

**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawaii**

File No: HA-3793
180-Day Exp. Date: September 3, 2017

August 11, 2017

**Board of Land and
Natural Resources
State of Hawai'i
Honolulu, Hawai'i**

REGARDING: Conservation District Use Application (CDUA) HA-3793 for a Single Family Residence and Related Improvements

**APPLICANT/
LANDOWNER:** William Meurer

LOCATION: 'Opihikao, Puna, Hawai'i

**TAX MAP KEYS
(TMKs):** (3) 1-3-004:008

AREA OF PARCEL: 0.958 acres

USE: 2,265 square feet

SUBZONE: Resource

DESCRIPTION OF AREA/CURRENT USE

The project area is an undeveloped parcel of land located in the Resource Subzone of the State Land Use Conservation District (see **Exhibits 1 & 2**). It is located between Kapoho-Kalapana Road (also known as the Red Road - County Road 137) and the shoreline, flanked by two other small coastal properties, one of which contains a residence (see **Exhibit 3**). The shoreline in this area consists of a series of inlets or small embayments, largely boulder and cobble beached, interrupted by a'a ridges, or promontories. Mauka of this, the ground is gently sloping and densely vegetated with grass, shrubs, and a few trees. The property varies from about sea level to 23 feet above sea level.

The property is located on the flank of Kīlauea and the lava flows of this area are all derived from eruptive vents of Kīlauea's East Rift Zone, located immediately upslope from the project site. The specific lava flow that underlies the entire property was erupted from the Pu'u Kalu, an extensively quarried prehistoric cinder cone 3 miles to the north. The age of this flow is estimated at between 400 and 750 years. Soil in the area is classified with the Malama series which consists of deep and very deep, well drained soils consisting of organic material over fragmental a'a lava substrata at a shallow depth. The specific soil is Malama extremely cobbly highly decomposed plant material.

This type of soil has limitations that make it unsuitable for cultivation and restricts its use to pasture, range, woodland or wildlife.

The entire island of Hawai'i is subject to geological hazards, especially lava flows and earthquakes. Volcanic hazard as assessed by the U.S. Geological Survey (USGS) in this area of Puna is Zone 2 on a scale of ascending risk 9 to 1. The relatively high hazard risk is because Kīlauea is an active volcano. Zone 2 includes those areas adjacent to and downslope of active rift zones.

According to the Federal Emergency Management Agency (FEMA) Earthquake Hazard Maps, the project area has been designated a hazard level of "E" which means the area is located near major active faults capable of producing the most intense shaking; enough to completely destroy buildings. However, the applicant notes that the area has been graded and is flat to low-sloping. Further, the applicant states that there are no areas of subsidence or steep slopes present at the property.

According to the preliminary Federal Insurance Rate Map (FIRM), the property is located in the VE Zone. The VE zone denotes areas exposed to potential coastal wave action, within which the base-flood elevations have been determined (in this case the base-flood elevation is 16 feet). The property is also situated in a tsunami evacuation zone.

A coastal erosion study was conducted for the property. The coastal erosion study found that the shoreline of the property consists of an elevated coastal shelf with gentle inlet development in a rocky shoreline primarily of a'a lava and related breccia. The shelf exhibits considerable strength and resistance to erosion, though evidence of undercutting and collapse over a period of centuries is plentiful. Measured rates of tectonic subsidence and project sea level rise do not appear to pose immediate threats to the shoreline of the subject property. Further, the coastal erosion study used five (5) different shoreline erosion estimation methods to find an average shoreline erosion rate of 0.21 ± 0.05 feet per year.

The existing site is densely vegetated throughout, primarily consisting of low shrubs, trees, herbs, vines, and grasses. Coconut palms are found throughout the property, but are concentrated primarily near the shoreline and northeastern boundary of the property. A flora and fauna survey was conducted for the property in August 2016, in which it was documented that most of the property supports non-native vegetation, with the exception of the area near the shoreline where a few common native plants and various sedges were found. These include milo (*Thespesia populnea*), kou (*Cordia subcordata*), and akulikuli (*Sesuvium portulacastrum*). Unlike other properties in the Puna area, no hala tress (*Pandanus tectorius*) or naupaka (*Scaevola taccada*) were present.

Birds common to the area were observed, including Common Myna (*Acridotheres tristis*), Japanese White-eye (*Zosterops japonicas*), and House Finch (*Carpodacus mexicanus*). No native birds were identified during the survey, however, the Hawai'i 'Amakihi (*Hemignathus virens*) is possible present in the general area, as some population of this native honey creeper appear to have adapted to the mosquito borne diseases of the Hawaiian lowlands. Also, common shorebirds such as the Golden Plover (*Pluvialis fulva*), Ruddy Turnstone (*Arenaria interpres*), and Wandering Tattler (*Heteroscelus incanous*) are often seen on the Puna coastline feeding on shoreline resources. While these shorebirds were not observed during site visits, they are likely to be found in the coastal area during the winter months, as the areas makai of the property's shoreline offers a reasonably good habitat for shorebirds. As with all of East Hawai'i, several endangered, native terrestrial vertebrates may be present in the general area and may overfly, roost, nest, or utilize resources of the property. These include the endangered Hawaiian Hawk (*Lasiurus cinereus semotus*), the endangered Hawaiian

hoary bat (*Lasiurus cinereus semotus*), the endangered Hawaiian Petrel (*Pterodroma sandwichensis*), and the threatened Newell's Shearwater (*Puffinus newelli*).

Other mammals in the project area are all introduced species, including feral cats (*Felis catus*), feral pigs (*Sus scrofa*), small Indian mongoose (*Herpestes a. auropunctatus*) and various species of rats (*Rattus spp.*)

An archaeological inventory survey (AIS) of the property was conducted in December 2007. As a result of the survey, two archaeological sites, consisting of two stone walls, were located on the property. One wall (Site 26265), located along the northeastern property boundary, was found to be constructed predominately of sub-angular basalt cobbles and small boulders, though waterworn basalt stones are incorporated into its length in the seaward portion. This site was interpreted as a historic livestock control feature and likely used to prevent grazing cattle from entering the adjacent parcel. The site is unaltered and in poor to fair condition. The other site (Site 26266) is an L-shaped wall situated in the southeastern corner of the parcel also in poor to fair condition. This wall was also interpreted to as a historic livestock control feature that may have served as an animal pen. A Cultural Impact Assessment (CIA) was also conducted for the property in December 2016. The CIA notes that one individual stated that there used to be a trail along the stone wall that borders the Meurer property on the Pohoiki side. The trail was a mauka/makai trail that crossed Red Road (Hwy 137) and continued to the beach to an area that was used as a canoe landing for many generations. However large rocks have washed up and rendered the site as no longer being useful for canoe landings. Pohoiki Harbor is now used for that purpose. Other individuals who have knowledge of the project area responded that they were not aware of any cultural resource or cultural practices or beliefs associated with these land, aside from traditional fishing and gathering on the shoreline in front of the property.

There are currently no utilities serving this property.

PROPOSED USE

The landowner is proposing to construct a 2,265 square foot, single story SFR on an existing, vacant lot (see Exhibits 4 to 6). The proposed SFR will be of post on pier construction, with the habitable portions of the structure raised two (2) to five (5) feet above ground surface for an elevation of 20 feet above sea level. The proposed SFR will consist of 1 bedroom, 2 bathrooms, a kitchen, an entryway & living room, an office, workroom areas, covered lanai and porch areas, a carport, and a storage area. The SFR will be set back a minimum of 73 feet from the certified shoreline based upon an average shoreline erosion rate of 0.21 ± 0.05 feet per year.

Electric power to the SFR will be provided via five (5) 40"x76" solar panels situated on the flat portions of the roof, with a battery/inverter sited inside a small equipment room. Potable water will be provided by a well, using a water catchment system as a backup. The water catchment tank would have a capacity of 3,000 gallons. Hot water will be provided by an on-demand propane water heater, housed in an exterior cabinet along with a 10 gallon propane tank. One-foot wide trenches will be dug to house the ¾ inch domestic waterline extending from the well to the storage tank and SFR. Wastewater will be treated with a septic system designed in conformance with the requirements of the State Department of Health. Wastewater pipelines will require a two-foot wide trench that would extend approximately 65 feet. The trenches will be backfilled with excavated material, and the excess (approximately 6 cubic yards) will be deposited in a natural depression near the roadway

which would be located outside of the floodplain. Construction staging for the SFR will occur in the southwestern part of the property, on a level, previously disturbed area.

Access to the site will be provided by an improved driveway area leading off of Kapoho-Kalapana Road to the area fronting the proposed SFR. The driveway will require some site leveling and grading to create a 12 foot wide gravel driveway with a turnaround area. In addition, due to concerns by the public, the driveway access gate will be moved and installed 10 feet in from the road to ensure that a vehicle parked to open or close the gate will not intrude into the roadway or shoulder. The existing *Rhapis excelsa* palm hedge will be extended within the property to meet the relocated gate.

Landscaping is also proposed which would be comprised of primarily natives, tropical fruit trees and species adapted to the area such as loulou (*Pritchardia* sp.), dwarf Samoan coconut or niu leka (*Cocos nucifera*), hala (*Pandanus tectorius*), citrus (*Citrus* spp.), banana (*Musa* sp.), papaya (*Carica papaya*), ma'o hau hele (*Hibiscus brackenridgei*), and nanu gardenia (*Gardenia taitensis*) (see Exhibit 7). Landscaping would be confined to areas near the house and in an open and level area on the southwest portion of the property where the citrus plantings are planned. According to the applicant, a total area of less than one tenth of an acre would be cleared for the SFR and related improvements and will require minimal grading due to the relatively level character of the site. An existing two-foot wide *Rhapis excelsa* palm hedge will be maintained at no more than four feet in height, retaining room for walking between the edge of the road pavement and the hedge. Temporary irrigation lines will be installed above ground using ½ inch polyethylene piping. The irrigation lines will be placed primarily in the area directly makai of the residence where the new fruit trees and coconut palms are planted. It is proposed that the irrigation lines remain for a period of one year to allow the establishment of the new trees.

