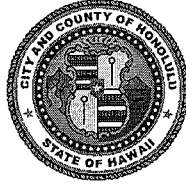


DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honolulu.gov/pp • CITY WEB SITE: www.honolulu.gov

RICK BLANGIARDI
MAYOR



DEAN UCHIDA
DIRECTOR

DAWN TAKEUCHI APUNA
DEPUTY DIRECTOR

EUGENE H. TAKAHASHI
DEPUTY DIRECTOR

March 15, 2022

2022/ED-2(AB)

Mr. Keith Kawaoka, Acting Director
State of Hawaii
Office of Planning
Environmental Review Program
235 South Beretania Street, Room 702
Honolulu, Hawaii 96813

Dear Mr. Kawaoka:

SUBJECT: Chapter 25, Revised Ordinances of Honolulu
Draft Environmental Assessment (DEA)
Project: Kim Residence at 1001 Kaimoku Place
Owner: David Kim
Applicant/Agent: Kristan Eiserloh
Location: 1001 Kaimoku Place - Waialae Iki
Tax Map Key (TMK) 3-5-058: 011

With this letter, the Department of Planning and Permitting hereby transmits the DEA and Anticipated Finding of No Significant Impact for the Kim Residence Project at 1001 Kaimoku Place, in Waialae Iki (TMK 3-5-058: 011), in the Honolulu District on the Island of Oahu, for publication in the March 23 2022, edition of *The Environmental Notice*.

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

Should you have any questions, please contact Alex Beatty, of our Zoning Regulations and Permits Branch, at (808) 768-8032 or via email at abeatty@honolulu.gov.

Very truly yours,

A handwritten signature in black ink, appearing to read "Dean Uchida", is written over a faint, larger signature.

For: Dean Uchida
Director

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

Project Name: Kim Residence

Applicable Law: Chapter 25, Revised Ordinances of Honolulu

Type of Document: Draft Environmental Assessment – Anticipated Finding of No Significant Impact

Island: Oahu

District: Honolulu District

TMK: (1) 3-5-058: 011

Permits Required: Special Management Area Use Permit, Minor Shoreline Structure, Building, Grading Permits

Applicant or Proposing Agency:

(Address, Contact Person, Telephone, E-mail)

Kristan Eiserloh
Eiserloh Architects
1063 Ikena Circle
Honolulu, Hawaii 96821

Approving Agency or Accepting Authority:

(Address, Contact Person, Telephone, E-mail)

Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813
Alex Beatty - Land Use Permits Division
768-8032 abeatty@honolulu.gov

Consultant:

(Address, Contact Person, Telephone, E-mail)

Same as Applicant

Status: Draft, Anticipated Finding of No Significant Impact (AFNOSI)

Project Summary:

(Summarize proposed action and purpose/need in less than 200 words in the space below): **The proposed Project includes the demolition and reconstruction of a single-family dwelling located on a shoreline lot at the end of Kaimoku Place. The Project parcel is a shoreline lot within the Special Management Area, and contains an existing seawall and other development within the shoreline setback area. The proposed dwelling contains over 7,500 square feet of floor area. The Project also involves various other activities associated with the redevelopment of the new dwelling and pool, including partial demolition and filling of the existing pool within the shoreline setback area.**



ENVIRONMENTAL ASSESSMENT

Residence at 1001 Kaimoku Place Project

Kāhala, Kona District, Island of O‘ahu

Draft Environmental Assessment

This environmental document has been prepared pursuant to
Chapter 343, Hawaii Revised Statutes and
Title 11, Chapter 200.1, Hawaii Administrative Rules

Approving Agency:
City and County of Honolulu
Department of Planning and Permitting

Prepared by:
Environmental Planning Partners, Inc.

and

Eiserloh Architects
820 W. Hind Drive #240139
Honolulu, Hawai'i 96824

February 2022

This page intentionally
left blank.

PROJECT SUMMARY INFORMATION

Project:	Residence at 1001 Kaimoku Place Project
Location:	1001 Kaimoku Place Kāhala, Waikīkī Ahupua‘a, Kona District, Island of O‘ahu TMK: (3) 5-058:011
Land Area:	27,546 square feet
Approving Agency:	City and County of Honolulu Department of Planning and Permitting
Applicant/Fee Owner:	David Kim
Agent:	Eiserloh Architects 820 W. Hind Drive #240139 Honolulu, Hawai‘i 96824 Contact: Kris Eiserloh Phone: (808) 777-9968
Proposed Project:	The proposed project includes demolition and reconstruction of a single-family residence at 1001 Kaimoku Place in Kāhala, O‘ahu.
Existing Zoning:	R-7.5 Residential
State Land Use Designation:	Urban
Special Management Area:	Within Special Management Area
Permits Anticipated/Studies to be Prepared:	Special Management Area Use Permit Demolition/Building Permit Shoreline Certification Minor Shoreline Structure Permit Topographic Survey Soils Report Natural Resources Assessment Archaeological Inventory Survey
Anticipated Determination:	Finding of No Significant Impact (FONSI)

SUMMARY OF MITIGATION MEASURES TO MINIMIZE POTENTIAL IMPACTS OF THE PROJECT

MITIGATION MEASURES AND REGULATORY REQUIREMENTS
<p>Geology, Topography, and Soils</p> <p>All grading operations would be conducted in compliance with dust and erosion control requirements of the City and County of Honolulu. Engineering measures to control soil erosion and storm runoff would be implemented by the contractor during construction. Dust barriers and compost filter socks would be installed onsite to prevent sediment from entering the ocean. An Erosion and Sediment Control Plan shall be submitted prior to construction and shall specify best management practices in accordance with the City and County of Honolulu's Rules Relating to Water Quality of the Administrative Rules, Title 20, Department of Planning and Permitting, Chapter 3.</p> <p>Special considerations would be required in the design and construction of the project due to the existing soil conditions. These include but may not be limited to the following:</p> <ol style="list-style-type: none"> a) The underlying sand is susceptible to caving, especially near groundwater level. Proper safety precautions should be used when excavating into the underlying soils. b) No expansive soils were encountered in the upper 2.5 feet below existing grade in the subsurface explorations. However, if expansive, clayey soils are encountered during the excavation of shallow spread footings, the footing shall be deepened to a minimum depth of 24 inches below the adjacent finish grade, or the expansive clayey soils shall be removed and replaced with properly compacted structural fill. c) Compaction of fill and backfill material should be done with care due to the close proximity of the neighboring structures. <p>Additional specifications and recommendations from the Geotechnical Investigation Report shall be implemented during construction (see Appendix E).</p>
<p>Hydrology and Water Quality</p> <p>For all ground disturbing activities, a Grading Plan, Erosion and Sediment Control Plan (ESCP), and Best Management Practices (BMP) will be integrated into the construction plans. An ESCP shall be submitted prior to construction and shall specify BMPs in accordance with the City and County of Honolulu's Rules Relating to Water Quality of the Administrative Rules, Title 20, Department of Planning and Permitting, Chapter 3. Construction BMPs may include, but are not limited to, stabilized construction entrances, stabilization of disturbed areas, silt-screens, re-vegetation, and maintenance of equipment.</p>
<p>Natural Hazards</p> <p>The proposed single-family residence would be constructed in accordance with City and County of Honolulu Building Code (ROH Chapter 16). The project would comply with the rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), which are in effect when development falls within a Special Flood Hazard Area (high risk areas). The 44CFR reflects the minimum standards as set forth by the NFIP, and would also be designed and constructed in conformance with the standards and applicable provisions of ROH Chapter 21A, <i>Flood Hazard Areas</i>. All development permits would be reviewed for consistency with the requirements of the City and County Code prior to approval.</p> <p>Prior to the initiation of construction, the City and County would review proposed grading and construction plans for consistency with City and County requirements and good engineering practice, which would minimize damage during tropical storm, hurricane, or strong wind events, and earthquake events. Once plans were approved by the County, implementation of the approved plans would be monitored during periodic building inspections.</p>

MITIGATION MEASURES AND REGULATORY REQUIREMENTS

Biological Resources

If tree trimming or removal is anticipated for the project site, trees slated to be cut should be surveyed for nesting White Terns, especially during the White Tern breeding season (January to June). If an egg is found, the nesting tree or branch shall not be disturbed for at least 80 days.

Fully shield all outdoor lights so the bulb can only be seen from below bulb height and only use when necessary; install automatic motion sensor switches and timer controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area; and avoid all night-time construction during the seabird fledging period from September 15 through December 15. All external lighting structures should be fully “dark sky compliant.” Further, all exterior lighting or lamp posts associated with the subject project shall be cut-off luminaries to provide the needed shielding to lessen possible seabird strikes, and to ensure that artificial light does not travel across property boundaries or toward the shoreline and ocean waters pursuant to Section 205A-30.5(a) and 205A-2(c)(10), HRS.

If Wedge-tailed Shearwater nests are discovered at the project site and construction would cause ground disturbance in that area, project construction shall be timed to occur outside of the breeding season (March through November).

Potential adverse impacts to pupping bats can be avoided or minimized by not clearing woody vegetation taller than 15 ft (4.6 m) between June 1 and September 15, the period in which young bats are potentially at risk from clearing of a roost tree.

If construction will occur in or adjacent to known occupied habitat of yellow-faced bees, a buffer area around the habitat may be required and can be worked out on a site-specific basis through consultation with USFWS.

If a basking sea turtle is found at the project area, all mechanical or construction activities shall cease within 30 meters (100 feet) until the animal voluntarily leaves the area. No project-related materials shall be stockpiled in the intertidal zone or on the reef flat.

All project-related lighting shall be minimized and shielded so the light is not visible from any beach, as this may interfere with sea turtles during the nesting season (May to December). Design measures shall be incorporated into the construction of buildings adjacent to the beach to reduce ambient outdoor lighting, such as tinting or using automatic window shades for exterior windows that face the beach; reducing the height of exterior lighting to below 3 feet and pointed downward or away from the beach; and minimizing light intensity to the lowest level feasible, and, when possible, including timers and motion sensors.

Historical, Archaeological, and Cultural Resources

An Archaeological Monitoring Plan for all ground altering activity shall be developed in consultation with the SHPD. Detailed mitigation plans shall be submitted to the State Historic Preservation Division for approval. The State Historic Preservation Division must verify in writing that the plan has been successfully executed prior to any land alteration.

If burials are discovered during any ground altering activity, burial treatment determinations shall be requested from the O’ahu Island Burial Council. A burial treatment plan shall be prepared following the procedures outlined in Chapter 6E-43 and the accompanying rules. Prior to any land alteration, the burial plan shall be implemented as specified.

In the event that historic resources, including human skeletal remains, are identified during the construction activities, all work shall cease in the immediate vicinity of the find, the find shall be protected from additional disturbance, and the State Historic Preservation Division, O’ahu Section, shall be contacted immediately.

Air Quality and Climate

All construction work will be in conformance with the air pollution control standards contained in Title 11, Chapter 59, HAR, “Ambient Air Quality Standards,” and Chapter 60, “Air Pollution Control,” which would minimize air quality emissions.

Noise

A Community Noise Permit for construction activities may be required by the Department of Health. Prior to construction, consultation with the state Department of Health will occur to determine permitting requirements. Should the permit be required, allowable construction conditions will be specified. Construction will be confined to 7 a.m. to 6 p.m., Monday through Friday, and 9 a.m. to 6 p.m. on Saturday. No construction activities exceeding maximum allowable noise levels will occur on Sundays and holidays without prior notice. Construction activities will comply with Chapter 11-46, HAR, Community Noise Control.

MITIGATION MEASURES AND REGULATORY REQUIREMENTS

Public Facilities and Services

Water conservation measures are required for all proposed developments. These measures include:

- The use of nonpotable water for irrigation using rain catchment;
- Drought tolerant plants;
- Xeriscape landscaping;
- Efficient irrigation systems, such as a drip system and moisture sensors; and
- The use of Water Sense labeled ultra-low flow water fixtures and toilets.

Construction drawings shall be submitted to the Board of Water Supply for approval, and the construction schedule shall be coordinated to minimize impacts to the water system.

The project applicant shall coordinate fire protection requirements with the Fire Prevention Bureau of the Honolulu Fire Department. These may include the requirement for: the provision of fire access roads such that the exterior wall of the first story of the building is located not more than 150 feet from fire department access roads; a water supply approved by the County, capable of providing required fire flow for fire protection for all portions of the building; and the fire access road shall have unobstructed width and vertical clearance in accordance with County requirements.

Traffic and Parking

The Department of Transportation Services has requested preparation of a Traffic Management Plan (TMP) for the project, to be reviewed and approved by the Department of Transportation Services (DTS) and the Department of Planning and Permitting (see Appendix A). The TMP shall detail construction circulation plans, including prioritizing the transfer of construction materials and equipment during off-peak traffic hours (8:30 a.m. to 3:30 p.m.) to minimize traffic disruptions, and the identification of Best Management Practice controls to minimize the trailing of dirt and debris onto adjacent roadways. All required permits from DTS shall be obtained prior to any work affecting Kaimoku Place. Prior to and during construction, the area residents and neighborhood board shall be informed regarding any impacts to the local street network.

Implementation of these measures and compliance with regulatory requirements would minimize environmental impacts resulting from the proposed project. Permits and approvals required for implementation of the proposed project are listed in Section 2.3 of this EA.

TABLE OF CONTENTS

1	Introduction	1
1.1	Project Overview	1
1.2	Purpose of the Environmental Assessment	1
1.3	Compliance with State of Hawai'i Environmental Laws.....	1
1.4	Steps in the Environmental Review Process	1
2	Project Description	3
2.1	Environmental Setting	3
2.2	Description of the Proposed Action	3
2.3	Permits and Approvals Required or Potentially Required	9
3	Description of the Affected Environment, Anticipated Effects, and Proposed Mitigation Measures ..	10
3.1	Geology, Topography, and Soils	10
3.2	Hydrology and Water Quality.....	12
3.3	Natural Hazards and Climate Change	14
3.4	Biological Resources	22
3.5	Historic, Archaeological, and Cultural Resources	25
3.6	Air Quality and Climate	28
3.7	Noise.....	29
3.8	Visual Resources	30
3.9	Social and Economic Characteristics.....	30
3.10	Public Facilities and Services	31
3.11	Traffic and Parking.....	32
3.12	Conformance with State and Local Plans, Policies, and Land Use Controls.....	32
4	Alternatives to the Proposed Action.....	46
4.1	No Action Alternative	46
4.2	Alternative 2: Maintaining the Existing Pool	46
4.3	Alternative 3: Maximum Number of Dwellings	46
4.4	Alternative 4: Smaller Residence and an Accessory Dwelling Unit.....	47
5	Findings and Determination.....	48
6	Individuals, Community Groups, and Agencies Consulted	51
6.1	Early Consultation.....	51
6.2	Environmental Assessment Preparation.....	52
7	References	53

FIGURES

Figure 1:	Project Vicinity and Location Map	4
Figure 2:	Projected Site Tax Map.....	5
Figure 3:	Proposed Development Plan.....	6
Figure 4:	Conceptual Landscaping Plan.....	7
Figure 5:	National Wetlands Inventory Map.....	13
Figure 6:	Flood Hazard Map	16
Figure 7:	Tsunami Evacuation Zone.....	17
Figure 8:	Sea Level Rise Exposure Area (SLR-XA) 3.2 Feet Scenario	20
Figure 9:	Coastal Erosion Modeling.....	21
Figure 10:	State Land Use District Map.....	35
Figure 11:	Special Management Area Map	37
Figure 12:	City and County of Honolulu Zoning Designation	43
Figure 13:	Draft Shoreline Survey.....	45

APPENDICES

Appendix A	Early Consultation Comment Letters
Appendix B	Site Photographs
Appendix C	Architectural Drawings
Appendix D	Demolition and Construction Phasing Plan Set
Appendix E	Geotechnical Investigation Report
Appendix F	Drainage Report
Appendix G	Biological Survey Report
Appendix H	Archaeological Inventory Survey

1.1 PROJECT OVERVIEW

The proposed project includes the demolition and reconstruction of a single-family residence located on a beachfront lot at the end of Kaimoku Place in Kāhala. The project parcel is within the City and County of Honolulu, Coastal Zone Management (CZM), Special Management Area (SMA). In accordance with Hawai'i Revised Statutes (HRS) 205A and Act 16 (Session Laws of Hawaii (SLH) 2020), the proposed construction of a single-family residence located on a shoreline lot within the SMA would require an SMA Use Permit, regardless of floor area. The prior threshold for an SMA Use Permit was for residences exceeding 7,500 square feet of floor area within the SMA.

1.2 PURPOSE OF THE ENVIRONMENTAL ASSESSMENT

The evaluation of projects to determine their effects on the environment is required by the Chapter 343, Hawai'i Revised Statutes (HRS). An Environmental Assessment (EA) is a “written evaluation to determine whether an action may have a significant effect” (Section 343-2, HRS). The City and County of Honolulu, Department of Planning and Permitting (DPP) is the approving agency for the project. The agency with primary responsibility over the project is required to make a final environmental determination according to the presence of significant impacts or the lack thereof as set forth in the EA. As stated in Section 343-1, HRS:

An environmental review process will integrate the review of environmental concerns with existing planning processes of the State and counties, and alert decision makers to significant environmental effects which may result from the implementation of certain actions. ... The process of reviewing environmental effects is desirable because environmental consciousness is enhanced, cooperation and coordination are encouraged, and public participation during the review process benefits all parties involved and society as a whole.

As described above, the basic purpose of an EA is to provide information to the public and decision makers on proposed actions. The EA must also disclose: potential significant adverse environmental impacts, the expected primary and secondary consequences, and the cumulative as well as the short- and long-term effects of the action.

1.3 COMPLIANCE WITH STATE OF HAWAII ENVIRONMENTAL LAWS

This EA is being prepared pursuant to the requirements of Section 25-3.3 of the Revised Ordinance of Honolulu (ROH), which requires that any proposed development within the special management area requiring a special management area use permit requires an assessment according to Chapter 343, HRS. Preparation of this document is in accordance with the provisions of Chapter 343, HRS “Environmental Impact Statements” and Department of Health Title 11, Chapter 200.1, Hawai'i Administrative Rules (HAR), “Environmental Impact Statement Rules”.

1.4 STEPS IN THE ENVIRONMENTAL REVIEW PROCESS

Early Consultation and Data Gathering

Section 11-200.1-18, HAR requires that an agency must consult with agencies and individuals that might have jurisdiction or expertise with respect to the proposed action. Early consultation is

considered an important part of the environmental review process – the ultimate goal is the gathering of information, data, and public concerns. A preliminary description of the project was circulated to agencies and individuals in June 2020, and phone consultations were conducted with permitting agencies as necessary. For a detailed description of the early consultation component of this project, see Chapter 6, *Individuals, Community Groups, and Agencies Consulted*, of this EA. Copies of the written comments are included in Appendix A.

Circulation of the Draft Environmental Assessment

Following completion of this Draft EA, the environmental document will be submitted to the State of Hawai'i, Office of Planning and Sustainable Development, Environmental Review Program (ERP)¹. The ERP will notify government agencies and the public when the Draft EA is available for review. The announcement will be made in a bi-monthly bulletin called *The Environmental Notice*, which is available in print and online. Publication in *The Environmental Notice* marks the beginning of a 30-day comment period during which government agencies and the public can review and comment on the environmental document and its findings. For the proposed project, the City and County of Honolulu Department of Planning and Permitting has submitted a Notice of Determination with the Draft EA to the ERP with an Anticipated Finding of No Significant Impact (AFONSI) (Section 11-200.1-11, HAR).

Final Environmental Assessment and Finding of No Significant Impact

After the 30-day review period, all comments will be considered and necessary changes will be incorporated into a Final EA. It is anticipated that the Final EA will support a Finding of No Significant Impact (FONSI). The publication of the Notice of Availability of the Final EA-FONSI in *The Environmental Notice* initiates a 30-day judicial challenge period under Section 343-7(b), HRS.

¹ Previously named the Office of Environmental Quality (OEQC).

2 PROJECT DESCRIPTION

2.1 ENVIRONMENTAL SETTING

PROJECT LOCATION

The project site is located within the Wai‘ālae-Kāhala residential neighborhood on the southeastern coast of O‘ahu island (see Figure 1). The proposed residential reconstruction project would occur on the parcel identified as Tax Map Key (TMK) (3) 5-058:011 (see Figure 2), located on a beachfront lot at the end of Kaimoku Place, adjacent to the Wai‘ālae Country Club golf course.

EXISTING SITE CONDITIONS

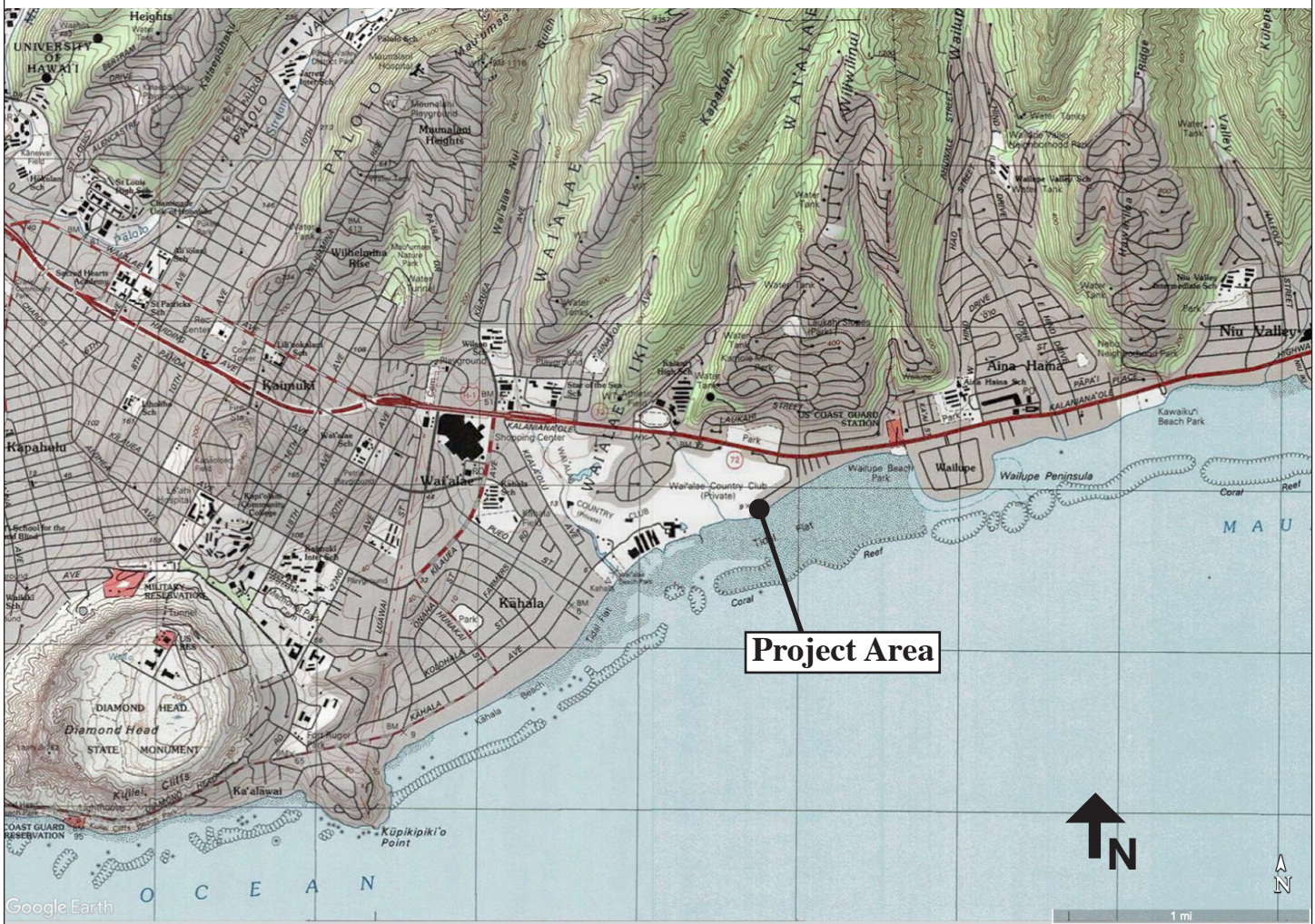
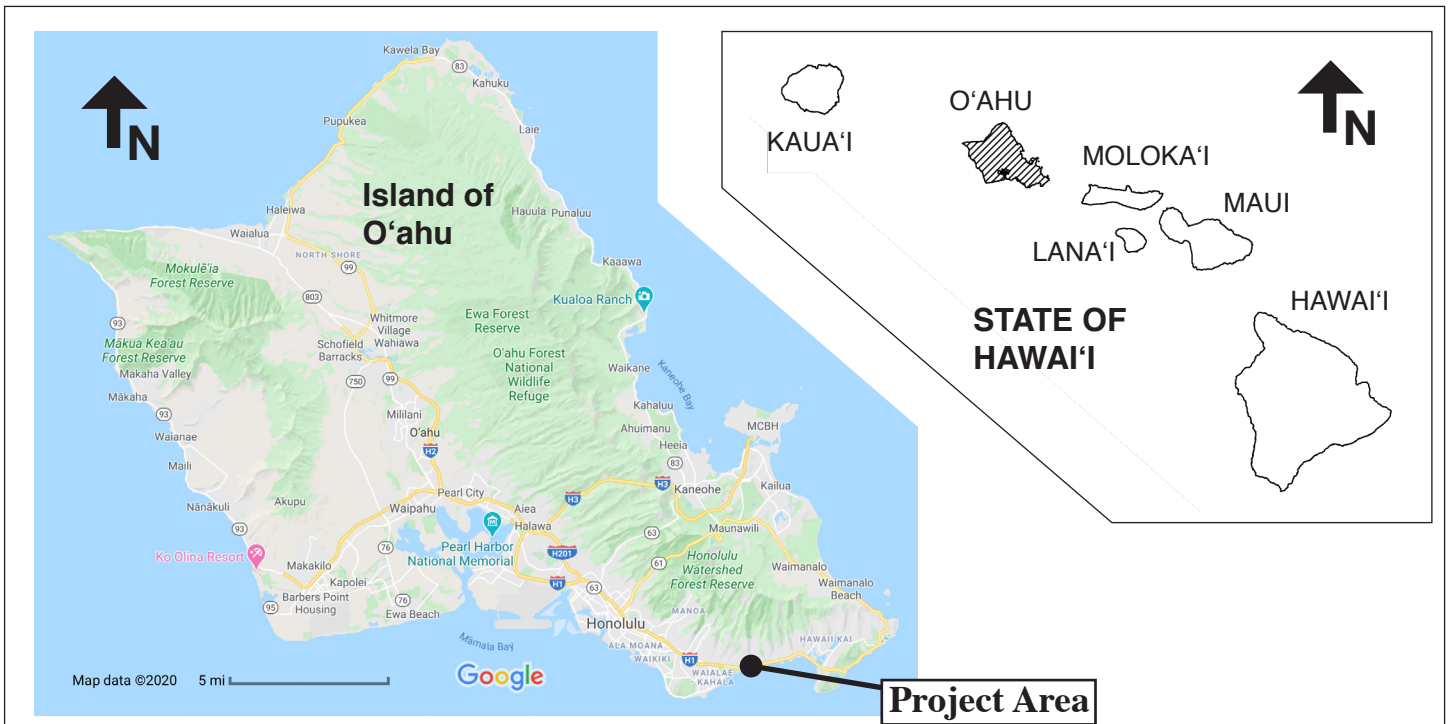
The existing project parcel consists of approximately 27,546 square feet, or 0.63 acres. The beachfront lot includes an existing two-story single-family home, currently vacant and in disrepair. The existing 14,232 square-foot residence includes a driveway, pool, deck, and landscaped backyard. Existing vegetation includes a lawn of Bermuda grass with ornamental landscaped plants and several species of palms. There is a beachfront seawall at the edge of the property fronting Maunalua Bay.

