site is pervious. There is nearby waterways: the Pacific Ocean. There are no on-site waterways.
- topography, existing roads, buildings, utilities
  Topography is level pervious surface, existing roads and pathways are Kamehameha Highway and the facility's driveway
- vegetation
  Vegetation outside of grass is sparse, most of the surface is grassed with the exception of some areas along the perimeter or landscaping plantings around the existing house or perimeter trees and shrubs
- soils
  Soils are P – pervious, and the majority is Jaucas sands or Artificial Fill.
- proximity to natural or man-made water features *makai frontage on the Pacific Ocean*

Grading Plan and Timetable

- description of proposed grading, seasonal limitations
  There is proposed grading, excavation of footing for the residential single family dwelling found in the building plans, Hawaii has no seasonal limitations.
- timetable of all major construction and earth change activities, including stabilization methods for winter ***N/A*** at this time.

Erosion Prevention and Sediment Control Plan and Timetable

- description of the strategies of the control plan and why it will be effective in protecting water resources

PLANNED EROSION AND SEDIMENTATION AND CONTROL PRACTICES

1. Sediment Trap (ST) A Sediment Trap will be made available where necessary to pump out backfilled waters from excavation activities if groundwater is encounter during excavation (i.e – foundation stabilizers insertion) This is considered an unlikely event. All water from disturbed areas will be directed to the ST unit before leaving the project locus if needed. Sample of ST shown:

2. Temporary Diversions (TD) Temporary diversions will be constructed above any work area next to resource areas. For this site, due to level area, there will be a limited series of sediment logs – at the edge of the work area, and another row on the actual bank of the shoreline It is intended to prevent surface runoff from eroding any banks to marine water resources. These are commonly sediment logs of about 6-12" in height. Sample of TD shown staggered in intervals.

Figure 1 - Curlex Sediment Logs

3. Wind Screen (WS) Wind Screening will be used to protect to ocean resources and detain airborne construction dust. This will be along the shoreline setback line of 60' area of the Shoreline Setback line to prevent dust migration just below the construction activity. This will be a temporary installation during the construction period. Sample of WS shown:

4. Land Grading (LG) grading may be required on approximately .50 acres total on the site but is unlikely excessive or deep due to the site's conditions. Temporary diversions will be maintained at the edge of any grading area at all times for the building construction.

5. Dust control is not expected to be a problem due to the type of soil, the undisturbed perimeter of trees and shrubs to not impact neighbors and the honoring of the shoreline setback around the project work area, and the relatively short time of exposure (not to exceed 2 months for grading/excavation). Should excessive dust be generated during construction on the surface, it will be controlled by water sprinkling. An on-site water truck/trailer will be maintained on the site during the construction period with frequent application of water to surfaces exposed to construction dust as such as driveways, concrete surfaces etc…

MAINTENANCE PLAN

1. All erosion and sediment control practices will be checked for stability and integrity following every runoff-producing rainfall but in no case less than once every week. Any needed repairs will be made immediately to maintain all practices as designed.
2. Sediment will be removed from the sediment trap and diversion berms as needed.
3. Sediment will be removed from behind the sediment logs when it becomes about 1/2 foot deep at the sediment log. The sediment log will be repaired or replaced as necessary to maintain effectiveness.

An inspection form such has below will be used and stored into records. There will be an erosion control inspector assigned to the role for the site – It can be the owner, a member of the construction team, the environmental consultant, or the review architect/designer. Regardless of the assignment, all will follow a checklist for inspection such as seen in the sample below for the $11 million Drum Road Construction in the Kawailoa Range for Kiewit Construction's review needs.

Sample BMP Inspection Form *(from the construction of Drum Road, Kahuku, 2008*

3/19/2008 BMP Inspection Report

Construction BMPs Site Inspection Report

General Information			
Project Name	Drum Road, Phase II - Kiewit		
NPDES Tracking No.		**Location**	Kahuku
Date of Inspection	**March 19, 2008**	**Start/End Time**	**7:00-8:00 AM**
Inspector's Name(s)	Mark Howland		
Inspector's Title(s)	CEO & Chief Biologist		
Inspector's Contact Information	Cell: 508-958-1217		
Inspector's Qualifications	CV of Inspector included in BMP narrative in section 5.1		
Describe present phase of construction	**Tree and shrub clearing of area for hosting wood chipper and residue mulch. Placement of silt fence to control runoff around work area.**		
Type of Inspection: X Regular ❑ Pre-storm event ❑ During storm event ❑ Post-storm event			
Weather Information			
Has there been a storm event since the last inspection? ❑Yes X No **If yes, provide:** Storm Start Date & Time: Storm Duration (hrs): Approximate Amount of Precipitation (in):			

Weather at time of this inspection? X Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snowing ❑ High Winds ❑ Other: Temperature: 83
Have any discharges occurred since the last inspection? ❑Yes X No **If yes, describe:**
Are there any discharges at the time of inspection? ❑Yes X No **If yes, describe:**

Site-specific BMPs

- *Number the structural and non-structural BMPs identified in your BMPP on your site map and list them below (add as many BMPs as necessary). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required BMPs at your site.*
- *Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.*
-

	BMP	BMP Installed?	BMP Maintenance Required?	Corrective Action Needed and Notes
1	Silt fence	X Yes ❑No	X Yes ❑No	Silt fence installed incorrectly in wrong direction
2		❑Yes ❑No	❑Yes ❑No	Engineer Sparks informed of need to change
3		❑Yes ❑No	❑Yes ❑No	
4		❑Yes ❑No	❑Yes ❑No	
5		❑Yes ❑No	❑Yes ❑No	
6		❑Yes ❑No	❑Yes ❑No	
7		❑Yes ❑No	❑Yes ❑No	
8		❑Yes ❑No	❑Yes ❑No	
9		❑Yes ❑No	❑Yes ❑No	
10		❑Yes ❑No	❑Yes ❑No	
11		❑Yes ❑No	❑Yes ❑No	
12		❑Yes ❑No	❑Yes ❑No	
13		❑Yes ❑No	❑Yes ❑No	
14		❑Yes ❑No	❑Yes ❑No	
15		❑Yes ❑No	❑Yes ❑No	
16		❑Yes ❑No	❑Yes ❑No	
17		❑Yes ❑No	❑Yes ❑No	
18		❑Yes ❑No	❑Yes ❑No	
19		❑Yes ❑No	❑Yes ❑No	
20		❑Yes ❑No	❑Yes ❑No	

Overall Site Issues

Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
1	Are all slopes and disturbed areas not actively being worked properly stabilized?	❑Yes ❑No	❑Yes ❑No	n/a

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	❑Yes ❑No	❑Yes ❑No	n/a
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	❑Yes X No	X Yes ❑No	Kiewit advised of need for corrective action
4	Are discharge points and receiving waters free of any sediment deposits?	xYes ❑No	❑Yes xNo	
5	Are storm drain inlets properly protected?	x❑Yes ❑No	❑Yes xNo	
6	Is the construction exit preventing sediment from being tracked into the street?	❑Yes ❑No	❑Yes ❑No	n/a
7	Is trash/litter from work areas collected and placed in covered dumpsters?	❑Yes ❑No	❑Yes ❑No	Yes, but could use more frequent emptying
8	Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	❑Yes ❑No	❑Yes ❑No	n/a
9	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	❑Yes ❑No	❑Yes ❑No	n/a
10	Are materials that are potential stormwater contaminants stored inside or under cover?	❑Yes ❑No	❑Yes ❑No	n/a
11	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	❑Yes ❑No	❑Yes ❑No	Water Truck needs more replenishment, noted a couple of occasions where it was empty
12	(Other)	❑Yes ❑No	❑Yes ❑No	n/a

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes

Non-Compliance

Describe any incidents of non-compliance not described above: None

Print name and title: ___Mark Howland, Chief Biologist ERC_____

Signature:_____ Date:_____

Below are common construction risks for in-kind like projects.

General Risks from construction projects:

Potential Sources of Pollution

Potential sources of sediment and erosion from this site to stormwater or general runoff are:

- Clearing, grading, excavating, and un-stabilized areas
- Residential Construction Activities
- Paving operations
- Demolition and debris disposal
- De-watering operations
- Drilling and blasting
- Material delivery and storage
- Landscaping Operations

Potential pollutants and sources, other than sediment, to stormwater runoff are:

Pollutants:

- Nutrients
- Heavy metals
- pH level in soil (acidic or base) affects plant growth if additives during construction

change pH. BMP inspector is responsible to take a pH reading prior to constriction and then periodic readings during the construction phase and immediately after.

- pesticides or herbicides
- oils and greases
- bacteria and viruses
- trash, debris, and solid wastes
- other toxic chemicals

Potential Sources are:

- Clearing, grading, excavating, and un-stabilized areas
- Paving operations
- Concrete wash-out and waste
- Structure construction (i.e.) building, culverts, headwalls, curbing
- Demolition and debris disposal
- De-watering operations
- Drilling and blasting
- Material delivery and storage
- Material use during construction
- Solid waste
- Hazardous waste
- Contaminated spills
- Sanitary/septic waste
- Vehicle use/fueling/storage
- Landscaping operations

To minimize these risks, the following BMPs are employed as common construction practices.

GENERAL CONSTRUCTION EROSION AND SEDIMENT CONTROL BMPS

2.1 Minimize Disturbed Area and Protect Natural Features and Soil

Based on site-specific studies of work segments during construction, the following BMPS may be used where needed, though unpredictable and noted as such below. These are listed so that the contractor team can be aware of the tools and products available should a need arise during construction. Determination of use will be geared toward proximity to waterbodies, stability of surrounding soils, and frequency of discharged water from natural runoff or work related runoff, and vegetative cover.

1. Erosion control blankets (matting) come in various forms from permanent (TRM – turf reinforcement mats) to biodegradable (temporary). Blankets shall be non-toxic and free of weed

seeds. Excelsior and/or coco-fiber composites are preferred over straw and hay based materials due to invasive weed seed potentials. ***Will likely not to be needed***

2. Siltation barriers such as sediment logs, bioberms, biodegradable siltation fencing, mulch, established and planted vegetative filter strips, and armored or paved curbing may be employed ***Agreed, sediment logs/wattles will be employed along the perimeter and shoreline***
3. Managed clearing practices to minimize ground cover removal, construction care of BMPs, prevention of disposal of slash and brush toward resource areas and mulching to be done in defined area to prevent nutrients from mulch. ***Will be employed – maintenance a priority***
4. Soil stabilizers such as soil tackifiers, hydro-seeding, dust control, and soil hardeners will be employed as deemed necessary. ***Not expected to be needed, water truck/trailer should suffice***
5. Careful implantation of seed placement using species inured and conditioned to locale – care given to avoid annual species, salt-intolerant species, or maintenance-heavy species. Likely selected seed for hydroseeding or under erosion blankets are: St. Augustine's, zoysia, or seashore palladium. ***Not expected to be needed except around residential dwellings if so needed by the designer***

2.2 Control Stormwater Flowing onto and through the Project

Based on site-specific studies of work segments, the following BMPs may be used where needed. Determination of use will be geared toward proximity to waterbodies, stability of surrounding soils, and frequency of discharged water from natural runoff or work related runoff, and vegetative cover.

1. Existing natural runoff will be diverted away from the work area with the use of berms, sediment logs, diversion dikes, and/or siltation barriers ***Will be employed***
2. Runoff from the work site shall be diverted to engineered discharge point and passed through BMPs before reaching receiving waters. BMPS employed may be settling basins, armored take-off channels in high flows, vegetated take-off channels in low flows, detention and retention basins, surface permeation and stormwater swales. ***Evaporation in place is the expected mitigation, no discharge***
3. Roadway structures such as oil/gas separators, hydrologically-sized culverts, diversionary headwalls, concrete ditches, and roadway curbing may be employed where necessary. ***Complete driveway rehabilitation design is not complete at this time. Design to consider these BMPs.***
4. Use of BMPS such as cable concrete, rock armoring, pea stone sediment traps and other structures to trap sediment-laden waters may be employed where necessary. ***N/A***

2.3 Stabilize Soils

Based on site-specific studies of work segments, the following BMPS may be used where needed. Determination of use will be geared toward proximity to waterbodies, stability of surrounding soils, and frequency of discharged water from natural runoff or work related runoff, and vegetative cover.

1. Containment of rock, loam, or other soil materials in contained stockpile areas ***Agreed – concrete materials will be in mobile trucks or curb secured building areas***
2. Temporary cover BMPS such as seeding, mulches, geo-synthetic matrixes, blankets, and mats will minimize erosion ***Believe to be needed, and sourcing of such products is available on island***

3. Permanent BMPS such as soil binders, seeding, planting, and sodding, channel stabilization, and vegetative buffer strips. ***N/A – Temporary BMPs will only be needed during the construction period. All BMPS are "soft" bioengineered products, no "hard" armoring will be used.***
4. 70% vegetative cover will be the standard for successful soil stabilization. ***N/A – site regions outside residence already grassed with >70% coverage.***

2.4 Protect Slopes

Based on site-specific studies of work segments, the following BMPs may be used where needed. Determination of use will be geared toward proximity to waterbodies, stability of surrounding soils, and frequency of discharged water from natural runoff or work related runoff, and vegetative cover.

1. Erosion control blankets (matting) in various forms from permanent (TRM – turf reinforcement mats) to biodegradable (temporary). Blankets shall be non-toxic and free of weed seeds. Excelsior and/or coco-fiber composites are preferred over straw and hay based materials due to invasive weed seed potentials. **Yes, in selected areas**
2. Siltation barriers such as sediment logs, bioberms, biodegradable siltation fencing, mulch, established and planted vegetative filter strips, and armored or paved curbing may be employed **Yes, lightly employed due to level slope**
3. Managed clearing practices to minimize ground cover removal, construction care of BMPs, prevention of disposal of slash and brush toward resource areas and mulching to be done in defined area to prevent nutrients from mulch. **Maintenance needs to be carefully monitored**
4. Soil stabilizers such as soil tackifiers, hydro-seeding, dust control, and soil hardeners will be employed as deemed necessary. Hydroseeding may be seed-alone, seed with paper mulch, or bonded fiber matrix. **Watering should suffice, Erosion Inspector will evaluate during construction.**
5. Careful implantation of seed placement using species inured and conditioned to locale – care given to avoid annual species, salt-intolerant species, or maintenance-heavy species. Likely selected seed for hydroseeding or under erosion blankets are: St. Augustine's, zoysia, or seashore palladium.
   Will be detailed in the planting plan by the landscape professional

2.5 Protect Storm Drain Inlets

Based on site-specific studies of work segments, the following BMPS may be used where needed. Determination of use will be geared toward proximity to waterbodies, stability of surrounding soils, and frequency of discharged water from natural runoff or work related runoff, and vegetative cover.

1. Filter Barriers such as Catch Basin Guard, Sediment Sack, Dirt Bag, sandbags, rock-filled bags, and gravel berms.
2. Inlets to be fitted with oil gas separators where manholes are used.
3. Inlets to be designed to handle expected water flows – no surcharging allowed
4. BMPS will be used in conjunction with other BMPS from slope stabilization, work area containment, or stormwater discharge BMPs.
   All not Applicable

2.6 Establish Perimeter Controls and Sediment Barriers

Based on site-specific studies of work segments, the following BMPS may be used where needed. Determination of use will be geared toward proximity to waterbodies, stability of surrounding soils, and frequency of discharged water from natural runoff or work related runoff, and vegetative cover.

1. Siltation barriers such as sediment logs, bioberms, biodegradable siltation fencing, mulch, established and planted vegetative filter strips, and armored or paved curbing may be employed

These measure will be employed – sediment logs, shoreline preservation

2.7 Retain Sediment On-Site

Based on site-specific studies of work segments, the following BMPS may be used where needed. Determination of use will be geared toward proximity to waterbodies, stability of surrounding soils, and frequency of discharged water from natural runoff or work related runoff, and vegetative cover.

