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

180-Day Exp. Date: August 19, 2009

July 22, 2009

Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

REGARDING:	Conservation District Use Application (CDUA) MA-3498 for a Single Family Residence (SFR) & Related Improvements
APPLICANT/ LANDOWNER:	Warren & Susan Dean James & Jeanne Riley
LOCATION:	Olowalu, Lahaina, island of Maui
TMKs:	(2) 4-8-003:045
AREA OF PARCEL	Approximately (≈) 0.803-acre/ 34,978-ft²
USE:	≈ 8,000 ft²
SUBZONE:	Limited

DESCRIPTION OF AREA AND CURRENT USE

The subject area exists on the island of Maui, Lahaina District, Olowalu, approximately 6-miles south of Lahaina near the Olowalu wharf. Honoapiilani Hwy is about 400-feet mauka of the property. The property is unimproved with a 60-foot wide strip of land to the south separating the parcel from the ocean. The property appears to lie within the Conservation District, Limited subzone. To the west is a State Beach Reserve and Agricultural District land planted as a landscape nursery that also wraps around to the North of the parcel. According to the applicant, similar proposals for residences have been recently initiated for the two properties to the east **(Exhibit 1 & 2)**.

The locality is a low-lying coastal terrace that parallels the long and narrow sandy beach with isolated regions of small boulders and cobbles. Offshore fringing reef and rocks line the shore, providing good diving when calm. Stream channels in this area are generally dry or low year-round, but are known to quickly flood during extreme rainfall events in the immediate area and in the West Maui Mountains just inland of the coastal zone.

The topography of the project site is generally flat and is generally sloping down in a southwesterly direction towards the ocean at about +/- 2%. The elevation above mean sea level of the subject property ranges between 3-8 feet. Soils at the project site are classified as Jaucas Sand, 0-15 percent slopes. These soils consist of excessively drained calcareous soils that occurs as narrow strips on coastal plains adjacent to the ocean.

The overall hazard assessment of moderate to high (5) is a direct function of the low coastal slope of this area. Tsunami and storm hazard are ranked high along this coast that faces southwest toward the majority of passing storms that track to the west. Erosion threat is ranked moderately high. The sea level and volcanic/seismic hazards are moderately high because of the low coastal slope and Olowalu's location within seismic hazard zone 2B of the Uniform Building Code (UBC) on a scale of 0-4. The UBC contain six seismic zones, ranging from 0 (no chance of severe ground shaking) to 4 (10% chance of severe shaking in a 50-year interval). **(Exhibit 3)**.

The majority of the property is located in a flood plain identified as Zone A-4, areas of 100-year flooding due to tsunami wave run up with no velocity on FEMA flood maps with the mauka remainder of the property in Zone C. The predicted base flood elevation within this locality is 5-feet above sea level.

Access to the lot is provided from Honoapiilani Hwy via an existing access easement across the adjacent Agricultural lot. Water, electrical power and telecommunication systems are available in the access easement from Honoapiilani Highway including fire flow protection. There are no existing public wastewater collection or treatment facilities serving the Olowalu area **(Exhibit 4)**.

A biological Resources Survey of the property was conducted in May 2006. According to the survey, 80% of the parcel is densely forested primarily with kiawe with a robust understory ground layer of manienie grass. The survey finds only 11 species of plants on the property, all non-native. According to the Resources Survey, "The biological survey has a lack of diversity of plant species."**(Exhibit 5 & 6)**

Eight species of non-native birds were observed. State Division of Forestry & Wildlife indicated that Nene has been seen in the vicinity and newly developed reservoirs or open grassy fields could become new Nene habitat.

According to the applicant, flora and fauna are predominately-introduced species. No rare, threatened or endangered plant or animal species or significant habitats are known to exist on the subject property.

It is believed that in pre-contact times, the area would have been a dry native shrub land with a few scattered trees with a preponderance of grasses. The Olowalu area came into sugar cane production during the 1860's and this use continued for over a 100 years. During this time the land was repeatedly cleared, plowed, cultivated, burned and harvested. As a result, the original flora and fauna have long since disappeared. With the demise of sugar in West Maui in 1999, the agricultural lands adjacent to this parcel continue to be utilized for minor farming pursuits.

According to the applicant, the parcel may be a kuleana noted as Land Commission Award (LCA) 5620 that was used as a house lot. Interviews with individuals who may be familiar with cultural practices and features associated with the project area indicated that there were no known cultural activities associated with the subject property or vicinity.

Photographic documentation over the years indicates that the shoreline vicinity of this area has been undisturbed for quite some time **(Exhibit 7)**. Pioneer Mill acquired the parcel sometime after 1881. As this site is believed to be a former kuleana house lot; within close proximity to burial grounds and the documented Olowalu Massacre may have occurred within the vicinity, additional cultural remains may be found.

There is gley soil, a soil high in organic content believed to be former marsh deposits, present on the property ≈ 3-feet below the existing soil surface at the southeast of the property. The gley soil area may have been created when the Olowalu Stream's outlet was at Hekili Point, southeast of the property. There is a potential that stream-fed coastal, lagoon marshlands could have been used for fishponds and could yield paleo-environmental information on Hawaiian history. This subsurface condition is noted as occurring on a portion of the southwest corner of the property. In accordance with the approved Archaeological Mitigation and Preservation Plan, A 10-foot buffer and interpretive signage shall be placed in the vicinity of these sub-surface soil deposits **(See Exhibit 4)**.

The proposed site was part of an overall Archaeological Inventory Survey that covered ≈ 73 acres of Olowalu on the makai side of Honoapiilani Hwy. An Archaeological Mitigation & Preservation Plan was prepared and the State Historic Preservation Division (SHPD) accepted both the Survey and the Preservation Plan by correspondence dated April 16, 2001. The subject area is within the eastern shoreline monitoring area. **(Exhibit 8).**

Ocean resources may be gathered for food sources. Activities that may take place include net-fishing, gathering limu, sea cucumber, sea urchin, octopus, crabs, lobster and torch fishing are conducted along the beach and in the bay.

PROPOSED USE

According to the application, the ≈ 8,000-ft²-project area includes a SFR constructed post on pier, related grading and driveway improvements, installation of wastewater & drainage systems, landscaping and restoration of a portion of the lot in native plants. It is the intent of the owners to have the rest of the lot remain in a naturalized state. Offsite work includes a private driveway installation, and utility connections via underground conduits mostly through the adjacent lot to the North **(Exhibit 9 & 10)**.

The proposed SFR appears to be ≈ 3,500.50-ft² with 3 bedrooms, 3.5 restrooms, an office, an entry foyer, a great room, a kitchen/dining room, a laundry room and 728-ft² covered lanais. The height of the proposed structure is a little less than 25'. Minor grading and fill at the site is intended to reorient drainage patterns away from the ocean (to the settling basin) and to create an appropriate pad for the structure. The finished

floor elevation of the home shall be 8-feet above sea level. This exceeds the required flood elevation of 5-feet. The home is proposed ≈91-feet from the last certified shoreline **(Exhibit 11 & 12)**.

The proposed residence has been designed to complement the new residences being constructed in Olowalu. The architectural style of the home is "Hawaiian country" featuring a split-pitch roof, with wood siding designed to blend into the Olowalu community. Landscaping will be used to set the home into its natural surroundings.

There will be an increase in runoff due to the introduction of impervious surfaces mainly due to concreted surfaces and roofs. The rapid permeability of the soils combined with the construction of a runoff retention basin will reduce the potential for runoff generated from the property to directly enter near shore waters.

The application also included a proposed drainage plan that is primarily to impound, on site, the expected runoff volume increase as a result of the proposed project. This will be attained by the construction of a retention basin that will be sized at a minimum to contain the 5-year runoff volume increase. An open-cut retention pond is preliminarily proposed. With the incorporation of the BMPs and installation of the retention basin, the proposed project is not anticipated to have significant adverse impacts. The proposed retention pond will have excess capacity resulting in a decrease of runoff from the property of approximately 25%. The basin will also have the effect of reducing the potential for sediments contained in the runoff from entering near shore waters. The proposed retention pond will have a capacity of 2131 cf that is 447 cf greater than the volume increase of 1784 cf resulting in an ≈ 25% decrease of runoff downstream.

Minor grading for the construction of the residence is anticipated and will comply with applicable requirements of the Maui County Code. The project will be developed in accordance with Flood Hazard Areas of the Maui County Code.

Due to the proximity to the ocean, the wastewater system will incorporate aerobic treatment of the effluent in order to lessen potential impacts to subsurface or near shore water quality. A private refuse collection company will handle refuse disposal from the residence.

The landscape design for this project will incorporate native plantings such as moa, ilima, akahehe, ukiuki grass, Naio Papa, hala, milo, loulu and an open grass lawn. Beyond the project site, existing natural areas will remain and be maintained by removing invasive plants that will be replaced with native coastal plants.

Should Nene visit the site, sightings shall be reported to the Division of Forestry and Wildlife personnel.

Due to the presence of sub-surface sand deposits in the area and the properties proximate to the coastline, archaeological monitoring shall be required in accordance with the approved Archaeological Monitoring Plan.

According to the applicant, lateral public access along the shoreline will not be affected by the proposal. Shoreline access in the project vicinity is accommodated by government beach reserves to the east and west. A lateral shoreline access easement has been established, fronting the subject property.

Alternatives Analysis

The applicant has not proposed any alternatives to the proposed action but has stated that the parcel was created as a Land Commission Award that may have contained a 'house lot'; the size of potential use (.5-acres) of the property limits other uses; and that prior (mid 1950's – early 1960's) to the enactment of Chapter 13-5, HAR, the property was zoned for Apartment A-3.