There are existing features within the 40-foot shoreline setback area, including landscaping, walkways, patio, swimming pool, pool deck, and fountain. A variance was approved for construction of the pool and masonry wall on September 28, 1967. Because the seawall and existing features within the 40-foot shoreline setback area were constructed prior to the establishment of shoreline setback regulations established by the City and County of Honolulu on June 22, 1970, these features would be considered legal, non-conforming structures. See Appendix B for photographs of existing site conditions.

The project site is surrounded by residences to the north and east. To the west is the Wai‘ālae Country Club golf course, and to the south is Maunalua Bay. The neighboring residences to the north and east of the project site have new homes that were constructed within the last 5-8 years.

2.2 DESCRIPTION OF THE PROPOSED ACTION

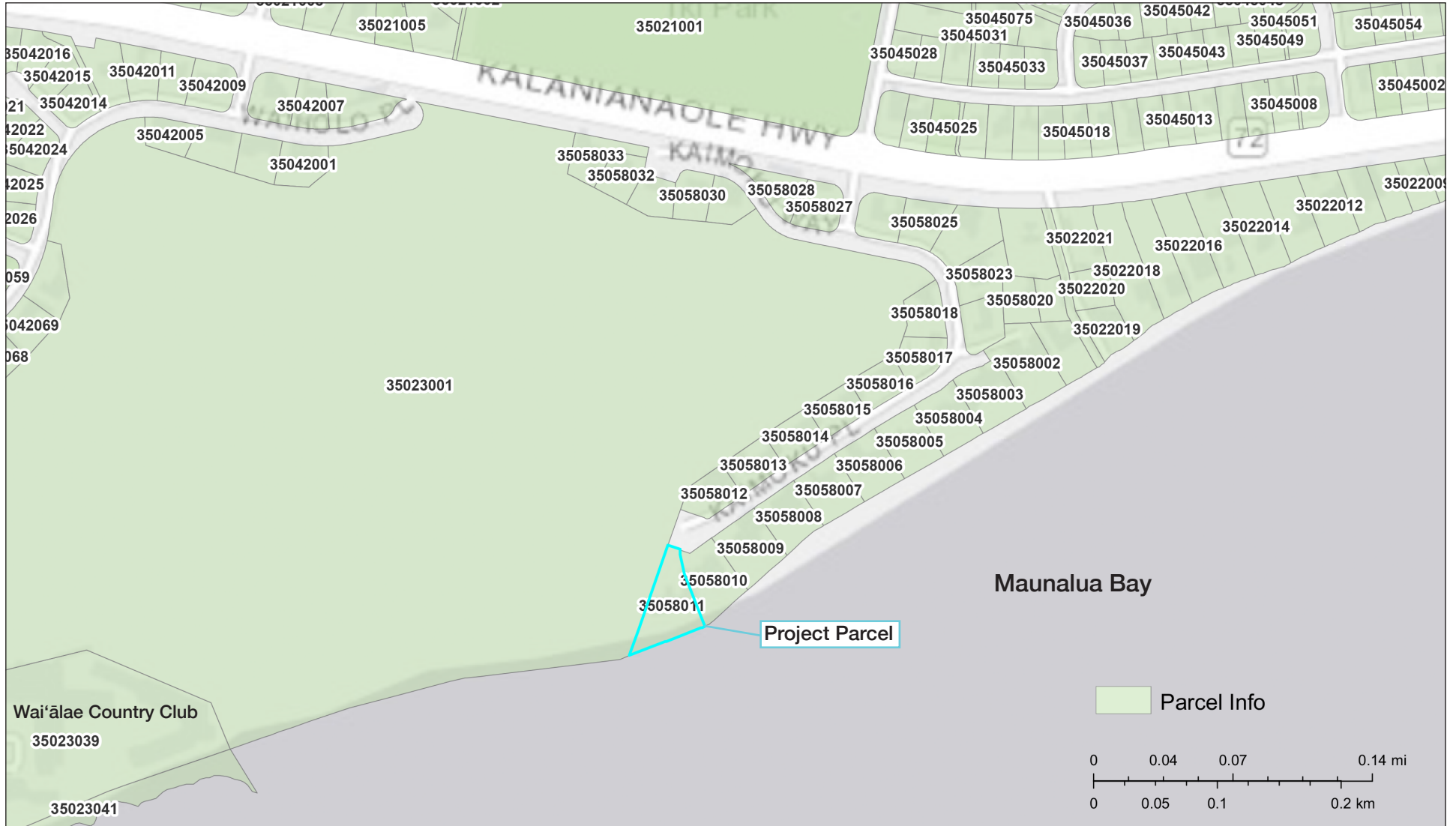
As proposed by the applicant, the 1001 Kaimoku Place project would consist of demolition of the existing residence and construction of a new single-family dwelling in its place. The proposed plans consist of a two-story, 17,518 square-foot residence, including a driveway, three-car garage, walkways, pool deck, new swimming pool, and landscaping (see Figure 3 for the proposed development footprint and Figure 4 for the conceptual landscaping plan). All proposed features would be constructed outside of the 40-foot shoreline setback area (see Appendix C for the Architectural Drawings, including exterior elevations and building sections).



SOURCE: Planning Partners 2020; Google Maps, Google Earth 2020

Residence at 1001 Kaimoku Place

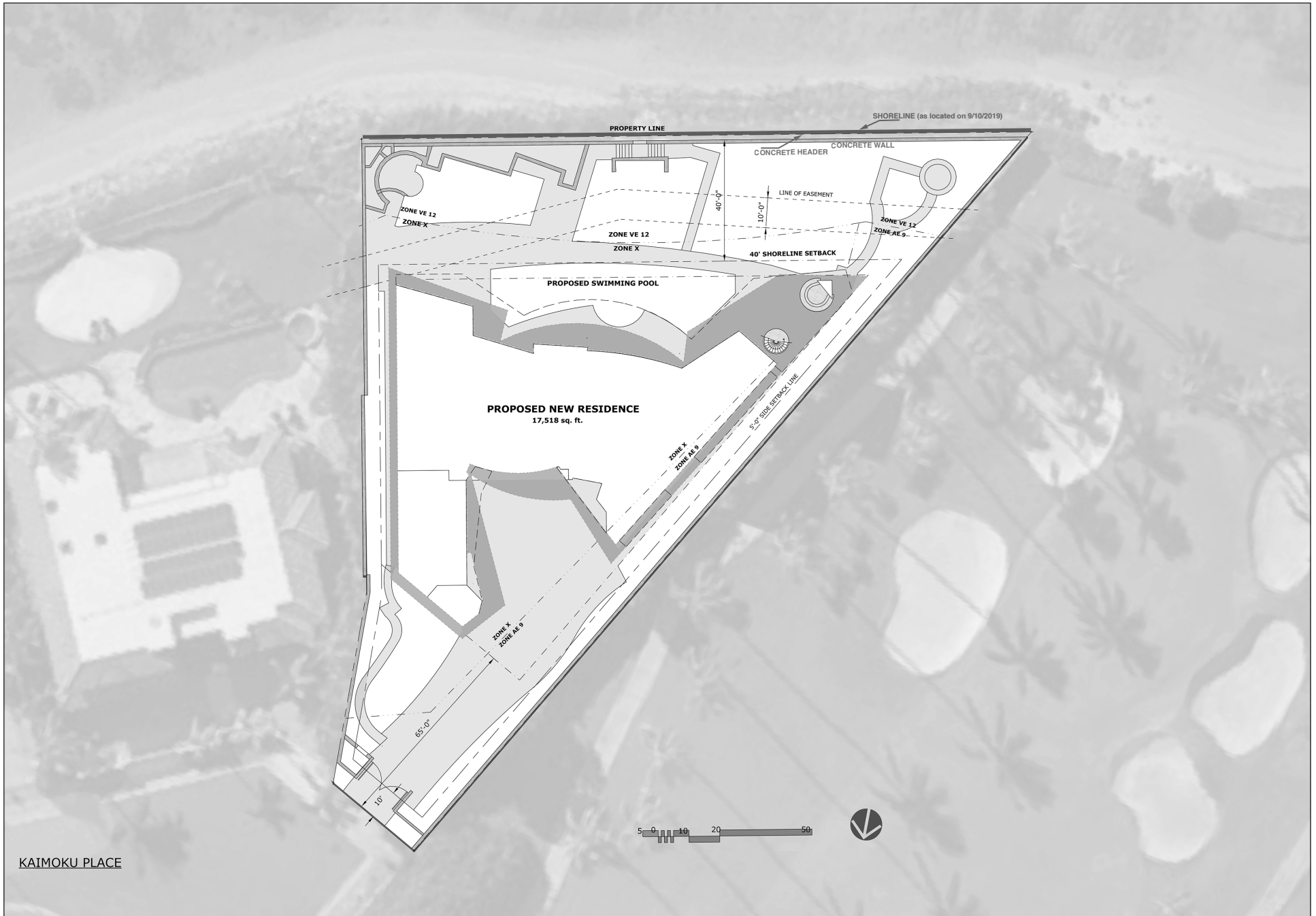
Figure 1
Project Vicinity and Location Map



SOURCE: Honolulu Land Information System (Holis); Department of Planning and Permitting; City and County of Honolulu 2020

Residence at 1001 Kaimoku Place

Figure 2
Project Site Tax Map

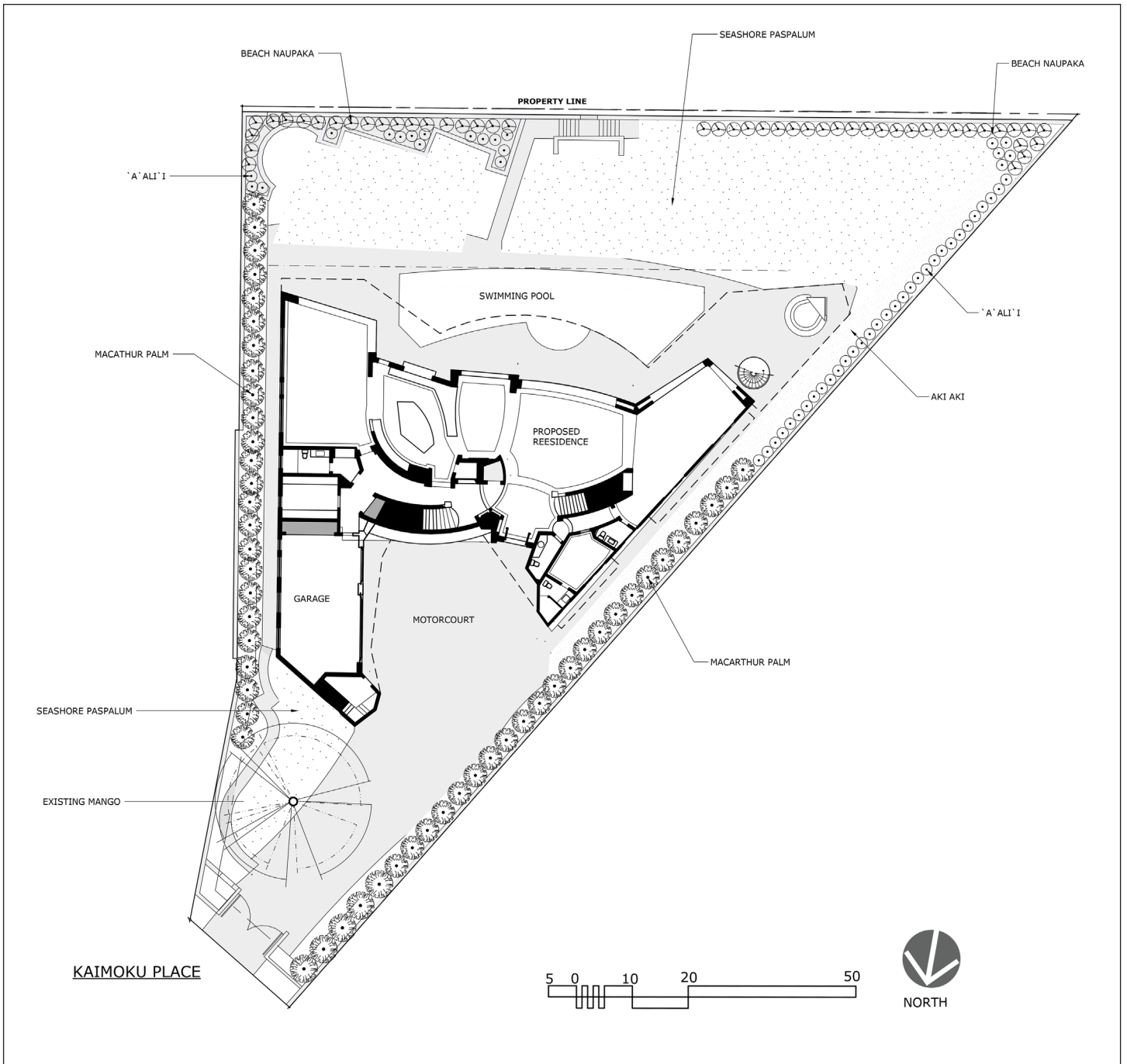


KAIMOKU PLACE

SOURCE: Eiserloh Architects 2020

Residence at 1001 Kaimoku Place

Figure 3
Proposed Development Plan



SOURCE: Eiserloh Architects, 2022

Residence at 1001 Kaimoku Place

Figure 4
Conceptual Landscaping Plan

Most of the existing features within the 40-foot shoreline setback area², including landscaping, walkways, patio, and fountain, would remain unchanged with the proposed project (see Figure 3 for the shoreline setback line and Appendix D for the demolition and construction phasing plan). A portion of the pathway within the 40-foot setback would be removed to conform with current building codes. The existing concrete security wall surrounding the property and existing concrete retaining wall sections would remain unchanged. There are no proposed changes to the existing seawall³. The existing non-conforming swimming pool within the 40-foot shoreline setback area would be decommissioned. This would include demolishing the concrete around the pool, punching holes into the bottom of the pool, and filling the pool with soil from the proposed pool and rubble from demolition. The area of the pool would be landscaped, leaving no remaining indication of the previously existing pool. A Minor Shoreline Structure permit would be required to place the fill. For a discussion of project consistency with the shoreline setback rules and Special Management Area Use Permit requirements, see Section 3.12, *Conformance with State and Local Plans, Policies, and Land Use Controls*.

With construction of the proposed residence, the drainage patterns on the site would generally be the same as existing conditions, with runoff generated from the site directed to four discharge points at the northern, southern, eastern, and western portions of the site. The project includes the installation of drywells, and runoff generated from the roof would be collected and directed to roof downspouts and piped to three drywells located in the front and backyard. See Section 3.2, *Hydrology and Water Quality*, for a discussion of proposed site drainage features.

Design Elements of the Proposed Single-Family Residence

The proposed project would be in conformance with the requirements for single-family residences in the R-7.5 Residential District zoning designation for the City and County of Honolulu. The intent of the R-7.5 district is to provide areas for urban residential development (Section 21-3.70-1, ROH). The site has been previously developed with a residential use, and the proposed dwelling would be constructed in the area previously developed with residential uses. The proposed residence would reduce the footprint of the home compared to the existing structure. Most of the existing ornamental landscaping would remain, and the project includes additional landscaping and an overall increase in green space.

The proposed residence is designed with 17,518 square feet of floor area, including garage and upper and lower lanai spaces. Concrete pavement would be used for longevity for the driveway and pathways. The orientation of the dwellings would allow for natural lighting, and the use of high efficiency outdoor lighting and directional fixtures would reduce energy use and light spillage. Indoor lighting would be on dimmers, and all appliances would be Energy Star rated.

Project Phasing

Construction of the single-family residence project is anticipated to begin in 2023. The project would be constructed in a single phase over a period of 2-3 years. See Appendix D for the Demolition and Construction Phasing Plan Set.

² All existing structures within the 40-foot shoreline setback area were legally permitted prior to construction in the mid to late 1960s.

³ The existing seawall and associated boulders have been determined by the Department of Land and Natural Resources (DLNR) to be partially encroaching on the shoreline. The project applicant has submitted application to the DLNR for a lease of the encroachment area on the shoreline, similar to those obtained by neighbors to the project site.

2.3 PERMITS AND APPROVALS REQUIRED OR POTENTIALLY REQUIRED

A listing and brief description of the regulatory permits and approvals necessary to implement the proposed Residence at 1001 Kaimoku Place project is provided below. State agencies other than the City and County DPP are required to use the DPP's environmental document when considering the environmental effects of the proposed project.

State and County

- Chapter 343, HRS, Preparation and approval of an Environmental Assessment – The City of County of Honolulu, Department of Planning and Permitting is the approving agency for the proposed applicant action and has the authority to determine if the EA is adequate and whether a FONSI is appropriate.
- National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Stormwater Activities (*not required*) - Because the project would disturb less than one acre, a construction NPDES permit would not be required for discharges of storm water associated with construction activities.
- Erosion and Sediment Control Plan – residential and commercial projects that require a building and/or grading permit that disturb less than one acre are required to prepare an Erosion and Sediment Control Plan and implement construction best management practices in accordance with City and County of Honolulu's Rules Relating to Water Quality (Section 20-3-3)
- Noise Permit – required by State of Hawai'i, Department of Health for construction activities
- Construction Permits – Demolition Permit; Grading Permit; and Building Permit from the City and County of Honolulu, Department of Planning and Permitting
- Minor Shoreline Structure Permit – required for backfilling the pool in the shoreline setback area by the City and County of Honolulu, Department of Planning and Permitting
- Special Management Area Use Permit – required for reconstruction of a residence on a shoreline lot by the City and County of Honolulu, Department of Planning and Permitting

3 DESCRIPTION OF THE AFFECTED ENVIRONMENT, ANTICIPATED EFFECTS, AND PROPOSED MITIGATION MEASURES

The intent of this chapter is to describe the existing physical and social environment that is affected by the proposed action. As defined in Section 11-200.1, HAR, Environmental Impact Statement Rules, potential project impacts or effects may include primary and secondary impacts, in addition to cumulative impacts:

- A “primary impact” or “direct impact” means impacts or effects that are caused by the action and occur at the same time and place.
- A “secondary impact” or “indirect impact” means an impact or effect that is caused by the action and occurs later in time, but is still reasonably foreseeable. An indirect effect may include a growth-inducing effect and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air, water, and other natural systems, including ecosystems.
- A “cumulative impact” means the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (Section 11-200.1-2, HAR).

Potential impacts that may result from implementation of the proposed action and mitigation measures to minimize the adverse impacts are described below.

3.1 GEOLOGY, TOPOGRAPHY, AND SOILS

The existing project parcel consists of developed single family uses and landscaping. The site is relatively flat, with ground surface slopes ranging from approximately 0.3 percent to 1.5 percent (Bow Engineering, 2020). Elevations on the project site range from approximately 4 feet mean sea level (MSL) at Kaimoku Place road, to approximately 2 feet MSL at the seawall fronting Maunalua Bay.

The Natural Resources Conservation Service (NRCS) classifies the soils in the project area as Jaucas sand, 0 to 15 percent slopes (JaC) (NRCS 2020). According to the soil survey, this series consists of excessively drained soils that occur as narrow strips on coastal plains, adjacent to the ocean on all islands. On this soil, permeability is rapid, and runoff is very slow to slow. The hazard of water erosion is slight, but wind erosion is a severe hazard where vegetation has been removed (NRCS 2020).

Based on soil suitability and extent, the State of Hawai‘i, Department of Agriculture has established the Agricultural Lands of Importance to the State of Hawai‘i (ALISH) system to identify areas of prime farmland. The ALISH system classifies three types of land suitable for agriculture: Prime Lands, Unique Lands, and Other Lands. The project site is not located on designated agricultural lands of importance (Hawai‘i OP 1977).

IMPACTS AND MITIGATION MEASURES

Implementation of the proposed action would result in the demolition of the existing residence, decommissioning of the existing pool, and site preparation and grading. Since the elevation of the new slab would be similar to the existing slab, there would be limited earthwork over the entire site. Decommissioning the existing pool would include demolishing the concrete around the pool, punching holes into the bottom of the pool, and filling the pool with approximately 150 cubic yards of material using soil from the proposed pool and rubble from demolition. The area would be landscaped to match surrounding landscaping, and there would be no remaining indication of the previously existing pool.

There would be a short-term increase in soil erosion during construction since grading associated with construction of the proposed residence would result in the exposure of bare soil to potential erosion. All grading operations would be conducted in compliance with dust and erosion control requirements of the City and County of Honolulu. Engineering measures to control soil erosion and storm runoff would be implemented by the contractor during construction. Dust barriers and compost filter socks would be installed on site to prevent sediment from entering the ocean. An Erosion and Sediment Control Plan shall be submitted prior to construction, and shall specify best management practices in accordance with the City and County of Honolulu's Rules Relating to Water Quality of the Administrative Rules, Title 20, Department of Planning and Permitting, Chapter 3. Implementation of construction best management practices would prevent erosion and minimize sediments and pollutants from entering the storm drain system or nearby coastal water, and the proposed project would not result in a significant impact due to soil erosion or off-site sediment transport. For a discussion of drainage on the project site, see Section 3.2, *Hydrology and Water Quality*. No new paving work would occur in the shoreline setback area.

A Geotechnical Investigation Report has been prepared for the project site to determine building construction suitability and limitations (Shinsato Engineering, Inc. 2019) (see Appendix E). Special considerations would be required in the design and construction of the project due to the existing soil conditions. These include but may not be limited to the following:

- a) The underlying sand is susceptible to caving especially near groundwater level. Proper safety precautions should be used when excavating into the underlying soils.
- b) No expansive soils were encountered in the upper 2.5 feet below existing grade in the subsurface explorations. However, if expansive clayey soils are encountered during the excavation of shallow spread footings, the footing shall be deepened to a minimum depth of 24 inches below the adjacent finish grade, or the expansive clayey soils shall be removed and replaced with properly compacted structural fill.
- c) Compaction of fill and backfill material should be done with care due to the close proximity of the neighboring structures.

Additional specifications and recommendations from the Geotechnical Investigation Report shall be implemented during construction (see Appendix E).

No long-term or cumulative adverse effects to topography or soils are anticipated with implementation of the proposed action.

3.2 HYDROLOGY AND WATER QUALITY

Coastal waters in the vicinity of Maunalua Bay were classified “A” in State Department of Health water quality regulations (DOH 2014). The objective of Class A waters is that their waters be protected for recreational purposes and aesthetic enjoyment. According to Section 11-54-3(c)(2), HAR, Class A waters “shall not act as receiving waters for any discharge which has not received the best degree of treatment or control compatible with the criteria established for this class.”

The project site is located within the Wailupe Stream Watershed. There are no surface waters, including streams or wetlands, on the project site. The project site is on relatively flat terrain. Runoff generated from the unroofed areas of the site is currently directed to four drainage discharge points at the northern, southern, eastern and western portions of the site. The soil test borings data from September 17, 2019 found that groundwater was encountered at depths varying from 7.0 to 7.5 feet below grade at the time of the field investigation (see Appendix E).

The Clean Water Act (CWA), Section 303(d), requires states to submit a list of waters that do not attain or maintain applicable water quality numeric criteria, in addition to a priority ranking of impaired waters for Total Maximum Daily Loads (TMDL) development based on the severity of pollution and the uses of the waters. After the identification of water quality-limited waters is completed, states develop TMDLs at a level necessary to achieve the applicable state water quality standards. The State’s water quality report list of impaired marine waters includes the Maunalua Bay for levels of ammonium (NH₄), turbidity, and chlorophyll (Chl *a*) that have exceeded water quality standards. However, the State has categorized Maunalua Bay as a “low” priority for initiating TMDL development for the next cycle of monitoring and assessment (DOH CWB 2020).









A review of the USFWS National Wetland Inventory Map was completed to identify the presence of wetlands within the vicinity of the project. While Estuarine and Marine Wetland is identified along the shoreline of the project site, no potentially jurisdictional wetlands or wetlands of the United States were identified on the project site (see Figure 5) (USFWS 2020).