1. Settling basins, sediment trap basins, detention and retention ponds will be used as BMPS to trap sediment laden water, and/or store water to match pre-development flow rates. **N/A**
2. Stabilized discharge BMPs such as armored take-off channels, concrete washboards, vegetative filter channels, stormwater swales will be employed where necessary. **N/A**
3. De-watering practices will be employed for accumulated rain water, construction waste waters, and evacuation of sediment-trap pond waters to de-watering areas where infiltration or removal of site from the work area is possible. **As needed.**

2.8 Establish Stabilized Construction Exits

1. Stabilized discharge of runoff waters use BMPs such as armored take-off channels, concrete washboards, vegetative filter channels, or stormwater swales, and will be employed where necessary. **N/A**
2. Geo-textile may be employed under rock or aggregates where underlying soils are mobile. **N/A**
3. Provide defined routes for vehicles entering or exiting the work locus. Train personnel to be aware of BMP locations and adhere to a no disturbance policy of the BMPs on-site. **As shown in layout plan in DEA.**

2.9 Additional BMPs

Other BMPs that may be employed if needed may include but not be limited to:

- Surface scarifying to slow runoff **N/A**
- Compaction techniques such as rollers and/or sheep's foot machines **N/A**
- Live staking of saplings/shrubs **N/A**
- Brush piles and wattles **N/A – but artificial wattles will be used in the form of sediment logs**

- Composting **N/A**
- Hydro-sprigging **N/A**
- Sand bags and gravel bags **Potential during intense storm events during construction period**
- Compost berms **Not recommended due to nutrient overloading**
- Rock filters **driveway surface contouring**
- Sediment basin baffles **wattle on perimeter, work area intervals and shoreline**
- Soil contouring **N/A – already in place**
- Check dams **N/A**
- Energy dissipaters **N/A**
- Level spreaders **N/A**

GOOD HOUSEKEEPING BMPS

The good housekeeping and pollution prevention BMPs that will be implemented to control pollutants in stormwater. These are standard construction practices. There are seven categories:

2.9.1 Material Handling and Waste Management
2.9.2 Establish Proper Building Material Staging Areas
2.9.3 Designate Washout Areas
2.9.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices
2.9.5 Allowable Non-Stormwater Discharges and Control Equipment/Vehicle Washing
2.9.6 Spill Prevention and Control Plan
2.9.7 Any Additional BMPs

2.9.1 Material Handling and Waste Management

- Provide convenient and well-maintained toilet facilities located away from storm drains and waterways. Portable toilets to be securely fastened & >70' from resources
- Implement hazardous waste material handling standards and provide standard spill kits on site based on manpower/vehicle ratios
- Recycle materials where possible
- Establish daily litter and debris management practice
- Locate waste collection area of-site or near construction exits to minimize disposal near storm inlets or water bodies.
- Provide tie-downs for supplies and/or equipment in areas of high winds

- Educate all personnel on the function and location of BMPs
- Ban the burying of solid waste or the disposal of wastewater on-site
- Provide maintenance personnel to inspect for equipment leaks, structural failures, and proper storage of equipment and supplies.

2.9.2 Establish Proper Building Material Staging Areas

- Any hazardous materials such as oils, greases, paints, chemicals, additives, lubricants, or other hazardous materials shall not be store in work area. Containment should be in a proper facility outside the immediate work area. Storage area to include secondary containment of an encircling berm, dike, or curbing.
- Staging areas shall not be located where infiltration to groundwater is possible
- Provide a map in each segmental report of the location and type of staging area, and the measures employed to protect the environs form the area in final building plans

2.9.3 Designate Washout Areas

- If wash-out areas are on-site, minimize the number of locations.
- Designate locations based on distance to receiving waters, sensitive environmental areas, and cultural sites.
- Design facilities to minimize the use of water.
- Use signage to identify washout areas.
- Inspect Wash-out areas daily.
- Dispose of wash-out area collected materials off-site or recycle into construction process.

2.9.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

- Fuel off-site whenever possible
- Create an on-site fueling area with adequate safeguards for equipment that cannot be fueled off-site. Include location in each segmental BMP plan. **Not expected.**
- Maintain spill kits at each location **Construction Site**
- Cover the fueling area where possible to minimize stormwater entry and dilution of hydrocarbons. **N/A**
- Allow only trained personnel to do fueling **N/A**
- Collect all spent fluids and disposed of off-site in proper disposal facilities N/A

2.9.5 Control Equipment/Vehicle Washing

- Provide a defined location for a vehicle wash rack and mark location on segmental BMP plans if done on-site ***not advised***

- Insure that the wash waters drain to a settling pond or sediment-trap pond. **N/A**
- Use high water pressure rather than detergents for wash action **N/A**
- No other activities (such as vehicle repair) to be conducted in wash areas. **N/A**

2.9.6 Spill Prevention and Control Plan

- File standard spill prevention, control, and countermeasure plan with appropriate authorities if required from building inspectors. **Not Likely, this ESCP should suffice. This is residential construction, not commercial.**

2.9.7 Allowable Non-Stormwater Discharge Management

BMP plans and narrative will identify all allowable sources of non-stormwater discharges that are not identified. The allowable non-stormwater discharges identified might include the following:

- ✓ Waters used to wash vehicles where detergents are not used
- ✓ Water used to control dust
- ✓ Potable water including uncontaminated water line flushing
- ✓ Routine external building wash down that does not use detergents
- ✓ Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used
- ✓ Uncontaminated air conditioning or compressor condensate
- ✓ Uncontaminated ground water or spring water
- ✓ Foundation or footing drains where flows are not contaminated with process materials such as solvents
- ✓ Uncontaminated excavation dewatering
- ✓ Landscape irrigation

The amended BMP narrative will identify measures used to eliminate or reduce these discharges and the BMPs used to prevent them from becoming contaminated if identified during construction after pre-planning.

- o description of seeding and mulching plan including:
  - location of areas to be seeded
  - lime and fertilizer application rates
  - seed mixes (appropriate for soil type)
  - types of mulch/matting materials and discussion of appropriateness of each measure for soil type, topography, etc.
  - mulch/matting application rates
  - mulch/matting anchoring methods (including discussion of wind-throw and winter conditions) **N/A**

APPENDIX F

CULTURAL IMPACT ASSESSMENT

WHALE Environmental Services LLC
P.O. Box 455. KAHUKU, HI 96731 808-294-9254

Ke Piki Ohana LLC Property

Kahuku HI

Cultural Impact Assessment

March 2022

Speak to the 'aina...
Work with Lokahi

HARMONY AND BALANCE

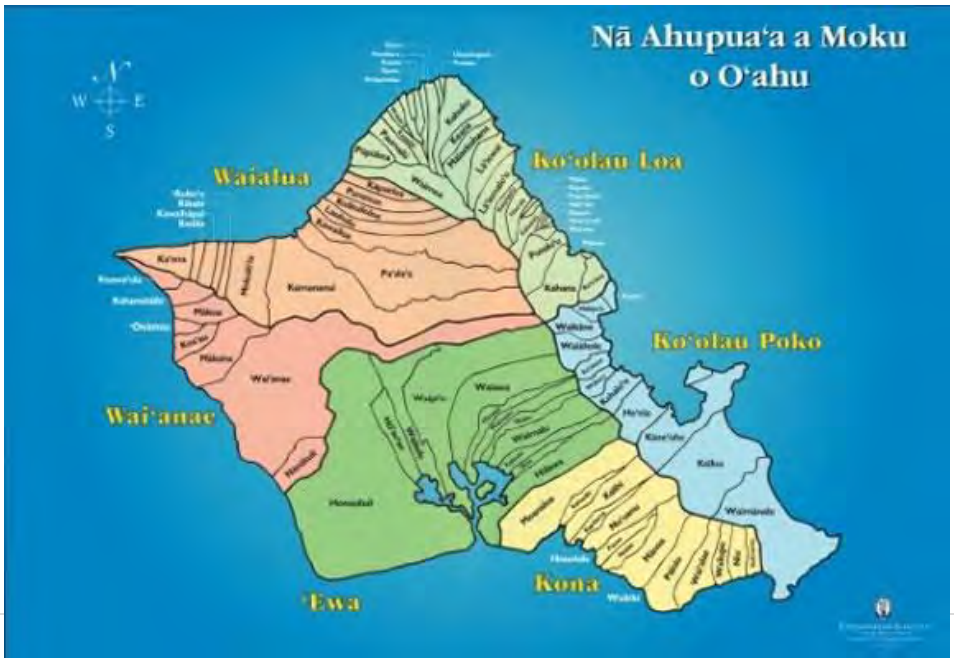
Prepared by: WHALE Environmental Services LLC www.whalees.com

CULTURAL IMPACT ASSESSMENT OF
KE PIKI OHANA LLC PROPERTY IN SUPPORT OF AN ENVIRONMENTAL ASSESSMENT OF ITS PROPOSED
RESIDENTIAL DEVELOPMENT
OF A SINGLE FAMILY RESIDENCE

MALAEKAHANA AHUPUAʻA, KOĀOLAU LOA MOKU DISTRICT, ISLAND OF OAHU
TMK (1) 5-6-001:077

Prepared for:
Ke Piki Ohana LLC Property
Ann and Jim Pietsch

Prepared by:
Bonnie L. Howland
WHALE Environmental Services LLC
P.O. Box 455
Kahuku, HI 96731
February 2022



ABSTRACT – EXECUTIVE SUMMARY

WHALE Environmental Services LLC has completed a Cultural Impact Assessment (CIA) of the Ke Piki Ohana LLC Property location in Kahuku and its proposed development of a residential single family residence. The approximately 0.782 project area is located in Malaekahana Ahupuaʻa, Koʻolau Loa Moku District, Oahu Island, located at 56-229 Kamehameha Highway.

The trail is TMK (1) 5-6-001-077. This CIA is written in accordance with HRS § 343 (law governing Environmental Impact Statements [EIS]) and HAR § 11-200 (rules governing content of EIS and Environmental Assessment [EA] documents) and their relevant chapters; as well as the OEQC's 2012 *Guide to the Implementation and Practice of the Hawaii Environmental Policy Act*.

We requested suggested contacts familiar with the region from OHA through its Lead Compliance Manager - Kamamaka Ferreira for names that would allow us to conduct formal interviews with two individuals for this CIA. The results of these consultations are presented in this CIA along with the findings of our archival research, which included historical map analysis; review of Māhele ʻĀina (Land Commission) records; a consideration of the Hawaiian cultural landscape; nineteenth-century developments in and near the project area; early twentieth-century developments in and near the project area.

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APPENDIX A: State OEQC Guidelines for Assessing Cultural Impacts

INTRODUCTION

On behalf of the landowner, Ke Piki Ohana LLC of the Property, WHALE Environmental Services, LLC, has completed a Cultural Impact Assessment (CIA) of the Ke Piki Ohana LLC project. The approximately 0.782 acre project area is located in Malaekahana Ahupua'a, Ko'olau Loa Moku District, Oahu Island, located at 56-229 Kamehameha Highway, Kahuku

The project is in TMK (1) 5-6-001:077. In general, the objective of the proposed project is to construct a single family home construction on the lot. The project lies in a Special Management Area (SMA) and is in the process of applying for an SMA Major Permit for the development. The lot is un-developed.

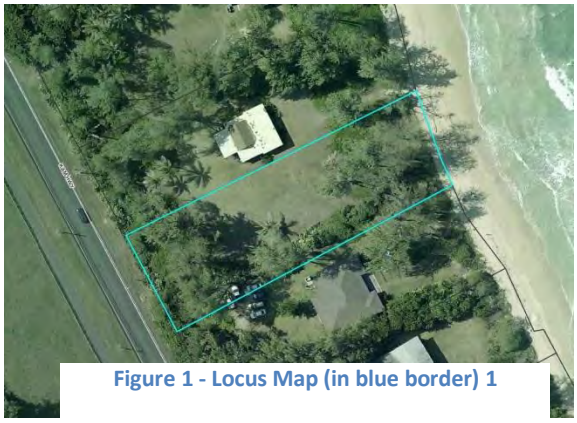


Figure 1 - Locus Map (in blue border) 1

Purpose and Content of Cultural Impact Assessments

This CIA is designed to satisfy HRS § 343 (law governing Environmental Impact Statements [EIS]) and HAR § 11-200 (rules governing content of EIS and Environmental Assessment [EA] documents) as well as the OEQC's 2012 Guide to the Implementation and Practice of the Hawaii Environmental Policy Act (see Appendix A for a relevant excerpt). Interestingly, cultural resources valued by individuals and communities with historical and genealogical ties to a given project area may be different than those deemed significant by "outsiders," including scientists, anthropologists, and other researchers not from the area.1 Likewise, the same resource may be valued in different ways by "insiders" and "outsiders." A pertinent example in this study is the presence of Ironwood trees (*See Botanical and Faunal Assessment in the DEA*) in the project area. This resource may be viewed by those interested in the pre-Contact Hawaiian landscape as invasive species, reflecting the history of deforestation and loss in the moku; and others, for example, may interpret these plantings as part of the modern era farmers using it as a valuable windbreak. In CIA work, we are interested in both of these perspectives. Our objectives are to identify *all* the various types of cultural resources in and near the project area, to explain why they are important to different individuals or groups, and to recommend ways they can be preserved or protected, if appropriate. We are also interested in expressing the intangible values people attribute to the project area. Maly and Maly (2005), citing Kent et al. (1995), use the term "*cultural attachment*" to describe this important class of phenomenon:

> *"Cultural Attachment" embodies the tangible and intangible values of a culture—how a people identify with, and personify the environment around them. It is the intimate relationship(developed over generations of experiences) that people of a particular culture feel for the sites, features, phenomena, and natural resources etc., that surround them—their sense of place. This attachment is deeply rooted in the beliefs, practices, cultural evolution, and identity of a people. The significance of cultural attachment in a given culture is often overlooked by others whose beliefs and values evolved under a different set of circumstances. (Maly and Maly 2005:3)*

In Hawai'i, commonly identified cultural resources include archaeological sites; burial sites and cemeteries; *wahi pana* (legendary places associated with oral history); natural landscape features such as *pu'u* (e.g., hills, outcrops and other promontories), ridges, and water sources and courses; natural phenomena such as characteristic weather patterns, winds and rain (many of which have place-specific names); and other place names and landscape features that are important to local families. Such resources need not necessarily refer to Hawaiian culture but may also include other ethnic groups.

> Anthropologists have long recognized the value in studying both "insider" and "outsider" perspectives, called "emic" and "etic," respectively, when trying to understand cultural values and significance.
> In Hawaiian culture, there is no hard and fast distinction between cultural and natural resources; thus, for example, a clean and healthy kahawai (stream) is just as much a cultural resource—because its existence is crucial to carrying out traditional and customary practices such as irrigated (pond-field) agriculture—as a natural one.

We sought formal interviews with parties familiar with the cultural history for this CIA, and spoke informally about the proposed project with others. The results of this on-going consultation are presented in this CIA along with the findings of our archival research, which included historical map analysis; review of Māhele 'Āina (Land Commission) records; information on the Hawaiian cultural landscape; nineteenth-century developments in and near the project area; and early twentieth-century developments in and near the project area.

Project Area Description

The Ke Piki Ohana LLC Property project has its main road – Kamehameha Highway as it's frontage; and heads across level ground, in the makai direction, until it connects with the Pacific Ocean. The terrain over which the project passes is relatively open with mostly consisting of a grassed yard(s) and a tree/shrub perimeter. Mean annual rainfall in the

project area is approximately 32 inches, but it also receives additional precipitation from sea mist that rolls in during storm periods. The area has a mean annual temperature of 78°F.

A Biological Survey (WES 2022) of the project area provides some information on historic and modern changes to the landscape and vegetation in and around the project area. According to WES 2022), prior to the arrival of the first humans on Oahu, vegetation in and around the project area was likely a forest with a canopy of milo, noni and/or naupaka. Following the start of Hawaiian settlement in the islands, *"a series of forces including fires, agriculture, forestry, and introduced plants, animals, and diseases transformed the site [project area] to predominantly non-native vegetation"* (ibid.) In historic times, the primary land uses would have been for access to off-shore fishing spots (kʻoa) and fishponds. Currently, the project area and environs is occupied and the historical aerial imagery for the site seen in the Environmental site Assessment (ESA) in the EA shows its current status since at least 1972 and present day representative photographs of the project area taken on our recent (February, 2022) reconnaissance for both the botanical and ESA reports.

Topographical maps for the project area may also be found in the ESA over several years and again no change in site elevation for many years has persisted.

METHODS

This section describes the methods of a field inspection, archival research, consultation/interviews, and report writing activities for this project.