SUMMARY OF COMMENTS

The application was referred to the following agencies for their review and comment: the **State**: Department of Health; Office of Hawaiian Affairs; Office of Environmental Quality Control; Department of Land and Natural Resources Divisions of: Conservation and Resource Enforcement, Engineering, Forestry and Wildlife, Maui District Land Office, Historic Preservation; and the **County of Maui:** Department of Planning and Councilperson Jo Anne Johnson. In addition, this application was also sent to the nearest public library, the Lahaina Public Library, to make this information readily available to those who may wish to review it.

Responses were received and have been summarized from the following agencies:

STATE OF HAWAII

DEPARTMENT OF HEALTH

Wastewater Branch

The project is located in the Critical Wastewater Disposal Area where no new cesspools will be allowed. There is currently no wastewater treatment and disposal system on or near the property.

Wastewater treatment and disposal has not been thoroughly addressed in this document, but the application states that a treatment individual wastewater system will be developed on site and will include septic tank and field. We have no objections to the proposed project as long as wastewater treatment and disposal meets our minimum standards.

All wastewater plans must meet Department's Rules, HAR chapter 11-62, "Wastewater Systems." We reserve the right to review the detailed wastewater plans for conformance to applicable rules. We strongly recommend that our standard comments on our website be reviewed and comments specifically applicable to this project be adhered to.

Applicant's response

The applicant is aware that the individual wastewater system will need to comply with Department of Health Rules and Regulations.

OFFICE OF HAWAIIAN AFFAIRS (OHA)

We request the applicant's assurances that should iwi kupuna or native Hawaiian cultural or traditional deposits be found during the construction of the project, work will cease, and the appropriate agencies will be contacted pursuant to applicable law. In addition, OHA appreciates the applicant's intent to use native vegetation in their landscaping plan for the subject parcel. Landscaping with native plants furthers the traditional Hawaiian concept of malama aina and creates a more Hawaiian sense of place.

DEPARTMENT OF LAND AND NATURAL RESOURCES

Division of Conservation and Resource Enforcement

Although the structure has been elevated six feet higher, to keep it above flood waters, the septic tank and leach field is still located below anticipated flood water levels. If the septic tank and leach field are inundated by floodwaters, I suspect that the system will stop working and there is potential for a sewage leak.

Applicant's Response

The site plan has been revised to locate the septic tank and leach field so that it is outside of the A4 flood zone at a slightly higher existing grade elevation. Therefore the wastewater disposal system will no longer be in a flood zone and potential for flooding should be extremely low. In the event that flooding of the area were to occur, the potential for direct discharge to flood waters would be related to the height of the floodwaters in relation to fixture outlets in the residence. Floodwaters would saturate the soil and absorption beds or trenches and there would be a potential for the waters to back up in the wastewater system until it reaches the height of the floodwaters.

The elevation of the finished floor of the proposed residence has been raised to a minimum of 8–feet above sea level, therefore flood waters would have to exceed 8-feet above sea level for the effluent to be forced back out of the fixtures within the residence. When the floodwaters recede, the combination of floodwaters and effluent within the system would drain through the subsurface leach field. Since the leach field is subsurface the return flows would not directly discharge to the surface water.

The applicant is proposing aerobic treatment of the effluent and as such, there is no minimal requirement for separation between the bottom of the leach field and the groundwater table. However, in order for the system to adequately discharge, the bottom of the leach field will be established at approximately 3-feet above the existing water table as measured during high tide.

Engineering

Our comments dated May 2, 2007 still apply…

MAY 2, 2007 comments
We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone A4. The project site must comply with the rules and regulations of the Nation Flood Insurance Program (NFIP) presented in Title 44 of the code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. Please be advised that 44CFR indicated the minimum standards set forth by the NFIP. Your community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards.

Applicant's response

The applicant is aware that these comments still apply.

Forestry and Wildlife

We caution the landowners that the endangered Nene may find habitat in this area from the development of a reservoir (water source) or large grassy area (grazing source). Our wildlife biologist has seen Nene migrate to the old Olowalu Manager's Plantation House when this property was restored several years ago. Should the landowners see Nene on their property during construction or completion of their residence, we would appreciate that they call our Maui Branch Office at 984-8100 to mitigate any impacts to the Nene.

Applicant's Response

We note the potential for Nene to find habitat in the area and will contact the Maui Branch Office in the event Nene are seen or the property or in the nearby vicinity.

Maui District Land Office

Is this a kuleana lot that had a former house site? If not, the request should be denied according to Admin. Rules. Isn't there a burial ground and historic sites adjacent to this lot? Contact SHPD and Burial Council for comments.

Applicant's response

Chapter 13-5, HAR identifies a Single Family Residence as a use that could be applied for within the Limited subzone provided that the site is located in a flood zone. The requested land use is L-6.

Regarding archaeological sites in the vicinity, an Archaeological Inventory Survey of the area was prepared and accepted by the State Historic Preservation Division. There were sites in the area but none on the property. The approved Archaeological Preservation Plan that shows the location of the sites was included in the Draft Environmental Assessment.

Office of Conservation and Coastal Lands (OCCL)

The OCCL notes both the County and State have recommended post on pier construction yet the proposal continues to grade approximately 8000 ft^2 and import approximately 60 yd^3 of fill to elevate the foundation up to 1.5-ft to comply with designated flood standards. Residences have an expected lifespan of 70-years. This is a high water table area with evidence of marsh condition soils. Comments received from various agencies indicate there is a concern regarding the conditions of the land and the potential affects to the residence and the wastewater system during the lifespan of use as a residence. Discuss this preference to infill vs. the suggested post on pier in regards to the expected rise of the water table due to sea level rise and reach. What are the potential affects to the residence, the wastewater system and infill and how will these potential affects be mitigated to insure the residents and the general public's health, safety and welfare and to insure that the ocean resource shall not be compromised?

Applicant's response

The applicant is aware that the project site is in a low lying area with close proximity to the water table and is proposing mitigation measures to minimize potential negative impacts related to wastewater processing and structural engineering concerns.

In regards to the marsh soil conditions, we assume this is in reference to the presence of gley soils that were found as the result of sub-surface archaeological testing. The gley soils were found as <u>sub-surface</u> soil layers in test trenches located to the south east of the project site. More specifically, the gley soil layers were found at soil depths of ≈ 3-feet below the surface.

The gley soils deposits appeared high in organic content and were interpreted as former marsh deposits. The archaeologist surmised these marsh deposits may have been formed by blockage of the Olowalu stream, "It appears plausible that a coastal berm of the previously noted marine sand partially dammed the Olowalu stream flow sometime in the past 2-5 thousand years…". This would have occurred when the bed of Olowalu stream entered the ocean near Hekili Point, prior to the stream being channelized around the turn of the century and redirected to its present location to the west.

The proposed construction style of the residence has been amended from slab on grade to a post and pier type structure. In addition, the finish floor elevation has been raised to 8-feet above sea level.

The site plan has been revised to locate the septic tank and leach field so that it is outside of the A4 flood zone at a slightly higher existing grade elevation. The applicant is proposing aerobic treatment of the effluent and as such, there is no minimal requirement for separation between the bottom of the leach field and the groundwater table. However, in order for the system to adequately discharge, the bottom of the leach field will be established at ≈ 3-feet above the existing water table. Thus, there could be up to 3-feet of rise in the water table before it would reach the bottom of the leach field.

COUNTY OF MAUI

Department of Planning

Post and pier construction is more appropriate in flood prone areas than slab on grade accompanied by grading and fill. The proposed residence is transected by Flood Hazard Zone A4 and C. The base flood elevation is listed as 5.0 feet and the structure's pad after grading is 6.5 feet. Thus the proposal is to create a pad to elevate the slab on grade house above floodwaters. The same can be accomplished with post and pier construction. However, post on pier structures can be relocated during the buildings life span whereas slab on grade cannot.

The Department also notes a 1250-gallon aerobic septic tank and leach field at the far north end of the property. The elevation ranges from 4'-5' above sea level. The influences of sea level rise on the water table and thus the ability of the wastewater system to adequately discharge and function over the life of the residential structure should also be considered in the CDUA.

Applicant's response

The proposed construction style of the residence has been amended to a post and pier type structure. In addition, the finish floor elevation has been raised to minimum of 8-feet above sea level.

The site plan has been revised to locate the septic tank and leach field outside of the A4 zone at a slightly higher existing grade elevation. The applicant is proposing aerobic treatment of the effluent and as such, there is no minimal requirement for separation between the bottom of the leach field and the groundwater table. However, in order for the system to adequately discharge, the bottom of the leach field will be established at ≈ 3-feet above the existing water table. Cover material will be used to mound over the leach field.

Coastal Processes Extension Agent

While future rates of sea-level rise are difficult to predict with a high degree of certainty, global sea-level rise is accelerating and it is inevitable that within the next few decades, sea-level rise will force the landward retreat of low-lying coastal lands. The most recent published scientific model predicts a rise of sea level of 0.8-2.0 meters by 2100.

When sea-level rise reaches or threatens the proposed development, can the structures be relocated such that the natural coastal environment and processes can be maintained, restored and protected?

Sea level is directly linked to the water table. As sea level rise, the water table rises along with it. Is the septic system located such that it will continue to function with a rise in the water table (within the lifetime of the structure?) If not, can the septic system be safely dismantled when the water table reaches it, such that there will not be a public or

environmental health hazard; and is there a plan for how, after dismantling, the future sewage would be handled?

Modeling of inland wave propagation changes in response to sea-level rise, indicate that for low-lying and relatively flat coastal lands, wave propagation inland will increase significantly even with a small amount of sea-level rise. In other words, the inland location where waves currently reach once every 25 years, could be reached by waves as frequently as annually with as little as 1-foot or less of sea-level rise; and it is likely that wave inundation will increase, particularly due to the low, flat nature of the site's topography. Does the house siting and design accommodate an increased likelihood of coastal wave inundation?