IMPACTS AND MITIGATION MEASURES

Construction activities disturbing one or more acres are regulated under the National Discharge Elimination System (NPDES) stormwater program and are required by the State to obtain a NPDES permit. Since the project site is 0.63 acres, a NPDES permit would not be required. For all ground disturbing activities, a Grading Plan, Erosion and Sediment Control Plan (ESCP), and Best Management Practices (BMP) will be integrated into the construction plans (State Department of Planning 2013). An ESCP shall be submitted prior to construction and shall specify BMPs in accordance with the City and County of Honolulu’s Rules Relating to Water Quality of the Administrative Rules, Title 20, Department of Planning and Permitting, Chapter 3. Construction BMPs may include, but are not limited to, stabilized construction entrances, stabilization of disturbed areas, silt-screens, re-vegetation, and maintenance of equipment. Implementation of BMPs and compliance with City and County regulations would reduce potential impacts to water quality during construction of the project, and construction of the project would not result in a violation of water quality standards. For a discussion of impacts due to soil erosion and offsite sediment transport, see Section 3.1, *Geology, Topography and Soils* above.



Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
| | |  | Freshwater Pond |  | Riverine |

SOURCE: U.S. Fish and Wildlife Service; National Wetlands Inventory 2020; Planning Partners 2020

Residence at 1001 Kaimoku Place
Figure 5
 National Wetlands Inventory Map

Implementation of the proposed project would result in the replacement of an existing single-family residence with a new single-family residence, including a driveway, pool, deck and landscaped backyard. The drainage patterns would generally be the same as existing conditions. The project includes the construction of storm drainage improvements with the addition of drywells that would result in an overall decrease in the flow rate compared to existing conditions. Runoff generated from the roof would be collected to roof downspouts and piped to three drywells to be located in the front and backyard. One drywell would be located in the southwest corner of the site in an existing landscaped area, one would be located in the southeast corner of the site at the location of the existing pool to be demolished and filled, and one would be located in the northern portion of the site in a landscaped area (see the Appendix F for proposed drywell locations). This would allow the total proposed flow rate to slightly decrease compared to the existing flow rate. According to engineering calculations prepared in accordance with the City and County of Honolulu Storm Drainage Standards (August 2017), the proposed development would result in a total net decrease of 0.33 cubic feet per second (cfs) and 0.48 cfs for the 10-year and 50-year recurrence interval, respectively (see Appendix F, *Drainage Analysis*). Therefore, adverse effects to water quality from stormwater flows would be minimized by the project-specific mitigation features of the proposed drywells.

The proposed single-family residence includes the construction of a swimming pool feature. In the unlikely event the pool would need to be drained, the water would be absorbed into the site landscaping and directed towards the street to the storm water drain in the case of overflow. Therefore, the operation and maintenance of the proposed pool would not result in any discharges into State waters, and no significant impact would result.

No long-term or cumulative adverse effects to hydrology or water quality are anticipated with implementation of the proposed action. The BMPs will be developed in accordance with the City and County of Honolulu regulatory requirements as part of the permitting process, including the prevailing soil erosion and stormwater quality standards (“Rules Relating to Water Quality”). With implementation of BMPs, the construction of the project would not result in a violation of water quality standards. For a discussion of impacts due to soil erosion and off-site sediment transport, see Section 3.1, *Geology, Topography, and Soils*. For a discussion of potential impacts due to flooding, see Section 3.3, *Natural Hazards and Climate Change*.

3.3 NATURAL HAZARDS AND CLIMATE CHANGE

Natural Hazards

Natural hazards in the project region include earthquakes, volcanic activity, waves and storms, flooding from hurricanes and tropical storms, and tsunamis. According to USGS hazard ratings, the Overall Hazard Assessment (OHA) of the project vicinity located within the Diamond Head coastal area is ranked high (5) due to tsunami, storm and wave damage, erosion, and seismic hazards (USGS 2004).

Earthquake and Volcanic Hazards

Most of the earthquakes in Hawai‘i are directly related to volcanic activity and are caused by magma moving beneath the earth’s surface. Numerous small earthquakes are reported each year, mostly on Hawai‘i Island. The project area is located on the Island of O‘ahu, which is approximately 130 miles from Hawai‘i Island. According to FEMA earthquake hazard maps, the project area is located within Seismic Design Category D0, which means it could experience very strong shaking with slight damage in specially designed structures and considerable damage in ordinary buildings (FEMA

2020). Due to the proximity to the Molokai Seismic Zone, all of O‘ahu’s south shore is ranked moderately high for volcanic/seismic hazard (USGS 2004). Hawai‘i Island and Maui are the only islands with lava-flow hazard zones.

Tsunami and Flood Hazards

The Federal Emergency Management Agency (FEMA) maps the project site as predominantly Zone X, with an area designated Zone VE along the coastline and an area along the western property boundary designated Zone AE (see Figure 6). Flood Zone X includes areas determined to be outside of the 0.2 percent annual chance (200-year flood). Flood Zone VE as defined for the project area is within the coastal flood zone with wave action hazard and with a Base Flood Elevation of 12 feet. Zone AE as defined for the project area is within the 100-year flood zone with a Base Flood Elevation of 9 feet (HNFIP 2020).

The project alignment is located within the tsunami evacuation zone (see Figure 7) (HNFIP 2020).

Hazardous Materials

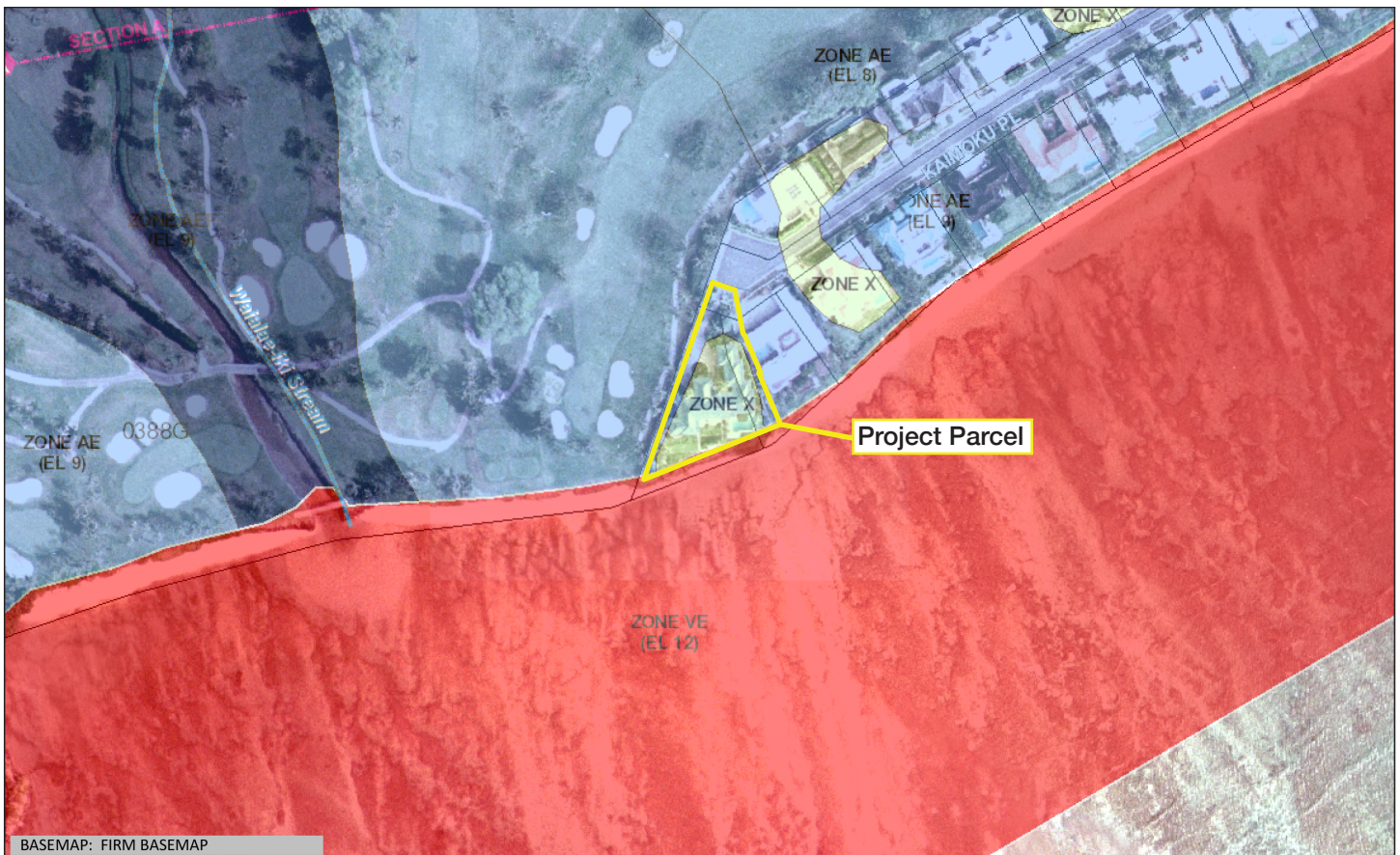
The project parcel has been developed with single family residential uses for some time. There is no known history of unusual hazardous material use at the site.

Climate Change and Sea Level Rise

Global Warming is a public health and environmental concern around the world. As global concentrations of atmospheric greenhouse gases increase, global temperatures increase, weather extremes increase, and air pollution concentrations increase. Global warming and climate change have been observed to contribute to poor air quality, rising sea levels, melting glaciers, stronger storms, more intense and longer droughts, more frequent heat waves, increases in the number of wildfires and their intensity, and other threats to human health (IPCC 2013). The five warmest years in the 1880–2019 record have all occurred since 2015, while nine of the 10 warmest years have occurred since 2005; the year 2019 was the second warmest year in the 140-year record (NOAA 2020).

The influences of climate change on global and local ecosystems are varied and often detrimental. In Hawai‘i, the rate of warming air temperature has quadrupled in the last 40 years to over 0.3°F (0.17°C) per decade. Higher temperatures are projected to result in native plant and animal stress, an increase in heat-related illnesses and vector-borne diseases such as dengue fever, and a higher concentration of invasive species. Additional impacts are projected to include a decrease in trade winds and overall disruption of rainfall patterns; warmer oceans and higher ocean acidity, which could lead to coral bleaching; and a rise in sea levels. Projected sea-level rise will undoubtedly increase erosion and flooding statewide and expose coastal communities to greater hazards (University of Hawai‘i 2014).

According to the Sea Level Rise Vulnerability and Adaptation Report for Hawai‘i (Hawai‘i Sea Level Rise Report) (2017), by the Hawai‘i Climate Change Mitigation and Adaptation Commission, potential sea level rise could result in low-lying coastal areas around the island to become chronically flooded within the mid- to latter-half of this century. The report states that “[o]ver the next 30 to 70 years, properties located on or near Oahu’s shorelines will increasingly be flooded, eroded, or completely lost to the sea” (Hawai‘i Climate Change 2017).



BASEMAP: FIRM BASEMAP



Flood Hazard Assessment Report

www.hawaiiip.org

FLOOD HAZARD ASSESSMENT TOOL LAYER LEGEND

(Note: legend does not correspond with NFHL)

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

	Zone A: No BFE determined.
	Zone AE: BFE determined.
	Zone VE: Coastal flood zone with velocity hazard (wave action); BFE determined.
	Zone AEF: Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.
NON-SPECIAL FLOOD HAZARD AREA - An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.	
	Zone X: Areas determined to be outside the 0.2% annual chance floodplain.

Property Information

COUNTY: HONOLULU
 TMK NO: (1) 3-5-058:011
 WATERSHED: WAILUPE
 PARCEL ADDRESS: 1001 KAIMOKU PLACE
 HONOLULU, HI 96816

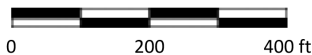
Notes:

Flood Hazard Information

FIRM INDEX DATE: NOVEMBER 05, 2014
 LETTER OF MAP CHANGE(S): NONE
 FEMA FIRM PANEL: 15003C0388G
 PANEL EFFECTIVE DATE: JANUARY 19, 2011

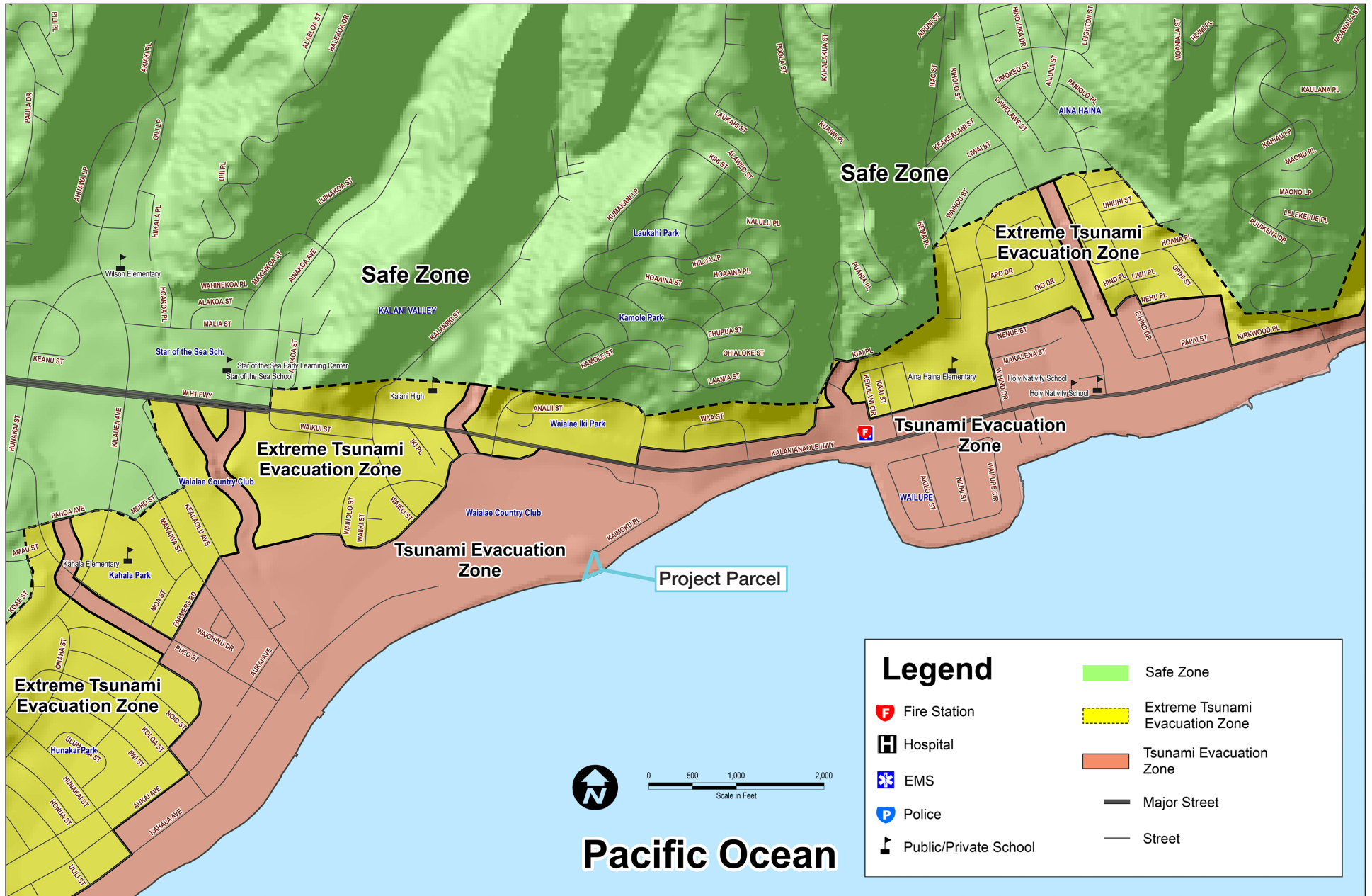
THIS PROPERTY IS WITHIN A TSUNAMI EVACUATION ZONE: YES
 FOR MORE INFO, VISIT: <http://www.scd.hawaii.gov/>

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



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

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



SOURCE: City and County of Honolulu April 2015

Residence at 1001 Kaimoku Place
Figure 7
 Tsunami Evacuation Zone

The Hawai'i Sea Level Rise Report and Hawai'i Sea Level Rise Viewer⁴ document the modeled potential future exposure of each island to multiple coastal hazards as a result of sea level rise. For the island of O'ahu, the Sea Level Rise Exposure Area (SLR-XA) is the combined footprint of three flooding hazards with sea level rise: passive inundation (flooding), coastal erosion, and annual high wave runup (Romine, et. al. 2020). Each of these hazards were modeled for four future sea level rise scenarios, including 0.5 feet, 1.1 feet, 2.0 feet, and 3.2 feet. The 3.2-foot projection of sea level rise is considered an “intermediate” scenario by 2100 and an “extreme” scenario as soon as 2060 (Romine, et. al. 2020). The City and County of Honolulu Climate Commission issued sea level rise guidance for the County to use areas exposed to 3.2 feet of sea level rise as a planning benchmark for most development (City & County of Honolulu Climate Change Commission 2018).

Much of the shoreline of Maunalua Bay has been developed with seawalls, revetments, and groins intended to protect coastal real estate. However, while these structures stop erosion of coastal lands, they may eventually cause increased beach erosion and loss (DLNR 2015). There is an existing seawall and rock revetment along the shoreline of the project site, with little sandy beach.

IMPACTS AND MITIGATION MEASURES

Natural Hazards

Construction of the proposed single-family residence would not result in increased flooding or hazards from flooding in surrounding areas. The proposed single-family residence would be constructed in accordance with City and County of Honolulu Building Code (ROH Chapter 16). The project would comply with the rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), which are in effect when development falls within a Special Flood Hazard Area (high risk areas). The 44CFR reflects the minimum standards as set forth by the NFIP. The proposed project would also be designed and constructed in conformance with the standards and applicable provisions of ROH Chapter 21A, *Flood Hazard Areas*. All development permits would be reviewed for consistency with the requirements of the City and County Code prior to approval.

The project site is located within the City and County of Honolulu's Tsunami Evacuation Zone. According to the City and County of Honolulu, tsunami evacuation shelters are identified after tsunami impacts are determined and safe access routes to available facilities are identified (Office of Planning 2020).

Prior to the initiation of construction, the City and County would review proposed grading and construction plans for consistency with City and County requirements and good engineering practice, which would minimize damage during tropical storm, hurricane, or strong wind events, and earthquake events. Once plans were approved by the County, implementation of the approved plans would be monitored during periodic building inspections. No significant environmental effects would result, and no mitigation would be necessary. No significant long-term or cumulative adverse environmental effects would result from natural hazards, and no mitigation would be necessary.

⁴ All sea level rise results from the hazard modeling and vulnerability assessment can be viewed on the Hawai'i Sea Level Rise Viewer (<http://hawaiisealevelriseviewer.org/>).

Climate Change and Sea Level Rise

Greenhouse gas emissions would be generated from the proposed single-family residence project during construction and operation. Temporary greenhouse gas emissions would occur during construction activities, predominantly from vehicle and equipment exhaust. No significant increase in operational greenhouse gas emissions are anticipated – limited emissions would result from area source emissions in the house, and mobile source emissions from residential trips. Greenhouse gas emissions would not be expected to be significant, and the project would not be expected to make a substantial contribution to the cumulatively significant impact of global warming and climate change.

The project site is located on along the shoreline. According to data from the Hawai'i Sea Level Rise Viewer, a portion of the project site could be vulnerable to sea level rise exposure, including the combined effects of passive flooding, annual high wave flooding, and coastal erosion in the long-term (see Figure 8 for the 3.2 feet scenario). While the proposed residence would not be affected, the seawall and landscaped lawn area is within the SLR-XA, as indicated in the Hawai'i Sea Level Rise Viewer. Although the existing pool also is within the SLR-XA, the proposed project includes decommissioning the existing pool in the shoreline setback area. The model also shows low lying areas in the golf course and along the western boundary of the project site affected by passive flooding. Figure 9 shows the effect of shoreline erosion, with the red line representing the 3.2 feet of SLR scenario (see Figure 9). The results of the erosion model represent the combined results of historical erosion rates and the impacts of projected SLR. Similar to the SLR-XA model, the proposed residence would not be directly impacted by projected shoreline erosion under the 3.2 feet of SLR scenario.

While the sea level rise exposure and shoreline erosion modeling indicates that the project site parcel could be vulnerable to the effects of SLR, the model does not consider changes in erosional behavior due to the existing shore protection system, including the seawall and rock revetment fronting the property. The existing seawall and boulders are identified as protection from SLR, one of the primary sea level rise adaptation strategies outlined by the *Guidance for Using the Sea Level Rise Exposure Area in Local Planning and Permitting Decisions* (Romine, et. al. 2020). The top of the existing seawall is approximately 11.0 feet above current sea level. Therefore, the existing seawall and rock revetment would provide some level of protection to the project site against flooding and erosion not currently shown in the SLR-XA modeling.

There are several additional features that would minimize the potential effects from SLR in the future. The project site includes an existing 7-foot-tall retaining wall along the western boundary of the project site, with the top of the wall measuring approximately 11.0 feet above sea level, which would also provide protection to the site from passive flooding that could occur in the golf course. In addition, the proposed residence finish floor elevation would be approximately 9.88 feet above sea level, which is above the Base Flood Elevation of 9 feet along the western boundary of the site (see Appendix C, Sheet C1 for the proposed Development Plan including finish floor elevations). The project plans also include large grassy and landscaped areas fronting the house within the shoreline setback area for on-site filtration.



SOURCE: Pacific Islands Ocean Observing System (PacIOOS), 2022

Residence at 1001 Kaimoku Place

Figure 8

Sea Level Rise Exposure Area (SLR-XA 3.2) Feet Scenario and Site Plan Overlay



SOURCE: Pacific Islands Ocean Observing System (PacIOOS), 2022

Residence at 1001 Kaimoku Place

Figure 9
Coastal Erosion Modeling

Because the residence is set back from the shoreline, the proposed residence is not anticipated to be affected by sea level rise exposure under the 3.2 feet scenario as shown in the SLR-XA modeling. Considering the existing protection from the seawall and rock revetment, and the retaining wall along the western boundary of the project site, the project includes design-oriented features that would reduce future risks from sea level rise. No additional mitigation would be required.

3.4 BIOLOGICAL RESOURCES

A Natural Resources Assessment was completed for the project site (see Appendix B). Both botanical⁵ and wildlife surveys were conducted at the project site on October 29, 2019 (AECOS Inc. 2020). Marine surveys were limited to visual observation from the project site.

The U.S. Fish and Wildlife Service (USFWS) submitted early consultation comments on the preliminary project description (see Appendix A). Due to workload constraints, the USFWS was not able to provide project-specific comments, but noted species most likely to occur within the vicinity of the project area. The Natural Resources Assessment, as summarized below, includes an evaluation of potential impacts to species that may occur in the project area (see Appendix B).

Vegetation

The project parcel vegetation consists of a lawn cover of Bermuda grass intermixed with ornamental landscaped plants. These plants include palm throughout the project site, oleander as a hedge along the wall bordering the Wai'ālae Country Club golf course, and *naupaka* along the base of the beachfront seawall. A total of 54 plant taxa were observed in the study area, all of which are plantings in the landscaping (see Table 1 of Appendix B for a list of plant species observed at the project site). (AECOS 2019)

Wildlife Species

A total of 57 individual birds of 12 bird species were observed at the project site during the biological survey (see Table 2 of Appendix B for a list of avian species observed at the project site). Native bird species found at the project site or vicinity include indigenous⁶ White Tern, indigenous migratory Pacific Golden-Plover, and indigenous Wandering Tattler. The remaining species recorded are non-native introductions that have become naturalized in Hawai'i. (AECOS 2019)

No terrestrial⁷ animals were observed during the site survey, though it is possible that stray dogs and cats, mongoose, and some rodents frequent the site. The European honey bee was the only insect observed during the survey. However, the *naupaka* shrubs at the base of the existing beachfront seawall could serve as potential habitat for federally endangered Hawaiian yellow-faced bee species, although none were observed during the survey. No protected marine species were observed from the project site seawall. (AECOS 2019)

⁵ Relating to plants.

⁶ Native to Hawai'i, but not unique to the Hawaiian Islands.

⁷ Animals that inhabit the land.

IMPACTS AND MITIGATION MEASURES

Vegetation Impacts

No plant species state or federally listed as threatened, endangered, or candidates for listing, and no rare native Hawaiian plant species were observed in the study area of the biological survey. Most of the project parcel is landscaped with ornamental plants, and there are no trees listed by the C&C Exceptional Tree Program on the project site (AECOS 2019).

Wildlife Impacts

Birds

The birds seen at the project site are non-native species naturalized in Hawai'i and are consistent with the coastal and urban environments of the overall project area. The most abundant species observed during the survey were the Common Myna and Japanese White-eye. The Pacific Golden-Plover were commonly observed on the Wai'ālae Country Club golf course, and a single Wandering Tattler was observed among rocks on the project site beachfront. (AECOS 2019)

During the survey, there were several White Tern observed flying inland over the golf course. White Tern is listed as threatened on O'ahu under the State of Hawai'i endangered species statute HRS 195D. While suitable nesting trees are not present on the project site, they can be found on the adjacent golf course. The USFWS provides the following recommendations for the species:

- If tree trimming or removal is anticipated for the project site, trees slated to be cut should be surveyed for nesting White Terns, especially during the White Tern breeding season (January to June). If an egg is found, the nesting tree or branch shall not be disturbed for at least 80 days. (USFWS, undated)

Based on the project site location on the coast, protected night-flying Hawaiian seabirds are somewhat likely to overfly or otherwise use the project site. These protected Hawaiian seabirds include Wedge-tailed Shearwater, Newell's Shearwater or *'a'o*, Hawaiian Petrel or *'ua'u*, and Band-rumped Storm-Petrel or *'ake'ake*. USFWS recommends that night-lighting BMPs for Hawaiian seabirds be implemented during the breeding, nesting, and fledging seasons (March 1 to December 15), when seabirds flying at night are most likely to cross project areas. Night lights can disorient seabirds, and could result in disruption of their flight or harm from collision with objects. (AECOS 2019)

Proposed night-time lighting, including lights from night-time construction or night-time lighting of residential features during operations, may increase the risk of downing nocturnally-flying seabirds. To minimize potential project impacts to seabirds, the USFWS recommends the following applicable measures:

- Fully shield all outdoor lights so the bulb can only be seen from below bulb height and only use when necessary; install automatic motion sensor switches and timer controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area; and avoid all night-time construction during the seabird fledging period from September 15 through December 15 (USFWS, undated). All external lighting structures should be fully "dark sky compliant" (HDLNR-DOFAW, 2016).