The AIS identified two low-stacked walls built to control livestock as historical sites. While not required, the applicant has decided to develop the project site without the need to disturb the walls, which will remain on the property as-is. Regarding the trail that was identified in the CIA, Staff notes that Na Ala Hele was contacted for further information/identification of the trail. According to Na Ala Hele staff, pursuant to Hawai'i Revised Statutes (HRS) §264-1 (b) *all trails, and other non-vehicular rights-of-way in the State declared to be public rights-of ways by the Highways Act of 1982, or opened, laid out, or build by the government or otherwise created or vested as non-vehicular public rights-of-way at any time thereafter, or in the future, are declared to be public trials. A public trail is under the jurisdiction of the state board of land and natural resources unless it was created by or dedicated to a particular county, in which case it shall be under the jurisdiction of that county.* The earliest map depicting a trail identified as a "trail to canoe landing" is Registered Map 2827 titled "Opihikao Village Grants" and is dated 1929. All earlier maps do not identify a trail alignment through the Meurer property, therefore Na Ala Hele believes that there does not appear to be a state owned trail traversing the property.

In order to avoid impacts to the endangered terrestrial vertebrates identified, the applicant will adhere to the following:

- Refrain from construction activities that disturb or remove vegetation between June 1 and September 15, when Hawaiian hoary bats may be sensitive to disturbance;
- If land clearing occurs between March 1 and September 30, a pre-construction hawk nest search by a qualified ornithologist using standard methods will be conducted. If Hawaiian

Hawks are present, no land clearing will be allowed until October, when hawk nestlings will have fledged;

- Any and all exterior lighting will be shielded downwards, in conformance with Hawai'i county Code §14-50 et seq., to minimize the potential for disorientation to seabirds.

Given that this is a shoreline property, the applicant understands that there are hazards associated with homes at risk of coastal flooding and sea level rise. In order to avoid being a burden to the public in some way should sea level at this site rise dramatically, the applicant has agreed to a permit or deed condition that would prevent any future request for shoreline hardening to protect the residence, regardless of hardship as well as condition that would require moving or dismantling the home if sea level rise eventually threatens the integrity of the structure.

OTHER ALTERNATIVES CONSIDERED:

Alternative 1: No Action alternative. This alternative would preserve the status quo of the property which would remain an undeveloped lot. This alternative would not be viable as it would deprive the landowners of a reasonable use of their property.

Alternative 2: Alternative House Sites and Alternative Uses. Some other locations on the property could also serve as the site for a residence, but none have the advantages of the proposed site while avoiding impacts to native shoreline vegetation. In addition, no other alternative uses for the property such as farming or commercial tourism uses are currently desired by the applicant.

SUMMARY OF COMMENTS

The Office of Conservation and Coastal Lands referred the application, as well as the Draft Environmental Assessment (EA) to the following agencies and organizations for review and comment:

State Agencies:

DLNR, Division of Conservation and Resource Enforcement
DLNR, Division of Forestry and Wildlife
DLNR, Historic Preservation Division
DLNR, Hawai'i District Land Office
Department of Health
Office of Hawaiian Affairs

County Agencies:

County of Hawai'i, Department of Planning
County of Hawai'i, Fire Department

Other Individuals/Organizations:

Malama O Puna

In addition, this application was also sent to the nearest public library, the Hilo State Public Library, to make this information readily available to those who may wish to review it.

Comments were received by the following agencies and individuals and summarized by Staff as follows:

THE STATE

DEPARTMENT OF LAND AND NATURAL RESOURCES

Division of Forestry and Wildlife:

Comments: The State and Federally listed Hawaiian hoary bat (*Lasiurus cinereus semotus*) has the potential to occur in the vicinity of the project area. DOFAW recommends avoiding using barbed wire, as bat mortalities have been documented as a result of becoming ensnared by barbed wire during flight. If any trees are planned for removal during the bat breeding season, there is a risk of injury or mortality of juvenile bats. To minimize the potential for impacts to this species, woody plants greater than 15 feet tall should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 to September 15). Site clearing should be timed to avoid disturbance to breeding Hawaiian hoary bats.

The Hawaiian hawk or 'io (*Buteo solitaries*) may occur in the project vicinity. DOFAW recommends surveying the area to ensure no Hawaiian hawk nests are present if trees are to be cut. Finally, we note that artificial lighting can adversely impact seabirds that may pass through the area at night causing disorientation which could result in collision with manmade artifacts or grounding of birds. If nighttime lighting is required at the facility, DOFAW recommends that any lights used be fully shielded to minimize impacts.

Applicant's response: All of the above mentioned mitigation measures are cited in the Draft EA, and all are expected to be imposed as conditions of the permit. Please note that per current State and Federal recommendations, as well as practices for State and Federal construction activities, the hawk survey will be conducted only for tree removal or land clearing activities within the March 1 through September 30 period.

Historic Preservation Division:

Comments: Our records indicated that the subject property has been subjected to an archaeological inventory survey. The survey report was accepted by the SHPD in a letter dated March 17, 2008 (Log No. 2008.0392, Doc. No 0803TS16). Two historic properties were identified on the parcel: a linear stone boundary wall (Site 50-10-55-26265) and an L-shaped stone wall (SITE 50-10-55-26266). Both historic properties were evaluated as significant under criterion d, as having been adequately documented, and recommended for no further work. Based on the current information, SHPD's determination is no historic properties affected.

Land Division: No Comments

DEPARTMENT OF HEALTH

Clean Water Branch

Comments: In addition to the following, we recommend that the applicant read our standard comments on our website at <http://health.hawaii.gov/epo/files/2013/05/Clean-Water-Branch-Std-Comments.pdf>.

1. Any project and its potential impacts to State waters must meet the following criteria:

- a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
 - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
 - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).
2. The applicant may be required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55).
3. Please note that all discharges related to the project construction or operation activities must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.
4. It is the State's position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. Project planning should:
 - a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure these water cycles are not disturbed, storm water cannot be relegated as a waste product of impervious surfaces. Any project planning must recognize storm water as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters, like community beautification, beach going, swimming, and fishing. The approaches necessary to do so, including low impact development methods or ecological bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.
 - b. Clearly articulate the State's position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserved natural resources and improve water quality.
 - c. Consider storm water best management practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.
 - d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.
 - e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing hydraulic capacity. Particular consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

Applicant's response: The applicant and its contractors will fully commit to complying with water quality regulations during construction of the SFR. The construction will disturb only a fraction of

an acre and there are no other apparent aspects of the project that would trigger the need for an NPDES permit. Temporary irrigation lines will be installed and removed within a few months, and no permanent irrigation will be required.

Environmental Planning Office

Comments: In the development and implementation of all projects, EPO strongly recommends the regular review of State and Federal environmental health land use guidance. State standard comments and available strategies to support sustainable and healthy design are provided at: <http://health.hawaii.gov/epo/landuse>. Projects are required to adhere to all applicable standard comments. EPO has recently updated the environmental Geographic Information Systems GIS website page. It now compiles various maps and viewers from our environmental health programs. The eGIS website page is continually updated so please visit it regularly at: <http://health.hawaii.gov/epo/egis>.

EPO encourages you to examine and utilize the Hawai'i Environmental Health Portal at <https://eha-cloud.doh.hawaii.gov>.

Please note that all wastewater plans must conform to applicable provisions. We reserve the right to review the detailed wastewater plans for conformance to applicable rules.

Injection wells used for the subsurface disposal of wastewater, sewage effluent, or surface runoff are subject to environmental regulation and permitting. DOH approval must be obtained before any injection well construction commences. An Underground Injection Control (UIC) permit must be issued before any injection well operation occurs.

Any construction waste generated by the project needs to be disposed of at a solid waste disposal facility that complies with the applicable provisions. The open burning of any of these wastes, on or off site, is strictly prohibited.

EPO encourages you to explore, launch, and utilize the EPA's new environmental justice mapping and screening tool called EJSCREEN which can be found at <http://epa.gov/ejscreen>.

Sea level rise and the associated coastal impacts have the potential to harm an array of natural and built environments in Hawai'i. EPO encourages you to visit the following informative links:

State of Hawai'i climate Adaptation Portal: <http://climateadaptation.hawaii.gov>

University of Hawai'i, Mānoa, School of Ocean and Earth Science and Technology, Coastal Geology Group: <http://www.soest.hawaii.edu/coasts/index.html>

Applicant's response: During the development of the EA, many of these sources were consulted, and the website from the HEER office provided information on the potential for hazardous materials. It should be noted that during construction, the contractor will be required to comply with all applicable administrative rules. The house has been designed to be sustainable in many ways, including a small footprint, natural light and ventilation, solar power, and minimal landscaping with local species requiring no permanent irrigation.

COUNTY OF HAWAI'I

COUNTY OF HAWAI'I PLANNING DEPARTMENT

Comments: Special management Area Use Permit Assessment Application (SAA 17-001480) for this project is currently under review.

COUNTY OF HAWAI'I, FIRE DEPARTMENT

Comments: The Fire Department provided a list of various codes that the project must be in accordance with pursuant to Chapter 18, *Fire Department Access and Water Supply*, of the NFPA 1, Uniform Fire Code, 2006

Applicant's response: The owner has met with the appropriate fire Department personnel to review his plans and confirm the Fire Department requirements for the proposed SFR, in order to ensure that the proposed house and its related improvements are being planned and designed in compliance with the Department's requirements.

INDIVIDUALS

MR. RALPH JOHNSTON

Comments: The previous owner was allowed to cut down six (6) monkey pod trees. The construction of the house will cause the remaining trees on the property to be cut down as the house will require solar and the trees will be in the way. Further, there is a row of *Rhapis excelsa* palms that run across the road side of the lot. It is so close to the road that there is no place to walk or ride a bike. Where do the "conservation" ideas work when evaluating projects such as this. It appears that the house is a done deal, but will anything that people who live in the area say have any effect on the outcome?

Applicant's response: Mr. Meurer plans to be a good steward to the property and enjoy the use of an SFR while maintaining much of the viewplane through the property. The SFR has been carefully designed as a single story structure with a compact, sea-shell inspired design and a low-pitched roof so as to minimize its visual impact when viewed from the surrounding areas.

MS. CORY HARDEN

Comments: Ms. Harden expressed concerns regarding viewplanes being blocked by the proposed structure as well as an existing hedge, shoreline access being blocked, that flooding has not been considered in terms of access roads, and the preservation of the two archeological sites found at the site. Further she asks that following be included as conditions of the CDUP:

- Viewplanes: Exiting views of the shoreline and ocean from the road will be preserved.
- Shoreline Access: Will be preserved
- Flooding: No "future request of shoreline hardening to protect the residence, regardless of the hardship" and "moving or dismantling the home if sea level rise eventually threatens the integrity of the structure."
- Archaeological site: The two walls will be preserved.