Applicant's Response

Due to the limitations of the size of the parcel, there is no practical option to relocate the structure within the applicant's property. The applicant is proposing a post and pier type structure so theoretically; the structure would be easier to relocate than the previously proposed slab on grade structure.

The site plan has been revised to locate the septic tank and leach field (collectively the Individual Wastewater System) so that it is outside of the A4 zone at a slightly higher existing grade elevation. The applicant is proposing aerobic treatment of the effluent and as such, there is no minimal requirement for separation between the bottom of the leach field and the groundwater table. However, in order for the system to adequately discharge, the bottom of the leach field will be established at ≈ 3-feet above the existing water table (as measured during high tide). Thus, there could be up to 3-feet of rise in the water table due to sea level rise before it would reach the bottom of the leach field.

A preliminary Drainage Report was completed to evaluate the development of a conceptual drainage system to handle the 50-year, 1-hour runoff volume increase that is expected to be generated by the proposed project.

The septic tank will be adequately anchored in order to mitigate the effects of buoyancy should ground water levels rise. In the event that sea level rise is greater than 3-feet and the water table reaches the leach field, effluent from the septic tank could be re-routed or pumped from the septic tank to a higher elevation for disposal. Since the system will include aerobic treatment, it would be possible to use the effluent for drip irrigation.

As previously stated, the residence has been sited to the mauka portion of the property. In addition, the construction style has been changed to a post and pier type structure and the finished floor has been raised to 8-feet above sea level, which is 3-feet above the predicted base flood elevation.

ANALYSIS

After reviewing the application, by correspondence dated February 24, 2009, the Department has found that:

1. The proposed use is an identified land use in the Limited subzone of the Conservation District, pursuant to §13-5-23, Hawaii Administrative Rules (HAR), L-6, Single Family Residence (D-1) A single family residence in a floodplain or coastal high hazard area that conforms to applicable county regulations regarding the National Flood Insurance Program and single family residential standards as outlined in Chapter 13-5, HAR. Please be advised, however, that this finding does not constitute approval of the proposal;

2. Pursuant to §13-5-40 of the HAR, a Public Hearing will not be required;

3. In conformance with Chapter 343, Hawaii Revised Statutes (HRS), as amended, and Chapter 11-200, HAR, a finding of no significant impact to the environment (FONSI) is anticipated for the proposed project;

It had been determined that satisfaction of the Special Management Area has been met with documentation dated July 7, 2009 from the County of Maui which states that the proposed construction of the single-family dwelling and related improvements has been granted a Special Management Area Exemption.

In addition, a FONSI to the environment was published in the June 8, 2009 Environmental Notice.

CONSERVATION CRITERIA

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

1. *The proposed land 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 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 Limited 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. This process provides for the application of appropriate management tools to protect the relevant resources, including objective analysis and thoughtful decision-making by the Department and Board of Land and Natural Resources.

   No rare, threatened or endangered plant or animal species or significant habitats are known to exist on the subject property. Cultural resources shall be protected with the implementation of the approved Preservation Plan.

   The potential for coastal hazards has been mitigated and shall comply with applicable laws.

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 Limited subzone is to limit uses where natural conditions suggest constraints on human activities. A Single Family Residence is an identified land use pursuant to the HAR, §13-5-23, L-6, SINGLE FAMILY RESIDENCE (D-1) A single family residence in a floodplain or coastal high hazard area that conforms to applicable county regulations regarding the National Flood Insurance Program and single family residential standards as outlined in this chapter.

Staff has concerns regarding placing a family on a coastline that has been evaluated as having a moderately high overall hazard assessment that may experience sea level rise and reach. However, the applicant has addressed and mitigated the potential risk factors associated with the coastline. The applicant shall comply with federal, state and county regulations for building in a flood zone.

It does not appear that there are other significant constraints for the construction of the residence such as access to utilities and services, ecological factors or steep slopes of 40% or more.

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

Staff believes the proposed project complies with provisions and guidelines contained in Chapter 205, HRS regarding Coastal Zone Management. Lateral access along the shoreline will not be impacted; archaeological monitoring will be conducted during construction; no significant public views will impacted and the project has been designed to minimize grading; and Best Management Practices (BMPs) will be implemented to minimize potential impacts to coastal ecosystems during construction.

An on site retention basin is proposed to reduce storm runoff and to decrease the chance for sediments within runoff to reach the ocean. An aerobic wastewater treatment system will be utilized to dispose of wastewater and the SFR lighting will be designed so as to not allow artificial light to directly illuminate shoreline and ocean waters.

In regards to Chapter 205A, HRS policy objective to reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution, and in response to agency comments, the applicant has designed the residence to be 8-feet above sea-level of post and pier construction. According to the applicant, a preliminary federal study on potential flooding from hurricanes suggests that the base flood elevation in this vicinity should be 8-feet above sea level. The proposed residence will be designed and constructed in compliance with the requirements of the Federal Flood Insurance Program and implemented through the County of Maui's Flood Hazard Area Ordinance.

The proposal has been has been granted a Special Management Area Exemption by the County of Maui.

4. *The proposed land use will not cause substantial adverse impacts 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;

There may be short-term adverse effects on the surrounding area associated with construction activities such as potential noise and air quality. Pedestrian access along the shoreline will not be curtailed.

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

Existing single-family residence also are within close proximity to the west and similar proposals for residences have been recently initiated for the two properties to the east. The adjacent property to the east recently received a Conservation District Use Permit for a Single Family Residence.

6. *The existing physical and environmental aspect of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, which ever is applicable.*

The physical and environmental aspects of the site are similar to flat, nearshore coastal lowlands. The site does not contain unique features either topographically or geologically. Natural or existing vegetation consists of non-native plants and the biological report concluded there is little of biological concern due to the non-native plants and the weedy nature of the vegetation of the parcel. The landscaping plan proposes to reintroduce native Hawaiian and drought resistant plantings to replace invasive species in the areas immediately surrounding the residence and as feasible, keep the outer areas of the property in its' existing state.

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

No subdivision of land is proposed for this project.

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. Staff notes the landowners are aware of the inherent dangers of living in close proximity to the sea.

DISCUSSION

Staff has reservations upon placing any residence near the coastline. Anticipated sea level rise and natural events such as earthquake, tsunami, rogue storm waves, hurricane, may cause challenges to the residence and the ocean/shoreline resources. However staff notes the applicant acknowledges and is aware of the risks associated with developing along or near the coast and has proposed mitigative measures to address potential hazards.

In addition, the applicant is aware that the project site is in a low lying area with close proximity to the water table and is proposing measures to minimize potential negative impacts related to wastewater processing and structural engineering concerns. The residence and wastewater system has been sited further mauka to reduce potential impacts to the residence and the resources. The Department of Health approved wastewater system shall be installed outside of the A4 flood zone at a slightly higher elevation. The construction of a runoff retention basin will reduce the potential for runoff generated from the property to directly enter near shore waters.

Photographic evidence indicated this area has not experienced very much disturbance other then the existing road and adjacent agricultural use. There are nearby burials and bone fragments have been reported and found along the roadside. The Massacre of Olowalu may have taken place within the vicinity of the proposed work. Based upon the archeological trenching report, very little exploratory trenching was done on the parcel. Staff notes an archeological monitor shall be required in accordance with the approved Archaeological Monitoring Plan. All work shall stop should any human skeletal remains or significant cultural deposits be encountered.

Olowalu appears to be leaning towards growth as prior cane land converts to residential use. Nearby properties are being subdivided. The adjacent parcel has recently received a Conservation District Use Permit. The area has established residential use. Utilities are available to service the residence.

The applicant originally proposed a slab on grade type structure, however the plans have been quickly amended to a post and pier type structure with a finish floor elevation at a minimum of 8-feet above sea level based upon agency comments. With this change in building style, areas that may have been defined as lanais are now considered decks. The proposal currently exceeds Chapter 13-5, Single Family Residential Standards, Maximum Developable Area. However because plans are preliminary and the Department will be approving final construction and grading plans, Staff believes all proposed improvements will be clarified and shall met Chapter 13-5, HAR standards prior to construction plan approval.

Staff believes that the project will have no adverse environmental or ecological effects provided that best management practices and mitigation measures as described in the application and as required by rule or law are fully implemented.

RECOMMENDATION

Based on the preceding analysis, staff recommends that the Board of Land and Natural Resources APPROVE Conservation District Use Application MA-3498 for a one-story Single Family Residence and related improvements located at Olowalu, Lahaina, island of Maui, TMK: (2) 4-8-003:045 subject to the following conditions:

1) The applicant shall comply with all applicable statutes, ordinances, rules, regulations, and conditions of the Federal, State and County governments;

2) The applicant, 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 or 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 applicant shall comply with all applicable Department of Health administrative rules;

4) The applicant shall obtain all applicable permits from Maui County prior to construction. The applicant shall obtain a County of Maui Building and Grading Permit;

5) The single-family dwelling shall not be used for rental or any other commercial purposes unless approved by the Board;

6) All mitigation measures set forth in the application materials, and in the final environmental assessment for this project are hereby incorporated as conditions of the permit;

7) The applicant 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;

8) Any work done on the land shall be initiated within one year of the approval of such use, and unless otherwise authorized be completed within three years of the approval. The applicant shall notify the Department in writing when construction activity is initiated and when it is completed;

9) Before proceeding with any work authorized by the Board, the applicant shall submit four (4) copies of the construction, grading plans and specifications to the Chairperson or his authorized representative for approval for consistency with the conditions of the permit and the declarations set forth in the permit application. Three (3) of the copies will be returned to the applicant. Plan approval by the Chairperson does not constitute approval required from other agencies;

10) The applicant shall provide documentation (i.e. book/page document number) that this approval has been placed in recordable form as a part of the deed instrument, prior to submission for approval of subsequent construction plans;