Field Inspection

We obtained details on the proposed project development and its geospatial location prior to conducting a field inspection for this CIA (see *Conceptual Plan for Ke Piki Ohana LLC Property – DEA Appendix 3)* prepared by Nik Butterbaugh, licensed architect, who provided data on the planned residential single family home/construction development.

Mitigating Factors, Conditions and Caveats

In general, our objective was to walk as precisely as possible the entire project area. In reality, conditions on the ground in a small portion of the project area made this not possible, since the dense perimeter trees and shrubs covers that portion of the terrain. In most of the project area, ground visibility is generally good to excellent, and one can observe conditions on the ground surface from a distance without having to walk over every square foot.

Archival Research

Prior to going into the field, Howland utilized UHWO Hawai'i's reference library to obtain some general information about the project area and its environs. Howland also visited the State Historic Preservation Division's (SHPD) library of reference materials online (no reports of any previous archaeological studies in or near the project area were accessible – some sealed).

We also utilized these on-line databases to obtain cultural, historical and archaeological data:

- OHA's Papakilo database (http://papakilodatabase.com/main/main.php)
- OHA's Kipuka database (http://kipukadatabase.com/kipuka/)
- Bernice P. Bishop Museum archaeological site database (http://has.bishopmuseum.org/index.asp)
- Bishop's Hawaii Ethnological Notes (http://data.bishopmuseum.org/HEN/browse.php?stype=3)
- University of Hawai'i-Manoa's digital maps (http://magis.manoa.hawaii.edu/maps/index.html)
- DAGS' State Land Survey (http://ags.hawaii.gov/survey/map-search/)
- Waihona 'Aina website (www.waihona.com)
- Digital newspaper archive "Chronicling America, Historic American Newspapers" (http://chroniclingamerica.loc.gov/lccn/sn82014681/)
- US Library of Congress digital maps (https://www.loc.gov/maps/)
- Hawai'i State Archives digital collections (http://archives1.dags.hawaii.gov/)

A review of both OHA's databases, OHA's Papakilo and OHA's Kipuka database yielded no pertinent information – no community input, no 'ili, no place name or historical records, and only links to the DAGS State land survey plat map. Bishop's Museum's web site in unavailable at this time as well as UH Manoa digital map collection. The remaining web sites had no pertinent information in their records. Most records centered on Kahuku region near Turtle Bay or Laie near the PCC.

Consultation/Interviews

We are still working on these interviews – contact has been made with two individuals. Any results will be entered in this section before FONSI submission to DPP.

Report Writing Activities
Our research was processed, merged with other gathered information, and was used to develop this report.

Historical and Cultural context of the Ke Piki Ohana LLC Project area
This section presents a selection of information related to the project area, including relevant place names and oral history, traditional land uses, historical changes in land uses in and near the project area, and historically-significant features shown on historic maps in and near the project area.

Hawaiian Cultural Landscape: Place Names and Oral History
Hawaiian place names and *wahi pana* (legendary or storied places) are repositories of oral-historical knowledge, cultural significance and community values about indigenous landscapes. Because Hawaiians did not have a written system of communication prior to the arrival of Captain James Cook in 1778, our understanding of the meaning of Hawaiian place names in based on translations and interpretations from the nineteenth and twentieth century. As such, some places have more than one possible interpretation, which is particularly so since Hawaiians also highly valued both kaona ("hidden meaning") and huna ("secret meaning"), or "double meanings," in their poetic description of the natural world.

Malaekahana Ahupuaʻa, Koʻolau Loa Moku District

Ko'olauloa is the northeastern district of O'ahu, from Waimea Bay on the North Shore to Ka'a'awa on the windward coast. ("Ko'olau" means "windward"; "loa" means "long"). The valleys from La'ie to Kahana are well-watered and fertile. The most famous god of this land was Kamapua'a, "Pig-Child," whose home was in the valley of Kaliuwa'a (Sacred Falls) in Kaluanui. The gods Kane and Kanaloa wandered through this district, creating springs and fishing. Fish is abundant; the coastline is also noted for its shark gods and shark men (mano kanaka).

According to legend, during the Makahiki festival several Akua (Gods) appeared. Akua Loa traveled in a right circle around the island and Akua Poko journeyed to the left. Eventually, they met at the ahupuaʻa division between Kualoa and Ka'a'awa. As a result, the names Koolauloa and Koolaupoko were given to the moku to represent the meeting of the Akua. The ahupua'a from west to east are Waimea, Keahuohapu'u, Pupukea, Paumalu, Kaunala (or Peapueo), ʻOpana, Kawela, Hanakao'e, Kahuku (or Ahumanu), Keana, Malaekahana, Lå'iewai, Laniloa, Lå'iemalo'o, Kaipapa'u, Hau'ula (or Lanakila), Mākoa, Kapaka, Kaluanui, Punalu'u (or Moa'e), Kahana (or ʻÅhiu), Ka'a'awa (or Holopalo), and Ka'o'io. In Hawaiian. Malaekahana has been historically known as "Puuhonua" (Place of Refuge). Hawaii is known for its many rains and winds of the islands.

Historical Changes and Map Analysis

For generations following initial settlement, communities in Koʻolauloa were clustered along the shores which offered sheltered bays from which deep sea fisheries could be easily accessed. The near shore fisheries and coastal fishponds, which were enriched by nutrients carried in the fresh water, also offered opportunities for resource extraction and stewardship. It was in these coastal areas that clusters of houses were found, and where agricultural production first became established. Over a period of several centuries, these areas became populated and perhaps even crowded, and inland elevations began to be used for agriculture and some habitation. Taro would have been the dominant crop in this area with sweet potatoes planted only as a supplement for it (Handy and Handy 1972:282-283).

Other crops would have included wauke, noni, gourds, sugarcane, ʻawa, breadfruit, bananas, coconuts, and ti (Stride et al. 2003). Other resources important to subsistence would have been gathered from the sea to the mountains. The period between A.D. 1200–1650 was characterized by the greatest social stratification, major socioeconomic changes, and intensive land modification (Kirch 1985). Most of the ecologically favorable zones of the windward and coastal regions of all major islands were settled and the more marginal leeward areas were being developed. The concept of the ahupuaʻa was established during the A.D. 1400s (Kirch 1985), adding another component to a then well-stratified society. This land unit became the equivalent of a local community, with its own social, economic, and political significance. Ahupuaʻa were ruled by aliʻi ʻai ahupuaʻa or lesser chiefs; who, for the most part, had complete autonomy over this generally economically self-supporting piece of land, which was managed by a konohiki. Ahupuaʻa were usually wedge or pieshaped, incorporating all of the eco-zones from the mountains to the sea and for several hundred yards beyond the shore, assuring a diverse subsistence resource base (Hommon 1986). Entire ahupuaʻa, or portions of the land were generally under the jurisdiction of appointed konohiki or lesser chief-landlords, who answered to an aliʻi-ʻai-ahupuaʻa (chief who controlled the ahupuaʻa resources). The aliʻi-ʻai-ahupuaʻa in turn answered to an aliʻi ʻai moku (chief who claimed the abundance of the entire district). Thus, ahupuaʻa resources supported not only the makaʻainana and ʻohana who lived on the land, but also contributed to the support of the royal community of regional and/or island kingdoms. This form of district subdividing was integral to Hawaiian life and was the product of strictly adhered to resources management planning. In this system, the land provided fruits and vegetables and some meat in the diet, and the ocean provided a wealth of protein resources.

Legendary Accounts of the regional Ahupuaʻa (s)

The current study parcels are located in the District of Koʻolauloa, Island of Oʻahu.

This area includes a rich fishery and a broad coastal plain abundant with wetlands, springs, and brackish pools. This area was once renowned for its hala groves.

This moku and many of the places named within it, have traditional legends associated with them.

[1] Legend tells us that Kahuku region was a floating island situated several miles out to sea. For a long time, the people of Oʻahu had planned to make the island part of their land, for they saw it come close to Oʻahu's shores. The floating island of the Menehune did not have any fresh water springs because there were no high mountains covered with verdure and trees to capture the rains. So, the Little Folk used to paddle their islet into the bays of Oʻahu at night to haul water from the springs of the larger island.

One day, a resident of Kahuku suggested that all the people gather together to make strong hooks of whalebone and attach them to a stout rope made of sacred olona fibres. This was done. The Menehune came to take water as usual, then the residents of Oʻahu attached the large hooks to the floating isle while the Menehune started to paddle off again, but they could not move their islet or free it from their ivory hooks and Olona ropes. Today, many people who travel Kahuku section of Oʻahu and see the many islets seeming to float off shore, and hear the sea singing its songs, they say, '*Listen to the Menehune grumbling while they try to move their island that used to float!*'

McAllister (1933) also describes a legend associated with Punamana, a spring and wetland located on the Kahuku plain. He relates that it is a small water hole that was pointed out by Kahione, Kaleo, and Luiko Kaio in the flat limestone plain of Kahuku Point. It is about 15 ft. in diameter and brackish in taste. The legend is:

One time when the people of Kahuku were fishing they caught a small shark. Putting him in a calabash of water they carried him to their houses near the beach. Here he was cared for and put in larger and larger calabashes as he grew bigger. Finally haven outgrown even the largest calabash that could be found, it was decided to place him in one of the pools of brackish water which came to be known as Punamano. A man and woman living near the pool became guardians. They had lived in their grass huts with a breadfruit tree near the pool and taro and potato patches near the mountains for several years when the brother of the woman came to live with them. Sometime after, the man and his wife went to the mountains to gather taro and potatoes. The brother, who was staying at home, thought that he would like to have some food prepared when the sister and her husband returned. He climbed the breadfruit tree and gathered several, throwing the fruit into the water instead of on the ground, where it would have been bruised in the fall. After picking enough for a few days he descended the tree and gathered most of the fruits from the bank. Two had floated to the middle of the pond and he could not reach them. Now

this man knew of the shark that lived in the pool, but he had frequently bathed in the pool and no thought of fear crossed his mind as he swam to the breadfruit. He did not know, however, that his sister and her husband had warned the shark not to allow anyone to steal breadfruit when they were gone. When the sister and he r husband returned they could not find brother. Neither was the shark to be found, but they saw the breadfruit floating in the pool and the reddish color to the water. They guessed what had occurred. For nearly a mile they followed the bloody trail until they came to a spring known as Punahoolapa. Not only was the brother never seen, but the shark has never been seen to this day.

During Precontact and early Historic times the Kahuku plain was well known for its groves of hala. Wong-Smith (1989:A-5, A-6) provides several accounts of its renown:

…he flew to Kahuku and adorned his neck with wreaths of the pandanus fruit and his head with flowers of sugarcane. [Thrum 1912:100]

This is the land of the hala tree…"I sent out word…among the people that there should be no one leaving here (Kahuku) for Waimea or Waialua who had not a wreath of hala fruit…": [Cummings 1913:241-242 cited in Wong-Smith 1989]

…men from Kahuku were identified by leis of the orange hala fruit which they wore by order of their chief when they left their ahupuaʻa…[Wilcox 1975]

Halemano, a man credited with the evolution of hula, composed a chant to win back the attentions of his wife that mentions the hala of Kahuku (Wong-Smith 1989:A-6). The chant goes:

A kukui au a Kahewahewa
Ku au nana I laila,
Haloiloi Kuu waimaka e uwe,
Nani na hala ka oiwi o Kahuku,
I ka lawe a ka makani he mikioi
As I reported to Kahewahewa

I stood and gazed, then
Tears filled my eyes causing me to weep.
How beautiful are the hala, native trees of Kahuku,
As they are being fanned by the Mikoioi wind
[Elbert 1965:280-281 cited in Silva 1984]

The tale of Laieikawai is a story that has versions in other Pacific cultures, but also is a dominant myth in Hawaii, and is most often associated with the legends and myths of Hawaii. It is a story of romance, of deceit and deception, of vows and prayers. This is a story of "*a favorite daughter of Hawaii"* (Haleole).

Haleole questioned the origin of the story being solely Hawaiian (similar tales are scattered throughout Polynesia) but placed his tale in the Hawaiian Islands. He described the Islands of Hawaii, and discussed elevations, weather, topography, plant life and more. For Laieikawai, this had one locality, the "*small fishing village of Laie*", as described by Haleole (Haleole). Haleole pointed out that in cane fields above the Government Road, laid a pond called *Waiopuka*. This was a pool that is said to have a subterranean connection to the ocean, with a rise in water levels equal to the tides; yet one or two miles from the ocean (see appendix for map location). It was reported by Daggett as late as 1930, that a jutting rock marked the point where one could dive to reach the cave within; and behind the pool where Laieikawai was hidden. Her twin sister Laielohelohe was described by Haleole to have been brought to another locale thought to be inland at Wahiawa..

This was the tale of the birth of the twins, Laieikawai and Laielohelohe. Laie was the place Laieikawai was hidden in her early years, a place called a *pu'uhonua*; a place of refuge for *kapu* breakers (Bridge). Here lies the base of the story of Laieikawai and her upbringing – one of the twin daughters borne to Malaekahana, her mother; and Kahauokapaka, the father.

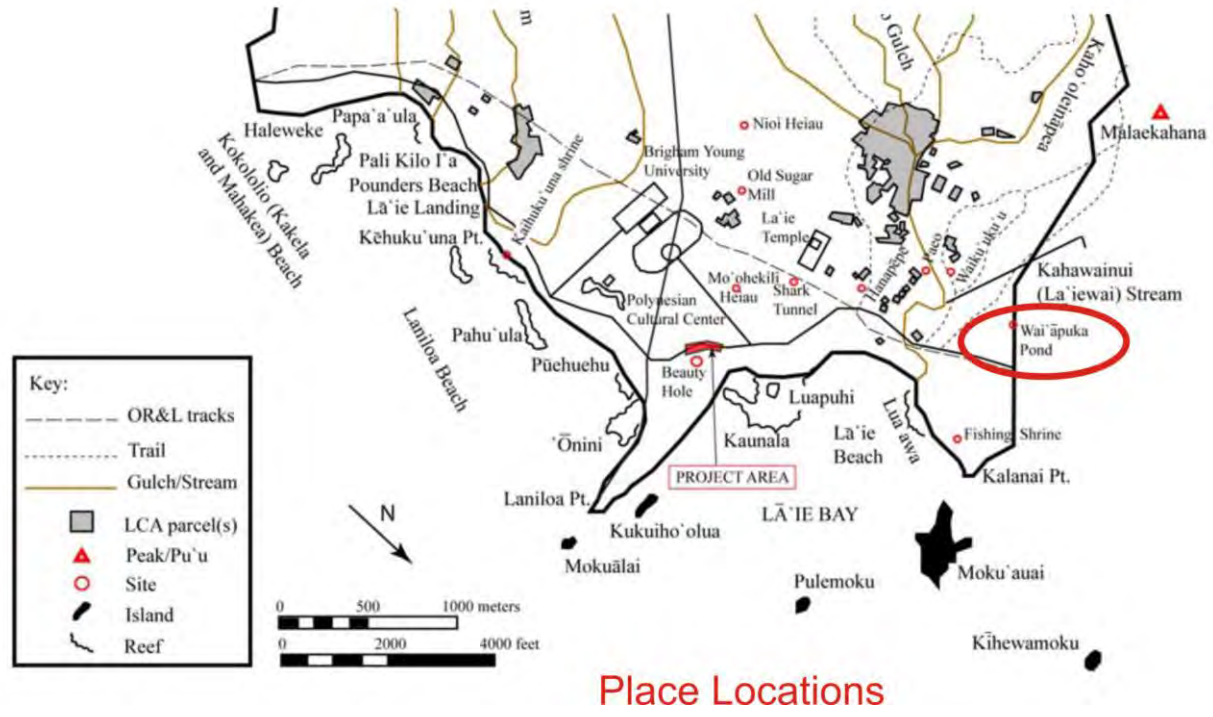
Kahauokapaka delivered to his wife a vow upon marrying her, that no daughters borne of this union would be tolerated; since only sons would survive him to portion out the lands he controlled (two districts in the Koolau Mountains). Only daughters that came after the birth of a son would be tolerated, any earlier would be destroyed. After a while, a daughter of beauty was conceived and delivered, and her father had her executed despite the mother's belief that such beauty could not be destroyed. A second, even more beautiful daughter was delivered, and Kahauokapaka had her executed as well. This went on in this pattern with subsequent conceptions.