Therefore, all exterior lighting or lamp posts associated with the subject project shall be cut-off luminaries to provide the needed shielding to lessen possible seabird strikes, and to ensure that

artificial light does not travel across property boundaries or toward the shoreline and ocean waters pursuant to HRS Section 205A-30.5(a) and 205A-2(c)(10).

No nests, burrows, or other sign (feathers, eggs, scat) of Wedge-tailed Shearwater were observed at the project site. The rocks and crevices of the beachfront seawall are well-covered by *naupaka* and shrubby Christmas berry, however, they occur at the high-tide line and subject to wave splash, making the area undesirable for nesting. While the ornamental shrubs beside the project site lawn could provide adequate cover, no evidence of nesting was observed. (AECOS 2019)

Project site construction activities are not anticipated to adversely impact Wedge-tailed Shearwater nests, since none were observed on-site. Should a nest be found during construction, work shall be suspended and USFWS notified. USFWS provides the following recommendations:

- If Wedge-tailed Shearwater nests are discovered at the project site and construction would cause ground disturbance in that area, project construction shall be timed to occur outside of the breeding season (March through November) (USFWS, undated).

Since three of the other night-flying Hawaiian seabird species (Hawaiian Petrel, Newell's Shearwater, and Band-rumped Storm-petrel) nest at high elevations in the mountains, there would be no nest disturbance to these species with implementation of the proposed project.

Terrestrial Mammals

The survey did not include night-time surveys for the Hawaiian hoary bat, or *'ōpe'ape'a*, the only native terrestrial mammal in the Hawaiian Islands. While the project site offers minimal habitat for this species, the following recommendation, would minimize potential adverse impacts to this species. (AECOS 2019)

- Potential adverse impacts to pupping bats can be avoided or minimized by not clearing woody vegetation taller than 15 ft (4.6 m) between June 1 and September 15, the period in which young bats are potentially at risk from clearing of a roost tree.

Insects

While no yellow-faced bees were observed during the survey, potential habitat was noted onsite. The survey found potential Hawaiian yellow-faced bee habitat in the *naupaka* on the beachfront. The current project plans would not impact or remove the existing *naupaka* from the seawall, but could remove *naupaka* shrubs that are ornamental plantings in the lawn area. The following recommendation would minimize potential impacts to this species. (AECOS 2019)

- If construction will occur in or adjacent to known occupied habitat of yellow-faced bees, a buffer area around the habitat may be required and can be worked out on a site-specific basis through consultation with USFWS.

Marine Animals

The Hawaiian monk seal is a marine mammal that is federally-listed as an endangered species. Critical habitat for Hawaiian monk seal in the Main Hawaiian Islands is marine habitat from the 200-meter (650 feet) depth contour line, including the seafloor and all subsurface waters and marine habitat within 10 meters (33 feet) of the seafloor to the water's edge. This critical habitat extends 5 meters beyond the water's edge into the terrestrial environment only between identified boundary points. The shoreline off the project site falls beyond assigned boundary points and therefore is not designated monk seal terrestrial critical habitat. Furthermore, all man-made structures, such as

seawalls, are excluded from critical habitat. The waters *makai* (seaward) of the high tide line are designated monk seal marine critical habitat. (AECOS 2019)

The green sea turtle that occurs in Hawai'i is federally-listed as a threatened species and as a threatened subspecies under Hawai'i regulations. Hawksbill sea turtle is much less common in the Hawaiian Islands than green sea turtle and is known to nest only in the southern reaches of the state. Hawksbill sea turtle is federally-listed as endangered and is also listed as an endangered subspecies under Hawai'i regulations. (AECOS 2019)

As observed during the survey, boulder rip-rap extends out from the seawall to the water's edge, leaving very little beach sand fronting the project site; while sea turtle nesting would be unlikely, the extent of sand beach may change seasonally.

- If a basking sea turtle is found at the project area, all mechanical or construction activities shall cease within 30 meters (100 feet) until the animal voluntarily leaves the area. No project-related materials shall be stockpiled in the intertidal zone or on the reef flat.
- All project-related lighting shall be minimized and shielded so the light is not visible from any beach, as this may interfere with sea turtles during the nesting season (May to December). Design measures shall be incorporated into the construction of buildings adjacent to the beach to reduce ambient outdoor lighting, such as tinting or using automatic window shades for exterior windows that face the beach; reducing the height of exterior lighting to below 3 feet and pointed downward or away from the beach; and minimizing light intensity to the lowest level feasible, and, when possible, including timers and motion sensors.

Critical Habitat

There is no federally delineated Critical Habitat in the project area. Since no in-water work or modifications to the existing seawall is proposed, the proposed project would not encroach on federally designated Critical Habitat or jurisdictional waters that extend seaward from the high tide line.

Conclusion

Temporary effects during construction would include increased traffic, noise, and overall activity, which could result in short-term disturbances to plants and wildlife in the project vicinity. Avoidance measures included in this section would minimize potential impacts to wildlife. No adverse long-term effects to biological resources would occur with implementation of minimization measures above.

3.5 HISTORIC, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

An Archaeological Inventory Survey (AIS) was completed for the project site (Scientific Consultant Services, Inc. (SCS) 2021) in order to identify and document all historic properties and to gather sufficient information to evaluate the significance of each in accordance with criteria established for Section 13-284, HAR (see Appendix H).

For a site to be significant, “a historic property shall possess integrity of location, design, setting, materials, workmanship, feeling, and association and shall meet one or more of the following criteria (Section 13-284-6[b], HAR):

- (a) It must be associated with events that have made a significant contribution to the broad patterns of our history.
- (b) It must be associated with the lives of persons significant to the past.
- (c) It must embody distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value.
- (d) It must have yielded, or is likely to yield, information important for research on prehistory or history.
- (e) It must have an important value to native Hawaiian people or to another ethnic group of the State due to associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events, and accounts – these associations being important to the group’s history and cultural identity.

Since the project site has been developed with residential uses since 1967, the discovery of historic properties on the site surface was considered unlikely. However, given the location of the project site on the coast not far from an area known to contain Native Hawaiian burials, the AIS authors anticipated the potential for finding human burials or other underground cultural properties.

The following section provides a brief summary of the AIS research and findings. For more extensive details, see Appendix H.

Methodology

Archaeological fieldwork was conducted at the project site between February 21 and March 04 of 2021. The field work included excavation of a total of 12 stratigraphic⁸ trenches, ranging from 3 to 7 meters (approximately 10 feet to 23 feet) long. A pedestrian survey was conducted of the outdoor spaces of the project site. A total of 12 stratigraphic trenches, ranging from 3 to 7 meters long, were excavated by a backhoe with a bucket width of 70 cm in various clear spaces unoccupied by the existing residence or utilities. Materials collected during the course of excavations were analyzed in the SCS laboratory in Honolulu.

Historical Perspective

Prior to Western contact, the project area likely was used for dryland agriculture, with *‘uala*, or sweet potato, as the staple crop. Additional crops cultivated in the Wai‘alae area included coconut, *pūhala* (screwpine), *hau* (beach hibiscus), *kou* (beach cordia), and *‘ulu* (breadfruit). The project area’s coastal resources provided abundant fish, and the area was considered one of the better places to catch *‘anae holo*, a full-sized mullet fish. In the early post-contact period, trade became more prevalent, and the introduction of gunpowder weapons played a key role in the political consolidation of the islands under Kamehameha in 1810. As Hawai‘i opened up to increased Western influence, the free market economy expanded, and providing supplies to the whaling industry was the main non-subsistence economic activity. (SCS 2021)

The Māhele (“to divide or portion”) was the Hawaiian land redistribution proposed by King Kamehameha III and enacted in 1848. The Māhele placed all land in Hawai‘i into three categories: Crown Lands (the king), Government Lands, and Konohiki Lands (the chiefs). The parcels awarded by the Land Commission were called Land Commission Awards (LCA). The

⁸ Stratigraphy is the study of layered materials, or strata, that were deposited over time. By digging from the top downward, the archaeologist can trace the objects on a site through time.

maka‘āinana (commoners) were able to claim the plots on which they had been living and cultivating through the Kuleana Act of 1850. However, the process of filing a claim was complicated and largely foreign to them, and few *kuleana* lands were issued. According to database records, no LCAs are located within or directly adjacent to the project area. (SCS 2021)

In the late 19th century, whaling declined, and sugar cane cultivation and ranching became the economic strongholds of Hawai‘i. According to records, it appears that there was at least one attempt at commercial sugar cultivation in Wai‘ālae Ahupua‘a, though it did not last long. The Wai‘ālae Ranch was started in the 1850s when Captain John Ross leased 300 acres to raise beef cattle. The dairy that was started on the ranch would later become part of Meadow Gold Dairies. (SCS 2021)

In the 20th century, the main economic activities in the project area became tourism and real estate development, based on the high-end luxury market. The Royal Hawaiian Golf Course was constructed in the project area in the 1920s to serve wealthy tourists. The golf course later became associated with Waialae Golf Club and Waialae Country Club. In the 1960s, the golf course was altered to make room for both the Kahala Hilton Hotel to the southwest, and the Kai Nani Residential Subdivision, of which the project parcel is a part. The residence currently located on the project site was built in 1967. (SCS 2021)

Archaeological Studies

McAllister’s archaeological reports in the 1930s include descriptions of sites that had been destroyed, including the *heiau* called Kaunua Kahekili in Wai‘ālae Iki, and the Wailupe Fishpond on the adjacent Wailupe Ahupua‘a near the boundary with Wai‘ālai Iki. Archaeological surveys of the project area have found various remnants of Hawaiian culture. Coastal sand areas have been shown to contain human burials and cultural deposits throughout Hawai‘i, and several burial sites have been identified in the vicinity of the project area and along the Wai‘ālae coast (SCS 2021).

Maunalua Bay provides cultural and recreational activities, including paddling, surfing, sailing, diving, boating, and shoreline fishing. There is no public access to the bay at the project site.

IMPACTS AND MITIGATION MEASURES

Two historic features were identified during the excavation: temporary subsurface feature 1 is a charcoal and ash concentration determined to be Pre-Contact based on radiocarbon dating; temporary subsurface feature 2 is a scatter of Post-Contact ceramic and glass artifact fragments, some of which can be dated from the latter 19th to early 20th century or from the early to mid 20th century. According to the AIS, the historic properties identified in the project area were assessed as significant for their informational content only, so preservation of the sites is not recommended.

Because of the coastal location of the project site, and the dominant soil in the project area is Jaucas sand, which is culturally sensitive, there remains the possibility of inadvertently encountering additional cultural properties or human burials during subsurface work. The following mitigation measure will be required to minimize impacts to unidentified cultural resources or burial grounds. It is emphasized that sensitivity to cultural concerns be employed when dealing with burial issues.

Mitigation Measures:

- An Archaeological Monitoring Plan for all ground altering activity shall be developed in consultation with the State Historic Preservation Division (SHPD) in accordance with Section 13-279-3, HAR. Detailed mitigation plans shall be submitted to the SHPD for approval. The SHPD must verify in writing that the plan has been successfully executed prior to any land alteration.
- If burials are discovered during any ground altering activity, burial treatment determinations shall be requested from the O‘ahu Island Burial Council. A burial treatment plan shall be prepared following the procedures outlined in Chapter 6E-43 and the accompanying rules. Prior to any land alteration, the burial plan shall be implemented as specified.
- In the event that historic resources, including human skeletal remains, are identified during the construction activities, all work shall cease in the immediate vicinity of the find, the find shall be protected from additional disturbance, and the State Historic Preservation Division, O‘ahu Section, shall be contacted immediately.

With implementation of these conditions, no adverse effect to cultural, historic, or archaeological resources would occur. Further, because the proposed project represents a continuation of existing uses and would not negatively impact access to the shoreline, it is reasonable to conclude that, pursuant to Act 50, the exercise of Native Hawaiian rights, or those of any ethnic group, related to gathering, access, or other customary activities within the project area would not be affected. There would be no direct adverse effect upon cultural practices or beliefs.

3.6 AIR QUALITY AND CLIMATE

Hawai‘i receives most of its precipitation during the winter months (October to April). Flooding is more likely during this wet period, and stream flows decrease during drier conditions from May to September. The temperature in the general area averages from 71 to 84 degrees F (U.S. Climate Data 2020). Monthly rainfall in the project area averages between 0.26 inches in June to about 3.24 inches in December, with an annual average precipitation of 17.1 inches (U.S. Climate Data 2020).

The Department of Health, Clean Air Branch (CAB), monitors the ambient air in the State of Hawai‘i for various gaseous and particulate air pollutants. The U. S. Environmental Protection Agency (EPA) has set national ambient air quality standards (NAAQS) for six criteria pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, ozone, and particulate matter (PM₁₀ and PM_{2.5}). Hawai‘i has established state ambient air standards for all of these pollutants (except for PM_{2.5}) in addition to hydrogen sulfide, a product of volcanic emissions (CAB 2021). The primary purpose of the statewide monitoring network is to measure ambient air concentrations of these pollutants and ensure that these air quality standards are met.

In 2020, there were six air monitoring stations on the island of O‘ahu, where most commercial, industrial, and transportation activities and their associated air quality effects occur. One of the monitoring stations is located in downtown Honolulu, in the general vicinity of the project site. According to the State of Hawai‘i Department of Health Annual Summary 2020 Air Quality Data, criteria and pollutant levels in the State remained below all federal and state ambient air quality standards (excluding exceedances due to volcanic activity) (CAB 2021).

IMPACTS AND MITIGATION MEASURES

Construction of the proposed project could result in temporary air quality effects, including exhaust emissions from construction vehicles and dust generated by short-term construction related activities. Components of construction emissions include employee trips, exhaust emissions from construction equipment, and fugitive dust emissions. Earthwork and grading within the project area could generate airborne dust particulates.

Dust control measures such as watering and sprinkling will be implemented as needed to minimize wind-blown dust. To minimize construction-related exhaust emissions, project contractors will ensure that all internal combustion engines are maintained in proper working order. All construction work will be in conformance with the air pollution control standards contained in Title 11, Chapter 59, HAR, “Ambient Air Quality Standards,” and Chapter 60, “Air Pollution Control,” which would minimize air quality emissions.

While the existing residence is currently unoccupied, once completed, the proposed single-family residence is not anticipated to result in increased trips beyond those anticipated for the designated land use. The proposed project would not result in any increased air emissions of significance, and there would be no long-term adverse air quality impacts associated with the proposed action. Other than passing vehicles on nearby roadways, there are no air contaminant sources in the immediate project area.

3.7 NOISE

The project site is located in a residential neighborhood adjacent to open space. Surrounding noise levels in the vicinity of the project site are considered generally quite low. Existing noise sources include the sound of the ocean and vehicular traffic on surrounding roadways.

IMPACTS AND MITIGATION MEASURES

Noise impacts from a project can be categorized as those resulting from construction and those from operational activities. Construction noise would have a short-term effect; operational noise would continue throughout the lifetime of the project. Implementation of the proposed residential project could temporarily increase noise levels during construction. Noise from construction activities is regulated under Title 11, Chapter 46, Community Noise Control, of the State DOH’s Administrative Rules. The zoning district classification and maximum permissible sound levels are outlined in Section 11-46-4, HAR. The project falls under the Class A zoning district category that applies to properties zoned for residential and open space types of land uses. The maximum permissible noise level for this site under Class A is 55 dBA⁹ at the property line during daytime and 45 dBA during nighttime. Typical ranges of construction equipment noise vary between 70 and 95 dBA. Therefore, earthmoving activities could temporarily increase noise levels during construction above maximum allowable limits that would impact nearby existing uses.

A Community Noise Permit for construction activities may be required by the Department of Health. Prior to construction, consultation with the state Department of Health will occur to determine permitting requirements. Should the permit be required, allowable construction

⁹ Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for 24-hour sound measurements that better represent how humans are more sensitive to sound at night.

conditions will be specified. Construction will be confined to 7 a.m. to 6 p.m., Monday through Friday, and 9 a.m. to 6 p.m. on Saturday. No construction activities exceeding maximum allowable noise levels will occur on Sundays and holidays without prior notice. Construction activities will comply with Chapter 11-46, HAR, Community Noise Control.

There would be no long-term increase in noise during project operations since the proposed single-family residence project would generate noise typical to surrounding residential uses.

3.8 VISUAL RESOURCES

The project site is not designated as a location with a significant viewplane from a stationary point in the East Honolulu Sustainable Communities Plan (Exhibit 2-2 of the Plan) (DPP 2021). Elevations on the project site range from approximately 4 feet msl at Kaimoku Place road, to approximately 2 feet MSL at the seawall fronting Maunalua Bay. Views from motorists along Kaimoku Place are limited by vegetation and surrounding residences, though since the house is located at the end of the cul-de-sac, few motorists would pass by the project site. Views from the project site include the golf course, Maunalua Bay, and beachfront properties along the shoreline.

IMPACTS AND MITIGATION MEASURES

The proposed single-family residence would include demolition of an existing residence and construction of a single-family dwelling on a lot that has been historically constructed in single-family residential uses, and would be considered common and appropriate to the area by most viewers (see Appendix C for elevations of the proposed dwelling). Because views of Maunalua Bay along Kaimoku Place are limited by vegetation and surrounding residences, the proposed project would not diminish the Maunalua Bay viewshed. Since the proposed project would be consistent with the existing uses of the area, and no scenic vistas would be impaired, implementation of the project would not degrade the existing visual character of the site or surroundings.

3.9 SOCIAL AND ECONOMIC CHARACTERISTICS

There is an existing uninhabited residence located on the project site. Surrounding land uses include single-family residential properties to the north and east, Wai'ālae Country Club golf course to the west, Kaimoku Place to the north, and Maunalua Bay to the south. There is public access to the shoreline located at Wailupe Beach Park, located approximately 0.6 miles east of the project site (Office of Planning 2019).

O'ahu is the most populous of the Hawaiian Islands, with an overall population of 974,563 persons in 2019. The City and County of Honolulu population accounts for approximately 69 percent of the state's total population. From 2010 to 2019, O'ahu showed a 0.2 percent average annual increase in population, while the state of Hawai'i experienced a 0.4 percent annual average increase in population. (Census 2019)

The Hawaii 2013-2017 American Community Survey (ACS) data show that the Waialae-Kahala Census Tract, within which the project is located, includes a resident population of 3,813 persons, with 1,347 households and an 81 percent owner occupancy. The median household income for the area is \$127,582. The owner occupancy rate and median income in the project area is much higher than compared to the state, which showed a 58.1 percent owner occupancy and \$74,923 median household income. (DBEDT 2020)

IMPACTS AND MITIGATION MEASURES

The proposed project is not anticipated to have significant, adverse impacts on the social and economic characteristics of the area. Implementation of the proposed action would not displace any residents or businesses since construction would replace an existing residence on a parcel zoned for residential uses. While construction employment would be created during the project construction phase, needed employees could be expected to be provided by the local labor pool, without the importation of significant amounts of new labor.

3.10 PUBLIC FACILITIES AND SERVICES

The project site is within a fully developed urban area currently provided with all urban services. Public services and private utilities available within the project area include domestic water, wastewater treatment, storm water drainage, solid waste disposal, and police, fire, library, and park services, in addition to electric, telephone, and cable television services. All utility and service systems in the surrounding area are currently adequate.

IMPACTS AND MITIGATION MEASURES

The proposed project includes connection to existing public and private utility systems that currently serve the residential neighborhood along Kaimoku Place. According to the City and County of Honolulu Board of Water Supply (see Appendix A), the existing water system is adequate to serve both the domestic demands and off-site fire protection of the proposed single-family residence. In addition, water conservation measures are required for all proposed developments. These measures include:

- The use of nonpotable water for irrigation using rain catchment;
- Drought tolerant plants;
- Xeriscape landscaping;
- Efficient irrigation systems, such as a drip system and moisture sensors; and
- The use of Water Sense labeled ultra-low flow water fixtures and toilets.

Construction drawings shall be submitted to the Board of Water Supply for approval, and the construction schedule shall be coordinated to minimize impacts to the water system.

The proposed improvements would not result in an increase in service demands from police and fire protection or other public services. The Honolulu Fire Department submitted comments during the early consultation period (see Appendix A), citing the requirements for provision of fire access roads such that the exterior wall of the first story of the building is located not more than 150 feet from fire department access roads; a water supply approved by the county, capable of providing required fire flow for fire protection for all portions of the building; and the fire access road shall have unobstructed width and vertical clearance in accordance with county requirements. The project

applicant shall coordinate fire protection requirements with the Fire Prevention Bureau of the Honolulu Fire Department. The Honolulu Police Department has reviewed the project plans during the early consultation period and does not have any comments at this time (see Appendix A).

In summary, because the project does not envision an intensification of land use from that designated by the City and County of Honolulu, no major new utility systems are necessary to serve proposed uses on the site no significant adverse impacts to existing utilities and public services are expected, and no mitigation would be necessary.

3.11 TRAFFIC AND PARKING

Current access to the project site is via Kaimoku Place roadway at the northern boundary of the site. Kaimoku Place is a two-lane residential roadway with generally low volume local traffic, with access to Kalanianaʻole Highway (HI-72).

IMPACTS AND MITIGATION MEASURES

The proposed project could have short-term temporary impacts on circulation on Kaimoku Place due to increased construction traffic, though the project does not propose any direct modifications to Kaimoku Place. No roadway or sidewalk closures during construction would be required. The Department of Transportation Services has requested preparation of a Traffic Management Plan (TMP) for the project, to be reviewed and approved by the Department of Transportation Services (DTS) and the Department of Planning and Permitting (see Appendix A). The TMP shall detail construction circulation plans, including prioritizing the transfer of construction materials and equipment during off-peak traffic hours (8:30 a.m. to 3:30 p.m.) to minimize traffic disruptions, and the identification of Best Management Practice controls to minimize the trailing of dirt and debris onto adjacent roadways. All required permits from DTS shall be obtained prior to any work affecting Kaimoku Place. Prior to and during construction, the area residents and neighborhood board shall be informed regarding any impacts to the local street network. Because the entirety of construction would occur onsite, traffic disruption along Kaimoku Place would be minimal and would result in a less than significant impact. There would be no increase in long-term traffic due to reconstruction of the proposed single-family residence.

There would be no direct increase in operational traffic due to implementation of the proposed project, and no long-term adverse effects to circulation and parking would occur.

3.12 CONFORMANCE WITH STATE AND LOCAL PLANS, POLICIES, AND LAND USE CONTROLS

State and County policy, and land use and community plans and controls are established to address the long-term physical, social, economic, and environmental needs in Hawai'i. Pertinent land use controls for the Residence at 1001 Kaimoku Place project are described below.

State of Hawai‘i

State of Hawai‘i, Land Use Commission – State Land Use Districts

Chapter 205, HRS establishes four major land use districts in which all lands in the State are placed. These districts include: urban, rural, agricultural, and conservation. The project site is located within the Urban district (see Figure 10). Land uses within the Urban District are regulated by the City and County of Honolulu. The proposed single-family residence is a permitted land use in the Urban District.

Hawaii State Planning Act, Chapter 226, Hawai‘i Revised Statutes

The Hawaii State Planning Act (Chapter 226, HRS) is a broad policy document that forms a basis for all activities, programs, and decisions made by local and state agencies. The Act sets forth the Hawaii State Plan, which is a long-range comprehensive plan that identifies the goals, objectives, policies, and priorities for the state, and provides a basis for determining priorities and allocating limited resources. The objectives and policies focus on general topic areas, including population, economy, physical environment, facility systems, and socio-cultural advancement. The proposed single-family residence project is compatible with applicable objectives and policies, and priority guidelines listed in Chapter 226, HRS, as discussed in Table 1 below.

Table 1 Hawaii State Planning Act, Chapter 226, Hawai‘i Revised Statutes - Part I. Overall Theme, Goals, Objectives, and Policies		
Objective or Policy	Consistency	Discussion
<p>§226-11(a). Planning for the State’s physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:</p> <ul style="list-style-type: none"> (1) Prudent use of Hawai‘i’s land-based, shoreline, and marine resources. (2) Effective protection of Hawai‘i’s unique and fragile environmental resources. <p>§226-11(b). To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:</p> <ul style="list-style-type: none"> (4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage. (6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawai‘i. 	Yes	<p>The proposed project includes the demolition of an existing single-family home and construction of a new replacement residence in an area designated for residential uses. The proposed project includes construction BMPs and measures that would minimize impacts to water resources and rare or endangered plant and animal species.</p>
<p>§226-12(b). To achieve the scenic, natural beauty, and historic resources objective, it shall be the policy of this State to:</p> <ul style="list-style-type: none"> (1) Promote the preservation and restoration of significant natural and historic resources. (3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features. 	Yes	<p>As set forth in Section 3.5, <i>Historic, Archaeological, and Cultural Resources</i>, an Archaeological Inventory Survey has been completed for the project site (see Appendix H). Two historic features were identified, assessed, and recorded. Mitigation measures to protect historic and cultural resources have been included in Section 3.5 above. Further, the proposed project would not affect any scenic views or vistas of Maunaloa Bay.</p>

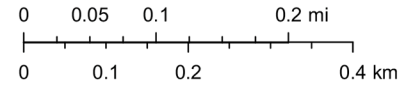
Table 1 Hawaii State Planning Act, Chapter 226, Hawai‘i Revised Statutes - Part I. Overall Theme, Goals, Objectives, and Policies		
Objective or Policy	Consistency	Discussion
§226-13(a). Planning for the State’s physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives: (1) Maintenance and pursuit of improved quality in Hawaii’s land, air, and water resources. (2) Greater public awareness and appreciation of Hawaii’s environmental resources.	Yes	As set forth in Section 5, <i>Findings and Determinations</i> , of this EA, no significant adverse effects to air quality or water quality would occur with implementation of the proposed single-family residence project.
(b) To achieve the land, air, and water quality objectives, it shall be the policy of this State to: (2) Promote the proper management of Hawaii’s land and water resources. (3) Promote effective measures to achieve desired quality in Hawaii’s surface, ground, and coastal waters. (5) Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters. (7) Encourage urban developments in close proximity to existing services and facilities.	Yes	As described in Section 3.3, <i>Natural Hazards and Climate Change</i> , of this EA, a small portion of the site is within a flood zone, and the coastline is located in the coastal flood zone. Implementation of the proposed project would not result in increased flooding or hazards from flooding in surrounding areas. In addition, the project includes BMPs to be implemented during project construction to minimize erosion and potential impacts to water quality.