11) The applicant shall notify the Office of Conservation and Coastal Lands (OCCL) in writing prior to the initiation and upon completion of the project;

12) Artificial light from exterior lighting fixtures, including but not necessarily limited to floodlights, uplights, or spotlights used for decorative or aesthetic purposed 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 §No outdoor lighting shall be directed towards the sea;

13) In issuing this permit, the Department has relied on the information and data that the applicant has provided in connection with this permit application. If, subsequent to the issuance of this 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/or the Department may, in addition, institute appropriate legal proceedings;

14) Archeological monitoring shall be conducted during construction activities in accordance with the approved Archaeological Mitigation and Preservation Plan for Olowalu Makai lands;

15) 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;

16) The Applicant shall utilize Best Management Practices for the proposed project;

17) The applicant understands and agrees that this permit does not convey any vested rights or exclusive privilege;

18) Potable water supply and sanitation facilities shall have the approval of the appropriate agencies;

19) Where any polluted run-off, interference, nuisance, or harm may be caused, or hazard established by the use, the applicant shall be required to take measures to minimize or eliminate the polluted run-off, interference, nuisance, harm, or hazard;

20) The applicant acknowledges that the approved work shall not hamper, impede or otherwise limit the exercise of traditional, customary or religious practices in the immediate area, to the extent such practices are provided for by the Constitution of the State of Hawaii, and by Hawaii statutory and case law;

21) During construction, appropriate mitigation measures shall be implemented to minimize impacts to the aquatic environment, off-site roadways, utilities, and public facilities;

.22) Cleared areas shall be re-vegetated within thirty days of the completion of construction as described in a landscaping plan on file with the Department;

23) Obstruction of public roads, trials, and pathways shall be minimized. If obstruction is unavoidable, the applicant shall provide roads, trails, or pathways acceptable to the department;

24) The single-family residence shall conform to the single-family residential standards included as Exhibit 4 of the Hawaii Administrative Rules, Chapter 13-5;

23) The applicant shall execute a waiver and indemnity prior to submitting construction plans for approval that is satisfactory to the Department;

25) Other terms and conditions as may be prescribed by the Chairperson; and

26) Failure to comply with any of these conditions shall render this Conservation District Use Permit null and void.

Respectfully submitted,

K. Tiger Mills, Staff Planner
Office of Conservation and Coastal Lands

Approved for submittal:

Laura H. Thielen, Chairperson
Board of Land and Natural Resources

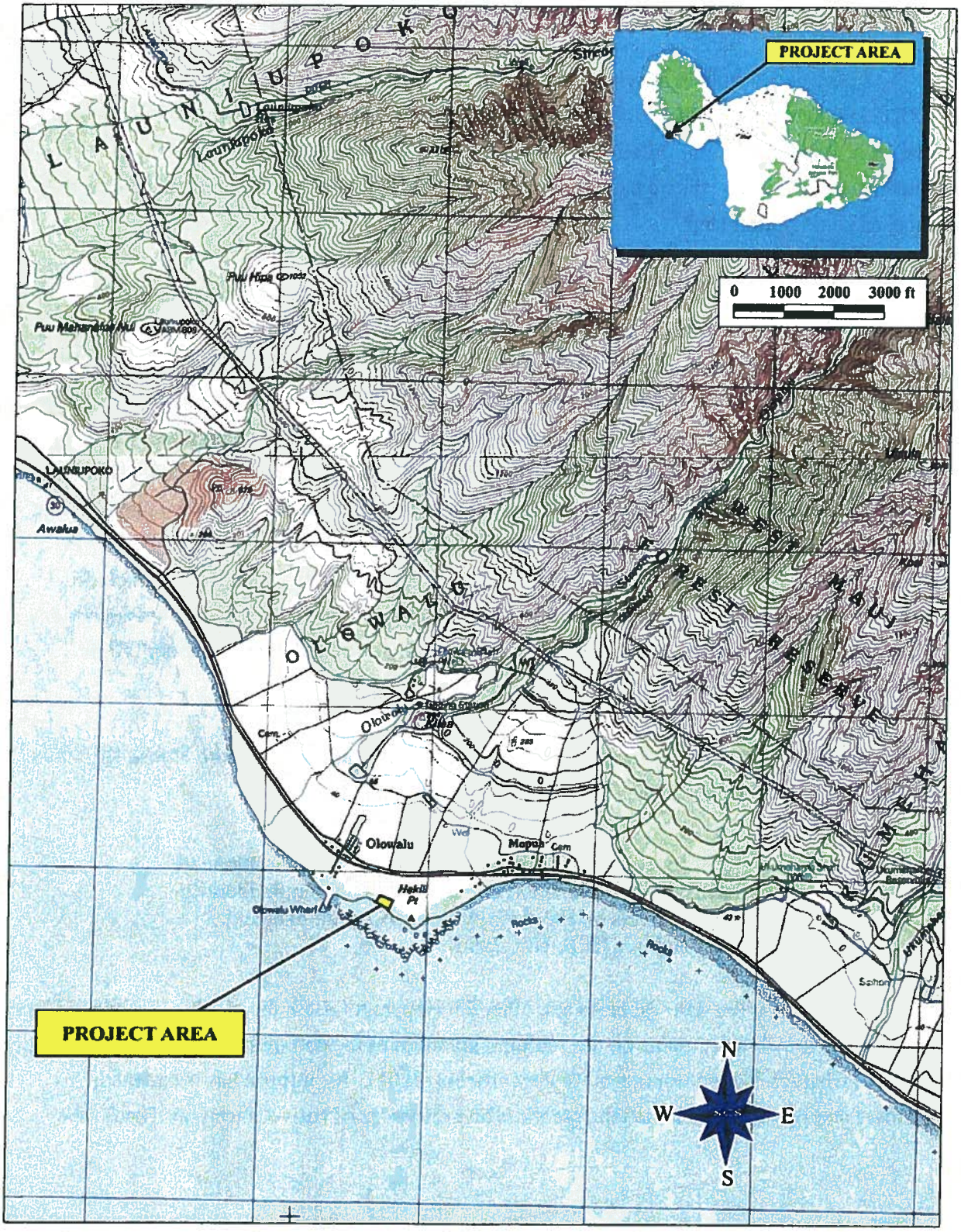


Figure 1: USGS Olowalu Quadrangle Map Showing Project Area.