By the fifth time Malaekahana conceived, she had lost four daughters and went to the priests to say she could not tolerate her husband killing the precious lives. She would rather do the deed herself, but the priest said to come back when the child is ready to be born for the decision. He asked for a sign, and asked her to present him a hand, and she presented her left with the palm upward, which the priest said meant another daughter. She was so sorrowful that the priest had to offer a solution - "*tell Kahauokapaka when you are ready to deliver, that you have a craving for manani spawn and he must go fishing for those fish. While he is away, give the child borne to me and I will hide the baby*" (Haleole). When he returns and the child is missing, tell him it was aborted.

And this is indeed what happened, she had labor pains; she sent Kahauokapaka off fishing for *manani,* and delivered Laieikawai, and then Laielohelohe while he was away. They were given to the care of the grandmother, Waka and to the priest, Kapukaihaoa. Upon Kahauokapaka's return, he asked how she was, and she said the baby was aborted, and she had

thrown it in the ocean. But he had heard two claps of thunder in the month of October, which signaled the twins' birth and was unsure.

This prompted Malaekahana to insure her babies were hid. Kapukaihaoa said to take the baby Laieikawai to the hidden cave at the pond of Waiapuka for care and upbringing, where it would be his responsibility to see she is protected. The twin Laielohelohe was taken to the slopes of Wahiawa, to the sacred place called Kukaniloko for her protection. Laieikawai was hidden at Waiapuka until maturity; and it was said that all the days she was there, that a rainbow appeared above the hidden cave constantly; no matter if there was rain or sun, it was a sign of the guardians protecting her. Prophets saw the rainbow and sought the princess, yet the Waiapuka cave in the pond was so well hidden, Laieikawai remained safe.



The story centers on location encircled in red, Wai'apuka Pond. The region, Laie, was called an old city of refuge and the southern boundary beyond Pounder's Beach was called the 'Pa-paa-koko. Or "*fence that held the blood".* The entire region is believed to be named after the Legend of Laieikawai and the legend was named *La'ie I ka 'eheu o na manu* – Laie – borne of the wings of birds. Wai'apuka Pond was still in its original state in 1885 when parties came to view it. In 1930, McAllister did an archaeological survey for Bishop Museum and stated it was intact, but so silted that the entrance to the cave was no longer possible to access (Bridge).

(Map Courtesy of AECOM EIS for HDOT La'ieloa Bridge Replacement 2012)

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History After Contact 1779-1847

On February 28, 1779, two weeks after the death of Captain James Cook, the H.M.S. Resolution captained by Charles Clerke rounded the northern tip of Oʻahu providing the first historical accounts of the Kahuku area. Clerke wrote:

SUNDAY 28th. . . *run round the Noern [Northern] Extreme of the Isle which terminates in a low Point rather projecting; off it lay a ledge of rocks extending a full Mile into the Sea, many of them above the surface of the Water; the Country in this neighborhood is exceedingly fine and fertile; here is a large Village, in the midst of it is run up a high Pyrimid doubtlessly part of a Morai. I stood into a Bay just to the Westward of this point the Eastern Shore of which was far the most beautiful [sic] Country we have yet seen among these Isles, here was a fi ne expanse of Low Land bounteously cloath'd with Verdure, on which were situated many large Villages and extensive plantations; at t he Water side it terminated in a fine sloping, sandy Beach*. . . [in Beaglehole 1967:I:572]

In 1794, British Captain, George Vancouver also visited the northern tip of Oʻahu, but found the Kahuku area to be slightly different than the verdant, well populated plain described by Clerke and King fifteen years earlier. He wrote:

…In every other respect our examination confirmed the remark of Capt. King excepting "*that in point of cultivation or fertility, the country did not appear in so flourishing a state, nor to be so numerously inhabited, as he represented it to have been at that time, occasioned most probably by the constant hostilities that had existed since that period*". [Vancouver 1798(3):71]

By the middle of the nineteenth century the ever-growing population of Westerners forced socioeconomic and demographic changes that promoted the establishment of a Euro-American style of land ownership and the Mahele of 1848 became the vehicle for determining ownership of native lands. During the Mahele, land interests of the King (Kamehameha III), the high-ranking chiefs, and the low-ranking chiefs (the konohiki) were defined. The chiefs and konohiki were required to present their claims to the Land Commission to receive awards for lands provided to them by Kamehameha III. They were also required to provide commutations to the government in order to receive royal patents on their awards. The lands were identified by name only, with the understanding that the ancient boundaries would prevail until the land could be surveyed. This process expedited the work of the Land Commission (Chinen 1961:13).

During the Mahele all lands were placed in one of three categories: Crown Lands (for the occupant of the throne), Government Lands, and Konohiki Lands. All three types of land were subject to the rights of the native tenants therein.
As a result of the Mahele, Kahuku was retained as Cr own Lands by King Kamehameha III (under the name of Victoria Kamamalu). According to the Waihona ʻAina Mahele database, eighty-five claims for Land Commission Award (LCA.) parcels were made within the ahupuaʻa (s) of Kahuku, but only seventy-two kuleana lots were awarded to native tenants. Nearly all of awards were located makai of the present day highway. The locations of the LCA parcels generally confirm the expected Pre-contact settlement patterns discussed above for Kahuku's ahupuaʻa (s), with the majority of the kuleana lots located near the coast and only a few at in land locations. Information contained in the LCA. testimony provides insight into Hawaiian land use practices during the early Historic Period. Silva (1984) provides a tally of the land uses mentioned in the LCA testimony for Kahuku moku, listing "162 taro patches, 39 kula plots & gardens planted w/awa, banana, wauke, gourd, sweet potato, sugar cane, noni, watermelon, pili grass, 7 clusters of hala, 6 salt lands, 4 koa canoe trees, 2 fish ponds, 10 house lots, 1 sweet potato patch cultivated upon cliffs, 1 water course bank, 3 cultivated upland plots, 1 brackish spring, 1 wooded upland area of ulu, ohia, kukui, koa, ti, noni, etc…" (in Wong-Smith 1989:A-13).

Site-Specific Cultural History

Historic and Archaeological Resources data searches of the National and State Register of Historic Places shows that no historic sites are located within the project area.

Based on historic accounts and recorded traditions, there may be additional as-yet-un-identified historic properties in the region and would most likely reflect uses and customs associated with the area's rich fisheries and the lack of any other dominant land use in this project area. These could include additional koʻa, the remnants of

shelters and settlements for fishermen, burials, canoe landings, and salt-making sites. However, later uses of the area have significantly reduced the probability as nearby properties existing on the less flood prone portions of the region or along lower ridge slopes were more attractive and there is no indication that they were heavily used by natives before (as common to the project area).

The Proposed Action and No Action Alternative could have impacts on historic or cultural resources undiscovered. An archaeological monitoring plan would be developed prior to the construction phase of the project if during any foundation excavation any cultural artifacts detected. SHPD will be notified immediately and all construction work halted until during any continued earthwork activities, archaeological monitoring by a qualified monitor shall be put into place in accordance with an SHPD approved archaeological monitoring plan if needed. The No Action Alternative will have no impacts on project site historic or archaeological resources as construction in the area was in the 1960s, long before any of cultural resources could have been preserved.

Historical Documentation Conclusion

Analysis of the potential effect of any proposed physical alteration on cultural resources, practices or beliefs; the potential of the proposed action to isolate cultural resources, practices or beliefs from their setting; and the potential of the proposed action to introduce elements which may alter the setting in which cultural practices take place

In general, construction on the site which has likely not been utilized in historic past or even in the past 70 years as shown in the historical aerial photography in the ESA section of the EA minimizes the impact to any potential archaeological resources in the project area, which have not been detected.

After publication of the Draft EA, consideration of public comments, and further consultation with cultural practitioners and lineal descendants from the Kahuku and Malaekahana Beach communities, a decision will be made if our conclusion that there will be no cultural impact to the project site needs to be re-visited. It is not anticipated.

While archaeological features or cultural sites are not anticipated to be significantly impacted by the proposed action, should evidence of any archaeological or cultural properties be encountered during construction, vegetation clearing and construction would immediately cease and the appropriate parties would be consulted immediately. If necessary, the planned construction will be adjusted to reduce or eliminate impact to any features

located during surveys or construction or as recommended during EA consultation to be conducted for this project.

INTERVIEW/CONSULTATION SUMMARIES

As explained in the Methods section, we tried reached out to a few people to ask if they would like to participate in interviews for this CIA.

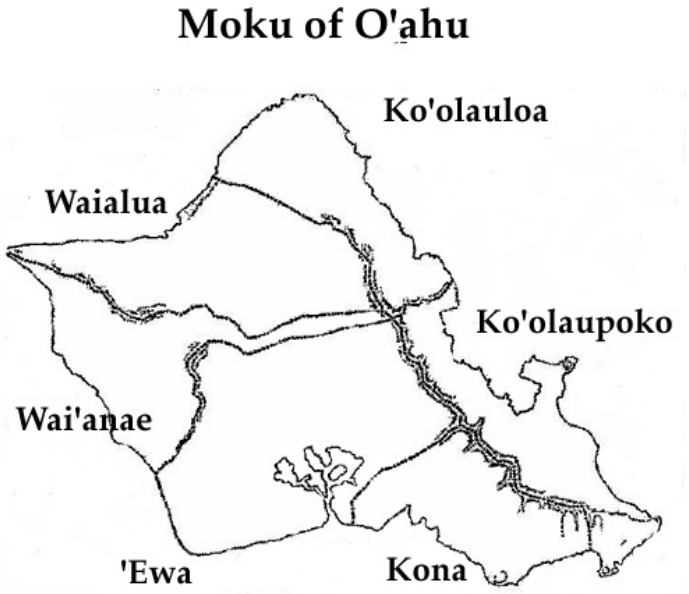
Our attempts were as follows to find two individuals familiar with the subject project area:

Waimea Valley
Office of Hawaiian Affairs

We did not get any responses via email, phone, or web contact forms from OHA. The Waimea Valley has given us one individual familiar with Kahuku – Budde Crabbe who is a cultural expert for the ahupua`a of Waimea, but lives in Kahuku. We have contact him and are awaiting a response. We will continue to try during this pre-consult Draft EA submission to DPP, and hope to have further information for the Neighborhood Public Hearing where we will ask for suggestions of contacts if none has been returned, so that the FONSI DPP submission contains more info, or even during the Environmental Notice publication for inclusion in the final EA submission if comment are received then for the Final EA. For DPP pre-consultation purposes, please be aware we are awaiting response not obtained for 30+ days.

MOKUPUNI / ISLAND DISTRICT of O‘AHU

Note: files not complete – to be updated at www.SciHI.hawaii.edu !



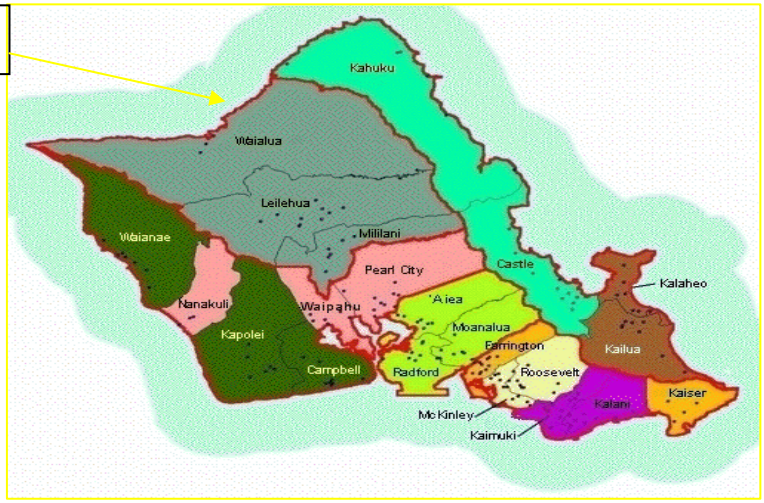
DESCRIPTION OF MOKU (ANCIENT DISTRICTS of O‘AHU)

There were six large land divisions in ancient O‘ahu, each having a source of fresh water for all the ahupua‘a within a moku/district, and access to each area of resource, from reef to coast to midlands and mountains.

WAIALUA (CENTRAL DISTRICT)

Retrieved from http://doe.k12.hi.us/myschool/map_oahu.htm

WAIALUA MOKU



Schools in the Moku Waialua on O‘ahu

The Waialua Complex includes two elementary schools and one middle-high school. Located in the Leilehua-Mililani-Waialua Complex-Area (Central District), Haleiwa Elementary, Waialua Elementary, Waialua High & Intermediate schools make up the North Shore area of the complex.

Description of This Moku

Waialua is the northwestern district of O'ahu, from Ka'ena Point in the west, to Kapaeloa at Waimea Bay. It was known in ancient times for its fishing grounds and gods. "Waialua" means "two waters," which has been referenced to mean: a lo'i (taro pond), or a pool at Kemo'o; or the name of a bad chief named Waia, who was "doubly ('lua') disgraced." According to David Malo, an early Hawaiian historian, Waia was "so absorbed in the pursuit of pleasure that he disregarded the instructions of his father to pray to the gods, to look well after the affairs of the kingdom, and to take good care of his people so that the country might be prosperous."

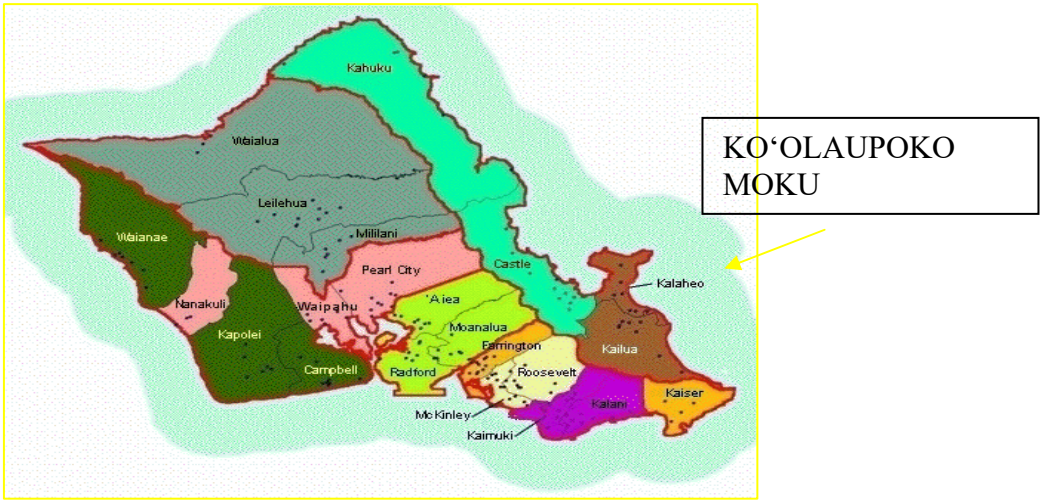
In ancient times, the ruling chiefs of O'ahu lived near the center of the island and the famous birthing stones of Kukaniloko in Wahiawa; the chiefs were fed by the fish of 'Uko'a fishpond in Waialua. The sin of O'ahunui, the cannibal king, caused their home in central O'ahu to be cursed by Kāne, the god of life, and the chiefs have not lived there since that time. The district of Waialua also contains the famous "leina a ka 'uhane" ("spirit leap") near Ka'ena Point, where spirits of the recently departed leapt into the sea from an uplifted limestone rock and were met by ancestors who guided them safely to the land of spirits.

The ahupua‘a from west to east are Ka’ena, Keālia, Kawaihāpai, Mōkūle’i (or Hinakokea), Ka’ala (or Pu’uka’ala), Kamananui, Pa’ala’a, Kawailoa, and Kāpaeloa.

For much more on this, go to these sites:
http://apdl.kcc.hawaii.edu/~oahu/stories/waialua/index.htm

http://www.gonorthshore.org/history.htm

Koʻolaupoko (Windward District)



Schools in the Moku Koʻolaupoko on Oʻahu

This moku splits the Castle-Kahuku complex that includes thirteen elementary, one intermediate, and two high schools (one is a combination intermediate & high school). The schools in the Castle section of the complex include: Castle High, King Intermediate and the Hakipuʻu Learning Center Public Charter School (PCS). This moku also includes the Kailua-Kalaheo complex which has the following schools: Kailua High, Olomana School (for students at risk), Waimanalo Elementary & Intermediate and Ke Kula O Kamakau Lab PCS.