Applicant's response: The planned SFR and landscaping preserves 85% of the property as untouched and minimizes the change to viewplanes. In regards to the condition you propose, it would not be possible to preserve ALL sight lines to the sea and have a SFR on the property.

Thank you for citing Mr. Meurer's understanding and commitment to not block or restrict shoreline access fronting his property. Mr. Meurer has no intention of putting up signs that would discourage the use of the area makai of the shoreline and would support any condition to support this.

Mr. Meurer's driveway and the Highway 137 route to Kamaili (Ophikao) Road and high ground are located outside of the new, proposed flood zone. Mr. Meurer offered the condition related to shoreline hardening that your quote and understands that it is reasonable and in the public interest.

As you have pointed out, Mr. Meurer's plans have been designed explicitly to avoid the two archaeological sites and they will be preserved.

MR. AND MRS. MICHAEL AND NORA OFRIEL

Comments: The OFriels were concerned with the preservation of the sight line for ocean view from Highway 137, the overgrowth of the *Rhapis excelsa* palm hedge, the location of the existing access gates to the property in proximity to the roadway, public shoreline access, and how public notice for the availability of the EA was given.

Applicant's response: Sightlines: It would not be possible to construct a home on the property without some effects to the view, but the project has been planned to minimize the effects to the extent reasonable, by locating the SFR in the northwest corner of the lot. For drivers or walkers headed north, the home would be set against the backdrop of the neighbor's vegetation for much of the way. The improvements occupy less than 15% of the lot. Much of the underbrush has been removed and the hedged tripped to less than 4 feet, and Mr. Meurer intends to keep it that way per expected conditions of CDUP approval.

Hedge: The site plan and landscape plan has been amended to show that the *Rhapis excelsa* hedge runs the whole length of the property. The hedge was not planted by Mr. Meurer and he is unsure of when it was originally planted. However, it does serve the function of delineating the roadway from the lot, where there a several drop-offs that would be hazardous for the public. Further, the roadway actually encroaches into Mr. Meurer's lot, at least on the northern end. Mr. Meurer will keep the hedge trimmed at 4 feet in height or less and will also maintain the roughly two-foot spaced between the hedge and paved roadway. While we understand you would prefer a two foot rock wall, it would be more hazardous for vehicles and bicycles.

Gate: The gate and posts have been amended on the Site Plan to reflect a concrete base with wooden posts. As you and others have expressed concerns regarding the location of the driveway gate, Mr. Meurer has decided to move the gate approximately 10 feet further back into the property to ensure that a vehicle parked to open or close the gate will not intrude into the roadway or shoulder. The existing *Rhapis excelsa* palm hedge will be extended within the property to meet the relocated gate.

Shoreline Access: There is access to the area makai of the shoreline fronting the Meurer property. The public can park near the tidepool area and walk 400 feet along the shoreline to the north. The "No Trespassing" signs you have noted are not on the Meurer property. Mr. Meurer does not intend to put up signs that would discourage the use of the area makai of the shoreline. You have requested

that a map be accessible to the public that indicates and establishes the mean high tide line for public access and enjoyment. The certified shoreline survey map has been provided in Figure 3 of the EA.

Public Notification: The neighbors who border the property to the north, south, and across the street were notified by mail on September 7, 2016 of the owner's intention to build a SFR and invited to submit comments or questions. The same owners were notified by mail on March 20, 2017 of the availability of the Draft EA and instructed on how to obtain it and when and where to send comments. The one neighbor who responded to the early consultation was provided a hardcopy of the Draft EA per her request.

MR. RICHARD KOOB

Comments: We welcome new neighbors, however, we are concerned that the Meurer's may not be keeping their DLNR approval agreement to maintain a vista of the ocean from coastal Hwy 137. Along the road, *Rhapis excelsa* palms have been planted that can generally reach 12 feet to 15 feet in height and will block any ocean view that their 25 foot house does not. Perhaps you could encourage them to have a low hedge or wall that's more eco and view friendly.

Applicant's response: As an expected condition of the CDUP, Mr. Meurer will keep the hedge trimmed at 4 feet in height or less and will also maintain the roughly two-foot space between the hedge and the paved roadway. The hedge serves a valuable function in places of having a "soft" boundary that will keep pedestrians and bicyclists from falling into the lot.

PERMACULTURE FOUNDATION HAWAII

Comments: We own the property immediately across of the project area. We ask that for the preservation of sight line for ocean view from Hwy 137 that you only require a one story building within size restraints for that lot size and within previously approved size. Regarding hedge height maintenance, we strong object to the existing *Rhapis excelsa* hedge as it can grow to 12 feet high and 6 feet wide. If not regularly maintained, it would block all views of the ocean. It also presents a serious danger to traffic as it is so close to the road that it presents a challenge for two way traffic and also bicyclists and pedestrians. There also needs to be a clearly defined public access. We also have concerns regarding the notification of neighbors as most of them are snow birds and not present to receive notice. The notice was put into mail boxes without a proper address or stamp and therefore it would not have been forwarded to them.

Applicant's response: The proposed home consists of a single-story residence with 1,239 square feet (sf) of living area and an additional 1,026 sf for lanai, carport, porch and a 3,000-gallon water tank. The grand total for all features would be 2,265 sf. and the maximum heath of the house would be 25-feet. The habitable portions of the structure would be raised off the ground surface two to five feet – two feet on the end near the road, in order to meet flood zone regulations. This modest sized, one-story home located on the north, mauka end of the property will only minimally affect views.

As an expected condition of the CDUP, Mr. Meurer will keep the hedge trimmed at 4 feet in height or less and will also maintain the roughly two-foot space between the hedge and the paved roadway. The hedge serves a valuable function in places of having a "soft" boundary that will keep pedestrians and bicyclists from falling into the lot.

As with most areas in Puna, the shoreline is used occasionally by local residents to fish and gather. Mr. Meurer understands and supports the right to traverse and utilize the shoreline area, and the proposed residential use will not interfere in any way with ongoing shoreline access.

The neighbors listed below, who border the property to north, south and across the street, were notified by mail on September 7, 2016, of the owner's intention to build a home and invited to submit comments or questions. Note that although this is not required of an Environmental Assessment, it was done to solicit information from nearby property owners who might have knowledge of environmental conditions and interest in the proposed action. The same owners were notified by mail on March 20, 2017, of the availability of the EA and instructed how to obtain it and when and where to send comments. The one neighbor who responded to the early consultation was provided a hardcopy of the Draft EA, per her request. Our team did not put ANY notices in mailboxes without stamps. All were sent through the post office in Hilo.

KAPONO RED ROAD BOARD

Comments: We have concerns raised by the application. Regarding road safety, agencies should examine the appropriateness of the hedge planting as the growth of vegetation will cross the boundary of the property into HWY 137 blocking the one lane road. In addition, the property drive entrance needs to account for the dangers on Hwy 137 and allow adequate room for homeowners to pull onto or from the property on the road side of the gate. Regarding environmental protection, the property is located in a low-lying area that was submerged during Iselle and frequently washed during storms and high surf. A vast lava tube systems moves under the road and through the property. We ask that agencies consider the earthquake/storm potential for environmental damage to coastal waters from septic/leach field systems and any unsecured items or temporary buildings when formulating conditions for approval. Regarding public access, technically there is no public access to the area and none is provided in the application (Pohoiki Wai is actually reached through private property). Historically, the area was used by the ancient village as a canoe landing, clothes washing/bathing area and is the terminus of an ancient ahupua'a boundary trail. Both access for traditional use and for cultural interpretation is critical.

Applicant's response: As an expected condition of the CDUP, Mr. Meurer will keep the hedge trimmed at 4 feet in height or less and will also maintain the roughly two-foot space between the hedge and the paved roadway. The hedge serves a valuable function in places of having a "soft" boundary that will keep pedestrians and bicyclists from falling into the lot. In deference to concerns expressed during the EA comment period, Mr. Meurer has decided to move the gate approximately 10 feet further back into the property. This will ensure that a vehicle parked to open or close the gate will not intrude into the roadway or shoulder.

The design plan concentrates the one structure on the north-mauka end of the property, at the highest location feasible given setbacks. The owner reports that this area of the property was not affected by flooding from Iselle or other storms. The home and all facilities, including the septic system, will comply with all regulations concerning the flood zone.

The archaeological, botanical and coastal erosion studies did not note the presence of any lava tube openings. Unlike the surrounding area, the property is underlain by a surface 'a'a flow, which is much less likely than a pahoehoe flow to contain lava tubes. Nevertheless, it is acknowledged that the entire Puna coastline contains hundreds of lava tubes in the lava flows that are on the surface or buried below surface flows. The presence of lava tubes throughout the region has not prevented construction of the coastal roads or use as a residential area for hundreds of homes. In the unlikely event that additional undocumented archaeological resources, including shell, bones, midden deposits, lava tubes, or similar finds, are encountered during construction within the project site, work in the immediate area of the discovery will be halted and the State Historic Preservation Division will be contacted to determine the appropriate actions.

All the shoreline access in this area is through private property, but access to the Pohoiki Wai area, 400 feet southwest of the Meurer property area, is long-established and ongoing, with relatively good and safe parking. As your letter points out, parking on the shoulder in front of the Meurer property is not appropriate and makes a poor site for establishing public access. There is ready and safe access to the Meurer property shoreline by parking in the Pohoiki Wai area and walking 100-300 feet along the shoreline to the north. Mr. Meurer does not intend to put up signs that would discourage use of the area makai of the shoreline.