EXHIBIT 1

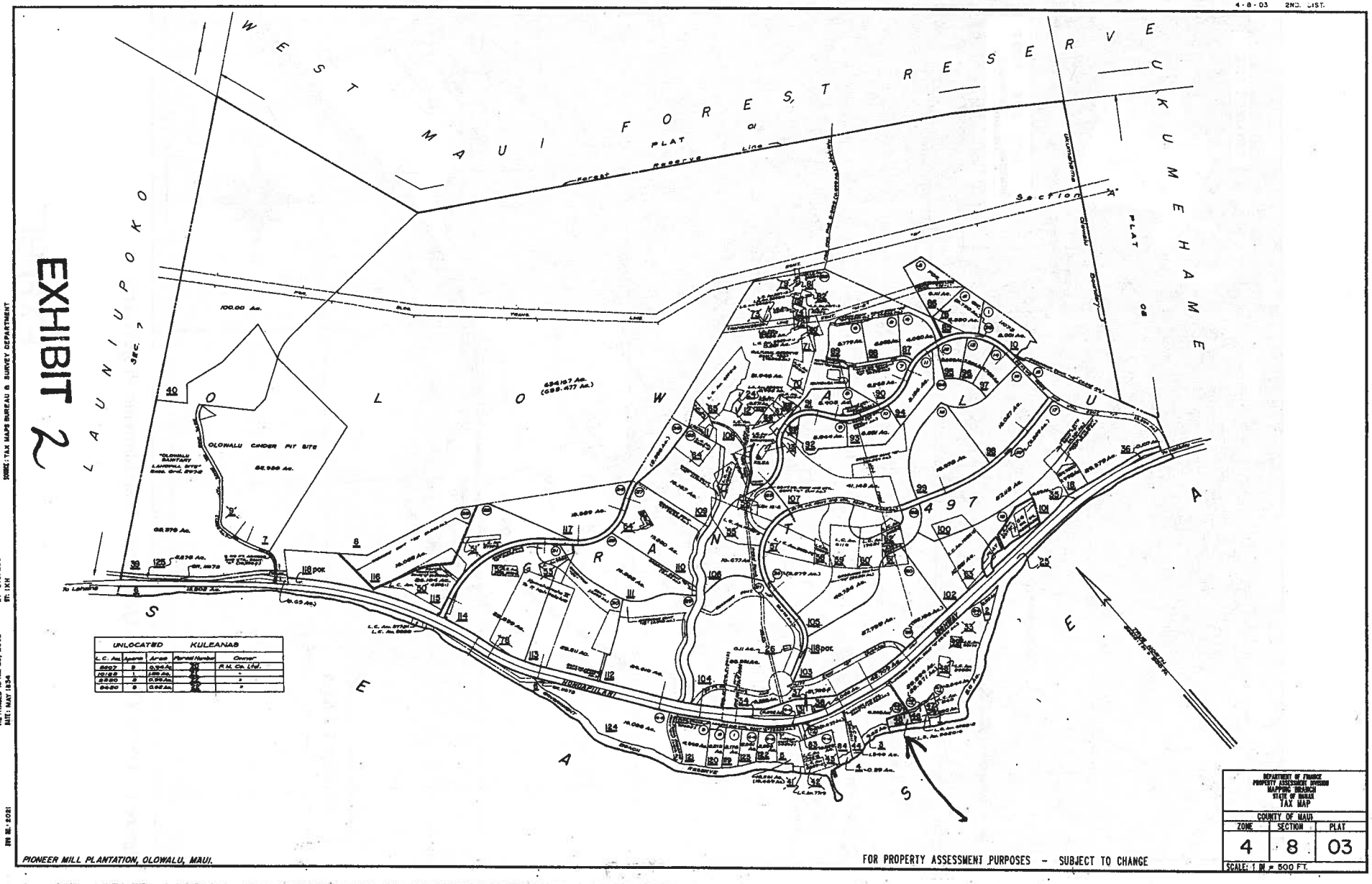
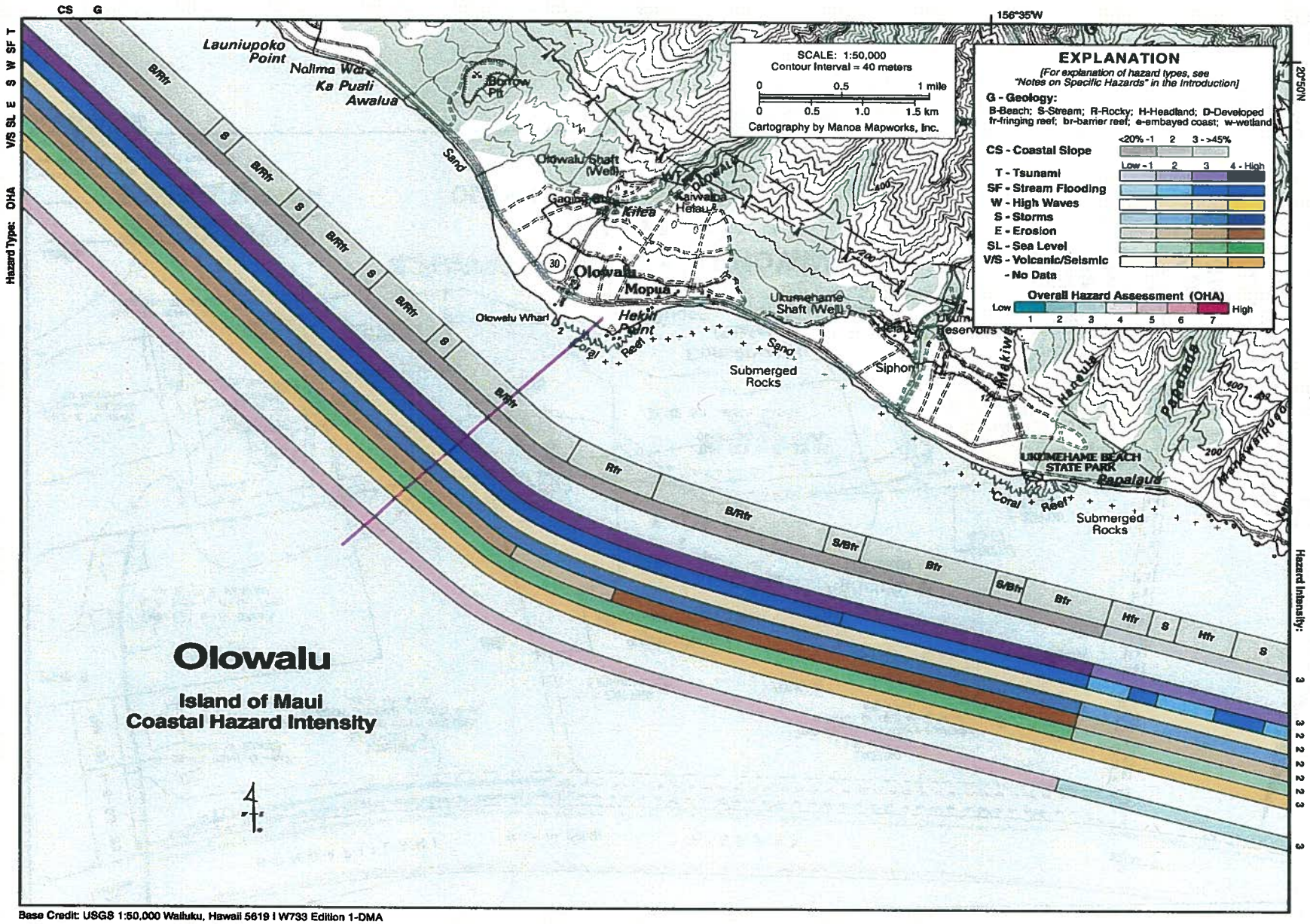


EXHIBIT 2

SOURCE: TAX MAPS BUREAU & SURVEY DEPARTMENT
BY GTS/ECB
ST: 1XH
RETRACED APRIL 23, 2005
DATE: MAY 1934
JVN 10-2021

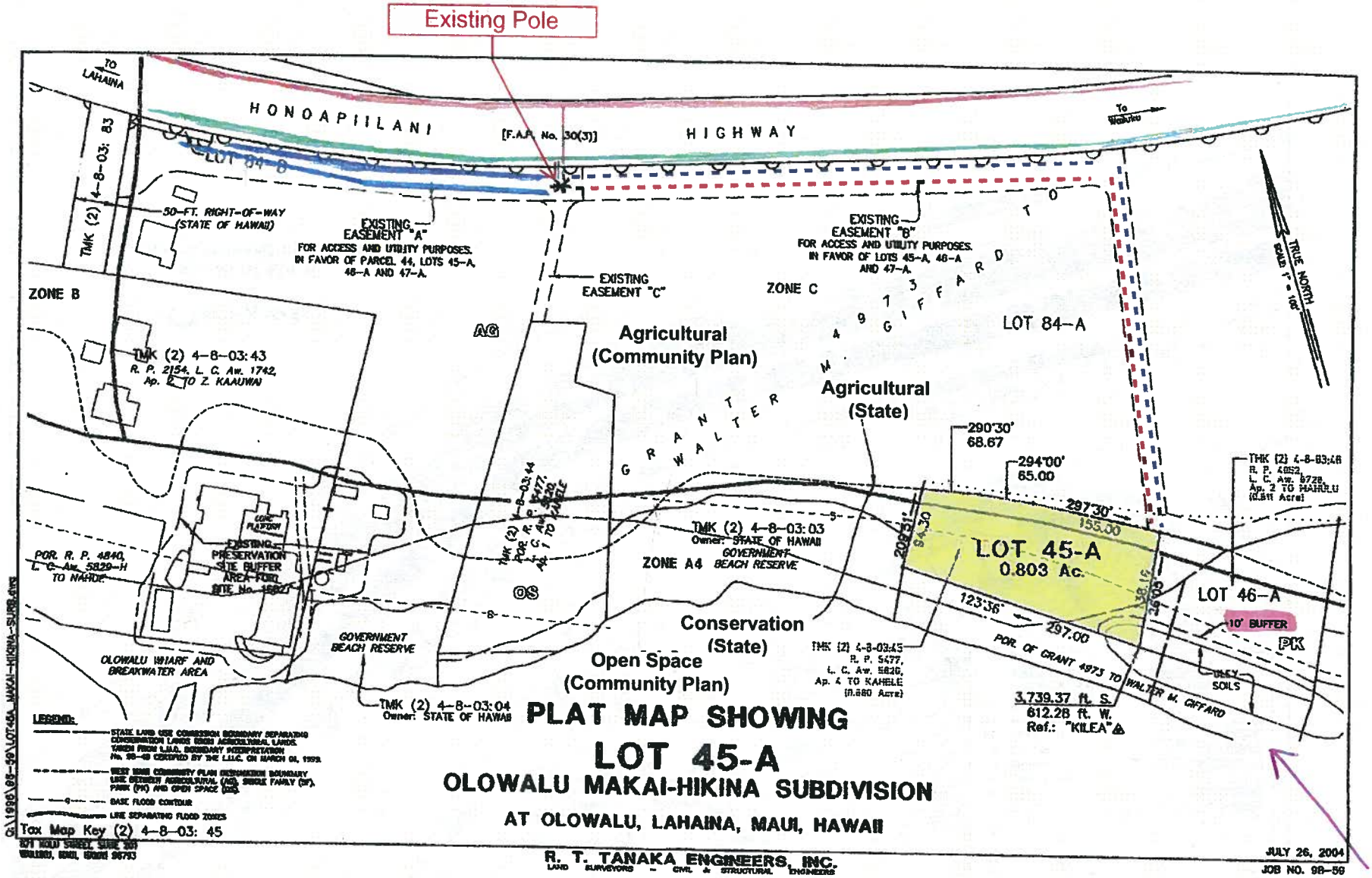


Base Credit: USGS 1:50,000 Wailuku, Hawaii 5619 I W733 Edition 1-DMA

http://pubs.usgs.gov/imap/i2761/sections/5_Maui.pdf

EXHIBIT 3

EXHIBIT 4



Existing Electrical
Proposed Electrical
Telephone & Cable TV

Existing Telephone & Cable TV

Existing Potable Water
Proposed Potable & Non-Potable Water

Existing Non-Potable Water
(6" Mains Available)