Chapter 226, HRS, Part I, includes additional objectives and policies for: population (§226-5); the economy (§226-6); agriculture (§226-7); the visitor industry economy (§226-8); the federal expenditures economy (§226-9); potential growth and innovative activities (§226-10); the information industry economy (§226-10.5); the physical environment with regard to land-based, shoreline, and marine resources (§226-11); the physical environment with regard to scenic, natural beauty, and historic resources (§226-12); the physical environment with regard to land, air, and water quality (§226-13); facility systems (§226-14); solid and liquid waste facility systems (§226-15); water supply facility systems (§226-16); transportation systems (§226-17); energy facility systems (§226-18); telecommunication systems (§226-18.5); housing (§226-19); health (§226-20); education (§226-21); social services (§226-22); leisure (§226-23); individual rights and personal well-being (§226-24); socio-cultural advancement (§226-25); public safety (§226-26); and government (§226-27). The proposed Residence at 1001 Kaimoku Place project includes the reconstruction of a single-family home in an area designated for residential uses. The above cited sections of Chapter 226, HRS are not directly applicable to the proposed project, and therefore the project would not conflict with these objectives and policies.

The Hawaii State Planning Act also includes Part II, Planning Coordination and Implementation. The purpose of Part II is to “establish a statewide planning system to coordinate and guide all major state and county activities” (Section 226-51, HRS). Part II therefore sets forth guidelines for a larger level of implementation and planning than the proposed Residence at 1001 Kaimoku Place project. The Functional Plans developed as a result of Part II of the Hawaii State Planning Act set forth the policies, statewide guidelines, and priorities within a specific field of activity, when such activity or program is proposed, administered, or funded by any agency of the state. Since the proposed project is a private venture, the Functional Plan objectives were determined not applicable to this project.



Urban
 Conservation



SOURCE: Hawaii State GIS Program 2020

Residence at 1001 Kaimoku Place
Figure 10
 State Land Use District Map

The purpose of Part III, Priority Guidelines, is to “establish overall priority guidelines to address areas of statewide concern” (Section 226-101, HRS). Similar to Part II, these guidelines were determined not applicable to this project, and the proposed single-family residence project would not conflict with their stated purpose or objective.

Coastal Zone Management Program

In October 1972, Congress passed the Coastal Zone Management Act for the purpose of establishing a national program for the management, beneficial use, protection, and development of land and water resources of the coastal areas of the United States. The Hawai'i Coastal Zone Management (CZM) Program (Chapter 205A, HRS) was promulgated in 1977 in response to the Federal Coastal Zone Management Act of 1972. The objectives and policies of the CZM Program are to provide recreational resources; protect historic, scenic, and coastal ecosystem resources; provide economic uses; reduce coastal hazards; and manage development in the coastal zone. All lands in the state of Hawai'i are located within the coastal zone management area.

Special Management Area Designation

The CZM outlines controls and policies within an area along the shoreline called the Special Management Area (SMA). The objectives of the SMA were “the maintenance, restoration, and enhancement of the overall quality of the coastal zone environment, including, but not limited to, its amenities and aesthetic values, and to provide adequate public access to publicly owned or used beaches, recreation areas and national reserves.” The purpose of the SMA Permit is to regulate any use, activity or operation that qualifies as a “development” and is administered at the City and County level. The entirety of the project site is located within the SMA boundary (see Figure 11). Consultation with the City and County of Honolulu, Department of Planning and Permitting was initiated at the time of early consultation and EA preparation (see Appendix A). Because the proposed single-family residence is located on a shoreline parcel, the project would constitute a development subject to SMA permit requirements (Section 205A-22, HRS). The project is also subject to the Chapter 25, ROH, which is established pursuant to Chapter 205A, HRS and applies to all lands within the SMA of the City and County of Honolulu. Subsequent to issuance of the Final Environmental Assessment and FONSI, a SMA permit application will be submitted.

The following discussion evaluates the consistency of the proposed Residence at 1001 Kaimoku Place project with the applicable objectives and policies of Chapter 205A, HRS. The policies of Chapter 205A, HRS, the consistency of the proposed residence with those policies, and the reasoning for the conclusion are set forth in Table 2 below.

Policy compliance is often a matter of interpretation. The Honolulu City Council is the ultimate arbiter of public policy for the project, and their judgment regarding the project and a specific policy may be different from that set forth in this report. Therefore, the following policy evaluation should be viewed as preliminary, with the ultimate decision to be made by the appropriate appointed and elected officials.



SOURCE: Hawaii State GIS Program 2020

Residence at 1001 Kaimoku Place

Figure 11
Special Management Area Map

Table 2 Coastal Zone Management Program, Chapter 205A-2, Hawai'i Revised Statutes		
Objective or Policy	Consistency	Discussion
Objective: (1) Recreational resources; (A) Provide coastal recreational opportunities accessible to the public.	N/A	As described in Section 3.9 above, there is no public access to the shoreline or recreational resources located at the project site, as it is privately owned.
(2) Historic resources; (A) Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture. Policy: (A) Identify and analyze significant archaeological resources; (B) Maximize information retention through preservation of remains and artifacts or salvage operations; and (C) Support state goals for protection, restoration, interpretation, and display of historic resources.	Yes	As set forth in Section 3.5, <i>Historic, Archaeological, and Cultural Resources</i> , an Archaeological Inventory Survey has been completed for the project site (see Appendix H). Two historic features were identified, assessed, and recorded. Mitigation measures to protect historic and cultural resources have been included in Section 3.5 above.
(3) Scenic and open space resources; (A) Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources. Policy: (B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline.	Yes	Construction of the single-family residence would occur on a site that has been historically developed with single-family residential uses, and they would be considered common and appropriate to the area by most viewers (see Section 3.8 above).
(4) Coastal ecosystems; (A) Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems. Policy: (E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.	Yes	The proposed project is required to implement BMPs as specified in an Erosion and Sediment Control Plan to minimize potential impacts to water quality during construction of the project (see Section 3.2 above).
(5) Economic uses; (A) Provide public or private facilities and improvements important to the State's economy in suitable locations.	Yes	The proposed project would result in the construction of a single-family dwelling in an area designated for residential uses.

Table 2 Coastal Zone Management Program, Chapter 205A-2, Hawai'i Revised Statutes

Objective or Policy	Consistency	Discussion
<p>(6) Coastal hazards;</p> <p>(A) Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.</p> <p>Policy:</p> <p>(A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards.</p> <p>(C) Ensure that developments comply with requirements of the Federal Flood Insurance Program.</p>	<p>Yes</p>	<p>As described in Section 3.3, <i>Natural Hazards and Climate Change</i>, of this EA, the entire shoreline is subject to inundation due to high seas and swells caused by hurricanes and distant storms and tsunami activity. The proposed improvements would be designed and constructed in conformance with the standards and requirements of the City and County of Honolulu Building Code. In addition, the project requires BMPs as part of the permitting process, to be implemented during project construction in order to minimize erosion and potential impacts to water quality.</p> <p>The proposed project would be constructed to minimize the potential for erosion, subsidence, pollution, and damage from storm waves, flooding, or tsunami.</p>
<p>(7) Managing development;</p> <p>(A) Improve the development review process, communication, and public participation in the management of coastal resources and hazards.</p>	<p>Yes</p>	<p>Early consultation with agencies, organizations, and individuals was conducted during preparation of the Draft EA for the proposed project. Additional public review will occur during the public comment period for the EA.</p>
<p>(8) Public participation;</p> <p>(A) Stimulate public awareness, education, and participation in coastal management.</p> <p>Policy:</p> <p>(A) Promote public involvement in coastal zone management processes.</p>	<p>Yes</p>	<p>See above.</p>
<p>(9) Beach protection;</p> <p>(A) Protect beaches for public use and recreation.</p> <p>Policy:</p> <p>(A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;</p> <p>(B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities;</p>	<p>Yes</p>	<p>The proposed single-family dwelling would be located outside of the shoreline setback area. There is an existing seawall and rock revetment along the shoreline of the project site that would not be disturbed with project activities.</p>

Table 2 Coastal Zone Management Program, Chapter 205A-2, Hawai'i Revised Statutes		
Objective or Policy	Consistency	Discussion
(10) Marine resources; (A) Promote the protection, use, and development of marine and coastal resources to assure their sustainability. Policy: (A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial.	Yes	As evaluated in this EA, adverse environmental impacts from implementation of the proposed project would be minimized through project design and mitigation measures contained in this document.

City and County Land Use Plans and Policies

O‘ahu General Plan

The recently adopted O‘ahu General Plan (November 2021) updated the City and County of Honolulu General Plan that was last amended in 2002. The General Plan sets forth the long-range objectives and policies for the general welfare and, together with the regional development plans, provides a direction and framework to guide the programs and activities of the City and County of Honolulu. The updated General Plan includes continued focus on critical issues such as regional population, economic health, and affordable housing, while also addressing concerns such as climate change and sea level rise and sustainability.

The following discussion evaluates the consistency of the proposed project with applicable objectives and policies of the current General Plan.

Table 3 O‘ahu General Plan (2021)		
Goal or Policy	Consistency	Discussion
<i>III. Natural Environment and Resource Stewardship</i>		
Objective A To protect and preserve the natural environment. Policy 1: Protect Oahu’s natural environment, especially the shoreline, valleys, ridges, watershed areas, and wetlands from incompatible development.	Yes	Construction of the proposed project would not result in adverse impacts to the natural environment with implementation of mitigation and best management practices included in Section 3.2, <i>Hydrology and Water Quality</i> .
Policy 4: Require development projects to give due consideration to natural features and hazards such as slope, inland and coastal erosion, flood hazards, water-recharge areas, and existing vegetation, as well as to plan for coastal hazards that threaten life and property.	Yes	Natural hazards as the project site are discussed in Section 3.3, <i>Natural Hazards and Climate Change</i> . While the project site could be vulnerable to sea level rise and shoreline erosion, the proposed residence is not located in a projected exposure area, and the existing shore protection system would likely minimize modeled impacts.
Policy 5: Require sufficient setbacks from O‘ahu’s shorelines to protect life and property, preserve natural shoreline areas and sandy beaches, and minimize the future need for protective structures or relocation of structures.	Yes	The proposed project does not include any new development within the shoreline setback area. The existing pool within the Shoreline Setback would be decommissioned and returned to yard space. The shoreline at the project site has already been hardened with a seawall protection.

Table 3 O‘ahu General Plan (2021)		
Goal or Policy	Consistency	Discussion
Policy 6: Design and maintain surface drainage and flood-control systems in a manner which will help preserve natural and cultural resources.	Yes	With construction of the proposed residence, the drainage patterns on the site would generally be the same as existing conditions. See Section 3.2, <i>Hydrology and Water Quality</i> , for a discussion of proposed site drainage features.
Policy 7: Protect the natural environment from damaging levels of air, water, carbon, and noise pollution.	Yes	As set forth in Section 5, <i>Findings and Determinations</i> , of this EA, no significant adverse effects to air quality or water quality would occur with implementation of the proposed single-family residence project.
Policy 8: Protect plants, birds, and other animals that are unique to the State of Hawai‘i and O‘ahu, and protect their habitats.	Yes	The proposed project includes the demolition of an existing single-family home and construction of a new replacement residence in an area designated for residential uses. The proposed project includes construction BMPs and measures that would minimize impacts to rare or endangered plant and animal species.
Policy 9: Increase tree canopy and ensure its integration into new developments, and protect significant trees on public and private lands.	Yes	The proposed project includes tree plantings for the new replacement residence as shown in the conceptual landscaping plan (see Figure 4 of this Draft EA).
<i>VII. Physical Development and Urban Design</i>		
Objective B To plan and prepare for the long-term physical impacts of climate change. Policy 1: Integrate climate change adaptation into the planning, design, and construction of all significant improvements to and development of the built environment.	Yes	Section 3.3, <i>Natural Hazards and Climate Change</i> , of this EA includes a discussion and evaluation of the effects of sea level rise exposure on the project site and proposed replacement residence. The proposed residence would not be directly impacted by projected sea level rise exposure under the 3.2 feet of SLR scenario. Further, the project site includes existing protection from the seawall and rock revetment, and the retaining wall along the western boundary of the project site, which would reduce future risks from sea level rise.
Policy 3: Prepare for the anticipated impacts of climate change and sea level rise on existing communities and facilities through mitigation, adaptation, managed retreat, or other measures in exposed areas.	Yes	See above.
Objective G To promote and enhance the social and physical character of O‘ahu’s older towns and neighborhoods. Policy 1: Encourage new construction in established areas to be compatible with the character and cultural values of the surrounding community.	Yes	The project includes demolition of existing, uninhabitable residence and reconstruction of a new residence in its place. The proposed residence. The proposed residence would be similar in scale to surrounding residences in the neighborhood.

Table 3 O‘ahu General Plan (2021)		
Goal or Policy	Consistency	Discussion
<i>VIII. Public Safety and Community Resilience</i>		
<p>Objective B</p> <p>To protect residents and visitors and their property against natural disasters and other emergencies, traffic and fire hazards, and unsafe conditions.</p> <p>Policy 2: Require all developments in areas subject to floods and tsunamis, and coastal erosion to be located and constructed in a manner that will not create any health or safety hazards or cause harm to natural and public resources.</p>	Yes	As described in Section 3.3, <i>Natural Hazards and Climate Change</i> , of this EA, a small portion of the site is within a flood zone, and the coastline is located in the coastal flood zone. Implementation of the proposed project would not result in increased flooding or hazards from flooding in surrounding areas.
<i>X. Culture and Recreation</i>		
<p>Objective B</p> <p>To protect, preserve and enhance O‘ahu’s cultural, historic, architectural, and archaeological resources.</p> <p>Policy 2: Identify and, to the extent possible, preserve and restore buildings, sites, and areas of social, cultural, historic, architectural, and archaeological significance.</p>		As set forth in Section 3.5, <i>Historic, Archaeological, and Cultural Resources</i> , an Archaeological Inventory Survey has been completed for the project site (see Appendix H). Two historic features were identified, assessed, and recorded. Mitigation measures to protect historic and cultural resources have been included in Section 3.5 above.

City and County of Honolulu Land Use Ordinance

The land use ordinance of the City and County of Honolulu, or zoning ordinance, regulates land use on O‘ahu to encourage “orderly development in accordance with adopted land use policies,” such as the O‘ahu General Plan (Section 21-1.20, ROH). The proposed project site is located in an area zoned as R-7.5 Residential District in the City and County of Honolulu (see Figure 12). The intent of the R-7.5 district is to provide areas for urban residential development (Section 21-3.70-1, ROH). No feature of the proposed single-family residence project would conflict with the existing zoning district.

East Honolulu Sustainable Communities Plan

The City and County of Honolulu Department of Planning and Permitting develops long-range plans for O‘ahu’s eight planning areas, under the overall guidance of the O‘ahu General Plan. The long-range plan for East Honolulu Sustainable Communities Plan (SCP) was adopted in April 2021.

The SCP identifies East Honolulu as the secondary urban center of O‘ahu. The SCP includes the guideline to maintain the predominantly low-rise, low-density form of residential development in the neighborhoods (DPP 2021). As set forth in the SCP, Maunaloa Bay serves “as one of East Honolulu’s primary viewsheds, recreational assets, and important habitats for various native aquatic species” (DPP 2021). The proposed project would not conflict with any of these guidelines or policies.



SOURCE: Hawaii State GIS Program 2020

Residence at 1001 Kaimoku Place
Figure 12
 City and County of Honolulu Zoning Designation

Shoreline Setback Ordinance, Chapter 23 Revised Ordinances of Honolulu (ROH)

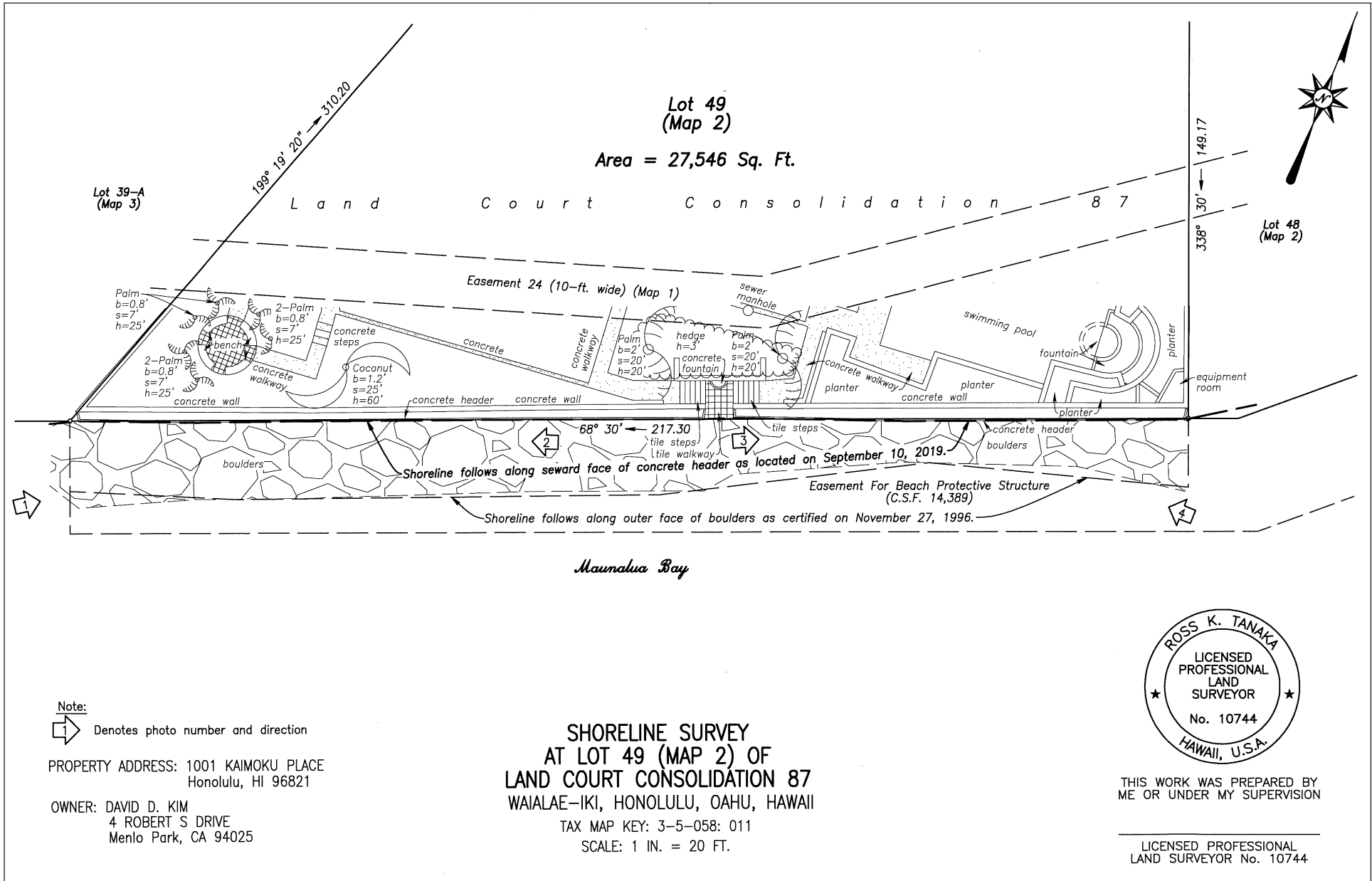
The proposed action requires compliance with the Shoreline Setback Ordinance of the City and County of Honolulu (Chapter 23, ROH). The Shoreline Setback area is the area between the shoreline and the shoreline setback line established by the City and County. Structures or portions of a structure are not permitted in the shoreline setback area without a variance. The purpose of the ordinance is “to protect and preserve the natural shoreline, especially sandy beaches; to protect and preserve public pedestrian access laterally along the shoreline and to the sea; and to protect and preserve open space along the shoreline” (Section 23-1.2, ROH).

The Ordinance sets forth those structures and activities prohibited within the shoreline area, with exceptions including “Minor structures and activities ... which do not affect beach processes or artificially fix the shoreline and do not interfere with public access, public views or open space along the shoreline...” (Section 23-1.5(b)(1), ROH). No new features would be installed within the shoreline setback area with implementation of the proposed project; however, demolition and fill of the existing swimming pool within the 40-foot shoreline setback area would require a Minor Shoreline Structure Permit. Therefore, the proposed project would bring the yard space more into conformity with current shoreline regulations, by removing the existing swimming pool from the shoreline setback area, and replacing an existing concrete deck and walkways in the shoreline setback area with grass.

The City and County of Honolulu requires that new subdivisions must accommodate a 60-foot shoreline setback [Section 23-1.7(a)(1), ROH]; however, the project parcel has not been recently subdivided. In addition, the shoreline at the project site is characterized by an existing seawall. Because the shoreline is “characterized by a fixed” shoreline, and because the parcel has not been recently subdivided, a 60-foot shoreline setback would not be required.

As announced January 6, 2022, the DPP is proposing to update the Shoreline Setbacks Ordinance, Chapter 23, ROH, and the SMA Ordinance, Chapter 25, ROH, to address potential coastal hazards impacts that are anticipated to occur in relation to sea level rise; to increase resiliency in our coastal areas; to reduce hazards to people and buildings; and to retain our beaches and shoreline areas. Proposed changes include increased minimum shoreline setback areas based on historic erosion rates.

The existing rock revetment has been determined by the DLNR to be partially encroaching on the shoreline. A draft shoreline survey has been completed for the project site, which indicates the shoreline follows along the seaward face of the concrete header of the seawall (see Figure 13). The project applicant has submitted application to the DLNR for a lease of the encroachment area on the shoreline, similar to those obtained by neighbors to the project site. Following resolution of the encroachment issue with DLNR, either with a lease agreement to allow the revetment to remain in place, or by removing the encroaching revetment in accordance with DLNR requirements, a shoreline certification will be obtained by the project applicant as required by the SMA permit process.



Note:

☞ Denotes photo number and direction

PROPERTY ADDRESS: 1001 KAIMOKU PLACE
Honolulu, HI 96821

OWNER: DAVID D. KIM
4 ROBERT S DRIVE
Menlo Park, CA 94025

**SHORELINE SURVEY
AT LOT 49 (MAP 2) OF
LAND COURT CONSOLIDATION 87
WAIALAE-IKI, HONOLULU, OAHU, HAWAII**

TAX MAP KEY: 3-5-058: 011
SCALE: 1 IN. = 20 FT.

4 ALTERNATIVES TO THE PROPOSED ACTION

This chapter considers alternatives to the proposed action, including the No Action Alternative.

4.1 NO ACTION ALTERNATIVE

The “No Action” Alternative refers to the future site conditions that would likely result should the proposed action not proceed. Under the No Action Alternative, demolition of the existing residence and construction of the proposed residence would not occur. However, the existing residence is currently uninhabitable and would remain empty without extensive renovation or reconstruction.

While there would be no construction-related impacts under the No Action Alternative, the project parcel would be under-utilized for its intended permitted use in the R-7.5 Residential zoning designation. Further, No-Action alternative would require the owner to continue to pay property taxes and insurance without the benefit of being able to use the property for its intended use. This alternative is undesirable because it is not a preferred option by the homeowner.

4.2 ALTERNATIVE 2: MAINTAINING THE EXISTING POOL

This alternative would maintain the existing swimming pool within the 40-foot shoreline setback area and would not construct the new proposed swimming pool. This alternative would not require filling of the existing pool and excavation for the new pool. However, the existing legal, non-conforming pool would remain in the shoreline setback area. While the proposed project would involve more extensive land disturbance, relocating the pool outside of the shoreline setback area would be more in line with shoreline setback regulations. Therefore, this alternative was eliminated from consideration and not fully evaluated in this EA.

4.3 ALTERNATIVE 3: MAXIMUM NUMBER OF DWELLINGS

This alternative would construct the maximum number of dwellings allowed on the project site by existing zoning regulations. Under the R-7.5 Residential zoning designation (Section 21.8.20A, ROH), with a parcel size of 27,546, the maximum number of dwellings allowed would be three dwellings built to 0.6 or 0.7 floor area ratio (FAR)¹⁰. Because the proposed dwellings would be sited on a shoreline lot, approval of an SMA permit would be required. However, according to the land leasehold agreement active for the project site, no more than one single-family dwelling (exclusive of out-buildings) would be allowed to be constructed on the project site. Because the deed restrictions would not allow development of more than one single-family residence, this alternative was eliminated from consideration and not fully evaluated in this EA.

¹⁰ “Floor area ratio” means the ratio of floor area to total area of the zoning lot expressed as a percent or decimal. Multiplying the permissible floor area ratio by the lot area of the zoning lot determines the maximum floor area permitted.

4.4 ALTERNATIVE 4: SMALLER RESIDENCE AND AN ACCESSORY DWELLING UNIT

This alternative would construct a smaller residence under 7,500 square feet and an accessory dwelling unit (ADU) with a maximum of 800 square feet as allowed by Chapter 21, Article 4, Sec. 21-5.720, ROH. Because the proposed dwellings would be sited on a shoreline lot, approval of an SMA permit would be required. Following demolition of the existing residence, this alternative would result in reconstruction of less residential square footage and decreased coverage of the lot than the preferred alternative. This alternative would not align with the owner's intent for the construction of a home similar in size to the existing residence and to those in the surrounding neighborhood, and which is legally compliant with zoning lot coverage and setback requirements.