Regarding the provision of access for traditional and cultural practices, a Cultural Impact Assessment was conducted of the property and its history by Scientific Consultant Services (SCS) to assess potential impacts from the project to cultural resources or traditional uses and practices occurring within the project area. From their archival research and from interviews with cultural informants, it was confirmed that the project area was used in the past as a canoe landing and, more recently, to access the ocean for fishing and gathering of marine resources, and, while the area is no longer used to launch canoes, fishing and gathering practices are still conducted along the coast in the area. As noted above, there is ready access to the Meurer property by parking in the Pohoiki Wai area and walking 400 feet along the shoreline to the north and Mr. Meurer does not intend to discourage or in any way impede use of the area makai of the shoreline. The Cultural Impact Assessment concludes that "the exercise of native Hawaiian rights, or any ethnic group, related to gathering, access or other customary activities will not be affected by development activities on this parcel. The property owner will not restrict shoreline access for fishing and gathering purposes, as is protected by law. No cultural activities were identified with the project area and the proposed undertaking will not produce adverse effects to any native Hawaiian cultural practices."

In relation to the ancient ahupua'a boundary trail mentioned in your comments, we note that an abstract memo prepared by the State Na Ala Hele Program related to the Disposition of Trail in the subject parcel, stated that Na Ala Hele believes that the trail runs mauka from the government road (Highway 137) and does not cross the property, and based on the lack of map data to confirm a trail alignment through the subject parcel by the year 1892, there did not appear to be a state-owned trail in this property.

ANALYSIS

Following review and acceptance for processing, the Applicant was notified, by correspondence dated March 8, 2017 that:

1. The proposed project is an identified land use within the Conservation District, pursuant to Hawai'i Administrative Rules (HAR) §13-5-24, *Identified land uses in the resource subzone, R-7 SINGLE FAMILY RESIDENCE (D-1) A single family residence that conforms to the design standards as outlined in this chapter*. The proposed use requires a Board Permit.
2. Pursuant to HAR §13-5-40 HEARINGS, a Public Hearing will not be required.
3. In conformance with Chapter 343, Hawai'i Revised Statutes (HRS), as amended, and HAR, Title 11, Department of Health, Chapter 200, Environmental Impact Statement Rules, an Environmental Assessment (EA) for the project has been prepared and a Finding of No Significant Impacts (FONSI) is anticipated for the proposed project;

4. The subject area is within the Special Management Area (SMA). The applicant's responsibility includes complying with the provisions of Hawai'i's Coastal Zone Management law (Chapter 205A, HRS) that pertain to the Special Management Area (SMA) requirements administered by the various counties. Negative action on this application can be expected should you fail to obtain and provide us, at least forty-five (45) days prior to the 180-day expiration date, one of the following:

- An official determination that the proposal is exempt from the provisions of the county rules relating to the SMA;
- An official determination that the proposed development is outside the SMA; or
- An SMA Use Permit for the proposed development.

The Final EA/Finding of No Significant Impact (FONSI) was issued by the DLNR Chairperson and published in the June 23, 2017 edition of the Office of Environmental Quality Control's *The Environmental Notice*.

CONSERVATION CRITERIA

The following discussion evaluates the merits of the proposed land use by applying the criteria established in §13-5-30, HAR.

- 1) *The proposed use is consistent with the purpose of the Conservation District.*

The objective of the Conservation District is to conserve, protect, and preserve the important natural and cultural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare.

The proposed use is an identified land use in the Resource subzone of the Conservation District; as such, it is subject to the regulatory process established in Chapter 183C, HRS and detailed further in Chapter 13-5, HAR.

As with all of East Hawai'i, several endangered, native terrestrial vertebrates may be present in the general area and may overfly, roost, nest, or utilize resources of the property. These include the endangered Hawaiian Hawk (*Lasiurus cinereus semotus*), the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), the endangered Hawaiian Petrel (*Pterodroma sandwichensis*), and the threatened Newell's Shearwater (*Puffinus newelli*). In order to avoid impacts to the endangered terrestrial vertebrates identified, the applicant will adhere to the following:

- Refrain from construction activities that disturb or remove vegetation between June 1 and September 15, when Hawaiian hoary bats may be sensitive to disturbance;
- If land clearing occurs between March 1 and September 30, a pre-construction hawk nest search by a qualified ornithologist using standard methods will be conducted. If Hawaiian Hawks are present, no land clearing will be allowed until October, when hawk nestlings will have fledged;
- Any and all exterior lighting will be shielded downwards, in conformance with Hawai'i county Code §14-50 et seq., to minimize the potential for disorientation to seabirds.

In addition, the AIS identified two low-stacked walls built to control livestock as historical sites. While not required, the applicant has decided to develop the project site without the need to disturb the walls, which will remain on the property as-is. Regarding the trail that was identified in the CIA, Staff notes that Na Ala Hele was contacted for further information/identification of the trail. Based on their research, Na Ala Hele believes that there does not appear to be a state owned trail traversing the property.

- 2) *The proposed land use is consistent with the objectives of the Subzone of the land on which the use will occur.*

The objective of the Resource subzone is to ensure, with proper management, the sustainable use of the natural resources of those areas. The proposed land use is an identified land use that can be applied for pursuant to §13-5-22, HAR. The proposed SFR shall be built to comply with all Federal, State and County regulations and shall be constructed in accordance with Chapter 13-5, Exhibit 4 Single Family Residential Standards.

- 3) *The proposed land use complies with the provisions and guidelines contained in Chapter 205A, HRS entitled "Coastal Zone Management", where applicable.*

The project area is located within the Special Management Area (SMA). The applicant received a SMA determination letter from the County of Hawai'i, Planning Department which stated that the proposed project is not considered "Development" as defined in Chapter 205A-22, HRS and Planning commission Rule 9 relating to Special Management Area. However, the proposed land use complies with following Coastal Zone Management guidelines as follows:

- (1) *Recreational Resources:* As the property is a shoreline parcel, the applicant is committed to ensuring public access to the shoreline is not restricted in the area fronting his property.
- (2) *Historic Resources:* As mentioned earlier, the AIS identified archaeological sites were identified in the archaeological inventory survey; two low-stacked walls that were built to control livestock. While not required, the applicant has decided to develop the project site without the need to disturb the walls, which will remain on the property as-is. Regarding the trail that was identified in the CIA, Staff notes that Na Ala Hele was contacted for further information/identification of the trail. Based on their research, Na Ala Hele believes that there does not appear to be a state owned trail traversing the property.
- (3) *Scenic and Open Space Resources:* While it is impossible to construct a home on the property without some effects to the view, the project has been planned to minimize the effects to the extent reasonable, by locating the SFR in the northwest corner of the lot (see Exhibit 8). The improvements occupy less than 15% of the lot. For drivers or walkers headed north, the home would be set against the backdrop of the neighbor's vegetation for much of the way. Much of the underbrush has been removed and the *Rhapis excelsa* palm hedge will be maintained at a height no greater 4 feet.
- (4) *Coastal Ecosystems, (6) Coastal Hazards, (9) Beach Protection, & (10) Marine Resources:* The proposed project will use BMPs during construction and uncovered areas will be replanted as soon as reasonably possible to prevent erosion and to minimize

any potential erosion which could be released into nearshore waters during a heavy rain event. Sewage will be disposed of in accordance with the requirements of the State Department of Health (DOH).

Given that this is a shoreline property, the applicant understands that there are hazards associated with homes at risk of coastal flooding and sea level rise. In order to avoid being a burden to the public in some way should sea level at this site rise dramatically, the applicant has agreed to a permit or deed condition that would prevent any future request for shoreline hardening to protect the residence, regardless of hardship as well as condition that would require moving or dismantling the home if sea level rise eventually threatens the integrity of the structure.

- (7) *Managing Development & (8) Public Participation:* As a part of this permit process, the State and County agencies, as well as the public was notified of this application and was given the opportunity to comment.
- 4) *The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region.*

Staff believes the proposed land use will not cause substantial adverse impacts to existing natural resources within the surrounding area, community or region provided that mitigative measures are implemented and the applicant shall be required to take measures to minimize or eliminate the interference, nuisance, harm, or hazard that the project may cause. Short-term impacts associated with construction activities such as potential noise and air quality are anticipated, however BMPs shall be implemented to mitigate any potential impacts.

As with all of East Hawai'i, several endangered, native terrestrial vertebrates may be present in the general area and may overfly, roost, nest, or utilize resources of the property. These include the endangered Hawaiian Hawk (*Lasiurus cinereus semotus*), the endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*), the endangered Hawaiian Petrel (*Pterodroma sandwichensis*), and the threatened Newell's Shearwater (*Puffinus newelli*). In order to avoid impacts to the endangered terrestrial vertebrates identified, the applicant will adhere to the following:

- Refrain from construction activities that disturb or remove vegetation between June 1 and September 15, when Hawaiian hoary bats may be sensitive to disturbance;
- If land clearing occurs between March 1 and September 30, a pre-construction hawk nest search by a qualified ornithologist using standard methods will be conducted. If Hawaiian Hawks are present, no land clearing will be allowed until October, when hawk nestlings will have fledged;
- Any and all exterior lighting will be shielded downwards, in conformance with Hawai'i county Code §14-50 et seq., to minimize the potential for disorientation to seabirds.

The AIS identified two low-stacked walls built to control livestock as historical sites. While not required, the applicant has decided to develop the project site without the need to disturb the walls, which will remain on the property as-is. Regarding the trail that was identified in the CIA, Staff notes that Na Ala Hele was contacted for further information/identification of

the trail. Based on their research, Na Ala Hele believes that there does not appear to be a state owned trail traversing the property.

Given that this is a shoreline property, the applicant understands that there are hazards associated with homes at risk of coastal flooding and sea level rise. In order to avoid being a burden to the public in some way should sea level at this site rise dramatically, the applicant has agreed to a permit or deed condition that would prevent any future request for shoreline hardening to protect the residence, regardless of hardship as well as condition that would require moving or dismantling the home if sea level rise eventually threatens the integrity of the structure.

- 5) *The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.*

Staff is of the opinion that the proposed project will be compatible with the locality and surrounding areas and is appropriate to the physical conditions and capability of the specified parcel.

- 6) *The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable.*

The site does not contain unique features either topographically or geologically. Although a structure will exist where no structure existed before, the proposed SFR does not encompass the entire property (**refer back to Exhibit 8**). The project has been planned to minimize the effects to the extent reasonable, by locating the SFR in the northwest corner of the lot. The improvements occupy less than 15% of the lot. For drivers or walkers headed north, the home would be set against the backdrop of the neighbor's vegetation for much of the way. Much of the underbrush has been removed and the *Rhapis excelsa* palm hedge will be maintained at a height no greater than 4 feet.

- 7) *Subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.*

No subdivision of land is proposed.