EXHIBIT
EXISTING UTILITIES MAP
DEAN / RILEY OLOWALU LOT 45-A
SINGLE FAMILY RESIDENCE

Photo 7: View Along Shoreline

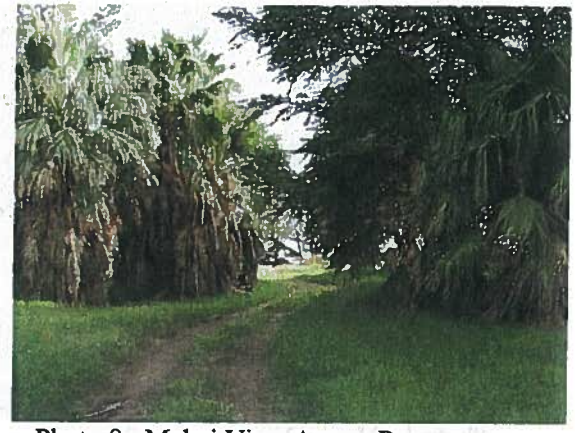


Photo 8: Makai View Across Property

Photo 9: Westerly View of Access Easement

Photo 10: Makai View of Access Easement

Photo 11: Makai View from Honoapi`ilani Highway

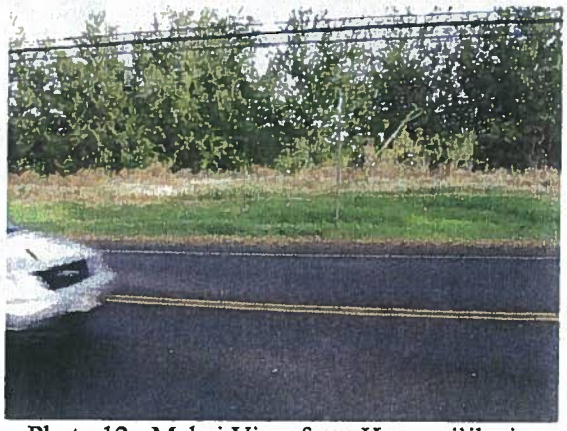


Photo 12: Makai View from Honoapi`ilani Highway

December 2008

SITE PHOTOS
DEAN / RILEY OLOWALU LOT 45-A
SINGLE FAMILY RESIDENCE

EXHIBIT 5

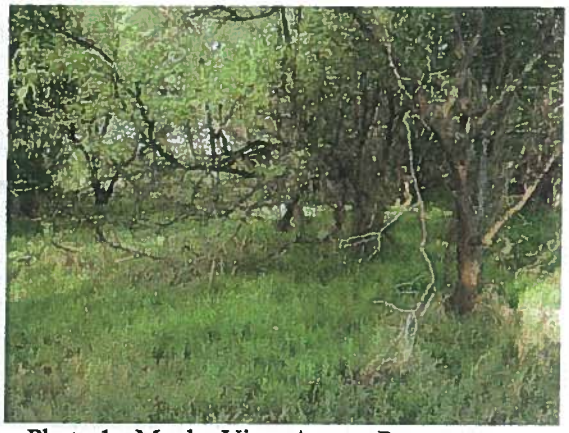


Photo 1: Mauka View Across Property

Photo 2: Mauka View Across Property

Photo 3: View Toward Ocean

Photo 4: View Toward Ocean

Photo 5: View Toward Ocean
& Olowalu Wharf

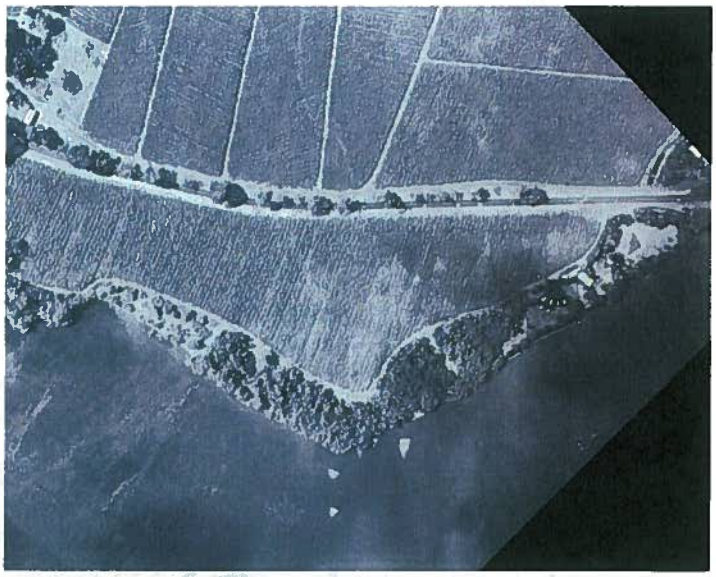
Photo 6: View Along Shoreline

December 2008

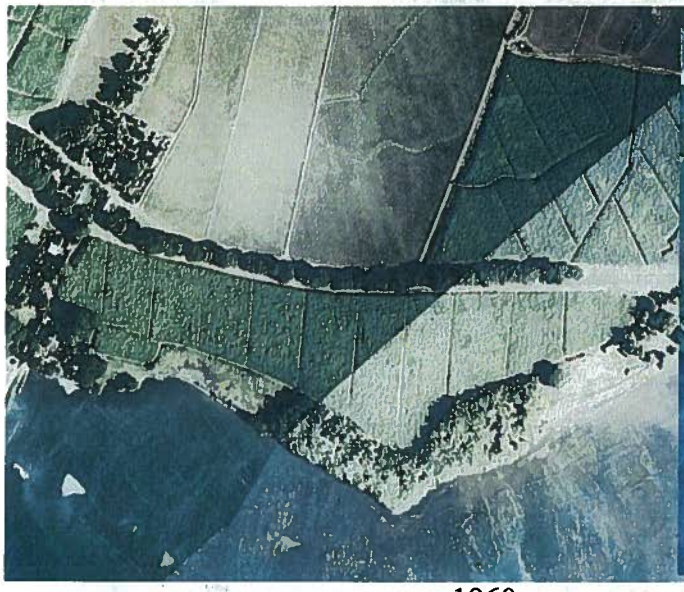
SITE PHOTOS