However, according to the land leasehold agreement active for the project site, no more than one single-family dwelling (exclusive of out-buildings) would be allowed to be constructed on the project site. Because the deed restrictions would not allow development of more than one single-family residence, this alternative was eliminated from consideration and not fully evaluated in this EA.

5 FINDINGS AND DETERMINATION

As set forth in Section 11-200.1-13, HAR, in considering the significance of potential environmental effects, an agency must “consider every phase of a proposed action, the expected impacts, and the proposed mitigation measures.” The proposed action is not expected to have a significant effect on the environment. The recommended preliminary determination for the Residence at 1001 Kaimoku Place is a Finding of No Significant Impact (FONSI). The findings supporting this determination are discussed below.

(1) Does the project irrevocably commit a natural, cultural, or historic resource?

The proposed single-family residence project would be constructed on a lot designated for single-family uses and historically used for these purposes. No important natural communities occur within the project area. The field inspection of the proposed project area identified no surface historic resources. Based on lack of findings, no further archaeological work is proposed for the project. While there is the potential for discovery of burial sites or other historic or cultural remains during construction, regulatory requirements and mitigation measures contained in Chapter 3 would reduce the adverse effects of these potential impacts. The proposed project is not anticipated to involve an irrevocable commitment, or loss and destruction of any natural or cultural resource.

(2) Does the project curtail the range of beneficial uses of the environment?

The proposed improvements would not curtail the range of beneficial uses at the project site. The project includes landscaping and project design that would be consistent with the overall visual character of the residential area. The proposed improvements would not curtail the public’s use and access to coastal resources.

(3) Does the project conflict with the State’s environmental policies or long-term environmental goals established by the law?

The proposed project is consistent with the environmental policies and long-term environmental goals established in Chapter 344, HRS. The guiding policies as set forth in Chapter 344-3, HRS include:

- (1) Conserve the natural resources, so that land, water, mineral, visual, air and other natural resources are protected by controlling pollution, by preserving or augmenting natural resources, and by safeguarding the State’s unique natural environmental characteristics in a manner which will foster and promote the general welfare, create and maintain conditions under which humanity and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of the people of Hawaii.
- (2) Enhance the quality of life by:
 - (A) Setting population limits so that the interaction between the natural and artificial environments and the population is mutually beneficial;
 - (B) Creating opportunities for the residents of Hawaii to improve their quality of life through diverse economic activities which are stable and in balance with the physical and social environments;

- (C) Establishing communities which provide a sense of identity, wise use of land, efficient transportation, and aesthetic and social satisfaction in harmony with the natural environment which is uniquely Hawaiian; and
- (D) Establishing a commitment on the part of each person to protect and enhance Hawaii's environment and reduce the drain on nonrenewable resources.

The proposed project BMPs and avoidance and minimization measures would reduce impacts to natural resources.

(4) Does the project have a substantial adverse effect on the economic welfare, social welfare, or cultural practices of the community and State?

The proposed action would have a short-term positive effect on the economic welfare of the island resulting from hiring construction workers. This project is not expected to significantly affect traditional native Hawaiian cultural practices or other traditional cultural practices occurring in the surrounding area. The proposed action would not have a substantial long-term effect on the economic and social welfare of the community or the state. The proposed project is in accordance with land use plans and regulations as set forth in Section 3.12, *Conformance with State and County plans, Policies, and Land Use Controls*.

(5) Does the project have a substantial adverse effect on public health?

The project would not substantially affect public health as discussed in various sections of this document. Construction activities may temporarily increase fugitive dust and noise levels in the project vicinity. Short-term construction-related effects would be minimized by complying with pertinent State or County regulations and conditions of permits required. Further, these impacts would cease upon completion of construction. No long-term negative impact on public health is anticipated with implementation of the proposed action.

(6) Does the project involve adverse secondary impacts, such as population changes or effects on public facilities?

The proposed action would not generate population or create secondary demands and impacts on public facilities and services. The project site has historically been developed with single-family residential uses for some time.

(7) Does the project involve a substantial degradation of environmental quality?

There would be no long-term, adverse environmental impacts associated with the proposed action. Construction activities may temporarily increase dust and noise in the project vicinity. However, these impacts would cease upon completion of construction. The proposed project will also include BMPs to minimize erosion and sedimentation effects to water quality. Additional avoidance and minimization measures included in Chapter 3 would reduce potential construction-related impacts.

(8) May the project be individually limited but cumulatively have substantial adverse effect upon the environment or involve a commitment for larger actions?

The proposed action is limited to construction of a single-family residence replacing an existing residence on an appropriately zoned lot. There would be no cumulatively considerable effects with implementation of the proposed action, nor would it involve a commitment for larger action.

(9) Does the project have a substantial adverse effect on a rare, threatened, or endangered species, or its habitat?

As set forth in Section 3.4 of this document, with implementation of avoidance and minimization measures and BMPs, no substantial adverse effects would occur to rare, threatened, or endangered species, or their habitats.

(10) Does the project have a substantial adverse effect on air or water quality or ambient noise levels?

Construction activities would have a short-term effect on air quality, water quality, and ambient noise levels. Avoidance and minimization measures included in Chapter 3 would minimize these potential impacts. Construction activities would also be subject to applicable State and County regulations and permit conditions. No additional long-term impacts would occur.

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

Construction of the proposed project would not result in increased flooding or hazards from flooding in surrounding areas. The project site is located within the City and County of Honolulu's Tsunami Evacuation Zone. However, the Oahu Civil Defense does not require any mitigation measures for residential properties, as tsunami control design is only required for resorts and commercial projects.

(12) Would the project have a substantial adverse effect on scenic vistas and viewplanes, during day or night, identified in county or state plans or studies?

The proposed single-family residence would be consistent with the existing uses of the area, and implementation of the project would not degrade the existing visual character of the site or surroundings. The proposed improvements would not obstruct views from any recognized view corridor or scenic roadway.

(13) Would the project require substantial energy consumption or emit substantial greenhouse gases?

There would be energy consumption associated with construction of the proposed single-family residence project. Additionally, energy will be used in the operation of the residence (e.g., for indoor lights, electrical appliances, and pool upkeep). The amount of energy that would be consumed with project implementation is not considered substantial.

6 INDIVIDUALS, COMMUNITY GROUPS, AND AGENCIES CONSULTED

6.1 EARLY CONSULTATION

Early consultation was conducted from June 2020 to August 2020, prior to preparation of the Draft EA for the proposed project. This is part of the scoping process for the Draft EA, and is intended to identify environmental issues and concerns to be addressed in the Draft EA. The following agencies, organizations, and individuals were sent a preliminary project description for comments or questions. Those that provided written comments (either by hard copy or electronically) are highlighted in italics. Copies of the written comments are included in Appendix A.

FEDERAL AGENCIES

	Date
<i>U.S. Fish and Wildlife Service</i>	July 7, 2020
Army Corps of Engineers	
Department of the Navy	
Environmental Protection Agency, Region IX, Pacific Islands	
U.S. National Oceanic Atmospheric Administration, National Marine Fisheries Service	

STATE AGENCIES

Office of Environmental Quality Control	
Department of Health, Environmental Health Administration	
<i>Department of Transportation</i>	June 18, 2020
Office of Planning	
University of Hawai'i Environmental Center	
University of Hawai'i Water Resources Research Center	
Office of Hawaiian Affairs	
Department of Hawaiian Home Lands	
<i>Department of Land and Natural Resources</i>	July 22, 2020
Department of Land and Natural Resources - Historic Preservation Division	

CITY AND COUNTY OF O'AHU

<i>Board of Water Supply</i>	June 26, 2020
Department of Design and Construction	
Department of Environmental Services	
<i>Department of Planning and Permitting</i>	July 2, 2020
Department of Parks and Recreation	
<i>Fire Department</i>	June 26, 2020
<i>Department of Transportation Services</i>	July 24, 2020
<i>Police Department</i>	June 23, 2020

ELECTED OFFICIALS

City Council Representative Tommy Waters

COMMUNITY

Neighborhood Board No. 2, Kuli'ou'ou/Kalani Iki

6.2 ENVIRONMENTAL ASSESSMENT PREPARATION

This Draft Environmental Assessment (EA) was prepared for the City and County of Honolulu Department of Planning and Permitting by Environmental Planning Partners, Inc. and Eiserloh Architects. The following consultants were involved in the preparation of this document:

Robert D. Klousner, President, Principal in Charge, Environmental Planning Partners, Inc.

Raadha M. B. Jacobstein, Professional Planner, Environmental Planning Partners, Inc.

Dale Nutley, Graphic Artist, Environmental Planning Partners, Inc.

Kris Eiserloh, Architect, Eiserloh Architects

7 REFERENCES

- AECOS, 2020. Natural Resources Assessment for 1001 Kaimoku Place. (TMK: 3-5-058:11) in Kahala, O'ahu. Prepared by AECOS, Inc. November 2019.
- CAB. See Hawai'i, State of, Department of Health, Clean Air Branch.
- City and County of Honolulu, Department of Planning and Permitting (DPP), 2021. East Honolulu Sustainable Communities Plan. April 2021. Accessed on January 24, 2022 at: <<https://www.honolulu.gov/cms-dpp-menu/site-dpp-sitearticles/1379-planning-division/39423-east-honolulu.html>>
- City & County of Honolulu Climate Change Commission, 2018. *Sea Level Rise Guidance*. Accessed on January 13, 2022 at: <https://static1.squarespace.com/static/59af5d3cd7bdce7aa5c3e11f/t/5bef1aa688251b73a_aaeff92/1542396587587/Sea+Level+Rise+Guidance.pdf>
- DBEDT. See Hawai'i, State of, Department of Business, Economic Development & Tourism.
- DLNR. See Department of Land and Natural Resources.
- DOH. See Hawai'i, State of, Department of Health.
- DOH CWB. See Hawai'i, State of, Department of Health, Clean Water Branch.
- Federal Emergency Management Agency (FEMA), 2020. Earthquake Hazard Maps. Last updated August 2, 2020. Accessed on September 24, 2020 at < <https://www.fema.gov/emergency-managers/risk-management/earthquake/hazard-maps> >
- FEMA. See Federal Emergency Management Agency.
- Hawai'i Climate Change Mitigation and Adaptation Commission. 2021. State of Hawai'i Sea Level Rise Viewer. Version 1.04. Prepared by the Pacific Islands Ocean Observing System (PacIOOS) for the University of Hawai'i Sea Grant College Program and the State of Hawai'i Department of Land and Natural Resources, Office of Conservation and Coastal Lands, with funding from National Oceanic and Atmospheric Administration Office for Coastal Management Award No. NA16NOS4730016 and under the State of Hawai'i Department of Land and Natural Resources Contract No. 64064. Accessed on January 16, 2022 at: <<http://hawaiiisealevelriseviewer.org>>.
- Hawai'i Climate Change Mitigation and Adaptation Commission. 2017. Hawai'i Sea Level Rise Vulnerability and Adaptation Report. Prepared by Tetra Tech, Inc. and the State of Hawai'i Department of Land and Natural Resources, Office of Conservation and Coastal Lands, under the State of Hawai'i Department of Land and Natural Resources Contract No: 64064. Accessed on September 24, 2020 at < https://climateadaptation.hawaii.gov/wp-content/uploads/2017/12/SLR-Report_Dec2017.pdf>
- Hawai'i National Flood Insurance Program (HNFIP), 2020. Flood Hazard Assessment Tool. Accessed on September 24, 2020 at <<http://gis.hawaiinfip.org/FHAT/>>

- Hawai'i, State of, 2020. Hawaii Statewide GIS Program. Data Accessed on various dates March to September 2020 at: <<http://geoportal.hawaii.gov>>.
- Hawai'i, State of, Department of Business, Economic Development and Tourism (DBEDT), Research and Economic Analysis Division, 2020. American Community Survey 2017 5-Year Estimates, Hawaii Geographic Area Profiles. Accessed on October 16, 2020 at: <<https://histategis.maps.arcgis.com/apps/MapSeries/index.html?appid=dff86c08e0894d2c8d205a177d72b9cd>>
- Hawai'i, State of, Department of Health (DOH), 2014. Water Quality Standards Map of the Island of O'ahu. June 2014. Accessed on September 22, 2020 at: <<http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/water-quality-standards/>>
- Hawai'i, State of, Department of Health, Clean Air Branch (CAB), 2021. State of Hawai'i Annual Summary 2020 Air Quality Data. December 2021. Accessed on January 24, 2022 at <<https://health.hawaii.gov/cab/hawaii-air-quality-data-books/>>
- Hawai'i, State of, Department of Health (DOH), Clean Water Branch (CWB), 2020. 2020 State of Hawai'i Water Quality Monitoring and Assessment Report. November 16, 2020. Accessed on January 24, 2022 at <<http://health.hawaii.gov/cwb/clean-water-branch-home-page/integrated-report-and-total-maximum-daily-loads/>>
- Hawai'i, State of, Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (HDLNR-DOFAW). 2016. Wildlife Lighting. Accessed by AECOS on May 7, 2019, at: <<http://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf>>
- Hawai'i, State of, Department of Land and Natural Resources (DLNR), 2015. Hawaii Coastal Erosion Management Plan (COEMAP). Accessed on September 24, 2020 at: <<https://climateadaptation.hawaii.gov/wp-content/uploads/2015/07/COEMAP1.pdf>>
- Hawai'i, State of, Department of Planning, 2013. Stormwater Impact Assessments: Connecting primary, secondary and cumulative impacts to Hawaii's Environmental Review process. May 2013. Accessed on October 26, 2020 at: <<https://planning.hawaii.gov/czm/initiatives/cumulative-secondary-impact-csi-stormwater-impact-assessment/>>
- Hawai'i, State of, Office of Planning, 2020. State CZM Program. Accessed on September 24, 2020 at: <<https://planning.hawaii.gov/czm/>>
- Hawai'i, State of, Office of Planning (OP), 1977. Agricultural Lands of Importance to the State of Hawaii (ALISH). State Department of Agriculture, 1977. Map accessed on September 14, 2020 at: <http://planning.hawaii.gov/gis/various-maps/>
- Honolulu, City and County of. Department of Emergency Management, 2017. Tsunami. Accessed on September 24, 2020 at: <<http://www.honolulu.gov/site-dem-sitearticles/35781-tsunami.html>>

- Honolulu, City and County of. Department of Parks and Recreation (C&C). 2017. Exceptional Tree Program website:
<http://www.honolulu.gov/rep/site/dpr/hbg_docs/ROH_Chapter_41a1-25.pdf>
- HNFIP. See Hawai'i National Flood Insurance Program.
- Intergovernmental Panel on Climate Change (IPCC), 2013. *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp. Accessed on September 24, 2020 at <<http://www.ipcc.ch/report/ar5/wg1/>>
- NOAA. See United States National Oceanic and Atmospheric Administration.
- NRCS. See U.S. Department of Agriculture, Natural Resources Conservation Service.
- Romine, B.M.; Habel, S.; Lemmo, S.J.; Pap, R.A.; Owens, T.M.; Lander, M.; Anderson, T.R., 2020. Guidance for Using the Sea Level Rise Exposure Area in Local Planning and Permitting Decisions. Prepared by the University of Hawaii Sea Grant College Program with the Hawai'i Department of Land and Natural Resources - Office of Conservation and Coastal Lands for the Hawai'i Climate Change Mitigation and Adaptation Commission - Climate Ready Hawai'i Initiative. (Sea Grant Publication TT-20-01). Accessed on January 24, 2022 at: <<https://climate.hawaii.gov/wp-content/uploads/2020/12/Guidance-for-Using-the-Sea-Level-Rise-Exposure-Area.pdf>>
- Scientific Consultant Services, Inc. 2021. DRAFT: An Archaeological Inventory Survey of a 0.63-acre lot in Wai'iki Ahupua'a, Kona District, Island of O'ahu [TMK: (1) 3-5-058:011]. Prepared by Chong Jin, B.A. and Robert L. Spear, Ph.D. June 2021.
- United States, Census Bureau, 2019. American Community Survey 2019 Data Release. Updated March 3, 2020. Accessed on September 30, 2020 at: <<https://www.census.gov/programs-surveys/acs>>
- United States, Department of Agriculture, Natural Resources Conservation Service, 2020. Custom Soil Resource Report for Island of Oahu, Hawaii. Version 15, June 10, 2020. Accessed on September 14, 2020 at: <<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>>
- United States, National Oceanic and Atmospheric Administration, National Centers for Environmental Information (NOAA), 2020. State of the Climate: Global Climate Report for Annual 2019. Published online January 2020. Accessed on September 24, 2020 at: <<https://www.ncdc.noaa.gov/sotc/global/201913>>
- United States Geological Service (USGS) 2004. Atlas of Natural Hazards in the Hawaiian Coastal Zone: Oahu. By Charles H. Fletcher III, Eric E. Grossman, Bruce M. Richmond, and Ann E. Gibbs. Accessed on September 24, 2020, 2020 at: <<https://pubs.usgs.gov/imap/i2761/>>

University of Hawai'i at Manoa, Sea Grant College Program, 2014. Climate Change Impacts in Hawai'i - A summary of climate change and its impacts to Hawai'i's ecosystems and communities. June 2014.

U.S. Climate Data, 2020. Accessed on September 29, 2020 at: <usclimatedata.com>

U.S. Fish & Wildlife Service (USFWS) 2020. National Wetlands Inventory, Surface Waters and Wetlands Mapper. Last modified May 1, 2020. Accessed on September 23, 2020 at: <<https://www.fws.gov/wetlands/data/Mapper.html>>

U.S. Fish & Wildlife Service (USFWS) 2019. USFWS Endangered Species.; Accessed by AECOS on May 7, 2019 and Environmental Conservation Online System (ECOS), at: <<https://ecos.fws.gov/ecp/species-reports>> and <<https://www.fws.gov/endangered/>>

U.S. Fish & Wildlife Service (USFWS), undated. USFWS Pacific Islands Fish and Wildlife Office. Avoidance and Minimization Measures. Accessed by AECOS on April 1, 2019 at: <https://www.fws.gov/Pacificislands/promo.cfm?id=177175840/>

APPENDIX A

EARLY CONSULTATION COMMENT LETTERS



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawaii 96850

In Reply Refer To:
01EPIF00-2020-TA-0373

July 7, 2020

Mr. Kris Eiserloh
Eiserloh Architects
820 W. Hind Drive #240139
Honolulu, Hawaii 96824

Subject: Pre Environmental Assessment Kaimoku Place, Honolulu, Oahu

Dear Mr. Eiserloh:

Thank you for your recent correspondence requesting technical assistance on species biology, habitat, or life requisite requirements. The Pacific Islands Fish and Wildlife Office (PIFWO) of the U.S. Fish and Wildlife Service (Service) appreciates your efforts to avoid or minimize effects to protected species associated with your proposed actions. We provide the following information for your consideration under the authorities of the Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531 *et seq.*), as amended.

Due to significant workload constraints, PIFWO is currently unable to specifically address your information request. The table below lists the protected species most likely to be encountered by projects implemented within the Hawaiian Islands. Based on your project location and description, we have noted the species most likely to occur within the vicinity of the project area, in the '**Occurs In or Near Project Area**' column. Please note this list is not comprehensive and should only be used for general guidance. We have added to the PIFWO website, located at <https://www.fws.gov/pacificislands/promo.cfm?id=177175840> recommended conservation measures intended to avoid or minimize adverse effects to these federally protected species and best management practices to minimize and avoid sedimentation and erosion impacts to water quality.

If you are representing a federal action agency, please use the official species list on our web-site for your section 7 consultation. You can find out if your project occurs in or near designated critical habitat here: <https://ecos.fws.gov/ipac/>.

Under section 7 of the ESA, it is the Federal agency's (or their non-Federal designee) responsibility to make the determination of whether or not the proposed project "may affect" federally listed species or designated critical habitat. A "may affect, not likely to adversely

INTERIOR REGION 9
COLUMBIA-PACIFIC NORTHWEST

IDAHO, MONTANA*, OREGON*, WASHINGTON
*PARTIAL

INTERIOR REGION 12
PACIFIC ISLANDS

AMERICAN SAMOA, GUAM, HAWAII, NORTHERN
MARIANA ISLANDS

“affect” determination is appropriate when effects to federally listed species are expected to be discountable (*i.e.*, unlikely to occur), insignificant (minimal in size), or completely beneficial. This conclusion requires written concurrence from the Service. If a “may affect, likely to adversely affect” determination is made, then the Federal agency must initiate formal consultation with the Service. Projects that are determined to have “no effect” on federally listed species and/or critical habitat do not require additional coordination or consultation.

Implementing the avoidance, minimization, or conservation measures for the species that may occur in your project area will normally enable you to make a “may affect, not likely to adversely affect” determination for your project. If it is determined that the proposed project may affect federally listed species, we recommend you contact our office early in the planning process so that we may assist you with the ESA compliance. If the proposed project is funded, authorized, or permitted by a Federal agency, then that agency should consult with us pursuant to section 7(a)(2) of the ESA. If no Federal agency is involved with the proposed project, the applicant should apply for an incidental take permit under section 10(a)(1)(B) of the ESA. A section 10 permit application must include a habitat conservation plan that identifies the effects of the action on listed species and their habitats, and defines measures to minimize and mitigate those adverse effects.

We appreciate your efforts to conserve endangered species. We regret that we cannot provide you with more specific protected species information for your project site. If you have questions that are not answered by the information on our website, you can contact PIFWO at (808) 792-9400 and ask to speak to the lead biologist for the island where your project is located.

Sincerely,

**Aaron
Nadig**

Digitally signed by
Aaron Nadig
Date: 2020.07.07
11:14:51 -10'00'

Island Team Manager
Pacific Islands Fish and Wildlife Office

The table below lists the protected species most likely to be encountered by projects implemented within the Hawaiian Islands. For your guidance, we've marked species that may occur in the vicinity of your project, this list is not comprehensive and should only be used for general guidance.

<u>Scientific Name</u>	<u>Common Name / Hawaiian Name</u>	<u>Federal Status</u>	<u>May Occur In Project Area</u>
Mammals			
<i>Lasiurus cinereus semotus</i>	Hawaiian hoary bat/ ‘ōpe‘ape‘a	E	<input checked="" type="checkbox"/>
Reptiles			
<i>Chelonia mydas</i>	Green sea turtle/honu - Central North Pacific DPS	T	<input type="checkbox"/>
<i>Erectmochelys imbricata</i>	Hawksbill sea turtle/ Honu ‘ea	E	<input type="checkbox"/>
Birds			
<i>Anas wyvilliana</i>	Hawaiian duck/ koloa	E	<input type="checkbox"/>
<i>Branta sandvicensis</i>	Hawaiian goose/ nēnē	T	<input type="checkbox"/>
<i>Fulica alai</i>	Hawaiian coot/ ‘alae kea	E	<input checked="" type="checkbox"/>
<i>Gallinula galeata sandvicensis</i>	Hawaiian gallinule/ ‘alae ‘ula	E	<input checked="" type="checkbox"/>
<i>Himantopus mexicanus knudseni</i>	Hawaiian stilt/ Ae‘o	E	<input checked="" type="checkbox"/>
<i>Oceanodroma castro</i>	Band-rumped storm-petrel/ ‘akē‘akē	E	<input checked="" type="checkbox"/>
<i>Pterodroma sandwichensis</i>	Hawaiian petrel/ ‘ua‘u	E	<input checked="" type="checkbox"/>
<i>Puffinus auricularis newelli</i>	Newell’s shearwater/ ‘a‘o	T	<input checked="" type="checkbox"/>
<i>Ardenna pacificus</i>	Wedge-tailed Shearwater/ ‘ua‘u kani	MBTA	<input type="checkbox"/>
<i>Gygis alba</i>	White Tern/ manu-o-kū	MBTA	<input checked="" type="checkbox"/>
<i>Buteo solitarius</i>	Hawaiian hawk/ ‘io	E	<input type="checkbox"/>
Insects			
<i>Manduca blackburni</i>	Blackburn’s sphinx moth	E	<input type="checkbox"/>
<i>Megalagrion pacificum</i>	Pacific Hawaiian Damselfly	E	<input type="checkbox"/>
<i>M. xanthomelas</i>	Orangeblack Hawaiian Damselfly	E	<input type="checkbox"/>
<i>M. nigrohamatum nigrolineatum</i>	Blackline Hawaiian Damselfly	E	<input type="checkbox"/>

Plants				
<u>Scientific Name</u>	<u>Common Name or Hawaiian Name</u>	<u>Federal Status</u>	<u>Locations</u>	<u>May Occur In Project Area</u>
<i>Abutilon menziesii</i>	Ko'oloa'ula	E	O, L, M, H	<input type="checkbox"/>
<i>Achyranthes splendens</i> var. <i>rotundata</i>	'Ewa hinahina	E	O	<input type="checkbox"/>
<i>Bonamia menziesii</i>	No common name	E	K, O, L, M, H	<input type="checkbox"/>
<i>Canavalia pubescens</i>	'Āwikiwiki	E	Ni, K, L, M	<input type="checkbox"/>
<i>Colubrina oppositifolia</i>	Kauila	E	O, M, H	<input type="checkbox"/>
<i>Cyperus trachysanthos</i>	Pu'uka'a	E	K, O	<input type="checkbox"/>
<i>Gouania hillebrandii</i>	No common name	E	Mo, M	<input type="checkbox"/>
<i>Hibiscus brackenridgei</i>	Ma'o hau hele	E	O, Mo, L, M, H	<input type="checkbox"/>
<i>Ischaemum byrone</i>	Hilo ischaemum	E	K, O, Mo, M, H	<input type="checkbox"/>
<i>Isodendron pyriformium</i>	Wahine noho kula	E	O, H	<input type="checkbox"/>
<i>Marsilea villosa</i>	'Ihi'ihi	E	Ni, O, Mo	<input type="checkbox"/>
<i>Mezoneuron kawaiense</i>	Uhiuhi	E	O, H	<input type="checkbox"/>
<i>Nothoestrum breviflorum</i>	'Aiea	E	H	<input type="checkbox"/>
<i>Panicum fauriei</i> var. <i>carteri</i>	Carter's panicgrass	E	Molokini Islet (O), Mo	<input type="checkbox"/>
<i>Panicum niuhauense</i>	Lau'ehu	E	K	<input type="checkbox"/>
<i>Peucedanum sandwicense</i>	Makou	E	K, O, Mo, M	<input type="checkbox"/>
<i>Pleomele (Chrysodracon)</i> <i>hawaiiensis</i>	Halapepe	E	H	<input type="checkbox"/>
<i>Portulaca sclerocarpa</i>	'Ihi	E	L, H	<input type="checkbox"/>
<i>Portulaca villosa</i>	'Ihi	E	Le, Ka, Ni, O, Mo, M, L, H, Nihoa	<input type="checkbox"/>
<i>Pritchardia affinis</i> (<i>maideniana</i>)	Loulu	E	H	<input type="checkbox"/>
<i>Pseudognaphalium</i> <i>sandwicense</i> var. <i>molokaiense</i>	'Ena'ena	E	Mo, M	<input type="checkbox"/>
<i>Scaevola coriacea</i>	Dwarf naupaka	E	Mo, M	<input type="checkbox"/>
<i>Schenkia (Centaurium)</i> <i>sebaeoides</i>	'Āwiwi	E	K, O, Mo, L, M	<input type="checkbox"/>
<i>Sesbania tomentosa</i>	'Ōhai	E	Ni, Ka, K, O, Mo, M, L, H, Necker, Nihoa	<input type="checkbox"/>
<i>Tetramolopium rockii</i>	No common name	T	Mo	<input type="checkbox"/>
<i>Vigna o-wahuensis</i>	No common name	E	Mo, M, L, H, Ka	<input type="checkbox"/>

Location key: O=O'ahu, K=Kaua'i, M=Maui, H=Hawai'i Island, L=Lāna'i, Mo=Moloka'i, Ka=Kaho'olawe, Ni=Ni'ihau, Le=Lehua

DAVID Y. IGE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

JADE T. BUTAY
DIRECTOR

Deputy Directors
LYNN A.S. ARAKI-REGAN
DEREK J. CHOW
ROSS M. HIGASHI
EDWIN H. SNIFFEN

IN REPLY REFER TO:
DIR 0548
STP 8.2936

June 18, 2020

Mr. Kristan Eiserloh
Eiserloh Architects
820 W. Hind Drive #240139
Honolulu, Hawaii 96824

Dear Mr. Eiserloh:

Subject: Early Consultation for Draft Environmental Assessment
Residence at 1001 Kaimoku Place
Honolulu, Oahu, Hawaii
Tax Map Key: (1) 3-5-058:011

The Hawaii Department of Transportation (HDOT) understands applicant is proposing to demolish and reconstruct a single-family residence on a 27,546 square-foot parcel in the Kai Nani neighborhood.