- 8) *The proposed land use will not be materially detrimental to the public health, safety and welfare.*

Staff believes the proposed land use will not be materially detrimental to the public health, safety and welfare as mitigated. With the incorporation of an appropriately designed and operated individual wastewater system, combined with other BMPs identified, the proposed residential land use will not result in materially detrimental impacts to public health, safety and welfare.

CULTURAL IMPACT ANALYSIS:

As discussed earlier, the AIS found that two archaeological sites, consisting of two stone walls, were located on the property. One wall (Site 26265), located along the northeastern property boundary,

was found to be constructed predominately of sub-angular basalt cobbles and small boulders, though waterworn basalt stones are incorporated into its length in the seaward portion. This site was interpreted as a historic livestock control feature and likely used to prevent grazing cattle from entering the adjacent parcel. The site is unaltered and in poor to fair condition. The other site (Site 26266) is an L-shaped wall situated in the southeastern corner of the parcel also in poor to fair condition. This wall was also interpreted to as a historic livestock control feature that may have served as an animal pen. Both historic properties were evaluated as significant under criterion d, as having been adequately documented, and recommended for no further work. While not required, the applicant has decided to develop the project site without the need to disturb the walls, which will remain on the property as-is. Further, SHPD's determination for the project is no historic properties affected

A Cultural Impact Assessment (CIA) was also conducted for the property in December 2016. The CIA notes that one individual stated that there used to be a trail along the stone wall that borders the Meurer property on the Pohoiki side. The trail was a mauka/makai trail that crossed Red Road (Hwy 137) and continued to the beach to an area that was used as a canoe landing for many generations. However large rocks have washed up and rendered the site as no longer being useful for canoe landings. Pohoiki Harbor is now used for that purpose. Other individuals who have knowledge of the project area responded that they were not aware of any cultural resource or cultural practices or beliefs associated with these land, aside from traditional fishing and gathering on the shoreline in front of the property.

Regarding the trail that was identified in the CIA, Staff notes that Na Ala Hele was contacted for further information/identification of the trail. According to Na Ala Hele staff, pursuant to Hawai'i Revised Statutes (HRS) §264-1 (b) *all trails, and other non-vehicular rights-of-way in the State declared to be public rights-of ways by the Highways Act of 1982, or opened, laid out, or build by the government or otherwise created or vested as non-vehicular public rights-of-way at any time thereafter, or in the future, are declared to be public trials. A public trail is under the jurisdiction of the state board of land and natural resources unless it was created by or dedicated to a particular county, in which case it shall be under the jurisdiction of that county.* The earliest map depicting a trail identified as a "trail to canoe landing" is Registered Map 2827 titled "Opihikao Village Grants" and is dated 1929. All earlier maps do not identify a trail alignment through the Meurer property, therefore Na Ala Hele believes that there does not appear to be a state owned trail traversing the property.

Should any historic remains be discovered during land disturbing activities, work will stop and SHPD immediately contacted.

DISCUSSION

The proposed 2,265 square foot SFR is of post on pier construction consisting of 1 bedroom, 2 bathrooms, a kitchen, an entryway & living room, an office, workroom areas, covered lanai and porch areas, a carport, and a storage area. Landscaping is also proposed. A septic tank and leach field will be located on the western side of the property, approximately 100 feet from the certified shoreline, limiting the potential for discharge into near-shore waters. Staff notes that the DOH requires septic systems to be located no closer than 50 feet from any body of water.

During construction, BMPs will be observed and implemented. Within the Environmental Assessment, the applicant has identified a number of mitigative measures, conditions, and practices

to ensure that the proposal will have minimal effect on the natural resources that may be impacted by the proposed project. As such, these proposed measures, conditions and practices are incorporated into the permit. In addition, the proposed SFR is consistent with Chapter 13-5, Hawaii Administrative Rules, Exhibit 4, Single Family Residential Standards.

This area along the 'Ophikao Beach coastline includes both Agricultural and Conservation District land, with a mixture of a small residential subdivision and larger lots used for agricultural purposes. The proposed structure is similar in scale to many of the neighboring homes and the structure has been designed to comply with the Single Family Residential Standards as outline in HAR, Chapter 13-5. Further an SFR was previously approved on April 14, 1990 by the Board to be built on nearby Parcel 6 (CDUP HA-2328). Staff believes that the project will have negligible adverse environmental or ecological effects provided that best management practices and mitigation measures as described in the application and environmental assessment, and as required by rule or laws, are fully implemented.

Please note that due to the location of the proposed SFR along the shoreline and the associated coastal hazards that are associated with the project area (**see Exhibit 9**), Staff is recommending a condition in which the landowner must execute a waiver and indemnity agreement. Also, as volunteered by the landowner, Staff also is recommending a condition that the landowner forgoes any future requests for shoreline hardening to protect the residence, regardless of hardship and that in the event that coastal hazards (i.e. sea level rise) eventually threatens the integrity of the structure, the landowner will be required to move or dismantle the structure.

RECOMMENDATION

That the Board of Land and Natural Resources APPROVE Conservation District Use Application HA-3793 for a Single Family Residence (SFR) and Related Improvements located at 'Opihikao Beach, Puna, island of Hawai'i, TMKs (3) 1-3-004:008, subject to the following conditions:

1. The permittee shall comply with all applicable statutes, ordinances, rules, and regulations of the federal, state, and county governments, and applicable parts of this chapter;
2. The permittee, its successors and assigns, shall indemnify and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, and death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit;
3. The permittee shall comply with all applicable department of health administrative rules;
4. The single family residence shall not be used for rental or any other commercial purposes unless approved by the board. Transient rentals are prohibited, with the exception of wilderness camps approved by the board;
5. The permittee shall provide documentation (e.g., book and page or document number) that the permit approval has been placed in recordable form as a part of the deed instrument, prior to submission for approval of subsequent construction plans;
6. Before proceeding with any work authorized by the department or the board, the permittee shall submit four copies of the construction plans and specifications to the chairperson or

an authorized representative for approval for consistency with the conditions of the permit and the declarations set forth in the permit application. Three of the copies will be returned to the permittee. Plan approval by the chairperson does not constitute approval required from other agencies;

7. Unless otherwise authorized, any work or construction to be done on the land shall be initiated within one year of the approval of such use, in accordance with construction plans that have been signed by the chairperson, and shall be completed within three years of the approval of such use. The permittee shall notify the department in writing when construction activity is initiated and when it is completed;
8. All representations relative to mitigation set forth in the accepted application and environmental assessment or impact statement for the proposed use are incorporated as conditions of the permit;
9. The permittee shall plan to minimize the amount of dust generating materials and activities. Material transfer points and on-site vehicular traffic routes shall be centralized. Dusty equipment shall be located in areas of least impact. Dust control measures shall be provided during weekends, after hours and prior to daily start-up of project activities. Dust from debris being hauled away from the project site shall be controlled. Landscaping and dust control of cleared areas will be initiated promptly;
10. The permittee shall notify the Office of Conservation and Coastal Lands (OCCL) in writing prior to the initiation and upon completion of the project;
11. Should historic remains such as artifacts, burials or concentration of charcoal be encountered during construction activities, work shall cease immediately in the vicinity of the find, and the find shall be protected from further damage. The contractor shall immediately contact SHPD (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary;
12. The permittee shall utilize Best Management Practices for the proposed project;
13. During construction, appropriate mitigation measures shall be implemented to minimize impacts to the aquatic environment, off-site roadways, utilities, and public facilities;
14. The single-family residence shall conform to the single-family residential standards included as Exhibit 4 of the Hawaii Administrative Rules, Chapter 13-5;
15. The permittee understands and agrees that the permit does not convey any vested right(s) or exclusive privilege;
16. In issuing the permit, the department and board have relied on the information and data that the permittee has provided in connection with the permit application. If, subsequent to the issuance of the permit such information and data prove to be false, incomplete, or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and the department may, in addition, institute appropriate legal proceedings;

17. When provided or required, potable water supply and sanitation facilities shall have the approval of the department of health and the county department of water supply;
18. Where any interference, nuisance, or harm may be caused, or hazard established by the use, the permittee shall be required to take measures to minimize or eliminate the interference, nuisance, harm, or hazard;
19. Obstruction of public roads, trails, and pathways shall be avoided or minimized. If obstruction is unavoidable, the permittee shall provide alternative roads, trails, or pathways acceptable to the department;
20. During construction, appropriate mitigation measures shall be implemented to minimize impacts to off-site roadways, utilities, and public facilities;
21. The permittee shall obtain a county building or grading permit or both for the use prior to final construction plan approval by the department;
22. Artificial light from exterior lighting fixtures, including but not limited to floodlights, uplights, or spotlights used for decorative or aesthetic purposes, shall be prohibited if the light directly illuminates or is directed to project across property boundaries toward the shoreline and ocean waters, except as may be permitted pursuant to section 205A-71, HRS. All exterior lighting shall be shielded to protect the night sky;
23. The permittee acknowledges that the approved work shall not hamper, impede, or otherwise limit the exercise of traditional, customary, or religious practices of native Hawaiians in the immediate area, to the extent the practices are provided for by the Constitution of the State of Hawaii, and by Hawaii statutory and case law;
24. Any landscaping will shall be appropriate to the site location and shall give preference to plant materials that are endemic or indigenous to Hawai'i. The introduction of invasive plant species is prohibited;
25. **Trees taller than 15 feet shall not be removed or trimmed during the Hawai'i Hoary bat birthing and pup rearing season from June 1st to September 15th;**
26. **If land clearing occurs between March 1 and September 30, a pre-construction hawk nest search by a qualified ornithologist using standard methods will be conducted. If Hawaiian Hawks are present, no land clearing will be allowed until October, when hawk nestlings will have fledged;**
27. **The landowner shall maintain the *Rhapis excelsa* palm hedge so that it is no more than two feet wide, thus retaining room for walking between the edge of the road pavement and the hedge shall be maintained so that it is no more than 4 feet high at any given time.**
28. **The landowner shall execute a waiver and indemnity agreement prior to construction plan approval that is satisfactory to the Department;**