Description of This Moku

Unlike many other moku on O'ahu, Ko'olaupoko has only been urbanized on one-quarter of its land. This is largely due to the topography of this moku. In spite of this small amount of urbanization, the moku has changed greatly since ancient times. This moku receives the most rain on O'ahu, 300 - 350 inches annually. The lands are well watered by streams; Kāne'ohe Bay, with the only barrier reef in Hawai'i, has a protected lagoon known for its abundance of fish and its numerous fishponds, where mullet and milkfish were fattened. The delicious uhu, or parrot fish, is the famous fish of this land, from Kāne'ohe Bay to Maunalua Bay. The land section of Kualoa was sacred to the chiefs, and the home of the famous Tahitian voyaging chief, La'amaikahiki, while he lived in Hawai'i. Kaulu is the most well-known demigod of Ko'olaupoko, similar to Kamapua'a of Ko'olauloa and Maui of Wai'anae.

According to legend, during the Makahiki festival several Akua (Gods) appeared. Akua Loa traveled in a right circle around the island and Akua Poko journeyed to the left. Eventually, they met at the ahupua'a division between Kualoa and

Ka’a’awa. As a result, the names Koolauloa and Koolaupoko were given to the moku to represent the meeting of the Akua.

The ahupua’a from west to east are: Kualoa (or Holopali), Hakipu’u, Waikāne (or Kiliua), Waiāhole, Ka’alaea, Waihe’e, Kahalu’u, He’eia, Kāne’ohe (or Ulumano), Kua’a’ohe (or Mololani), Kailua (or Malanai), Nu’uanu (or Puahiohio), Waimānalo (or Limulipu’upu’u), and the island called Mokoli’i more commonly known as Chinaman’s Hat.

Go to these sites for more information:
http://koolaupoko.com/menu.htm

http://apdl.kcc.hawaii.edu/~oahu/stories/koolaupoko/index.htm)

Ko’olauloa (Windward District)

Schools in the Moku Ko’olauloa on O‘ahu

This moku splits the Castle-Kahuku complex that includes thirteen elementary, one intermediate, and two high schools (one is a combination intermediate & high school). Since this school district complex division overlaps with the moku above we will only list the Kahuku schools here. Upper level schools in the Kahuku complex include: Kahuku High & Intermediate and Lā’ie Elementary.

Description of This Moku

Ko'olauloa is the northeastern district of O'ahu, from Waimea Bay on the North Shore to Ka'a'awa on the windward coast. ("Ko'olau" means "windward"; "loa" means "long"). The valleys from Lā'ie to Kahana are well-watered and fertile. The most famous god of this land was Kamapua'a, "Pig-Child," whose home was in

the valley of Kaliuwa'a (Sacred Falls) in Kaluanui. The gods Kāne and Kanaloa wandered through this district, creating springs and fishing. Fish is abundant; the coastline is also noted for its shark gods and shark men (mano kanaka).

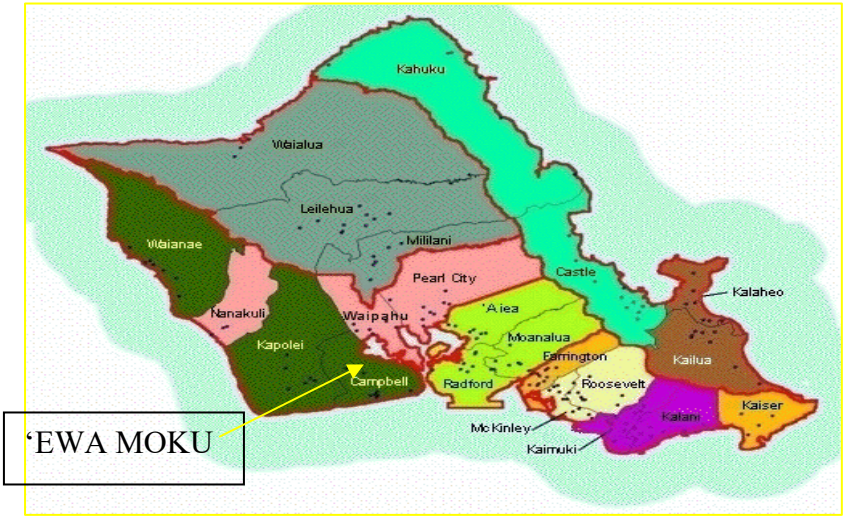
According to legend, during the Makahiki festival several Akua (Gods) appeared. Akua Loa traveled in a right circle around the island and Akua Poko journeyed to the left. Eventually, they met at the ahupua‘a division between Kualoa and Ka’a’awa. As a result, the names Koolauloa and Koolaupoko were given to the moku to represent the meeting of the Akua.

The ahupua’a from west to east are Waimea, Keahuohapu’u, Pupukea, Paumalu, Kaunala (or Peapueo), ‘Opana, Kawela, Hanakao’e, Kahuku (or Ahumanu), Keana, Malaekahana, Lå’iewai, Laniloa, Lå’iemalo’o, Kaipapa’u, Hau’ula (or Lanakila), Mākoa, Kapaka, Kaluanui, Punalu’u (or Moa’e), Kahana (or ‘Åhiu), Ka’a’awa (or Holopalo), and Ka’o’io.

For more on this go to:
http://apdl.kcc.hawaii.edu/~oahu/stories/koolauloa/index.htm

‘Ewa Moku (Central District)

Retrieved from http://doe.k12.hi.us/myschool/map_oahu.htm



Schools in Moku ‘Ewa on O‘ahu

Middle and High schools in this area include: Aiea High School, Campbell High School, School, Kapolei High School, Moanlua High School, Pearl City High School, Radford High School, Waipahu High School

Description of This Moku

'Ewa is in the Southwest district of O'ahu with lands surrounding the estuary of Pu'uloa (Pearl Harbor), from Hālawa in the East to Honouliuli in the West. "'Ewa" means "crooked" or "unequal." The lands around Pu'uloa are watered by streams running down from the Ko'olau Mountains, while the western plains, where homeless spirits without family or friends wandered, are dry. The estuary of Pu'uloa was noted for its abundance of seafood and for its guardian shark goddess, Ka'ahupahau, its fish goddess, Kaihuopala'ai, and its mo'o (water lizard) goddess, Kanekua'ana, who brought, then took away, the oysters from which Pearl Harbor got its name.

Click on the hyperlinks above or go to http://apdl.kcc.hawaii.edu/~oahu/graphics/ for a variety of maps on this information.

The Moku of Waiʻanae on Oʻahu is fully explored in a separate document in this folder. See page A-110.

The Moku of Kona on Oʻahu will be added to the Web site. Our apologies that it is not available now.

APPENDIX G

AGENCIES, BOARDS, & STAKEHOLDERS LETTERS, COMMENTS, & RESPONSES

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

RICK BLANGIARDI
MAYOR

DEAN UCHIDA
DIRECTOR

DAWN TAKEUCHI APUNA
DEPUTY DIRECTOR

April 8, 2022

2022/ELOG-546(CK)

Mr. Mark Howland
WHALE Environmental Services, LLC
P.O. Box 455
Kahuku, Hawaii 96731

Dear Mr. Howland:

SUBJECT: Request for Pre-Consultation Comments
Environmental Assessment for New Dwelling on Shoreline Lot
56-229 Kamehameha Highway - Malaekahana, Koolauloa
TMK: 5-6-001:077

This is in response to your request, received March 14, 2022, for Pre-Environmental Assessment (EA) consultation and comments. The proposed action consists of the construction of a new single-family dwelling unit and garage at the above-referenced property (Project). The subject site is a 34,064-square-foot shoreline lot located in the R-5 Residential District and Special Management Area (SMA) in Malaekahana.

As a result of Act 16 (2020), the Department of Planning and Permitting (DPP) has received a significant increase in the number of EA and SMA Permits submittals. Your Pre-Draft EA consultation requests differ substantially from the others we receive in length, detail, and organization. We have received many Pre-EA comment requests from your organization and they resemble complete or nearly complete Draft EAs. While that may serve you or your clients, it does not facilitate the intended purpose of the Pre-EA consultation process. In the future, please follow these guidelines for your Pre-EA submittals:

- Pre-EA consultation requests should include a clearly written project description describing the site location and characteristics, proposed scope of work, detailed plans and architectural drawings, a summary of potential environmental and/or coastal zone impacts anticipated, and any specific input you hope to receive from the consulted agencies.
- Pre-EA requests for consultation should be conducted prior to compilation of a Draft EA, and should not include a Draft of the EA itself. The purpose of

requesting agency comments prior to the preparation of the Draft EA is so that the responses received can be used to shape the scope and content of potential environmental impact issue areas to be addressed within the Draft EA, as well as the level of analysis required. It is not designed as a "pre-check" of the Draft EA from the accepting agency.

- Please refrain from sending hundreds of pages of support documentation that will eventually become part of the analysis in the Draft EA. Given that those pages will likely change upon your receipt of guidance from the Pre-EA comments, we do not want to give you the false impression that the materials have been reviewed in their entirety.
- Please submit a hard copy transmittal letter or executive summary, but only electronic copies of lengthier documents.
- Do not submit your resume as part of an appendix.

General Comments for the Draft EA

1. Neighborhood Board (NB) Outreach: The Project must comply with Section 25-5.1(b), Revised Ordinances of Honolulu (ROH), relating to presentations to the NB. The status of public outreach efforts and NB presentations should be summarized in the Draft EA. Please note that it is incumbent upon the Agent or Applicant for the Project to reach out to the appropriate NB Chair and request to be scheduled on one of the upcoming NB meeting agendas. Once scheduled, the Agent or Applicant then presents the proposed Project before the NB, and addresses any questions or concerns, as applicable.

2. General Plan (GP) and Land Use Ordinance (LUO) Consistency: The Draft EA must include, *in an itemized manner*, the proposed Project's consistency with the relevant *policies and criteria* as contained in GP, the Koolauloa Sustainable Communities Plan, and the LUO, Chapter 21, ROH, in these sections and elsewhere throughout the Draft EA as applicable. For the LUO consistency discussion, the analysis should discuss how the Project complies with the development standards of the R-5 Residential District. Also include a discussion of the history of the site, including Subdivision and land use approvals, and building permits and thorough description of existing onsite structures proposed to be removed or remain onsite.

3. SMA Permit Criteria: Because the Project is located within the SMA, the Draft EA must include, *in an itemized manner*, the proposed Project's consistency with the relevant *criteria* identified in Chapter 25, ROH, and Sections 205A-4 and 205A-26, Hawaii Revised Statutes (HRS).

4. Coastal Hazards: The Project site, as a shoreline lot, is susceptible to Sea Level Rise (SLR), tsunamis, and storm surge. Mayor's Directive 18-2, issued on July 16, 2018, requires all City departments and agencies to use the Hawaii *SLR Vulnerability and Adaptation Report*, the *SLR Guidance* and the *Climate Change Brief* in planning decisions. As a result, proposed development activities within the SMA must be evaluated not only for potential impacts to sensitive SMA resources, but also for current and future susceptibility to coastal hazards such as flooding, SLR, wave action, tsunami, and storm surge.

   The recent amendments to Chapter 205A, HRS, under Act 16 (2020) reiterate the need to evaluate potential impacts related to coastal hazards and SLR. As such, coastal hazards need to be evaluated at a site-specific and cumulative level in both the Draft EA and SMA Use Permit. The analysis should evaluate the site's existing topographic, geologic, and shoreline environment, and discuss any design features and/or mitigation measures proposed to mitigate impacts associated with coastal hazards, particularly under a scenario envisioning 3.2 feet of SLR (not 1.1 feet). Please refer to the Hawaii Climate Change Mitigation and Adaptation Commission's *Guidance for Using the SLR Exposure Area in Local Planning and Permitting Decisions* (2020) in considering how to evaluate the potential for impacts related to coastal hazards at a particular property. This guidance document is available online at:

   https://climate.hawaii.gov/wp-content/uploads/2020/12/Guidance-for-Using-the-Sea-Level-Rise-Exposure-Area.pdf

   According to our research, which involved a review of the Hawaii SLR Viewer with both the 3.2-foot SLR exposure area and the TMK layer turned on, approximately one fifth of the makai portion of the lot is subject to annual high wave flooding at 3.2 feet of SLR by 2100 or earlier. Please note that as a result of Act 16 (2020), potential impacts to sandy beaches and beach dunes must also be evaluated. According to our research, which involved a review of the Hawaii SLR Viewer with both the Beaches and Dunes and the TMK layer turned on, approximately 80 percent of the subject property is mapped as dunes and marine sands, and the remaining approximately 20 percent of the property is mapped as beach soils.

Additional review of the State's Hawaii Shoreline Study web map indicates that based on historical rates, the subject property is subject to an average erosion rate of 0.5 feet per year. The Hawaii Shoreline Study web map is available online at:

http://www.soest.hawaii.edu/coasts/index.php/resources/hawaii-shoreline-study-web-map/

All of this relevant information must be accurately incorporated into the Draft EA analysis.

5. Shoreline Setback Compliance: Incorporate the discussion of the Project's consistency with the Shoreline Setback Ordinance, Chapter 23, ROH, into the text of the Draft EA. Based on initial review of the minimal plans provided, it appears that the Project proposes placement of the new residence 80 feet setback mauka of the "*Oceanic Property Line*," or an additional 20 feet setback beyond (mauka of) the "*Vegetation Line Yet to be Determined*." It is unclear what an oceanic property line refers to, or if the vegetation line referenced here refers to the shoreline, as determined by a State-licensed surveyor and certified by the State. For the purposes of minimizing the potential for impacts related to coastal hazards and for the preservation of coastal dune and sandy beaches, we strongly recommend that all development be placed as far mauka on the lot as is practicable. You may refer to Act 16 (2020) and other SMA Use Permit applications recently or currently under review by the City Council for further discussion of this issue.

   All development must be located outside of the shoreline setback area, which currently extends 60 feet mauka of the Certified Shoreline for subdivided properties. The shoreline setback line and distance from the shoreline must be confirmed on a shoreline survey certified by the State of Hawaii, and must also be reflected in the plans submitted for the SMA Use Permit to confirm compliance with the Shoreline Setback Ordinance (Chapter 23, ROH). A draft shoreline survey should be included and evaluated in the Draft EA. A *Certified Shoreline Survey* must be included in the Final EA.

   Alternatively, if the Applicant seeks to waive the requirement for a certified shoreline survey and locate all development more than 75 feet from an uncertified (presumed) shoreline, the Draft EA should include a shoreline survey and plans that identify and label the proposed distance from the presumed shoreline. Under this approach, the Applicant must provide evidence documenting the location of the presumed shoreline. Such information may include, but is not limited to, a previously certified shoreline survey, erosion and/or accretion information, historic versus current photographs, and physical or

geographic markers such as survey pins or trees that document the level of change in the shoreline since the most recent certified shoreline survey. Please note that a waiver of the requirement for a certified shoreline survey is subject to the discretion of the Director of the DPP.

3. Sensitive Species: The Draft EA should identify the presence or potential presence of any protected wetlands, sensitive habitat, flora species, and fauna species. In order to determine which protected species may occur onsite, the DPP recommends reaching out to the U.S. Fish and Wildlife Service during the Draft EA agency pre-consultation process to obtain a list of species that are known to occur, or that may potentially occur, in the project vicinity.

4. Cultural Resources vs. Historic and Archaeological Resources: The current Draft of the EA has a limited discussion of potential impacts to cultural resources that also mention archaeological resources. Please note that Cultural Resources, and potential impacts to be evaluated in a Cultural Impact Assessment conducted with proper outreach to affected native populations, should be evaluated separately and in addition to Archaeological and Historical Resources. Therefore, please include a separate discussion of the existing conditions and anticipated impacts to historic and archaeological resources that may occur as a result of Project implementation. Similar to other specialty issue areas, please ensure that an appropriate level of technical review and reporting by a qualified archaeologist and historical resources specialist is included as an appendix to the Draft EA in support of the analysis provided in the Draft EA. Please also include the State Historic Preservation Division's (SHPD) standard "stop-work" requirement as mitigation should previously unknown historic or archaeological resources be encountered during construction or other earth-moving activities.

   Please be advised that in December 2020, the SHPD began using a new online system to better track consultation requests:

   https://shpd.hawaii.gov/hicris/landing.

   Because the new tracking system requires agency-to-agency requests, the DPP has created a generic request letter that consultant's/property owners may use for projects that will eventually require DPP approval. This letter may be completed by a consultant or property owner and submitted to SHPD directly via their online system to initiate requests before permit applications are submitted to the DPP.