Based on the project description, the project is anticipated to have no significant impacts to State highway facilities; therefore, we have no comments.

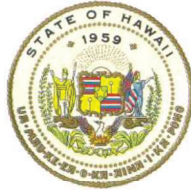
If there are any questions, please contact Mr. Blayne Nikaido of the HDOT Statewide Transportation Planning Office at (808) 831-7979 or via email at blayne.h.nikaido@hawaii.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Jade T. Butay".

JADE T. BUTAY
Director of Transportation

DAVID Y. IGE
GOVERNOR OF HAWAII



SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 22, 2020

LD 625

Mr. Kris Eiserloh
Eiserloh Architects
820 W. Hind Drive #240139
Honolulu, HI 96824

via email: kris@eiserloharchitects.com

Dear Mr. Eiserloh:

SUBJECT: Scoping and Early Consultation for the Residence at 1001 Kaimoku Place
Project Draft Environmental Assessment, TMK: (1) 3-5-058:011

Thank you for the opportunity to review and comment on the subject project. The Land Division of the Department of Land and Natural Resources (DLNR) distributed copies of your request to DLNR's various divisions for their review and comment.

Enclosed are responses from our (a) Engineering Division and (b) Land Division—Oahu District. Should you have any questions about the attached responses, please feel free to contact Barbara Lee via email at barbara.j.lee@hawaii.gov. Thank you.

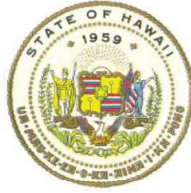
Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Enclosure(s)

cc: Central Files



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 10, 2020

LD 625

MEMORANDUM

FROM:

~~TO:~~

DLNR Agencies:

- Div. of Aquatic Resources (via email: Kendall.L.Tucker@hawaii.gov)
- Div. of Boating & Ocean Recreation
- Engineering Division** (via email: DLNR.Engr@hawaii.gov)
- Div. of Forestry & Wildlife (via email: Rubyrosa.T.Terrago@hawaii.gov)
- Div. of State Parks
- Commission on Water Resource Management (via email: DLNR.CWRM@hawaii.gov)
- Office of Conservation & Coastal Lands
- Land Division – Oahu District (via email: DLNR.Land@hawaii.gov)
- Historic Preservation (via email: DLNR.Intake.SHPD@hawaii.gov)

TO:

~~FROM:~~

Russell Y. Tsuji, Land Administrator *Russell Tsuji*

SUBJECT:

Scoping and Early Consultation for Draft Environmental Assessment on Demolition and Reconstruction of Residence at 1001 Kaimoku Place

LOCATION:

1001 Kaimoku Place, Honolulu, Island of Oahu; TMK: (1) 3-5-058:011

APPLICANT:

Eiserloh Architects on behalf of Owner

Transmitted for your review and comment is information on the above-referenced subject. Please submit any comments via email to the Land Division at DLNR.Land@hawaii.gov, copied to barbara.j.lee@hawaii.gov and darlene.k.nakamura@hawaii.gov, by **July 20, 2020**.

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Barbara Lee directly at barbara.j.lee@hawaii.gov. Thank you.

- We have no objections.
- We have no comments.
- Comments are attached.

Signed:

Carty S. Chang

Print Name:

Carty S. Chang, Chief Engineer

Division:

Engineering Division

Date:

Jul 14, 2020

Attachments

Cc: Central Files

**DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION**

LD/Russell Y. Tsuji

**Ref: Scoping and Early Consultation for Draft Environmental Assessment on
Demolition and Reconstruction of Residence at 1001 Kaimoku Place**

TMK(s): (1) 3-5-058:011

Location: 1001 Kaimoku Place, Honolulu, Island of Oahu

Applicant: Eiserloh Architects on behalf of Owner

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high risk areas). State projects are required to comply with 44CFR regulations as stipulated in Section 60.12. Be advised that 44CFR reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may stipulate higher standards that can be more restrictive and would take precedence over the minimum NFIP standards.

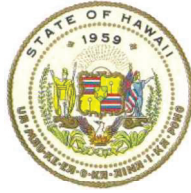
The owner of the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood Hazard Zones are designated on FEMA's Flood Insurance Rate Maps (FIRM), which can be viewed on our Flood Hazard Assessment Tool (FHAT) (<http://gis.hawaiiinfip.org/FHAT>).

If there are questions regarding the local flood ordinances, please contact the applicable County NFIP coordinating agency below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7253.
- Kauai: County of Kauai, Department of Public Works (808) 241-4896.

Signed: 
CARY S. CHANG, CHIEF ENGINEER

Date: Jul 14, 2020



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 10, 2020

LD 625

MEMORANDUM

TO: **DLNR Agencies:**
 Div. of Aquatic Resources (via email: Kendall.L.Tucker@hawaii.gov)
 Div. of Boating & Ocean Recreation
 Engineering Division (via email: DLNR.Engr@hawaii.gov)
 Div. of Forestry & Wildlife (via email: Rubyrosa.T.Terrago@hawaii.gov)
 Div. of State Parks
 Commission on Water Resource Management (via email: DLNR.CWRM@hawaii.gov)
 Office of Conservation & Coastal Lands
 Land Division – Oahu District (via email: DLNR.Land@hawaii.gov)
 Historic Preservation (via email: DLNR.Intake.SHPD@hawaii.gov)

FROM: Russell Y. Tsuji, Land Administrator *Russell Tsuji*

SUBJECT: **Scoping and Early Consultation for Draft Environmental Assessment on Demolition and Reconstruction of Residence at 1001 Kaimoku Place**

LOCATION: 1001 Kaimoku Place, Honolulu, Island of Oahu; TMK: (1) 3-5-058:011

APPLICANT: Eiserloh Architects on behalf of Owner

Transmitted for your review and comment is information on the above-referenced subject. Please submit any comments via email to the Land Division at DLNR.Land@hawaii.gov, copied to barbara.j.lee@hawaii.gov and darlene.k.nakamura@hawaii.gov, by **July 20, 2020**.

If no response is received by the above date, we will assume your agency has no comments. Should you have any questions about this request, please contact Barbara Lee directly at barbara.j.lee@hawaii.gov. Thank you.

- () We have no objections.
- (X) We have no comments.
- () Comments are attached.

Signed: *Darlene Bryant-Takamatsu*
 Print Name: Darlene Bryant-Takamatsu
 Division: Land Division
 Date: 7/13/2020

Attachments
Cc: Central Files

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com



June 26, 2020

KIRK CALDWELL, MAYOR
BRYAN P. ANDAYA, Chair
KAPUA SPROAT, Vice Chair
KAY C. MATSUI
RAY C. SOON
MAX J. SWORD

ROSS S. SASAMURA, Ex-Officio
JADE T. BUTAY, Ex-Officio

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.
Deputy Manager and Chief Engineer

Mr. Kris Eiserloh
Eiserloh Architects
820 West Hind Drive, #240139
Honolulu, Hawaii 96824

Dear Mr. Eiserloh:

Subject: Your Letter Dated May 4, 2020 Requesting Early Consultation Comments on the Proposed Residence at 1001 Kaimoku Place – Tax Map Key: 3-5-058: 011

Thank you for your letter regarding the proposed demolition and reconstruction project of a single-family residence.

The existing water system is adequate to accommodate the domestic demands and off-site fire protection of the proposed single-family residence. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission and daily storage.

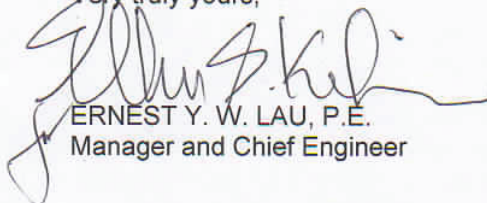
Water conservation measures are required for all proposed developments. These measures include utilization of nonpotable water for irrigation using rain catchment, drought tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.

The construction drawings should be submitted for our approval, and the construction schedule should be coordinated to minimize impact to the water system.

The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

If you have any questions, please contact Robert Chun, Project Review Branch of our Water Resources Division at 748-5443.

Very truly yours,


ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honolulu.gov • CITY WEB SITE: www.honolulu.gov

KIRK CALDWELL
MAYOR



KATHY K. SOKUGAWA
ACTING DIRECTOR

TIMOTHY F. T. HIU
DEPUTY DIRECTOR

EUGENE H. TAKAHASHI
DEPUTY DIRECTOR

July 2, 2020

2020/ELOG-1127(MT)

Mr. Kris Eiserloh
Eiserloh Architects
820 West Hind Drive #240139
Honolulu, Hawaii 96824

Dear Mr. Eiserloh:

SUBJECT: Request for Comments
Pre-Draft Environmental Assessment Consultation
Proposed Residence at 1001 Kaimoku Place (Project)
1001 Kaimoku Place - Waialae
Tax Map Key 3-5-058: 011

This letter responds to your request received June 16, 2020, for preliminary comments on the future Draft Environmental Assessment for the Residence at 1001 Kaimoku Place Project. The 27,546-square-foot parcel is located within the R-7.5 Residential District and Special Management Area (SMA), and is a shoreline lot. The site is also located in Flood Zone X, VE, and AE. You propose to demolish the existing dwelling and construct a single-family dwelling, exceeding 7,500 square feet of floor area. We have the following comments:

- Pursuant to the Revised Ordinances of Hawaii (ROH) Chapter 25, any dwelling exceeding 7,500 square feet of floor area and having a cost valuation over \$500,000 within the SMA is required to obtain a Special Management Area Use Permit (SMP);
- Pursuant to the ROH Chapter 23, structures and activities are prohibited within the 40-foot shoreline setback area, with the exception of minor structure and activities permitted by the Department of Planning and Permitting Administrative Rules, Part 2 - Rules Relating to Shoreline Setbacks and the SMA. You will need to verify that all existing structures and features, including the swimming pool, retaining/rock walls, fences and walkways, are legally permitted and constructed. Any proposed or existing structure or feature not legally permitted

Mr. Kris Eiserloh
July 2, 2020
Page 2

will require a Shoreline Setback Variance; and

- Any proposal requiring an SMP or Shoreline Setback Variance is required to prepare an Environmental Assessment pursuant to ROH Chapter 25 and Hawaii Revised Statutes Chapter 343, related to Environmental Impact Statements.

Please contact Mark Taylor, of our Urban Design Branch, at 768-8020 if you have any questions.

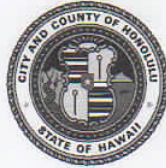
Very truly yours,


for Kathy K. Sokugawa
Acting Director

HONOLULU FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU

636 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

KIRK CALDWELL
MAYOR



MANUEL P. NEVES
FIRE CHIEF

LIONEL CAMARA JR.
DEPUTY FIRE CHIEF

June 26, 2020

Mr. Kris Eiserloh
Eiserloh Architects
820 W. Hind Drive, Unit 240139
Honolulu, Hawaii 96824

Dear Mr. Eiserloh:

Subject: Preconsultation for an Environmental Assessment
Proposed Single-Family Home Project
1001 Kaimoku Place
Honolulu, Hawaii 96821
Tax Map Key: 3-5-058: 011

In response to your letter dated May 4, 2020, and received on June 16, 2020, regarding the abovementioned subject, the Honolulu Fire Department (HFD) reviewed the submitted information and requires that the following be complied with:

1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet (46 meters) from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1; 2012 Edition, Sections 18.2.3.2.2 and 18.2.3.2.2.1.)

A fire department access road shall extend to within 50 feet (15 meters) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1; 2012 Edition, Section 18.2.3.2.1.)

2. A water supply approved by the county, capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed, or moved into or within the county. When any portion of the facility or building is in excess of 150 feet (45,720 millimeters) from a

Mr. Kris Eiserloh
Page 2
June 26, 2020

water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the AHJ [Authority Having Jurisdiction]. (NFPA 1; 2012 Edition, Section 18.3.1, as amended.)

3. The unobstructed width and unobstructed vertical clearance of a fire apparatus access road shall meet county requirements. (NFPA 1; 2012 Edition, Sections 18.2.3.4.1.1 and 18.2.3.4.1.2, as amended.)
4. Submit civil drawings to the HFD for review and approval.

Should you have questions, please contact Battalion Chief Wayne Masuda of our Fire Prevention Bureau at 723-7151 or wmasuda@honolulu.gov.

Sincerely,



JASON SAMALA
Assistant Chief

JS/TC:bh

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 768-4730 • web: www.honolulu.gov

KIRK CALDWELL
MAYOR



WES FRYSZTACKI
DIRECTOR

JON Y. NOUCHI
DEPUTY DIRECTOR

TP6/20-816654

Jul 24, 2020

Mr. Kris Eiserloh
Eiserloh Architects
820 W. Hind Drive #240139
Honolulu, Hawaii 96824

Dear Mr. Eiserloh:

SUBJECT: Scoping and Early-Consultation for the Residence at
1001 Kaimoku Place Project Draft Environmental Assessment;
TMK 5-058:011

Thank you for the opportunity to provide written comments on the Residence at 1001 Kaimoku Place project description. In response to your letter dated May 4, 2020, we have the following comments.

1. **Traffic Management Plan (TMP).** A TMP should be prepared for this project that is jointly reviewed and accepted by the Department of Transportation Services (DTS) and the Department of Planning and Permitting. The TMP shall include the following:
 - a. **Traffic Impacts.** A discussion of the traffic impacts that the project may have on any surrounding City roadways and facilities, including short-term impacts during construction with corresponding measures to mitigate these impacts by applying Complete Streets principles.
 - b. **Construction Materials.** Construction materials and equipment should be transferred to and from the project site during off-peak traffic hours (8:30 a.m. to 3:30 p.m.) to minimize any possible disruption to traffic on adjoining streets.
 - c. **Roadway, Sidewalk and Crosswalk Closures.** If there are any roadway, sidewalk or crosswalk closures, alternate routes should be provided for vehicles, pedestrians, and bicyclists that are safe and clearly marked.

Mr. Kris Eiserloh
July 24, 2020
Page 2

- d. **Vehicle/Pedestrian Crossing.** Any existing pedestrian, bicycle and vehicle access/crossing shall be maintained with the highest safety measures during construction.
 - e. **Best Management Practice (BMP) Controls.** BMP controls should be included at the construction site to prevent trailing of dirt and debris onto adjacent roadways.
 - f. **Roadway Damage.** Any damage to the existing roadway and sidewalk area caused by the project should be repaired to current City standards as well as meet Americans with Disabilities Act (ADA) requirements.
2. **Street Usage Permit.** A street usage permit from the DTS should be obtained for any construction-related work that may require the temporary closure of any traffic lane or pedestrian mall on a City street.
 3. **Neighborhood Impacts.** The area representatives, neighborhood board, as well as the area residents, businesses, emergency personnel (fire, ambulance, and police), Oahu Transit Services, Inc. (TheBus and TheHandi-Van), etc., should be kept apprised of the details and status throughout the project and the impacts that the project may have on the adjoining local street area network.
 4. **Disability and Communication Access Board (DCAB).** Project plans (vehicular and pedestrian circulation, sidewalks, parking and pedestrian pathways, vehicular ingress/egress, etc.) should be reviewed and approved by DCAB to ensure full compliance with ADA requirements.

Thank you for the opportunity to review this matter. Should you have any questions, please contact Virginia Sosh, of my staff, at 768-5461.

Very truly yours,



Wes Frysztacki
Director

October 1, 2020



Virginia Sosh, Staff
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, HI 96813

SUBJECT: Response to Early Consultation for the Residence at 1001 Kaimoku Place Project, Draft Environmental Assessment; Tax Map Key (3) 5-058:011

Dear Ms. Sosh,

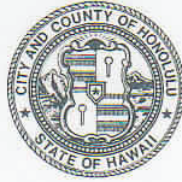
Thank you for your letter dated July 24, 2020, responding to our request for early consultation on the Residence at 1001 Kaimoku Place project. The content of this response will be included in the Draft EA being prepared for the proposed project.

A discussion of traffic impacts on the neighborhood and the surrounding city roadways resulting from construction will be included in the Draft EA. All required permits shall be obtained prior to any work affecting Kaimoku Place. Prior to and during construction, the area residents and neighborhood board shall be informed regarding any impacts to the local street network.

Your letter and this response will be included in the Draft EA upon its completion. Following completion of the Draft EA, the environmental document will be submitted to the State Office of Environmental Quality Control (OEQC). The OEQC will notify government agencies and the public when the Draft EA is available for review in the bimonthly bulletin called *The Environmental Notice*, which is available online. Publication in *The Environmental Notice* marks the beginning of a 30-day comment period during which government agencies and the public can review and comment on the environmental document and its findings. Should you have any questions, please contact Mr. Kris Eiserloh at (808) 777-9968, or by email at kris@eiserloharchitects.com.

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honoluluupd.org



KIRK CALDWELL
MAYOR

SUSAN BALLARD
CHIEF

JOHN D. MCCARTHY
CLYDE K. HO
DEPUTY CHIEFS

OUR REFERENCE EO-DK

June 23, 2020

Mr. Kris Eiserloh, Principal
Eiserloh Architects
820 West Hind Drive, No. 240139
Honolulu, Hawaii 96824

Dear Mr. Eiserloh:

This is in response to your letter received on June 15, 2020, requesting comments on an Early Consultation, Draft Environmental Assessment, for the proposed residence at 1001 Kaimoku Place. This beachfront lot is located adjacent to the Waialae Country Club golf course in the Kai Nani neighborhood.

The Honolulu Police Department has reviewed the plans and does not have any comments or concerns at this time.

If there are any questions, please call Major Joseph Trinidad of District 7 (East Honolulu) at 723-3368.

Thank you for the opportunity to review this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Allan T. Nagata", is written over a horizontal line.

ALLAN T. NAGATA
Assistant Chief of Police
Support Services Bureau

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

KIRK CALDWELL
MAYOR



MARK YONAMINE, P.E.
DIRECTOR

HAKU MILLES, P.E.
DEPUTY DIRECTOR

August 20, 2020

Eiserloh Architects
820 W. Hind Drive #240139
Honolulu, HI 96824

Dear Mr. Eiserloh,

Subject: Scoping and Early Consultation for the Residence at 1001 Kaimoku Pl.
Project Draft Environmental Assessment; TMK: (3) 5-058:011

Thank you for the opportunity to review and comment. The Department of Design and Construction does not have any comments at this time.

Should you have any further questions, please contact me at 768-8480.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Yonamine".

for Mark Yonamine, P.E.
Director

MY:ms (816184)

APPENDIX B
RESIDENCE AT 1001 KAIMOKU PLACE PHOTOGRAPHS

Residence at 1001 Kaimoku Place Photos



Photo 1: View from the southwest



Photo 2: View from the south with pool view



Photo 3: View from the south with residential uses in the background



Photo 4: View from the west with Koko Head Crater and the southeast shore in the background



Photo 5: View from the northwest

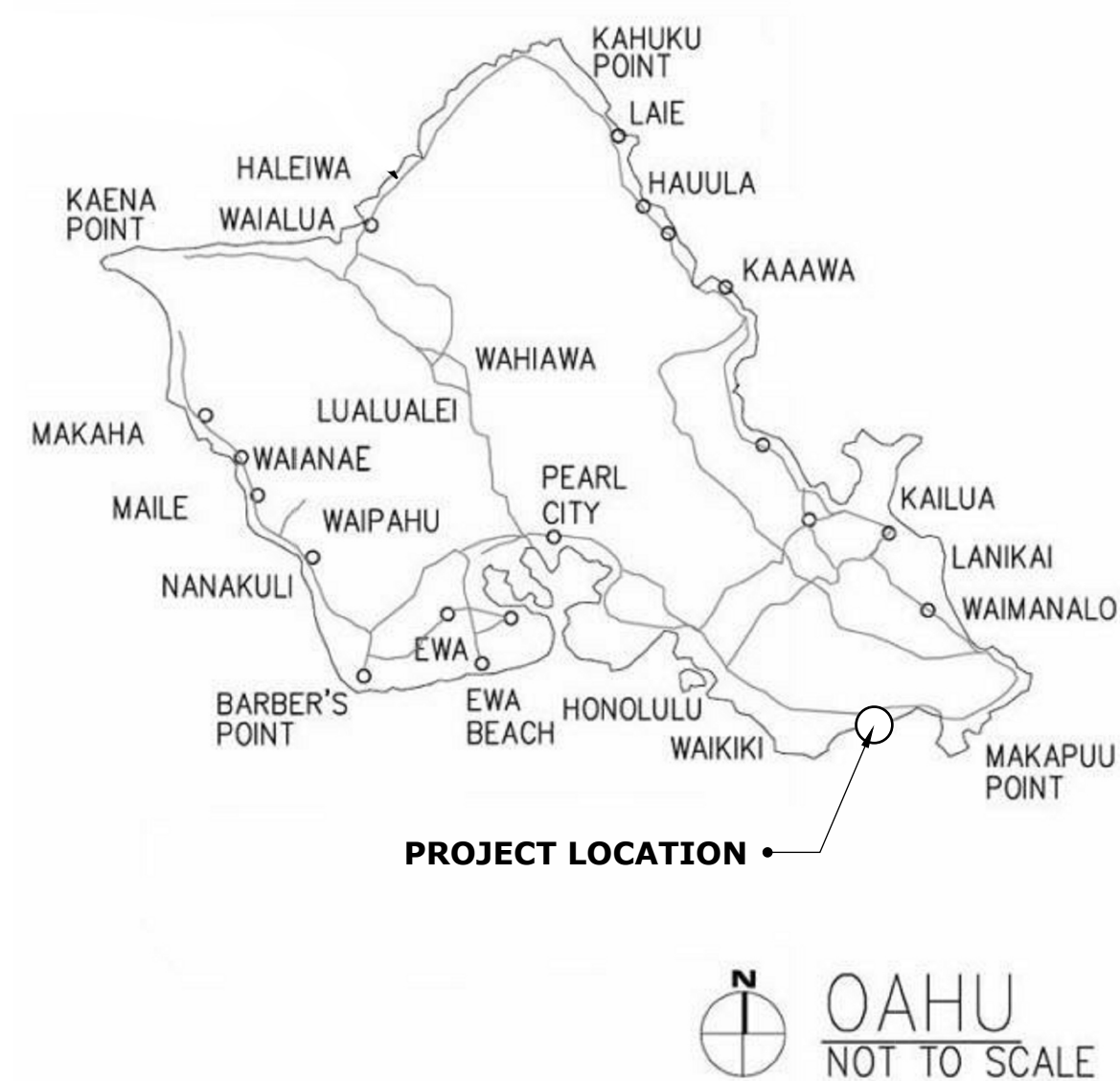


Photo 6: View from the north

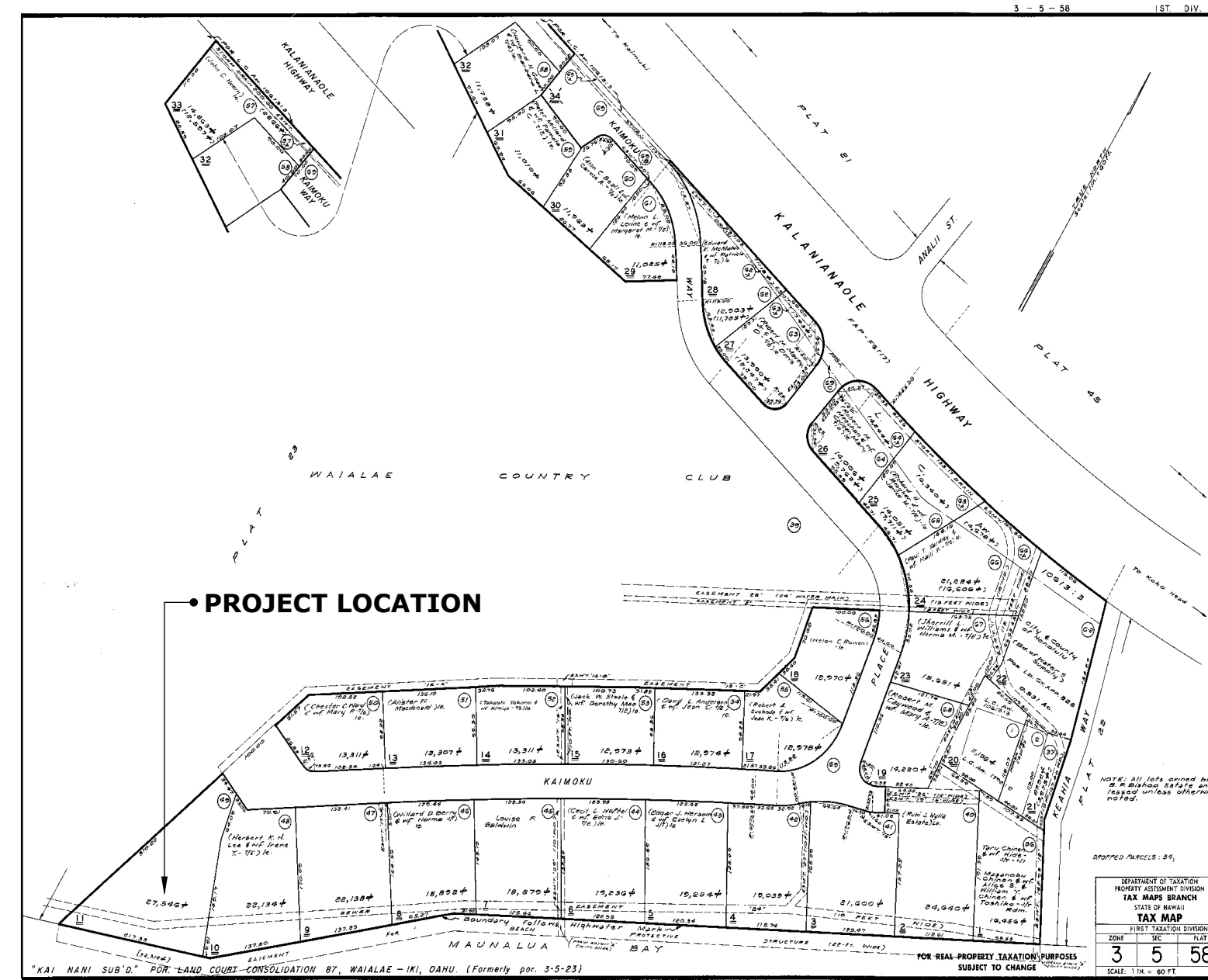
APPENDIX C
ARCHITECTURAL DRAWINGS



VICINITY MAP



LOCATION MAP



PROJECT DATA

OWNER: KAIMOKU RESIDENCE
 ADDRESS: 1001 KAIMOKU PLACE HON HI 96821
 T.M.K. #: 3-5-058:011
 LOT SIZE: 27,546 SQ. FT.
 ZONING DISTRICT: R-7.5 RESIDENTIAL DISTRICT
 OCCUPANCY: RESIDENTIAL
 FLOOD ZONE: X, AE, VE
 SMA: IN SMA