DEAN / RILEY OLOWALU LOT 45-A
SINGLE FAMILY RESIDENCE

EXHIBIT 6

1949



1987



1960

1997

1975

2007

http://www.soest.hawaii.edu/coasts/data/maui/index.html

EXHIBIT 7

EXHIBIT 8

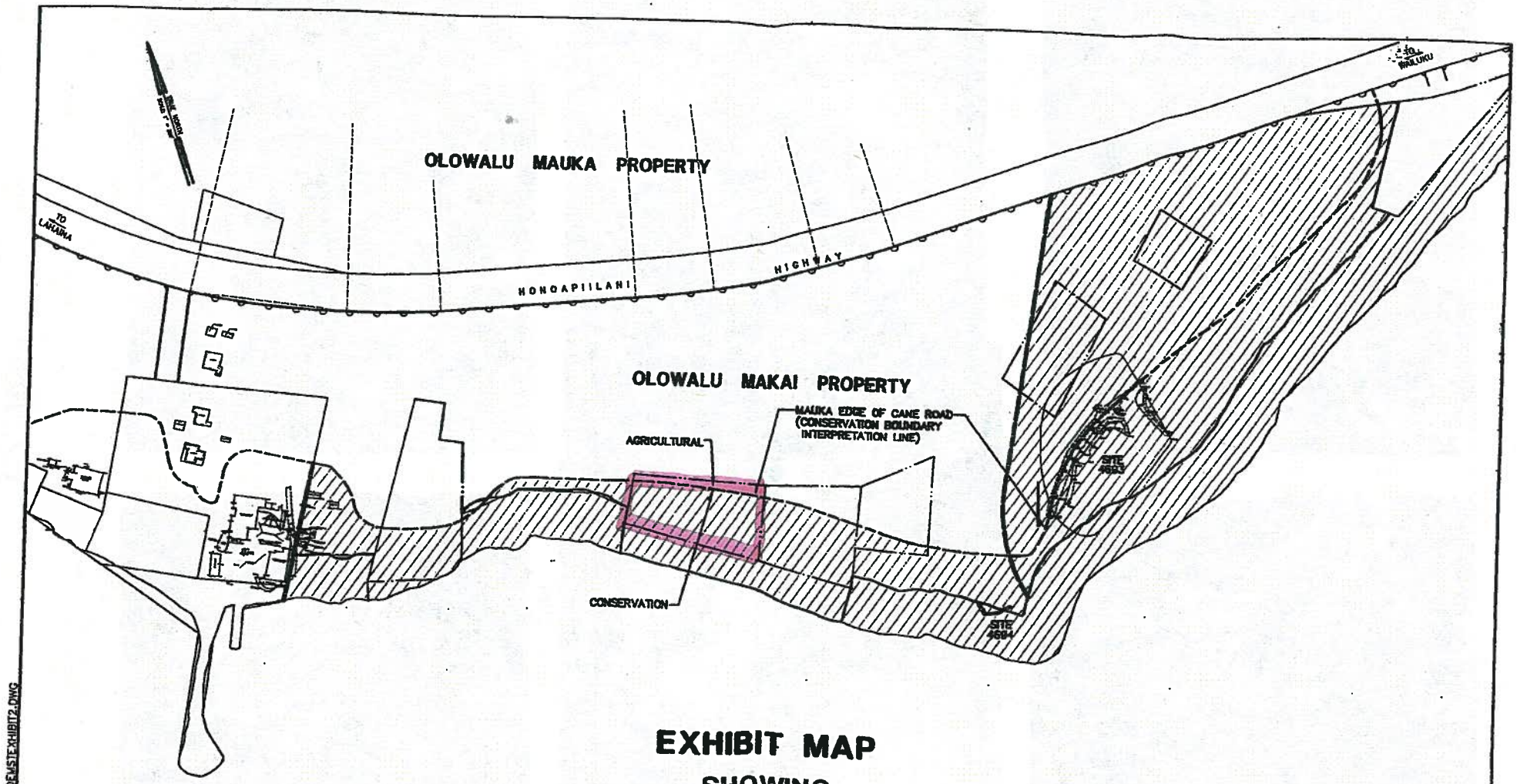


EXHIBIT MAP

SHOWING
EASTERN SHORELINE MONITORING AREA

AT OLOWALU, LAHAINA, MAUI, HAWAII

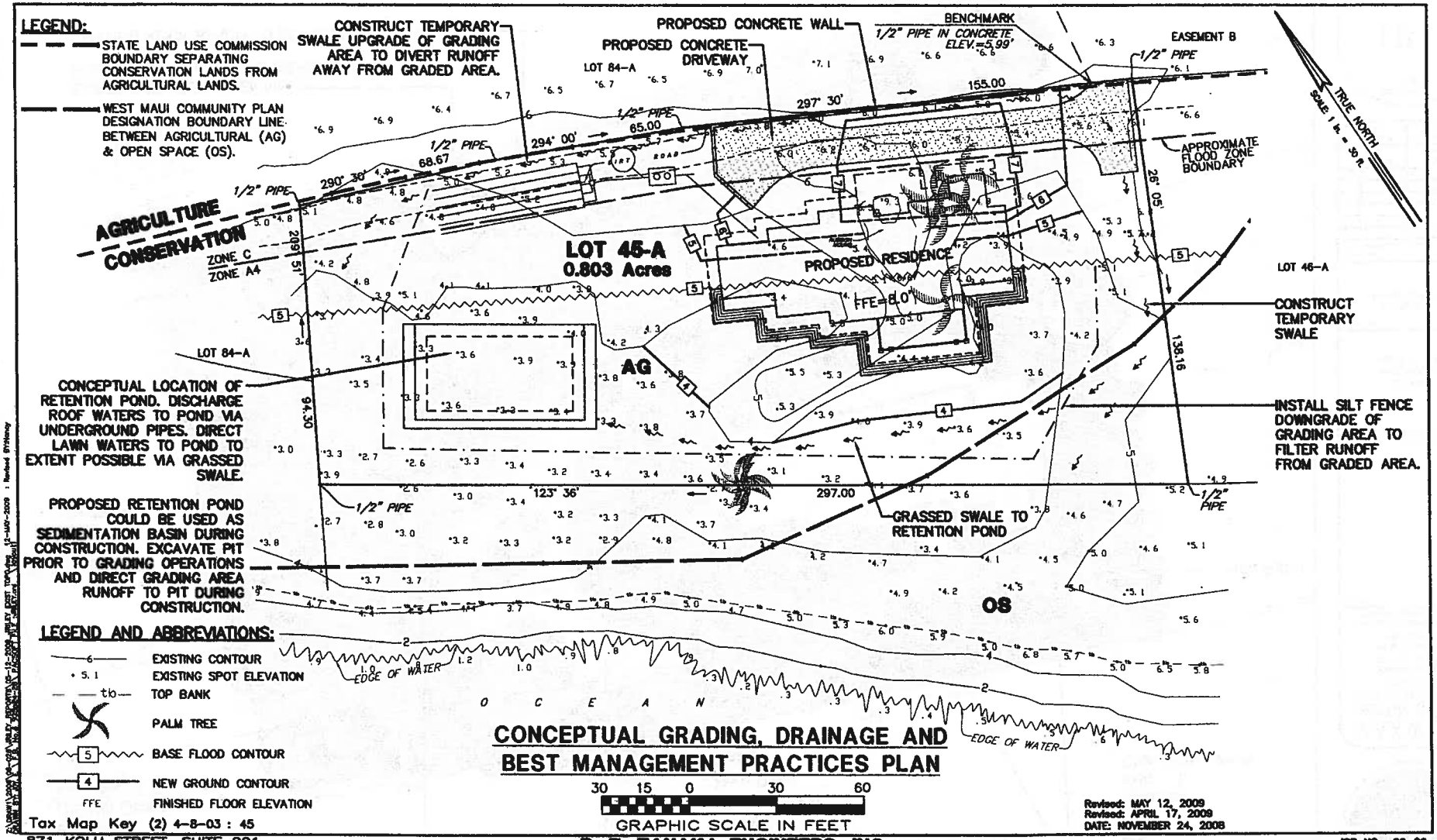
Tax Map Key (2) 4-8-03: 41-49, 84

871 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII 96793

R. T. TANAKA ENGINEERS, INC.
LAND SURVEYORS - CIVIL & STRUCTURAL ENGINEERS

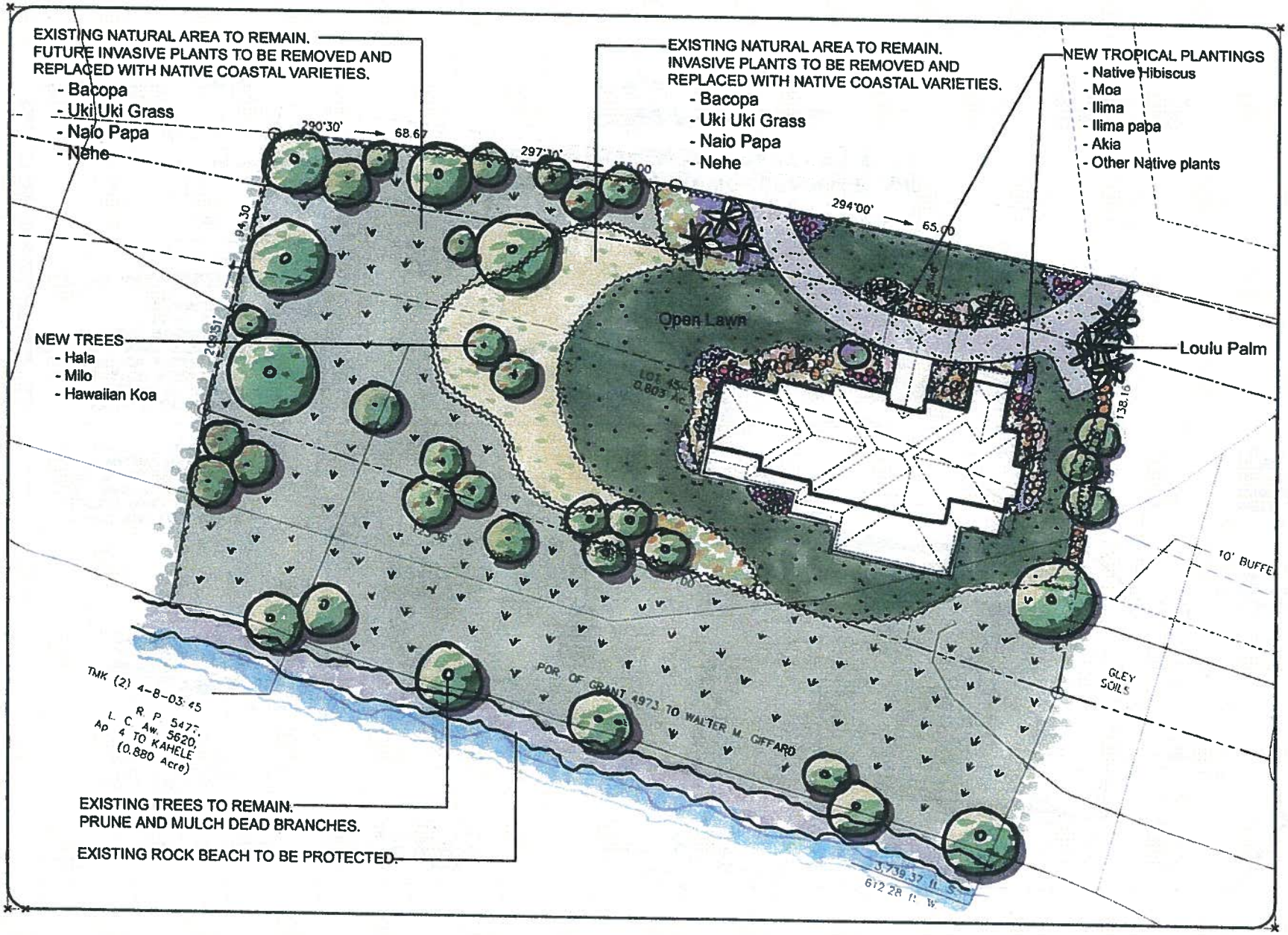
JANUARY 22, 2001
JOB NO. 98-59

1998\98-59\OEWSTEXHIBIT2.DWG



CONCEPTUAL GRADING, DRAINAGE AND BEST MANAGEMENT PRACTICES PLAN

EXHIBIT 9



MAXWELL DESIGN GROUP
LANDSCAPE ARCHITECTURE
PLANNING

RILEY RESIDENCE

LOT 45A
MAUI, HAWAII
TMK (2) 4-8-03:45

LANDSCAPE PLANTING PLAN

SHEET SCALE 1"=30'