The letter includes a general DPP contact number and email, as well as blank fields where the property owner or their consultant can enter their contact information. The generic request letter is available online at:

https://tinyurl.com/h7yvc7vp.

5. Alternatives: We strongly suggest that all EAs analyze at least three alternatives, inclusive of a No Project Alternative, the proposed Project (Preferred Alternative), and at least one other alternative that was considered during the siting or design planning for the Project that may have been rejected as infeasible due to potential impacts to the environment. For example, the Draft EA should explore Project alternatives, site design (siting and configuring the proposed dwelling as far from the shoreline as possible), project design features (elevated structures, alternative foundations, etc.), Best Management Practices, and appropriate mitigation measures to reduce potential impacts related to coastal hazards to the extent possible.

6. Exhibits and Draft EA Layout: Please ensure images presented in the Draft EA are clearly legible and of sufficient scale to adequately reflect the purpose and/or conditions for which they are being presented. For example, the image presented on page viii is not sufficiently zoomed in or clear to identify the projected impacts of SLR.

   The Draft EA must include a table of contents with consistent page and section numbering throughout, so the document can be easily navigated. Therefore, please reevaluate and improve the Draft EA layout so that there is a rational progression of topics and associated figures, tables, and images. Please ensure that the appropriate topics are fully discussed in the appropriate sections. For example, it is unclear why visual resources are discussed as a subsection of "Climate" on page 20.

   In regard to the formatting of the EA document, please also note that the State Office of Planning and Sustainable Development, Environmental Review Program (OPSD-ERP); previously the Office of Environmental Quality Control), requires that the Draft and Final EA be provided electronically as searchable pdfs in order to upload said documents for publication in *The Environmental Notice*. The OPSD-ERP also requires the provision of a publication form and an action location map (a .zip file that contains the shape file or KML file) for upload into their publication submittal portal. These items must be provided to the DPP as part of a complete Draft EA submittal.

Thank you for the opportunity to comment on this proposal. Should you have any questions, please contact Christi Keller, of our staff, at (808) 768-8087 or via email at c.keller@honolulu.gov.

Very truly yours,

For Dean Uchida
Director

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

RICK BLANGIARDI
MAYOR

DEAN UCHIDA
DIRECTOR

DAWN TAKEUCHI APUNA
DEPUTY DIRECTOR

August 12, 2022

2022/ED-11(CK)

Mr. Mark Howland
WHALE Environmental Services LLC
P.O. Box 455
Kahuku, Hawaii 96731

Dear Mr. Howland:

SUBJECT: Draft Environmental Assessment (DEA)
56-229 Kamehameha Highway Single Family Residence
56-229 Kamehameha Highway - Malaekahana, Koolauloa
Tax Map Key (TMK) 5-6-001: 077

This is in response to the submittal, received July 6, 2022, of the above-referenced DEA, which is required under Chapter 25, Revised Ordinances of Honolulu (ROH). We understand that the Project proposes the construction of a new single-family dwelling unit and garage at the above-referenced 34,064-square-foot shoreline lot located in the R-5 Residential District and Special Management Area (SMA) in Malaekahana, Oahu. We have reviewed the DEA and determined that it cannot be accepted for processing at this time because it contains errors and is missing required content. You may resubmit the DEA for review, with a new application review fee, once the revisions below have been incorporated.

1. Cover Letter and Application Form Accuracy: According to your submittal, you are requesting that the Department of Planning and Permitting (DPP) "*issue a Finding of No Significant Impact (FONSI) and SMA Major Approval and also file a copy with the Office of Environmental Quality Control for publication in the Environmental Notice.*" Your Master Land Use Permits Division Application Form indicates you are applying for approval of an SMA Use Permit, as opposed to an Environmental Assessment, and incorrectly identifies the application fee amount. In addition, the contact information for the Applicant on the application form is incomplete.

   The review and publication of a DEA is a separate application process from that required for an SMA Use Permit. Each require separate application forms, application submittal contents, and application review and processing fees.

Applications for SMA Use Permits are not accepted until publication of the Final EA (FEA), as a final environmental review document and FONSI are required components of a complete SMA Use Permit application package.

Both the DPP's EA instructions and SMA use Permit application instructions are available on our website at:

http://www.honoluludpp.org/ApplicationsForms/ZoningandLandUsePermits.aspx

Please provide a corrected application form, with corrected process-related language where applicable.

2. Public Review Comments: Pursuant to Hawaii Administrative Rules (HAR) Section 11-200.1-18(d)(10), a DEA shall contain "*written comments, if any, and responses to the comments received, if any...*" Although the DEA does include responses to the letters received, at least one comment letter, from the DPP, is missing from the DEA. Responses to the DPP's letter are provided in the cover letter, but must be provided within the DEA itself. Generally, pre-DEA and DEA comment letters and their associated responses are included as an appendix to DEA and FEA documents. You must provide all comment letters received along with responses on behalf of the Applicant.

3. Figures / Maps: All figures and maps must be clear and legible, and at a scale where they are easily readable by reviewing parties. We recommend graphics sized to fit individually on 8 ½ x 11-inch pages for each figure and map.

Section 11-200.1-18(d), HAR, describes the required contents of a DEA, including the following:

> *"(6) Summary description of the affected environment, including suitable and adequate regional, location, and site maps such as Flood Insurance Rate Maps, Floodway Boundary Maps, United States Geological Survey topographic maps, or state sea level rise exposure area maps;..."*

For a DEA intended to support an SMA Use Permit application, you must provide the following clearly labeled maps and figures, at a minimum, within the DEA document itself (not within the Appendices):

- Regional Vicinity Map
- Project Location Map
- Zoning Map
- SMA Map

- Site Plan
- Hawaii Sea Level Rise (SLR) Viewer Map(s)
- Flood Zone Map
- National Hurricane Center Storm Surge Risk Maps

One site plan sheet must be provided that shows the location of the proposed development in relation to the certified or presumed shoreline, the minimum shoreline setback line, the proposed setback waiver line (if proposed for use), and the applicable layers of the projected SLR-Exposure Area from 0.5 to 3.2 feet of SLR. Please note that the Hawaii SLR Viewer website allows viewers to view images in full screen, and these can be printed clearly with the TMK boundary lines shown (see Exhibit A).

3. Other Content Issues:

- *Table of Contents*: The Table of Contents should include subsection headers identifying where each resource area and required EA topic is located (Biological Resources, Climate, Alternatives, Cumulative Impacts, etc.). For clarity, we also recommend that all figures and tables within the DEA document also be numbered and referenced in the Table of Contents.

- *Project Identification Table* (and elsewhere as applicable): Please utilize the DPP's online Geographic Information System (GIS) to correctly identify the zoning district within which the Project site is located. Use of other information sources, such as Real Property records, can lead to incorrectly identified zoning districts. In the case of the current submittal, the "County Zoning" is identified as "FS - Residential 5 Urban District," and the State Land Use District is identified as "Residential." Both of these are incorrect. The subject property is located in the R-5 Residential District (County Zoning District), and within the State Land Use Urban District. The GIS portal is available online at:

  https://www.honolulugis.org/

- *Affected Environment, and Environmental Consequences*: You stated that other regulatory agencies require full copies of the technical reports. We do not disagree. However, the DEA must be prepared as a stand-alone document that contains sufficient information such that the reader is not required to consult separate reports for basic information relevant to a proposed development.

All relevant information on existing conditions, potential impacts, and proposed mitigation measures applicable to each issue area, as gathered through technical studies and other research, must be summarized and incorporated into the appropriate section of the DEA document itself. Technical reports are only provided as supporting appendices to complete DEA and FEA document as references. Please revise the DEA accordingly.

You may find it valuable to review how information is incorporated into other recent DEA or FEA documents. These are available on the State Office of Planning and Sustainable Development, Environmental Review Program, website at:

https://planning.hawaii.gov/erp/ea-and-eis-new-rules/

- *Executive Summary and Chapter 1*: These sections should be brief and only serve to introduce the Project. In depth discussion should be incorporated into the Affected Environment and Environmental Consequences sections, as appropriate.

- *Land Use*: In order to support an upcoming SMA Use Permit application, the applicable regulations discussed should include, at a minimum, each of the relevant criteria, policies, and development standards contained in Chapter 205A, Hawaii Revised Statutes; the Oahu General Plan; the Koolaupoko Sustainable Communities Plan; Chapter 25, ROH; Chapter 23, ROH; Chapter 21, ROH; and Chapter 21A, ROH.

- *Shoreline Discussion*: Please rephrase all language indicating the Project site is not a shoreline lot. The Project site consists of the entirety of the regulatory parcel, inclusive of the shoreline setback area. The *portion* of the Project site proposed for development appears to be outside of the shoreline setback area. This distinction should be clarified.

  In addition, it appears you are proposing use of a presumed shoreline and shoreline setback waiver line, as opposed to a State-certified shoreline, as the line from which you are you are measuring the distance of the proposed development from the shoreline. The DPP has no record of a shoreline survey ever having been certified by the State at the subject property. The DEA only includes an illegible map described as a "survey map" of the subject property. Section 13-5 of the DPPs *Part 2 Rules Relating to Shoreline Setbacks and the SMA* describes the circumstances under which the Director may waive the requirement to provide a certified shoreline survey.

Please provide a legible survey map, as well as other evidence supporting the proposed location of the presumed shoreline. Please incorporate this discussion into the text of the DEA under the discussion of the Project's compliance with Chapter 23, ROH.

Thank you for your attention to these items. As noted above, you may resubmit a revised DEA upon incorporation of the additional information and required revisions discussed above. A new application review fee will be required. The receipt for the current application review fee and your return check for the required permit processing fee are enclosed. Should you have any questions, please contact Christi Keller, of our staff, at (808) 768-8087 or via email at c.keller@honolulu.gov.

Very truly yours,

FOR Dean Uchida
Director

Enclosure: Receipt No. 137324
Check No. 1634
Exhibit A SLR-Exposure Area Map

cc: Ann and Jim Pietsch (Applicants)

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com

March 31, 2022

RICK BLANGIARDI, MAYOR

BRYAN P. ANDAYA, Chair
KAPUA SPROAT, Vice Chair
RAY C. SOON
MAX J. SWORD
NA'ALEHU ANTHONY

JADE T. BUTAY, Ex-Officio
DAWN B. SZEWCZYK, P.E., Ex-Officio

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.
Deputy Manager and Chief Engineer

Mr. Mark Howland
WHALE Environmental Services, LLC
P.O. Box 455
Kahuku Hawaii 96731

Dear Mr. Howland:

Subject: Your Letter Requesting Comments on the Draft Environmental Assessment of the Proposed Ke Piki Ohana LLC Property – Tax Map Key: 5-6-001: 077

Thank you for your letter regarding the proposed single-family residential development.

The existing water system is adequate to accommodate the proposed development. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission and daily storage.

Water conservation measures are required for all proposed developments. These measures include utilization of nonpotable water for irrigation using rain catchment, drought tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.

The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

If you have any questions, please contact Robert Chun, Project Review Branch of our Water Resources Division at (808) 748-5443.

Very truly yours,

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulupd.org

RICK BLANGIARDI
MAYOR

RADE K. VANIC
INTERIM CHIEF

OUR REFERENCE EO-DK

March 24, 2022

SENT VIA EMAIL

Mr. Mark Howland
markahowland@hawaii.rr.com

Dear Mr. Howland:

This is in response to your letter received on March 14, 2022, requesting input on the Draft Environmental Assessment for the replacement of the single-family residence at 56-229 Kamehameha Highway in Kahuku.

The Honolulu Police Department (HPD) has reviewed the project and recommends that adequate notification be made to area businesses and/or residents due to the potential ingress and egress of construction vehicles, equipment, and deliveries during the construction phase of the project, as Kamehameha Highway is the main roadway in the area.

If there are any questions, please call Major Crizalmer Caraang of District 4 (Kaneohe, Kailua, and Kahuku) at (808) 723-8639.

Thank you for the opportunity to review this project.

Sincerely,

DARREN CHUN
Assistant Chief of Police
Support Services Bureau

Subject: Ke Piki Ohana TMK (1)-5-6-001:077
From: "Nakayama, Tad T" <tad.t.nakayama@hawaii.gov>
Date: 4/11/2022, 8:03 AM
To: "markahowland@hawaii.rr.com" <markahowland@hawaii.rr.com>
CC: "Ishii, Wade T" <wade.t.ishii@hawaii.gov>, "Lee, Shaoyu L" <shaoyu.l.lee@hawaii.gov>

Mr. Howland,

Thank you for the opportunity to comment on the above project. The State of Hawaii Department of Defense has no comments to offer relative to the project.

Should there be any questions, please contact me at 808-369-3490 or tad.t.nakayama@hawaii.gov.

Thank you,

Tad T. Nakayama
Project Manager
State of Hawaii
Department of Defense – Engineering Office
3949 Diamond Head Road
Honolulu, HI 96816-4495

Phone: 808-369-3490

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 768-4730 • web: www.honolulu.gov

RICK BLANGIARDI
MAYOR

J. ROGER MORTON
DIRECTOR

JON Y. NOUCHI
DEPUTY DIRECTOR

TP3/22-876593

April 14, 2022

SENT VIA EMAIL

Mr. Mark Howland, Environmental Agent
WHALE Environmental Services LLC
markahowland@hawaii.rr.com

Dear Mr. Howland:

Thank you for the opportunity to provide written comments regarding the Draft Environmental Assessment - Ke Piki Ohana LLC Property. We have the following comments.

1. Complete Streets.

    i. A proposed Priority 1 Shoulder Bikeway project (Project ID 1-38 in the 2019 Oahu Bike Plan) is located on Kamehameha Highway fronting the Project site. Any driveways or improvements shall be designed to minimize the number and size of potential conflict areas between bicyclists and turning vehicles.

2. Neighborhood Impacts. The area representatives, neighborhood board, as well as the area residents, businesses, emergency personnel (fire, ambulance, and police), Oahu Transit Services, Inc. (TheBus and TheHandi-Van), etc., should be kept apprised of the details and status throughout the project and the impacts that the project may have on the adjoining local street area network.

3. Disability and Communication Access Board (DCAB). Project plans (vehicular and pedestrian circulation, sidewalks, parking and pedestrian pathways, vehicular ingress/egress, etc.) should be reviewed and approved by DCAB to ensure full compliance with Americans with Disabilities Act requirements.

Should you have any questions, please contact Greg Tsugawa, of my staff, at (808) 768-6683.

Very truly yours,

J. Roger Morton
Director

LD 0246

RECEIVED
LAND DIVISION
2022 MAR 14 PM 1:12
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
1151 PUNCHBOWL ST, ROOM 220
HONOLULU, HAWAII 96813

COVER LETTER – ASKING FOR REVIEW COMMENTS

EXECUTIVE SUMMARY - Draft Environmental Assessment – Ke Piki Ohana LLC Property

The attached DVD contains the digital version of a Draft Environmental Assessment (EA) for Ke Pike Ohana LLC Property in ~~K~~ailua, Oahu, Hawaii at 56-229 Kamehameha Highway – TMK (1)-5-6-001:077. We would be appreciative if you would review the attached EA and return any comments via mail or email (preferred) to our environmental consultant as addressed below. The approving agency will be C&C of Honolulu, Department of Permitting and Planning and copies will also be filed with the Office of Quality Environmental Control for publication in the *Environmental Notice* after the DPP pre-consult is complete and file number issued, and the Public Hearing conducted by the appropriate Neighborhood Board.

Kahuku →

Response Contact Information

Mark Howland
WHALE Environmental Services LLC
P.O. Box 455, Kahuku, HI 96731
www.whalees.com
markahowland@hawaii.rr.com

email response is our preference... Mahalo nui loa

Draft Environmental Assessment – Ke Piki Ohana LLC Property

This Environmental Assessment (EA) analyzes the environmental consequences of the Proposed Action and reasonable alternatives in accordance with Chapter 25, Revised Ordinances of Honolulu (ROH), Title 11, Chapter 200:1 (Title 11-200), and Chapters 11-55 and 11-54 Hawaii Administrative Rules (HAR) and Chapter 343 and 205A, Hawaii Revised Statutes (HRS). This EA demonstrates that construction and operation of the Proposed Action would not result in any significant effects to the environment. Pursuant to Chapter 25, ROH, Chapter 200-10, Title 11, HAR and Chapter 343, HRS, should an anticipated Finding of No Significant Impact (FONSI) be determined, an Environmental Impact Statement would not be required.