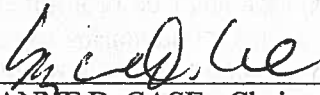
- 29. The landowner will forgo any future requests for shoreline hardening to protect the residence, regardless of hardship and that in the event that coastal hazards (i.e. sea level rise) eventually threatens the integrity of the structure, the landowner will be required to move or dismantle the structure.**
- 30. Other terms and conditions as may be prescribed by the Chairperson; and**
- 31. Failure to comply with any of these conditions shall render this Conservation District Use Permit void under Chapter 13-5, as determined by the chairperson or board.**

Respectfully submitted,

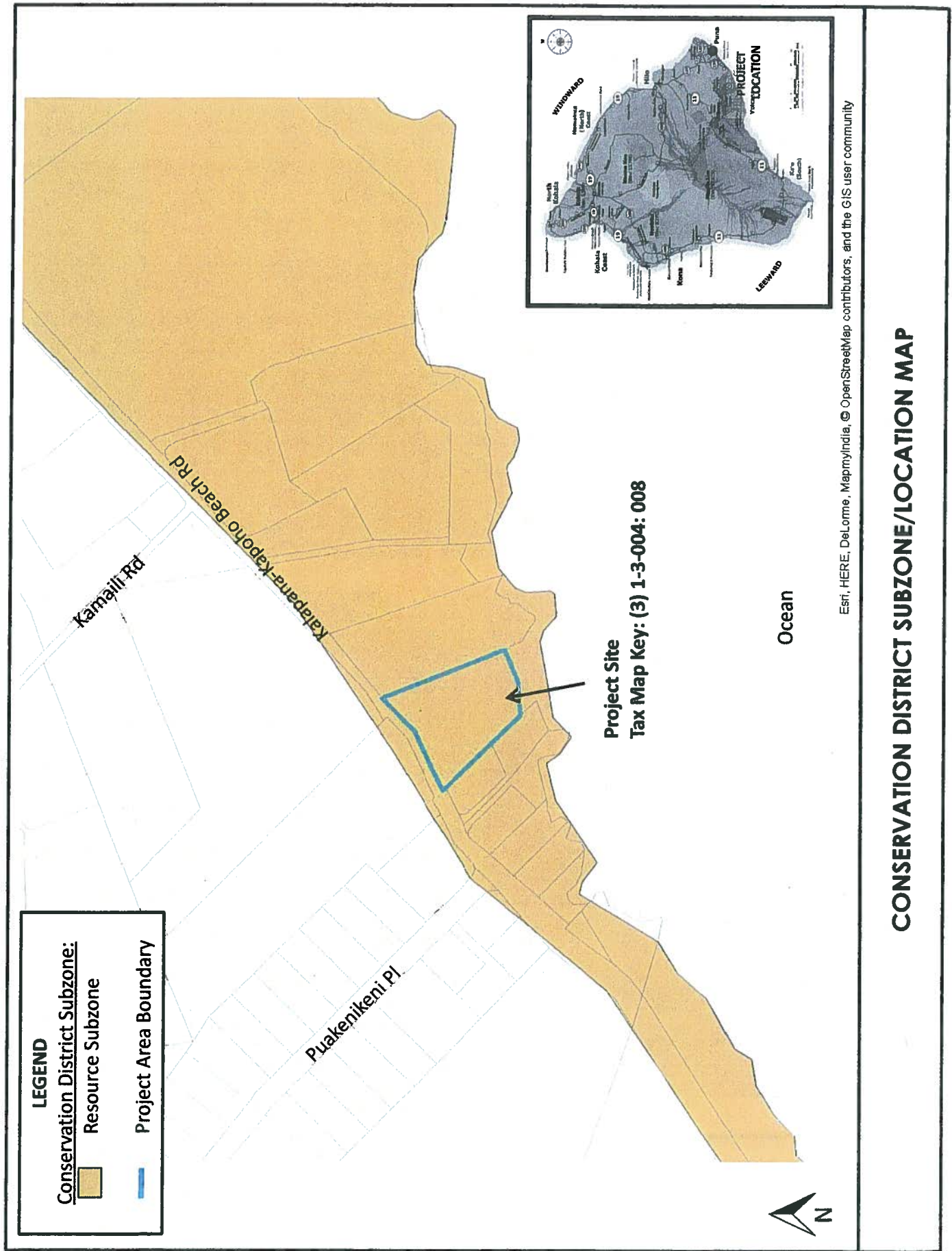


**Lauren Yasaka, Staff Planner
Office of Conservation and Coastal Lands**

Approved for submittal:

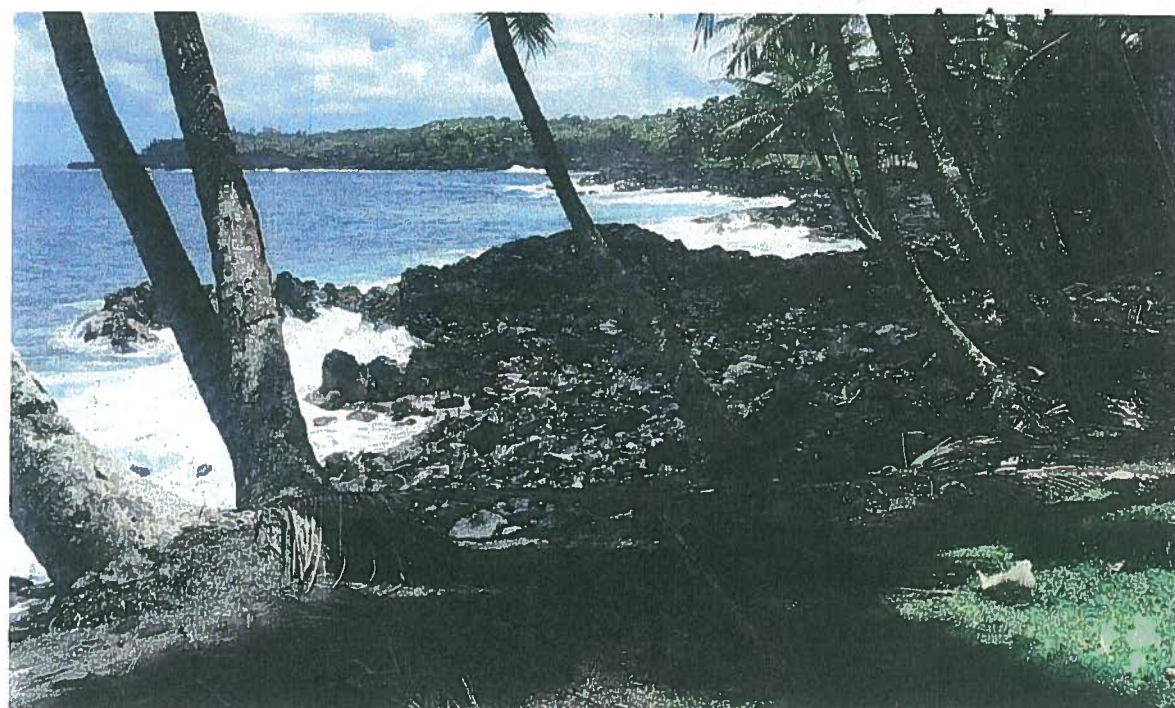


**SUZANNE D. CASE., Chairperson
Board of Land and Natural Resources**





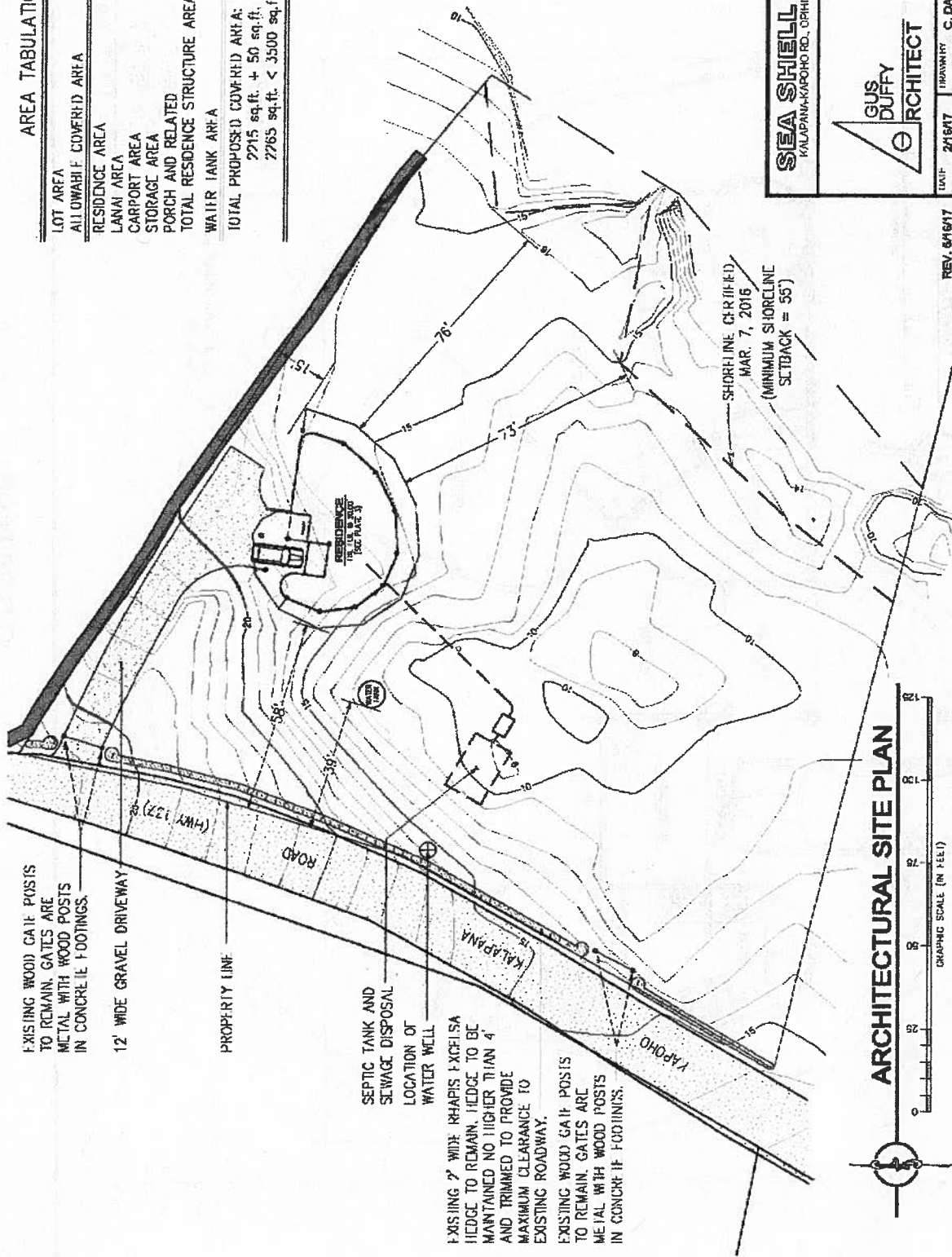
SITE PHOTOS



SITE PHOTOS

AREA TABULATIONS

LOT AREA	43,523	sq. ft.
ALLOWABLE COVERED AREA	3500	sq. ft.
RESIDENCE AREA	1239	sq. ft.
LANAI AREA	574	" "
CARPORT AREA	140	" "
STORAGE AREA	82	" "
PORCH AND RELATED	200	" "
TOTAL RESIDENCE STRUCTURE AREA	2215	sq. ft.
WATER TANK AREA	50	sq. ft.
TOTAL PROPOSED COVERED AREA:	2215 sq. ft. + 50 sq. ft. = 2265	sq. ft.
	2265 sq. ft. < 3500 sq. ft. OK	