LP-1

EXHIBIT 10 www.landscapearchitect.net

EXHIBIT 11
LANDSCAPE PLAN
DEAN / RILEY OLOWALU LOT 45-A
SINGLE FAMILY RESIDENCE

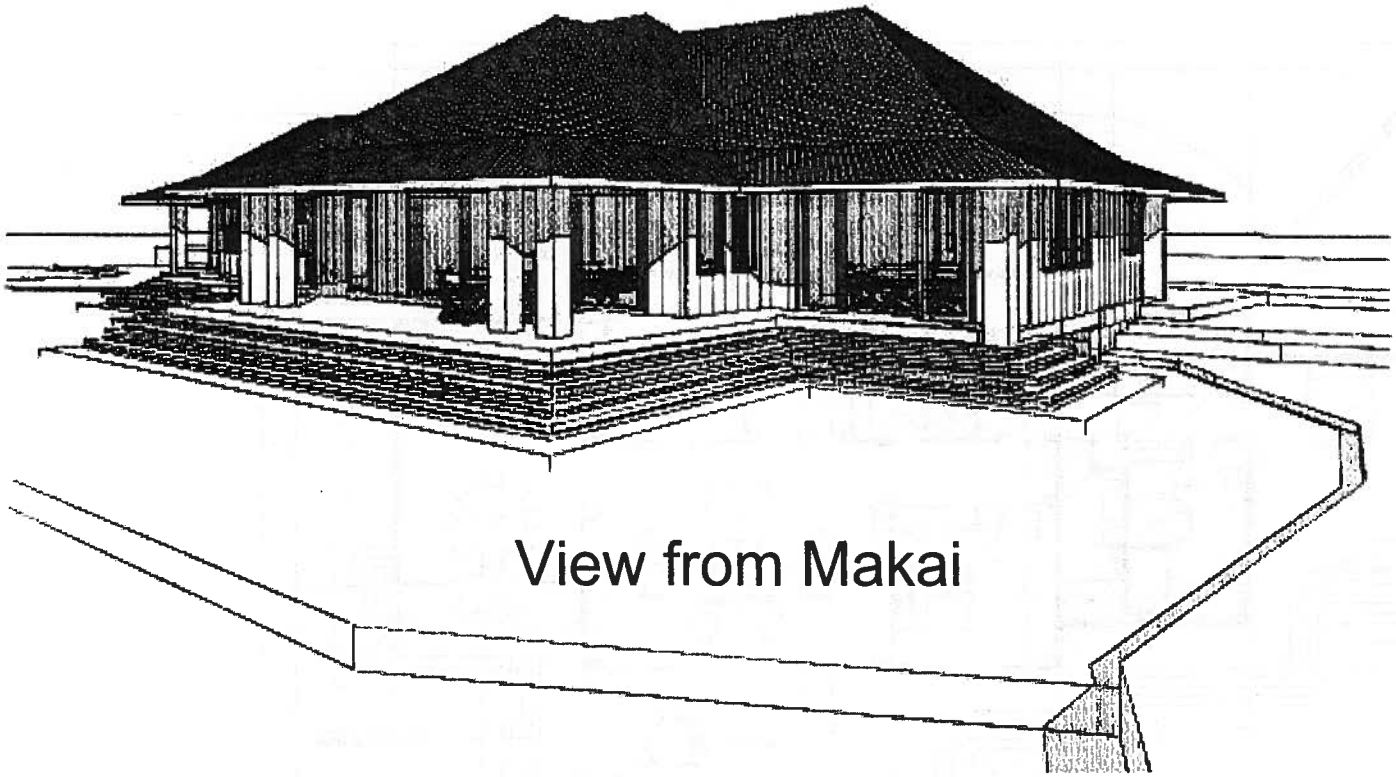
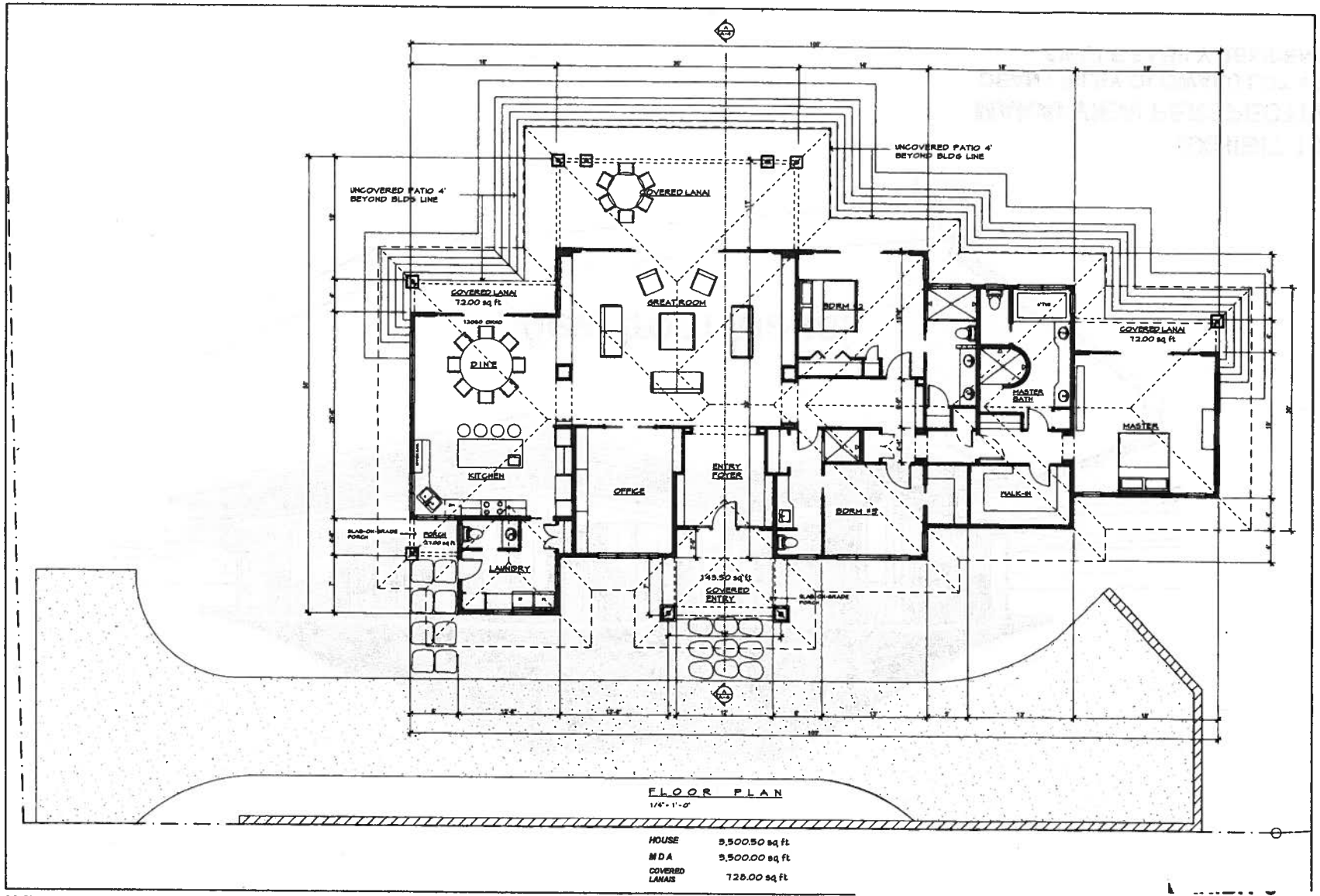


EXHIBIT 10B
MAKAI VIEW PERSPECTIVE
DEAN / RILEY OLOWALU LOT 45-A
SINGLE FAMILY RESIDENCE

EXHIBIT 10B

EXHIBIT 11



HOUSE	3,500.50 sq ft
MDA	3,500.00 sq ft
COVERED LANAIS	728.00 sq ft

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

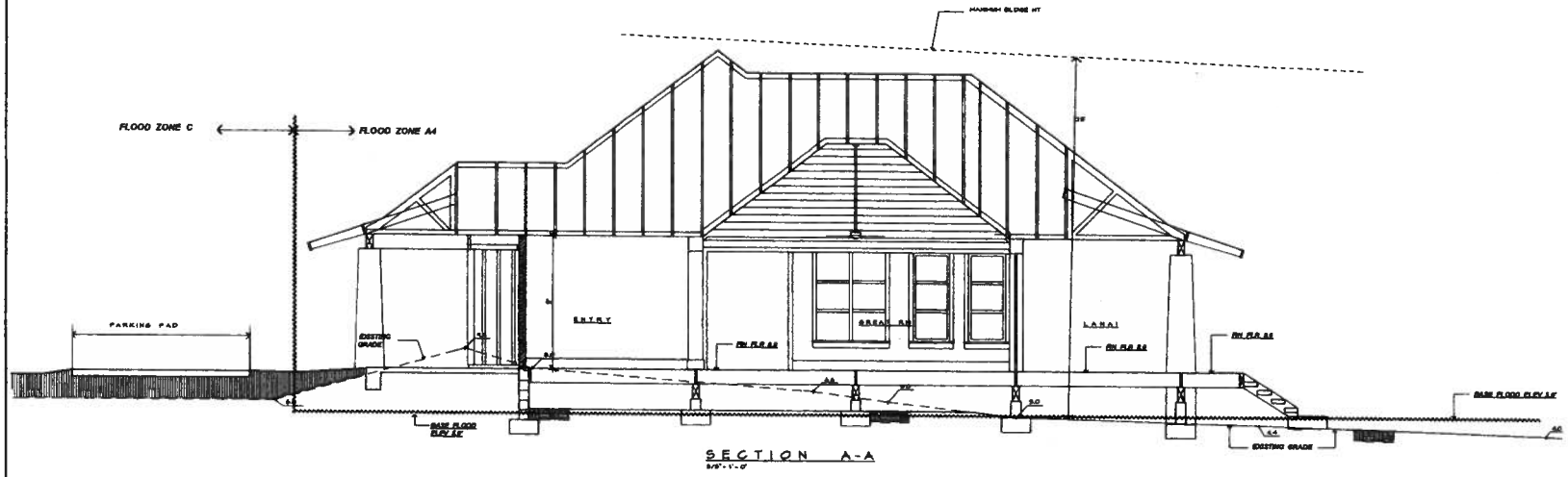
Separation of construction is to be defined in Section 3-2, Chapter 16, Title VII, Professional and Vocational Licensing Division, Department of Regulatory Agencies, State of Hawaii.

RICHARD S. YOUNG - ARCHITECT

HC-1 BOX 189, KAUNAKAKAI, MOLOKAI, HAWAII 96748

FLOOR PLAN

DEAN / RILEY OLOWALU LOT 45-A
SINGLE FAMILY RESIDENCE



CROSS SECTION
DEAN / RILEY OLOWALU LOT 45-A
SINGLE FAMILY RESIDENCE

RICHARD S. YOUNG - ARCHITECT
HC-1, BOX 185, KAUNAKAKAI, MOLOKAI, HAWAII 96748
PHONE 808-553-8992 FAX 808-558-9029

RILEY/DEAN RESIDENCE
JIM and JEANNE RILEY / WARREN and SUSAN DEAN
OLOWALU, MAUI, HAWAII
TMK 4-8-03:45

DATE 5-3-04
JOB NO. 23-04
SHEET A-5

EXHIBIT 12