The Proposed Action will have no significant impacts to any environmental resources areas. The implementation of standard Best Management Practices will ensure no significant impacts occur to geological and soil resources and water resources. The Proposed Action will not contribute to any significant cumulative impacts or reasonably foreseeable direct or indirect effects on any coastal use or resource of the State's coastal zone. The Proposed Action is not anticipated to adversely affect historic properties.

PURPOSE AND NEED OF PROPOSED ACTION

Proposed Action and Location. Construction of Single-Family Residential Structure Construction on a parcel at 56-229 Kamehameha Highway, Kahuku, HI 96731.

Purpose and Need. The Proposed Action would be the construction of a single family residence outside the shoreline setback. As construction costs are over $500,000, it is agreed that a SMA Major will be needed and will be submitted after DPP agrees to a Finding of Non Significance (FONSI) and issues a file number.

Coordination with interested and affected parties is required; the Draft EA was distributed to the agencies listed in Section 11. This EA was prepared by WHALE Environmental Services, LLC for the Ke Piki Ohana LLC's property and was based on the preliminary architectural conceptual drawings prepared by the architect for the project – Nik Butterbaugh.

Action and Alternative(s). One Reasonable Action and one No Action Alternative to the Proposed Action include:

Action - Construction of a new single-family residential dwelling on a vacant lot honoring the shoreline setback.

Alternative - The No-Action Alternative where the proposed project would not be constructed.

The uses that are considered under Action/Alternative would be on the same 0.782-acre site. The environmental consequences of the No Action Alternative are evaluated as a baseline for comparison with the environmental consequences of the Proposed Action and of no action. Under the No Action alternative, the Proposed Action would not be constructed. Therefore, Ann and Jim Pietsch would not benefit from use of the property for constructing a single family residential structure and improved site securities.

Environmental Consequences. *The Proposed Action would have beneficial socio-economic impact* (increase housing value and use). No significant adverse impacts are anticipated to biology, noise, air quality, geology and soils, land use, socioeconomics and traditional cultural practices, hazardous materials and waste, utilities and public services, and adherence to existing laws and regulations, water or archaeological resources. Moreover, this EA demonstrates that the Proposed Action will not have reasonably foreseeable direct or indirect effects on any coastal use or resource of the State's coastal zone. Based on the review of potential environmental resource impacts, the construction and operation of the Proposed Action would not result in any significant environmental impacts. The vast majority of potential impacts can and will be fully mitigated with the use of proper planning, construction mitigation, and compliance with the rules and regulatory policies. These will center on Best Management Practices (BMPs) will be in place to govern such impacts and to ensure protection of the natural and human environment. Thus, the Proposed Action will not contribute to any significant cumulative impacts or reasonably foreseeable direct or indirect effects on any coastal use or resource of the State's coastal zone.

Sincerely yours,

Mark Howland (environmental agent for the owners – Ke Piki Ohana LLC
WHALE Environmental Services LLC, P.O. Box 455, Kahuku, HI 96731
markahowland@hawaii.rr.com www.whalees.com 808-294-9254

STATE OF HAWAII
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT

DAVID Y. IGE
GOVERNOR

MARY ALICE EVANS
DIRECTOR

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: http://planning.hawaii.gov/

DTS202203160855NA

Coastal Zone Management Program

Environmental Review Program

Land Use Commission

Land Use Division

Special Plans Branch

State Transit-Oriented Development

Statewide Geographic Information System

Statewide Sustainability Branch

April 4, 2022

Mr. Mark Howland
WHALE Environmental Services LLC
P.O. Box 455
Kahuku, Hawaii 96731

Dear Mr. Howland:

Subject: Draft Environmental Assessment for Single-Family Dwelling Construction at 56-229 Kamehameha Highway, Kahuku, Oahu; Tax Map Key: (1) 5-6-001: 077

The Office of Planning and Sustainable Development (OPSD) is in receipt of your review request, received March 10, 2022, on the Draft Environmental Assessment (Draft EA), for development of single-family residential structure with new construction, at 56-229 Kamehameha Highway, Kahuku, Oahu.

According to the Draft EA, the proposed action involves construction of a new single-family residence on a vacant land, which is a 0.782-acre shoreline parcel. As the construction cost will exceed $500,000, the threshold between SMA Minor Permit and Special Management Area (SMA) Use Permit, a SMA Use Permit is required.

The subject EA is prepared in accordance with the procedural steps set forth in HRS Chapter 343 pursuant to Chapter 25, Revised Ordinances of Honolulu, to support the SMA Use Permit application.

The property area lies within Flood Zone X, determined to be outside the 0.2% annual chance floodplain. The project site is not located within the projected 3.2-foot sea level rise exposure area according to the State of Hawaii Sea Level Rise Viewer.

The OPSD has reviewed the Draft EA, and has the following comments to offer:

1. The Final EA should provide a regional location map of the subject property on the Island of Oahu, with the project site in relation to the county designated SMA.

2. The Final EA should provide a description of proposed residential structure in the floor area, floor area ratio, and stories and/or height.

3. The OPSD suggests that the Final EA provide a site plan with the distance of the proposed residence structure from a certified shoreline to ensure that no structure or construction activities will be proposed within the shoreline area as defined in HRS § 205A-41. Please note that construction of private shoreline hardening structures in areas with beaches is prohibited by HRS Chapter 205A, as amended, enacted by Act 16, Session Laws of Hawaii (SLH) 2020.

4. Pursuant to HRS § 205A-2(c)(9), as amended, enacted by Act 160, SLH 2010 and Act 120, SLH 2013, the Final EA should discuss the current situation of vegetation along the shoreline, with site-specific measures as to how to prevent a public nuisance from inducing or cultivating vegetation along the beach transit corridor, and maintain vegetation at the property site to avoid interference or encroachment upon the beach transit corridor.

5. In enacting Act 224, SLH 2005, the legislature found that light pollution in Hawaii's coastal areas and artificial lighting illuminating the shoreline and ocean waters can be disruptive to avian and marine life. The exterior lighting and lamp posts associated with the proposed residence project shall be cut-off luminaries to provide the necessary shielding to mitigate potential light pollution in the coastal areas, and lessen possible seabird strikes. No artificial light, except as provided in HRS §§ 205A-30.5(b) and 205A-71(b), shall be directed to travel across property boundaries toward the shoreline and ocean.

6. Please address the typographical error for Chapter 11-200:1, and Chapter 200-10, Title 11, HAR, page v, which shall be corrected as HAR Chapter 11-200.1, effective August 9, 2019.

If you have any questions regarding this comment letter, please contact Shichao Li of our office at (808) 587-2841 or by email at shichao.li@hawaii.gov.

Sincerely,

Mary Alice Evans

Mary Alice Evans
Director

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

April 21, 2022

LD 0246

Mark Howland
WHALE Environmental Services LLC
P.O. Box 455
Kahuku, HI 96813

Via email: markahowland@hawaii.rr.com

Dear Sirs:

SUBJECT: **Draft Environmental Assessment for Construction of Single Family Residential Structure at Ke Piki Ohana LLC Property**
56-229 Kamehameha Highway
Kahuku, District, Island of Oahu
TMK: (1) 5-6-001:077

Thank you for the opportunity to review and comment on the subject project. The Land Division of the Department of Land and Natural Resources (DLNR) distributed copies of your request to DLNR's various divisions for their review and comment.

Enclosed are responses/comments received from our (a) Division of Aquatic Resources and (b) Land Division, Oahu District. Should you have any questions, please feel free to contact Barbara Lee via email at barbara.j.lee@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Enclosures
cc: Central Files

DAVID Y. IGE
GOVERNOR OF
HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 330
HONOLULU, HAWAII 96813

Date: 4/13/2022
DAR # AR0166

MEMORANDUM

TO: Brian J. Neilson
DAR Administrator

FROM: Bryan Ishida, Aquatic Biologist

SUBJECT: Comments on DEA for Construction of Single Family Residential Structure at KePiki Ohana LLC Property

Request Submitted by: Russell Tsuji, Land Administrator
56-229 Kamehameha Highway, Kahuku, Island of Oahu, Hawaii

Location of Project: TMK: (1) 5-6-001:077

Brief Description of Project:

The applicant (Ke Piki Ohana LLC) intends to construct a single-family residential dwelling on a vacant 0.78 acre lot located in the Kahuku area of Oahu. The lot is bordered by the windward coastline (Mālaekahana Beach) on one end of the property, and Kamehameha Highway on the opposite. The lot is presently vegetated primarily with grass, with some scattered trees and shrubs occurring mostly along the property border. Soils are a mix of fill soils brought in from other locations, and naturally occurring sand. Groundwater depth at the project site is approximately ten feet below the surface though potentially varying with tidal conditions.

Comments:

☐ No Comments ☒ Comments Attached

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the project plan, DAR requests the opportunity to review and comment on those changes.

Comments Approved: _____ Date: Apr 14, 2022

Brian J. Neilson
DAR Administrator

DAR# AR0166

Brief Description of Project

The proposed construction would be outside of the 60' defined shoreline setback. No construction or alteration will occur in the setback area aside from placement of temporary erosion barriers along the makai border of the property. Drawings included in Appendix four indicate that the property will be approximately 80' from the surveyed shoreline and behind the existing vegetation line. Drawings in Appendix three depict the house being at the near center point of the property (slightly makai of center). The septic system, propane tank, and 30'x60' asphalt parking area will be located between the dwelling and the highway. The dwelling depicted in drawings will be relatively large (5 bedrooms, 6.5 baths), spanning the majority of the property width. The septic system would be new.

DAR# AR0166

Comments

Because of the close proximity to the ocean, the Division of Aquatic Resources (DAR) notes that adherence to all BMPs noted in the DEA is absolutely imperative. Mālaekahana beach and the surrounding area provides important aquatic habitat and holds high importance as a place for recreation, fishing, and cultural practice. The included Erosion and Sediment Control Plan (ESCP) provides measures to prevent or mitigate our primary concerns including release of chemicals, debris, or sediments into the surrounding aquatic or terrestrial environments. We recognize that given the setback beyond the existing vegetation line, encounters with aquatic life such as monk seals and/or sea turtles inside the proposed construction area is unlikely. However, we would like measures be taken to ensure all contractors and crew be aware that should a turtle or seal enter the property or project site, all work should cease in the immediate area, required setbacks from the animal be observed, and DAR be contacted immediately. Similarly, DAR requests that the applicants note in their protocols that should an unforeseen event impacting the natural environment occur, we be contacted immediately to assess the situation and determine potential impacts on the aquatic environment. Such events include (but aren't limited to) chemical spills, unexpected releases of sediment-laden water, impacts from flooding or high tides, or alterations to the stated building plan.

Mahalo for the opportunity to provide comment.

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 21, 2022

LD 0246

MEMORANDUM

TO: **DLNR Agencies:**
X Div. of Aquatic Resources *(via email: kendall.l.tucker@hawaii.gov)*
__ Div. of Boating & Ocean Recreation
X Engineering Division *(via email: DLNR.Engr@hawaii.gov)*
X Div. of Forestry & Wildlife *(via email: rubyrosa.t.terrago@hawaii.gov)*
X Div. of State Parks *(via email: curt.a.cottrell@hawaii.gov)*
X Commission on Water Resource Management *(via email: DLNR.CWRM@hawaii.gov)*
X Office of Conservation & Coastal Lands *(via email: sharleen.k.kuba@hawaii.gov)*
X Land Division – Oahu District *(via email: barry.w.cheung@hawaii.gov)*

FROM: Russell Tsuji
Russell Y. Tsuji, Land Administrator
SUBJECT: **Draft Environmental Assessment (DEA) for Construction of Single Family Residential Structure at Ke Piki Ohana LLC Property**
LOCATION: 56-229 Kamehameha Highway, Kahuku, Island of Oahu, Hawaii
TMK: (1) 5-6-001:077
APPLICANT: **WHALE Environmental Services LLC on behalf of landowner Ke Piki Ohana LLC**

Transmitted for your review and comment is information on the above-referenced project. Please review the attached information and submit any comments by the internal deadline of **April 18, 2022** to barbara.j.lee@hawaii.gov at the Land Division.

If no response is received by the above due date, we will assume your agency has no comments at this time. Should you have any questions about this request, please contact Barbara Lee at barbara.j.lee@hawaii.gov. Thank you.

BRIEF COMMENTS:

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(☑) Comments are included/attached.

Signed:
Print Name: Brian J Neilson- Adminstrator
Division: Aquatic Resources
Date: Apr 14, 2022

Attachments
Cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 21, 2022

LD 0246

MEMORANDUM

TO: **DLNR Agencies:**
X Div. of Aquatic Resources *(via email: kendall.l.tucker@hawaii.gov)*
__ Div. of Boating & Ocean Recreation
X Engineering Division *(via email: DLNR.Engr@hawaii.gov)*
X Div. of Forestry & Wildlife *(via email: rubyrosa.t.terrago@hawaii.gov)*
X Div. of State Parks *(via email: curt.a.cottrell@hawaii.gov)*
X Commission on Water Resource Management *(via email: DLNR.CWRM@hawaii.gov)*
X Office of Conservation & Coastal Lands *(via email: sharleen.k.kuba@hawaii.gov)*
X Land Division – Oahu District *(via email: barry.w.cheung@hawaii.gov)*

FROM: Russell Y. Tsuji, Land Administrator
Russell Tsuji

SUBJECT: **Draft Environmental Assessment (DEA) for Construction of Single Family Residential Structure at Ke Piki Ohana LLC Property**

LOCATION: 56-229 Kamehameha Highway, Kahuku, Island of Oahu, Hawaii
TMK: (1) 5-6-001:077

APPLICANT: **WHALE Environmental Services LLC on behalf of landowner Ke Piki Ohana LLC**

Transmitted for your review and comment is information on the above-referenced project. Please review the attached information and submit any comments by the internal deadline of **April 18, 2022** to barbara.j.lee@hawaii.gov at the Land Division.

If no response is received by the above due date, we will assume your agency has no comments at this time. Should you have any questions about this request, please contact Barbara Lee at barbara.j.lee@hawaii.gov. Thank you.

BRIEF COMMENTS:

The Shoreline Survey & Topographic Survey Map found in Appendix Four in the subject DEA, indicated the Shoreline Boundary as "Located". Records shows no request for Shoreline Certification for this parcel has been submitted/received for processing.

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
(☑) Comments are included/attached.

Signed: _____ BC
Print Name: Patti Miyashiro
Division: LAND DIVISION - ODLO
Date: Mar 23, 2022

Attachments
Cc: Central Files

DAVID Y. IGE
GOVERNOR

CURT T. OTAGURO
COMPTROLLER

AUDREY HIDANO
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)22.038

MAR 23 2022

Mark Howland
WHALE Environmental Services, LLC
P.O. Box 455
Kahuku, Hawaii 96731

Dear Mr. Howland:

Subject: Draft Environment Assessment for
Ke Pike Ohana LLC Property at 56-229 Kamehameha Highway
Kahuku, Oahu, Hawaii
TMK: (1) 5-6-001: 077

Thank you for the opportunity to comment on the subject project. We have no comments to offer at this time as the proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities.

If you have any questions, your staff may call Ms. Gayle Takasaki of the Planning Branch at 586-0584.

Sincerely,

CHRISTINE L. KINIMAKA
Public Works Administrator

GT:dk

HONOLULU FIRE DEPARTMENT

CITY AND COUNTY OF HONOLULU

636 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

RICK BLANGIARDI
MAYOR

SHELDON K. HAO
FIRE CHIEF

JASON SAMALA
DEPUTY FIRE CHIEF

March 23, 2022

Mr. Mark Howland
WHALE Environmental Services LLC
P.O Box 455
Kahuku, Hawaii 96731

Dear Mr. Howland:

Subject: Draft Environmental Assessment Request for Comments
Ke Piki Ohana LLC Property
56-229 Kamehameha Highway
Kailua, Hawaii 96734
Tax Map Key: 5-6-001: 077

In response to your letter received March 15, 2022, regarding the abovementioned subject, the Honolulu Fire Department (HFD) reviewed the submitted information and requires that the following be complied with:

1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet (46 meters) from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1; 2018 Edition, Sections 18.2.3.2.2 and 18.2.3.2.2.1, as amended.)