ARCHITECTURAL SITE PLAN

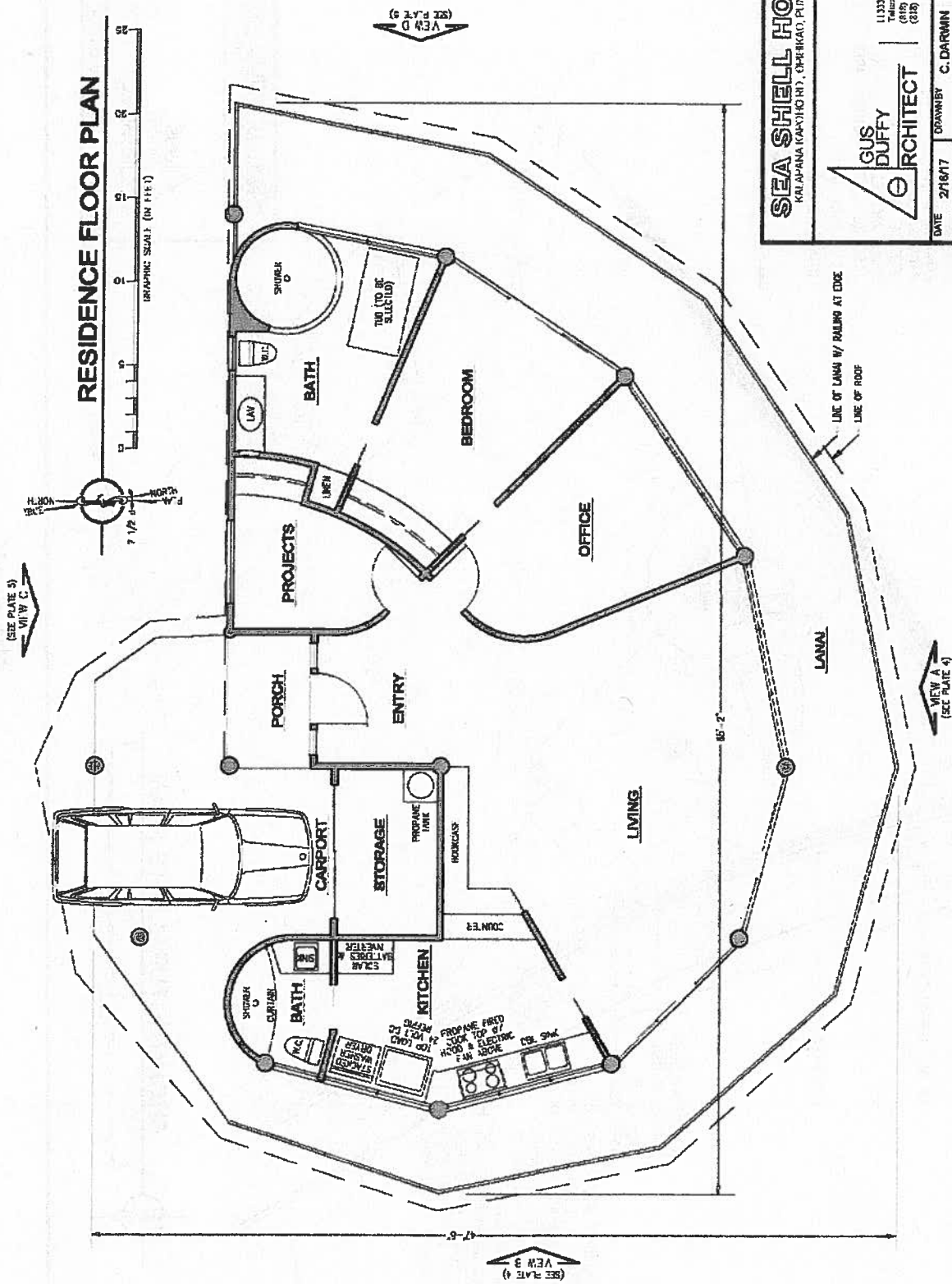
SEA SHELL HOUSE
KALAPANA-KAPOHO RD., OPIHIKAO, PUNA, HAWAII

GUS DUFFY ARCHITECT
11333 Monrovia St., #405
Toluca Lake, CA 91677
(818) 985-4015
(818) 985-4016 FAX

DATE: 2/16/17
DRAWN BY: C. DARWIN
PLATE NO: 1

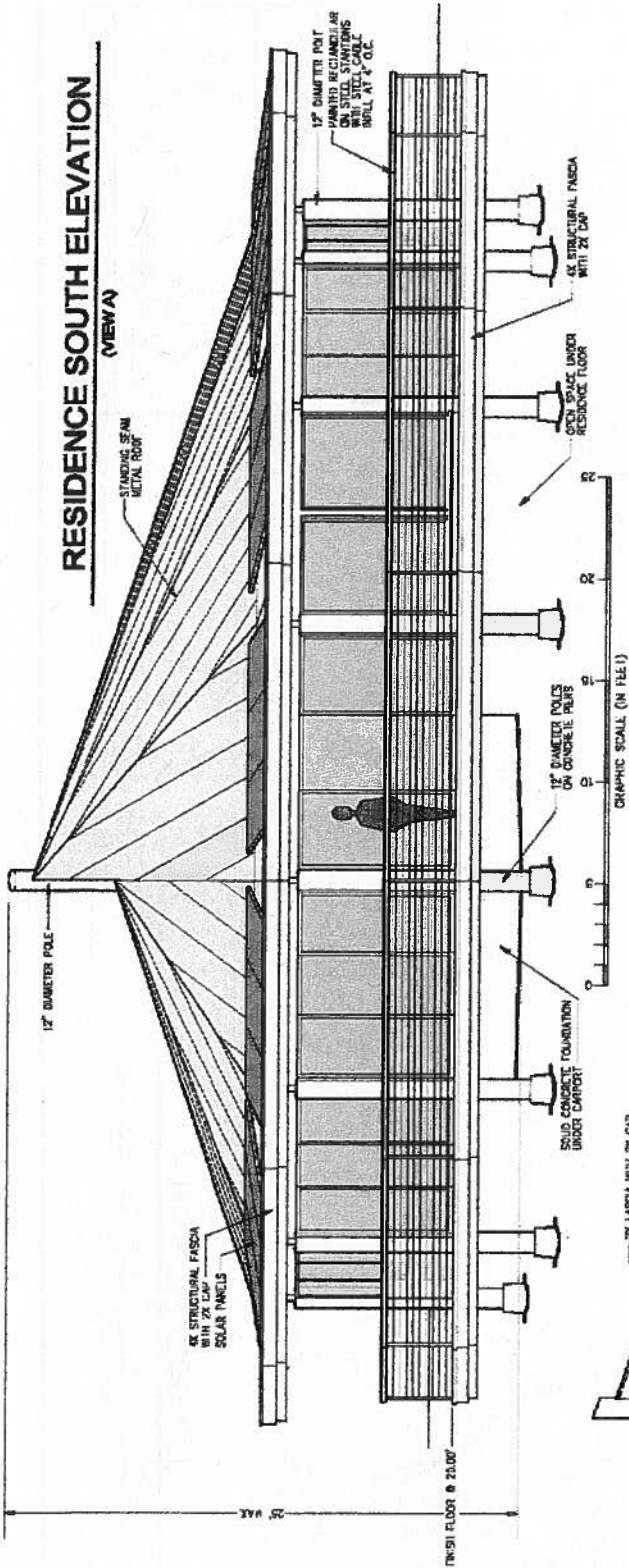
REV. 8/16/17

SITE PLAN

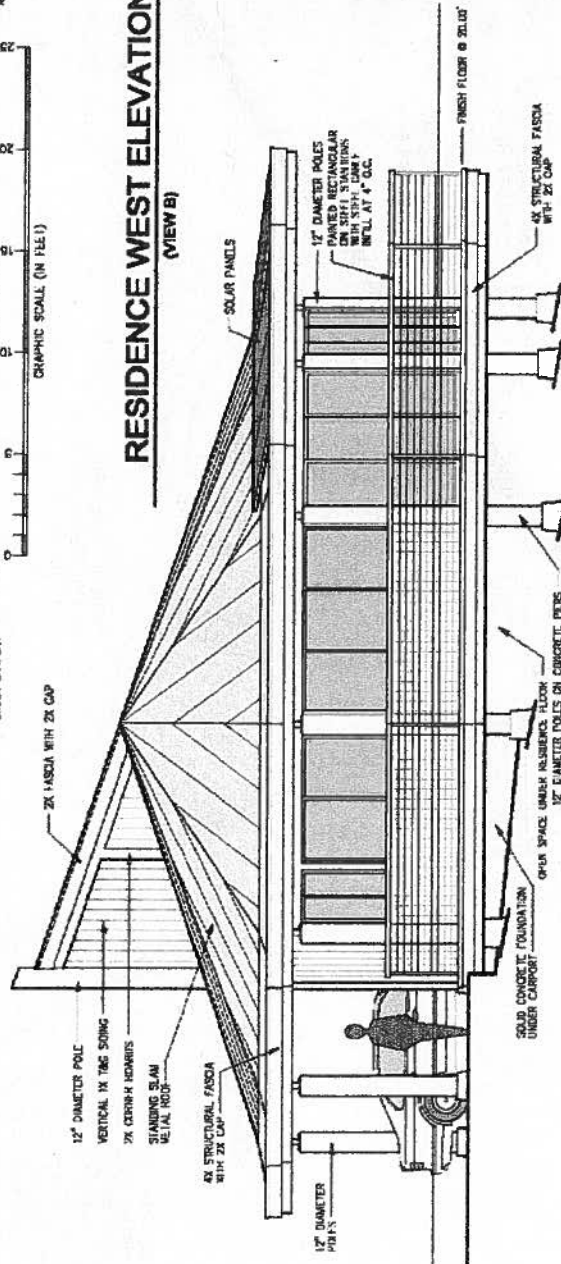


SEA SHELL HOUSE KAI APANA (KAY-THO HO), CH-REKAO, PUNAH, HAWAII	
GUS DUFFY ARCHITECT 11333 Macquard St. #155 Toluca Lake, CA 91677 (818) 895-0815 (818) 895-0816 FAX	DATE 2/18/17 DRAWN BY C. DARWIN PLATE NO 3