   A fire department access road shall extend to within 50 feet (15 meters) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1; 2018 Edition, Section 18.2.3.2.1.)

2. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of buildings are hereafter constructed or

moved into the jurisdiction. The approved water supply shall be in accordance with Section 18.4. (NFPA 1; 2018 Edition, Section 18.3.1.)

3. The fire department access roads shall be in accordance with Section 18.2.3. (NFPA 1; 2018 Edition, Section 18.2.3.)

4. Submit civil drawings to the HFD for review and approval.

Should you have questions, please contact Fire Captain Timothy Caires of our Fire Prevention Bureau at 808-723-7094 or tcaires@honolulu.gov.

Sincerely,

CRAIG UCHIMURA
Acting Assistant Chief

CU/TC:bh

APPENDIX 8 - Responses to Board, Stakeholders and Agency Comments

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The DPP Pre-Consult Version for this project at 56-229 Kamehameha Highway, Kahuku, HI 96731 was mailed or provided via email – or digital transfer to the parties listed in the Section Six Distribution List (page 79) per their submittal request. We send out a cover letter and disk containing support documents for the development of this Draft Environmental Assessment for review and comment.

We request email responses, but sometimes get paper mail. Responses received have been scanned into .pdfs and are located in this appendix and for each response received, our comments follow on those responses. We also ask for a 30 day comment period, but also in every case grant a 30 day extension for comments which brings the comment period for the pre-consult version to 60 days. We are of the understanding that upon acceptance of the draft EA and subsequent publication of the DEA in the *Environmental Notice*; we will be responsible to return the revised DEA to the responsive agencies to show we incorporated their comments in the DEA. Meanwhile, the compilations below are the result of receiving verbal or written comments and our plan of action.

Some of these plans of actions require:

- Changes to the language of the DEA
- Changes to the proposed action
- Changes to mitigation strategies

Notification was of three types:

- Board hearings such as the Koolauloa Neighborhood Board hearing held for this project
- Verbal conversations with abutters, neighbors and even agency individuals
- Emailed or mailed correspondence with agencies and boards.

CITY AND COUNTY OF HONOLULU
DEPARTMENT OF PLANNING AND PERMITTING
Attn: DPP, Frank Fasi Building, 7th floor
HONOLULU, HAWAII 96813

RESPONSES TO COMMENT LETTER(S)

Response Contact Information

Mark Howland
WHALE Environmental Services LLC
P.O. Box 455
Kahuku, HI 96731
www.whalees.com
markahowland@hawaii.rr.com

email response is our preference…
Mahalo nui loa

Pre-Consultation Letter from DPP – April 8th, 2022
Response

We have revised our pre-consult submission process as requested. We no longer will provide the detailed supporting documentation that many other agencies request and as of June 2022 stopped sending new full version pre-consult information. We are limiting it to a summary only for the pre-consult process.

Koolauloa Neighbor Board hearing was held, as well as another hearing by the Kahuku Community Association.

The Oahu General Plan and the Koolauloa Sustainable Communities Plan compatibility has been addressed in the DEA as requested.

SMA criteria match has been made.

Coastal Hazards Impacts has been upgraded and expanded, with Hurricane Surge Maps, Sea Rise Climate Change Maps, and Coastal Erosion.

The surveyor did a shoreline survey in February 2022 and the project is outside the 75' setback using that delineation with an 80' setback.

SHPD has been notified and proof of that submission is in this appendix.

Discussion of Action and Alternatives has been upgraded and expanded.

Exhibits and Graphics – we have enlarged photos and maps to full page size. Clarity often is not our issue, it is the County and State GIS mapping services that use faint boundaries, incorrect boundary placements, poor color choices for graphics for web site, and often incorrect or misguided information.

Table of Contents has been added along with a list of figures and tables. .pdfs have been made searchable.

Letter of August 12th, 2022

Some items have been addressed as noted above. These responses only are made on other items.

The application form has been corrected to be for DEA approval only, and a new $200 review fee check issued. The $1000 filing is re-submitted.

Comment letters and responses including DPP's have been moved to this appendix. We find this highly unusual as these letters have always been behind the distribution list they were sent too.

Figures and Maps – as noted above, they have been enlarged. Clarity is often a County or State GIS issue. All maps requested have been provided.

Table of Contents have been upgraded.

DEA has been revised to provided vital information in the main body and avoid use of searches in the appendixes such as FHAT maps.

Detailed information has been moved from the Executive Summary and Chapter One to Affected Environment and Consequences and Impacts.

Shoreline Discussion has been Amended to reflect the lot is a shoreline lot and reference to lot rather than project area corrected. Survey and Shoreline Delineation Map has bee enlarged. A separate file of it has been attached to this appendix.

Board Hearings and Communication

The 56-229 Kamehameha Highway Ke Piki Ohana LLC Property project requested and was granted a board hearing on May 19th, 2022. A PowerPoint Presentation was made (attached) and presented. There was little discussion about the planned project except for the verification that the site is intended for family use only and not a vacation rental.

Other discussions centered on shoreline access, monk seal birthing and sea bird use of the shoreline.

Our responses were at the public hearing:

- *We are aware of the use of the shoreline by endangered species such as monk seals and also humans with walking or using the beach for recreation along the coastal berm. The applicant agrees to conduct no activity beyond the shoreline setback and not placed any impediments to the shoreline path that currently exists on the coastal berm.*
- *Fencing – a little contradiction here, some want no fencing to prevent any species entering the property to nest, others want fences to prevent dogs and cats from stalking the endangered species. We propose to maintain the dense naupaka plantings on the shoreline to prevent predators but place no fence structures in the shoreline zone on the site.*
- *Lighting – the architect will be advised to ensure Dark Sky provisions by having no outward or upward bound lighting on the property to prevent sea bird flight disruption*
- *The Board requested to have us appear in front of the Kahuku Community Association for their input – we agreed, scheduled with the Association and attended on June 21st 2022. Only issue raised was again to verify no vacation rentals.*

Board of Water Supply
630 South Beretania Street
Honolulu HI 96843

RESPONSE COMMENTS FROM AGENGY NOTIFICATION

Draft Environmental Assessment – Ke Piki Ohana LLC Property

Thank you for your response and review of the Draft Environmental Assessment (EA) for the Ke Piki Ohana LLC Property in Kahuku, Oahu, Hawaii at 56-229 Kamehameha Highway – TMK (1)-5-6-001-077. We acknowledge the Board of Water Supply has adequate facilities related to the site and thus has no impact to the Board of Water Supply demands if the occupant adheres to the practices of water conservation and maintains payments for water supplies. We have advised the builder of the water conservation methods suggests for construction. The Fire Department has also been notified of the Project Action.

The site will use the existing waste disposal system vcertified by the Board of Health.

Mahalo nui loa for your response.

Mark Howland (environmental agent for the owners – Ke Piki Ohana LLC

WHALE Environmental Services LLC, P.O. Box 455, Kahuku, HI 96731
markahowland@hawaii.rr.com www.whalees.com 808-294-9254

Comments received March 31st, 2022

City and County of Honolulu – Department of Transportation Services
650 S. King Street 3rd floor
Honolulu HI 66809

RESPONSE COMMENTS FROM AGENGY NOTIFICATION

Draft Environmental Assessment – Ke Piki Ohana LLC Property

Thank you for your response and review of the Draft Environmental Assessment (EA) for the Ke Piki Ohana LLC Property in Kahuku, Oahu, Hawaii at 56-229 Kamehameha Highway – TMK (1)-5-6-001-077. We acknowledge that DTS has comments related to the site development. Our responses to comments are as follows:

Neighborhood Notice and DCAB Notice/Design: The building contractor will keep community members appraised of the development and building status for local street network access and use status. Drives, buildings, and structures will be designed in accordance with the Americans with Disabilities ACT.

The Mālaekahana Bike Path is on the opposite side of the Kamehameha Highway, and the site's driveway does not interfere or cross the bike path.

Mahalo nui loa for your response.

Mark Howland (environmental agent for the owners – Ke Piki Ohana LLC

WHALE Environmental Services LLC, P.O. Box 455, Kahuku, HI 96731
markahowland@hawaii.rr.com www.whalees.com 808-294-9254

Comments received April 14th 2022

State of Hawaii – Department of Hawaiian Homelands
PO Box 1879
Honolulu HI 96805

RESPONSE COMMENTS FROM AGENGY NOTIFICATION

Draft Environmental Assessment – Ke Piki Ohana LLC Property

Thank you for your response and review of the Draft Environmental Assessment (EA) for the Ke Piki Ohana LLC Property in Kahuku, Oahu, Hawaii at 56-229 Kamehameha Highway – TMK (1)-5-6-001-077. We acknowledge that the Department of Hawaiian Homelands has no comments related to the site development. We have contacted cultural advisors in the region as well as OHA and SHPD.

Mahalo nui loa for your response.

Mark Howland (environmental agent for the owners – Ke Piki Ohana LLC
WHALE Environmental Services LLC, P.O. Box 455, Kahuku, HI 96731
markahowland@hawaii.rr.com www.whalees.com 808-294-9254

U.S. Fish and Wildlife
300 Ala Moana Blvd. Room 3-122
Honolulu HI 66850

RESPONSE COMMENTS FROM AGENGY NOTIFICATION

Draft Environmental Assessment – Ke Piki Ohana LLC Property

Thank you for your response and review of the Draft Environmental Assessment (EA) for the Ke Piki Ohana LLC Property in Kahuku, Oahu, Hawaii at 56-229 Kamehameha Highway – TMK (1)-5-6-001-077. We acknowledge the comments as related to the site development. Our responses are as follows:

We appreciate the provision of federal protected species and habitat listings. We have conducted botanical and fauna appraisals of the site and have not encountered species on the site. There are nearby species along the shoreline and the in ocean waters and we are not planning any activities along the shoreline. We have advised the owners/builders to immediately halt work and notify DLNR and USFW in the event any species are encountered for mitigation guidance.

Mahalo nui loa for your response.

Mark Howland (environmental agent for the owners – Ke Piki Ohana LLC
WHALE Environmental Services LLC, P.O. Box 455, Kahuku, HI 96731
markahowland@hawaii.rr.com www.whalees.com 808-294-9254

Comments received April 6th, 2022

State of Hawaii – Department of Design and Construction
650 S. King Street 11th floor
Honolulu HI 96813

RESPONSE COMMENTS FROM AGENGY NOTIFICATION

Draft Environmental Assessment – Ke Piki Ohana LLC Property

Thank you for your response and review of the Draft Environmental Assessment (EA) for the Ke Piki Ohana LLC Property in Kahuku, Oahu, Hawaii at 56-229 Kamehameha Highway – TMK (1)-5-6-001-077. We acknowledge that the Department of Design and Construction has no comments related to the site development.

Mahalo nui loa for your response.

Mark Howland (environmental agent for the owners – Ke Piki Ohana LLC
WHALE Environmental Services LLC, P.O. Box 455, Kahuku, HI 96731
markahowland@hawaii.rr.com www.whalees.com 808-294-9254

Hawaii Department of Defense
3949 Diamond Head Road
Honolulu HI 96816

RESPONSE COMMENTS FROM AGENGY NOTIFICATION

Draft Environmental Assessment – Ke Piki Ohana LLC Property

Thank you for your response and review of the Draft Environmental Assessment (EA) for the Ke Piki Ohana LLC Property in Kahuku, Oahu, Hawaii at 56-229 Kamehameha Highway – TMK (1)-5-6-001-077. We acknowledge that the Department of Defense has no comments related to the site development.

Mahalo nui loa for your response.

Mark Howland (environmental agent for the owners – Ke Piki Ohana LLC
WHALE Environmental Services LLC, P.O. Box 455, Kahuku, HI 96731
markahowland@hawaii.rr.com www.whalees.com 808-294-9254

City and County of Honolulu, Police Department
South Beretania Street
Honolulu HI 96813

RESPONSE COMMENTS FROM AGENGY NOTIFICATION

Draft Environmental Assessment – Ke Piki Ohana LLC Property

Thank you for your response and review of the Draft Environmental Assessment (EA) for the Ke Piki Ohana LLC Property in Kahuku, Oahu, Hawaii at 56-229 Kamehameha Highway – TMK (1)-5-6-001-077. We acknowledge that the Police Department had limited comments related to the site development. For the Police and Fire department, DTS, BOWS and other agencies, we recognize community notification is vital for impact reduction. As such, we will advise community members of traffic impact and construction schedule.

Mahalo nui loa for your response.

Mark Howland (environmental agent for the owners – Ke Piki Ohana LLC
WHALE Environmental Services LLC, P.O. Box 455, Kahuku, HI 96731
markahowland@hawaii.rr.com www.whalees.com 808-294-9254

State of Hawaii, Office of Planning and Sustainable Development
235 South Beretania Street, 6th floor
Honolulu HI 96804

RESPONSE COMMENTS FROM AGENGY NOTIFICATION

Draft Environmental Assessment – Ke Piki Ohana LLC Property

Thank you for your response and review of the Draft Environmental Assessment (EA) for the Ke Piki Ohana LLC Property in Kahuku, Oahu, Hawaii at 56-229 Kamehameha Highway – TMK (1)-5-6-001-077. We acknowledge that the OPSD has comments related to the site development.

Mahalo nui loa for your response.

Our responses are as follows:

1. A regional map has been added to the Executive Summary showing the SMA position

2. Building plans in Appendix 3 of the DEA provide the information requested

3. The project area is in excess of 80' from the existing shoreline determination. DPP does not require any renewal of shoreline delineation when the project is in excess of 75' from it delineation which this project is. Please see the project area position in the Executive Summary.

4. No structures are in the sensitive shoreline area or the shoreline. No intrusion in the shoreline setback is proposed nor any structures. Building plan and survey delineate shoreline determination and shows setback distances. As for beach vegetation, there will be no disturbance of the dense naupaka lining the shoreline. All shoreline vegetation to remain intact. No public beach access available to this shoreline.

5. The building will conform to modern *Dark Sky* lighting requirements, USFW has already been notified with conformity with this standard.

6. Typo error in the Executive Summary has been corrected.

Comments received April 4th 2022

Mahalo nui loa for your response.

Mark Howland (environmental agent for the owners – Ke Piki Ohana LLC
WHALE Environmental Services LLC, P.O. Box 455, Kahuku, HI 96731
markahowland@hawaii.rr.com www.whalees.com 808-294-9254

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

RICK BLANGIARDI
MAYOR

DEAN UCHIDA
DIRECTOR

DAWN TAKEUCHI APUNA
DEPUTY DIRECTOR

EUGENE H. TAKAHASHI
DEPUTY DIRECTOR

7/1/2022

Mr. Alan Downer
State Historic Preservation Division
Department of Land and Natural Resources
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

Dear Mr. Downer:

SUBJECT: Request for Comments

Project Name: Ke Piki Ohana LLC Property
Location: 56-229 Kamehameha Highway, Kahuku, HI 96731
Tax Map Key(s) 1-1-5-6-001:077

On behalf of the proponent for the above-mentioned project, the Department of Planning and Permitting (DPP) hereby requests that the State Historic Preservation Division review and comment on the effect of the above-mentioned project on historic and cultural properties, in accordance with any and all applicable regulations. This request will help facilitate the processing of a pending or future land use approval.

Please note that this project has not been initiated by the DPP, and this letter should not be construed as a land use approval of any kind.

Should you have any questions, please contact our staff at (808) 768-8000 or info@honoluludpp.org, or contact the applicant or the applicant's agent for the project at:

Name: WHALE Environmental Services LLC - Mark Howland, Chief Biologist
Phone: 808-294-9254
Email: markahowland@hawaii.rr.com

Very truly yours,

Dean Uchida
Director

HICRIS

Submit

Version 1.0.25

- Submit Home
- Project Review
- Burial Registration
- Descendancy Application
- Independent Survey
- State Tax Credit
- Federal Tax Credit
- HI & NR Nomination
- Inventory Form
- Project Supplement
- Project Contact

Thank you for your Submission

Submission Token:
9JB5ND6OY3BD

Information about your Submission has been transmitted by email to the Contacts you listed on the previous screen.

Please monitor your email and HICRIS for further actions required of you. For more information about what comes next and how to monitor the status of your Submission please review information in HICRIS Help.