FLOOR PLAN



RESIDENCE WEST ELEVATION
(VIEW B)



SEA SHELL HOUSE KALAPANA KAPOHO RD., OPIHIKAO, PUNA, HAWAII	
GUS DUFFY ARCHITECT 11221 Mossland St. #655 Toluca Lake, CA 91602 (818) 987-1815 (818) 982-0816 FAX	DATE 2/16/17 DRAWN BY C. DARWIN PLAT NO. 4

ELEVATION PLAN

PLANT LIST	
COMMON (HAWAIIAN) NAME	BOTANICAL NAME
PALMS	
LOULU	(PITHECOURNIA SP.)
DWARF SAMOAN COCONUT	(COCOS NUCIFERA)
(NIU LEKA)	
TREES	
HAI A	(PANDANUS TECTORIUS)
CITRUS	(CITRUS SPP.)
BANANA	(MUSA SP.)
PAPAYA	(CARICA PAPAYA)
SHRUBS	
KAUAI HIBISCUS	(HIBISCUS CAIYHYMUS)
(MAIO HAU HELE)	
NANI GARDENIA	(GARDENIA TAENSIS)
MALENA GARDENIA	(GARDENIA TAENSIS)
GROUND COVER	
PRINCESS FLORAL	(PANDANUS TECTORIUS)

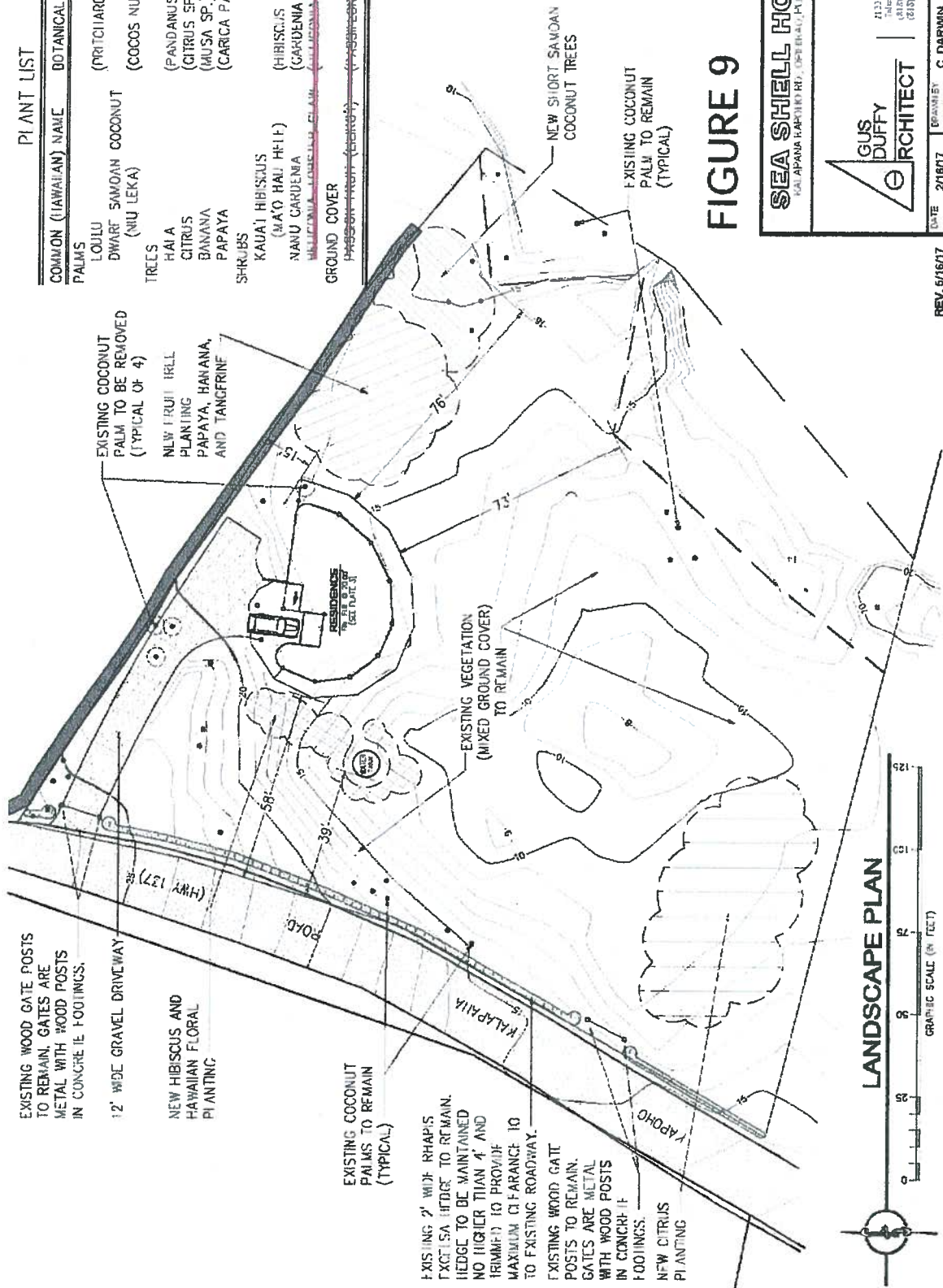
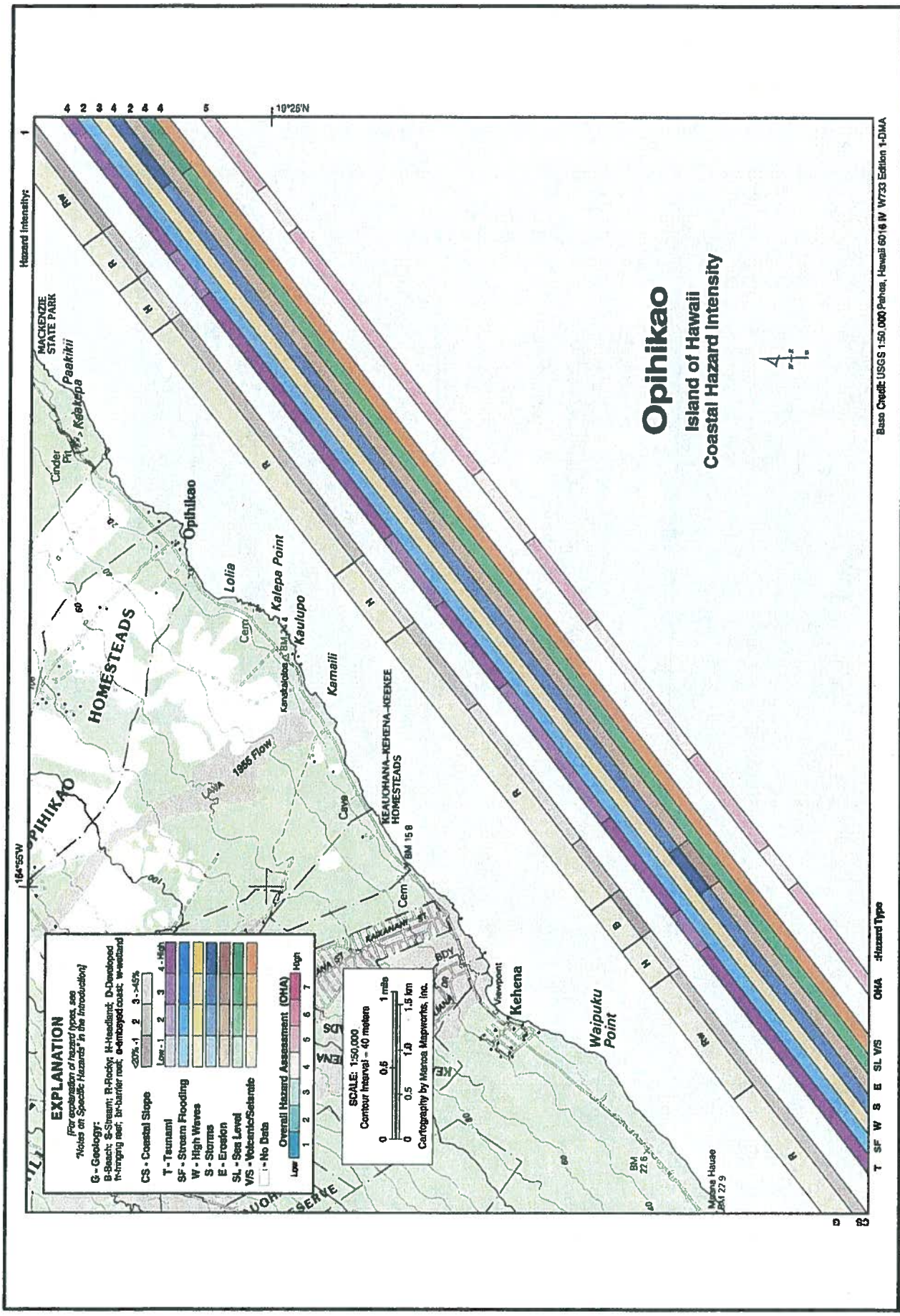


FIGURE 9

LANDSCAPE PLAN



VISUAL SIMULATION



COASTAL HAZARDS MAP