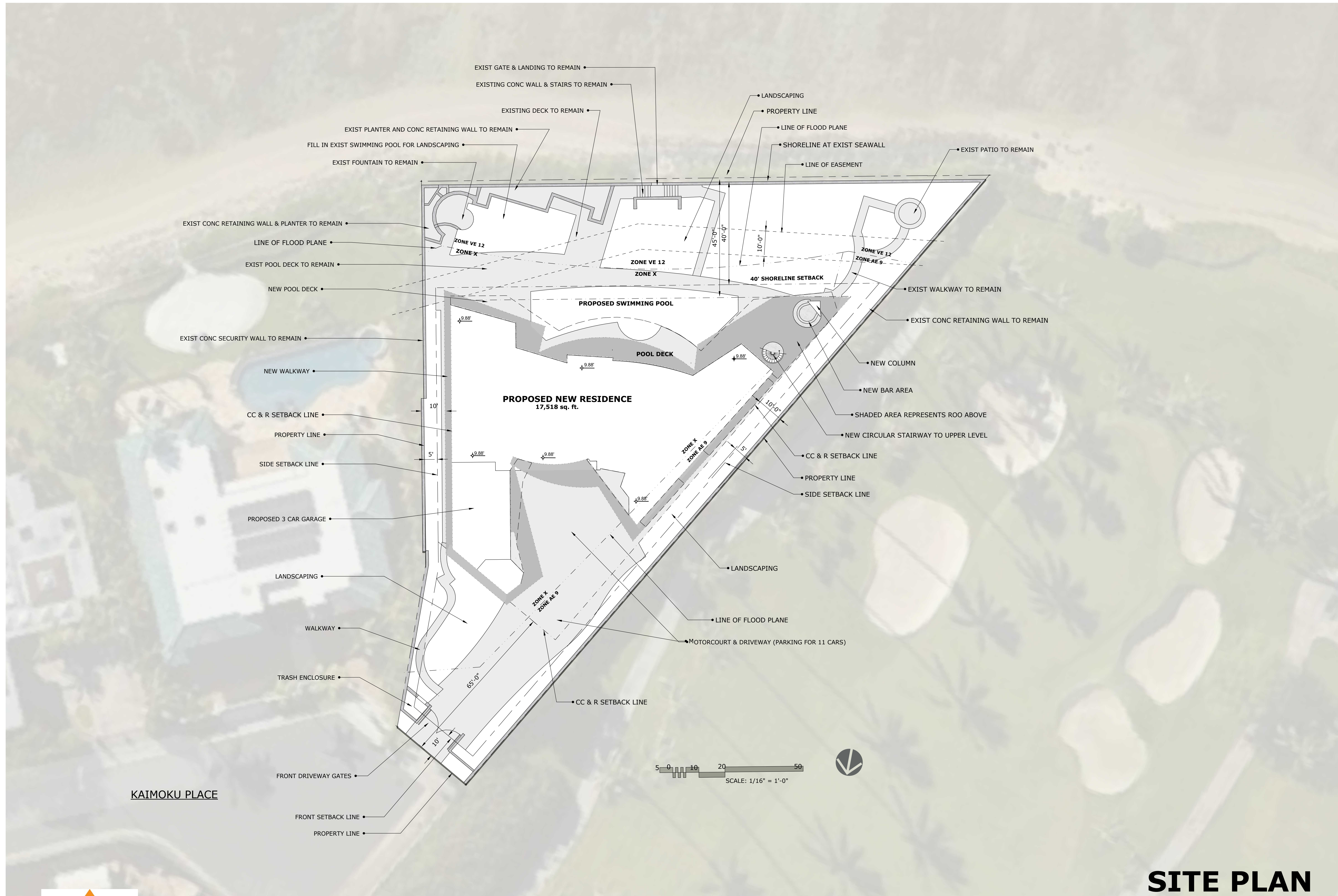
SQ FTGE CALCS:

INTERIOR LOWER LEVEL:	5,594 sq. ft.
INTERIOR UPPER LEVEL:	<u>6,351</u>
	SUB-TOTAL 11,945
LANAI LOWER LEVEL:	2,302
LANAI UPPER LEVEL:	2,424
GARAGE:	<u>837</u>
	TOTAL 17,518

SHEET INDEX

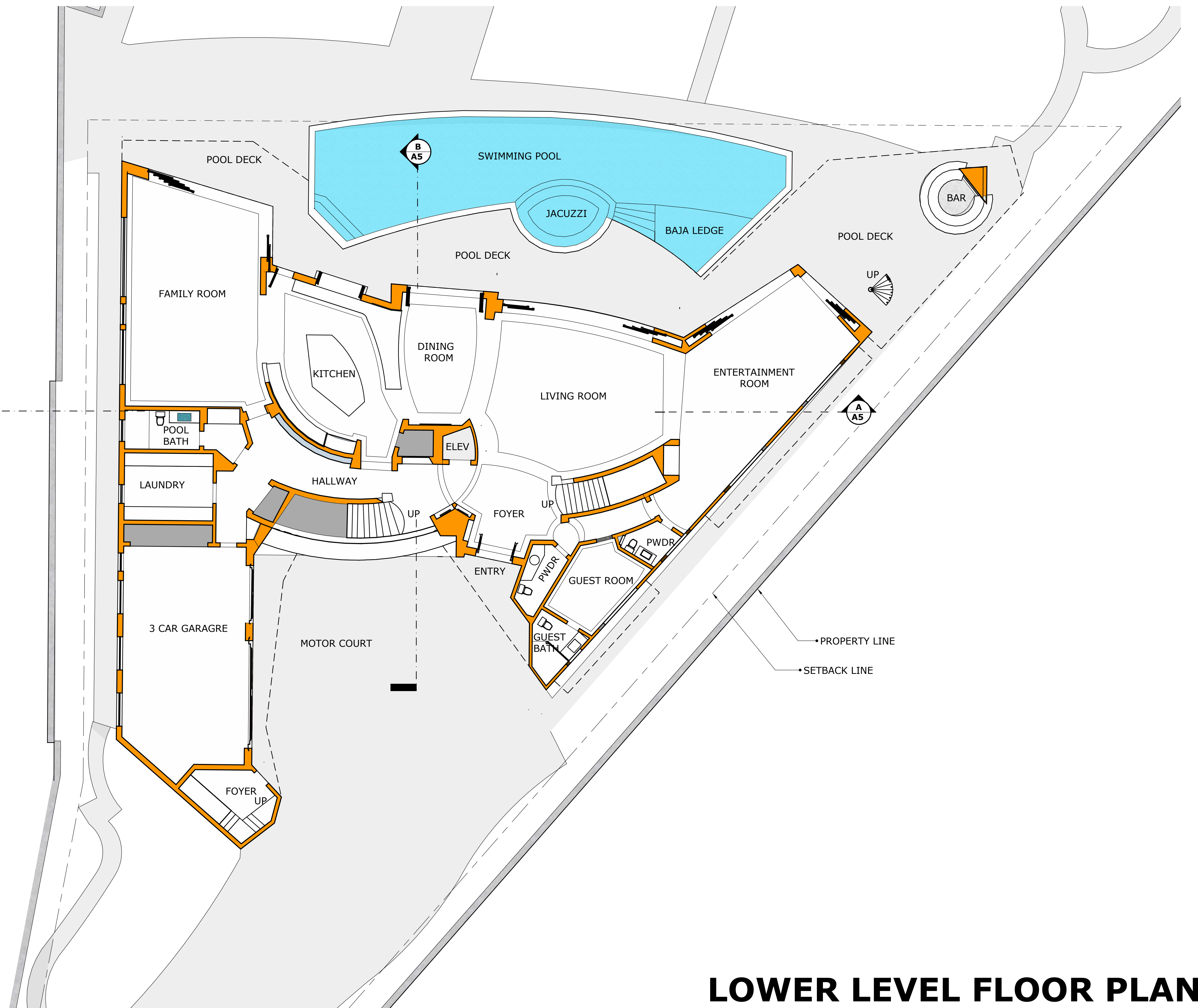
T-1	TITLE SHEET
C-1	SITE PLAN
A-1	LOWER LEVEL FLOOR PLAN
A-2	UPPER LEVEL FLOOR PLAN
A-3	ROOF PLAN
A-4	EXTERIOR ELEVATIONS
A-5	BUILDING SECTIONS





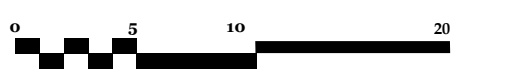
SITE PLAN

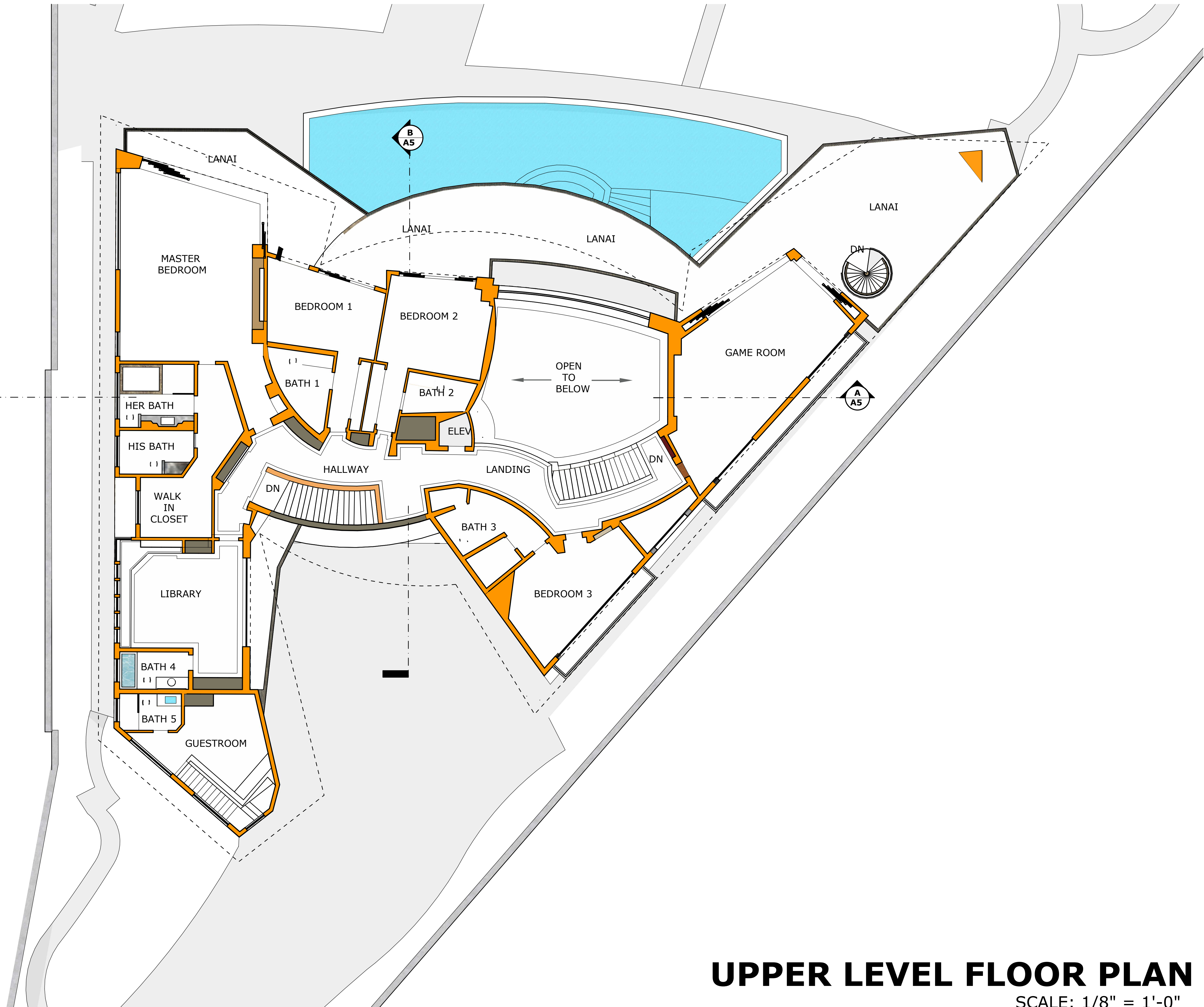




LOWER LEVEL FLOOR PLAN

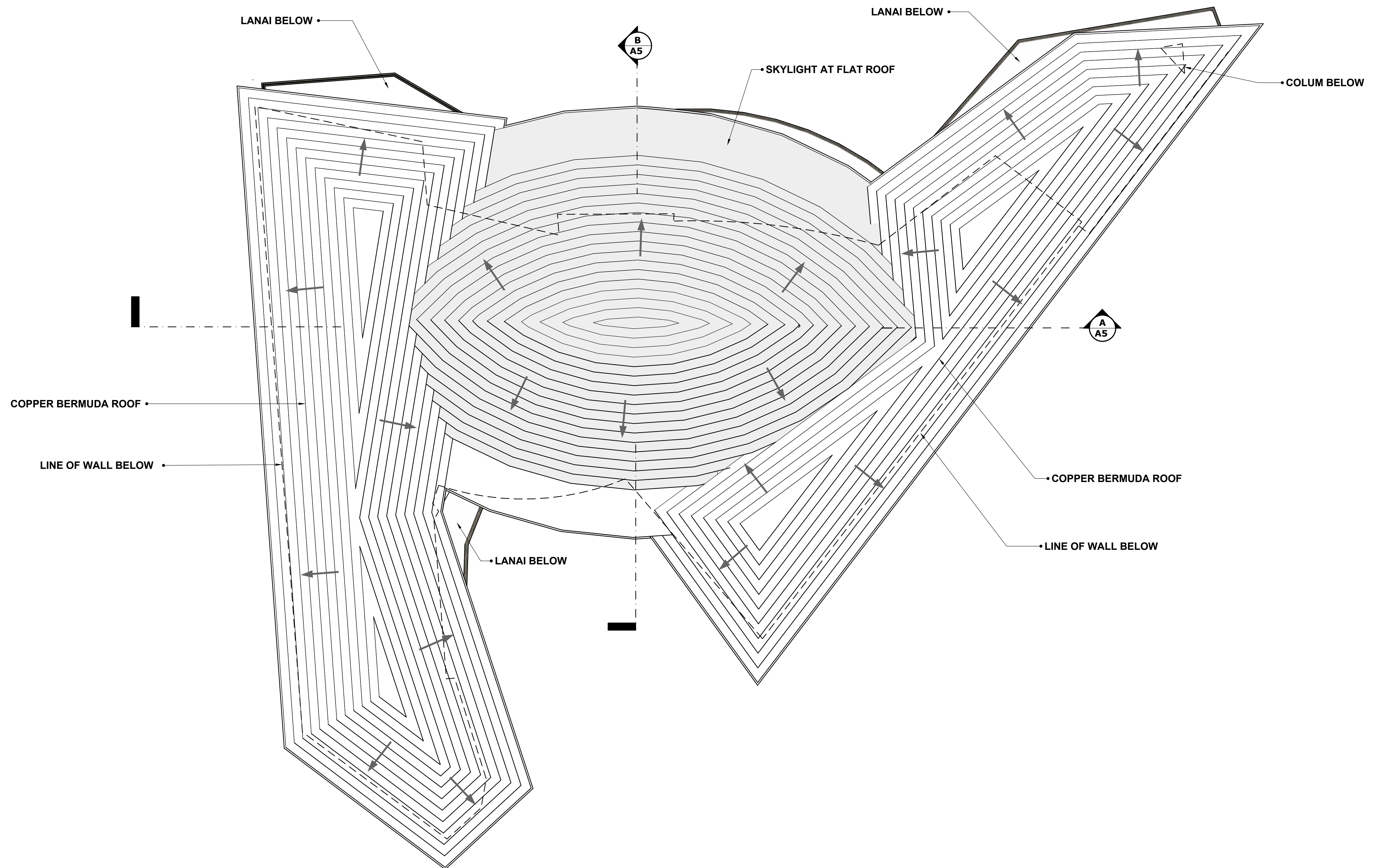
SCALE: 1/8" = 1'-0"





UPPER LEVEL FLOOR PLAN
 SCALE: 1/8" = 1'-0"





ROOF PLAN
 SCALE: 1/8" = 1'-0"

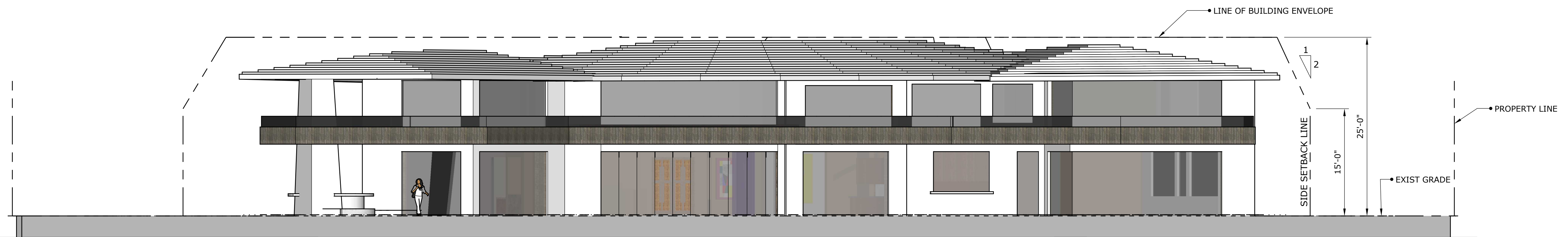




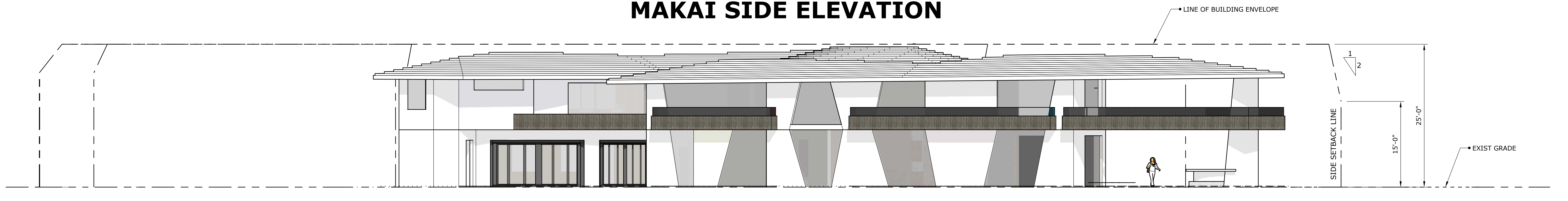
FRONT ELEVATION



KOKO HEAD SIDE ELEVATION



MAKAI SIDE ELEVATION

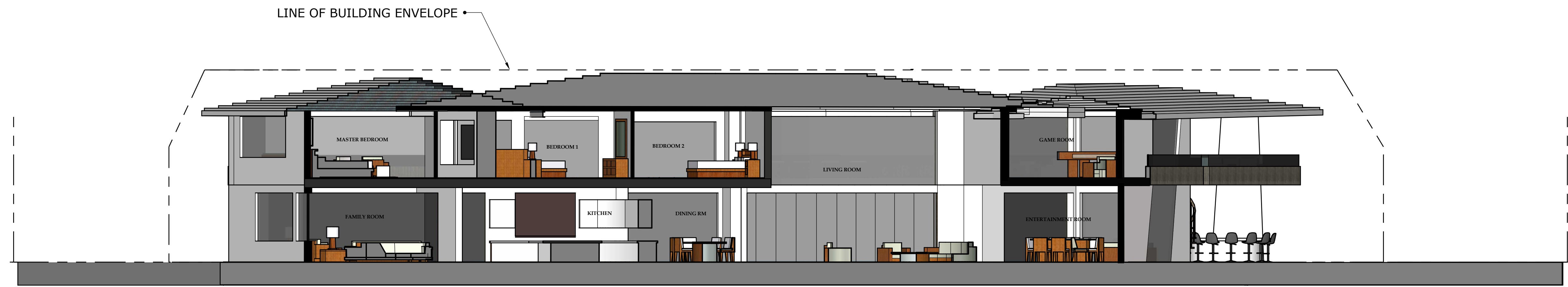


DIAMOND HEAD SIDE ELEVATION

EXTERIOR ELEVATIONS

SCALE: 1/8" = 1'-0"





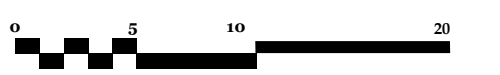
BUILDING SECTION A

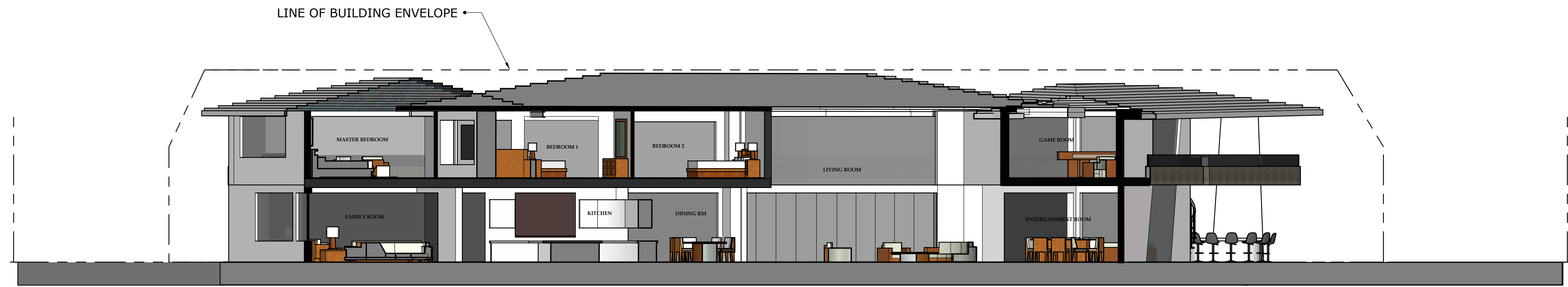


BUILDING SECTION B

BUILDING SECTIONS

SCALE: 1/8" = 1'-0"





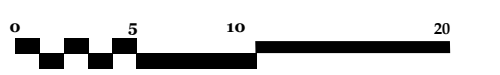
BUILDING SECTION A



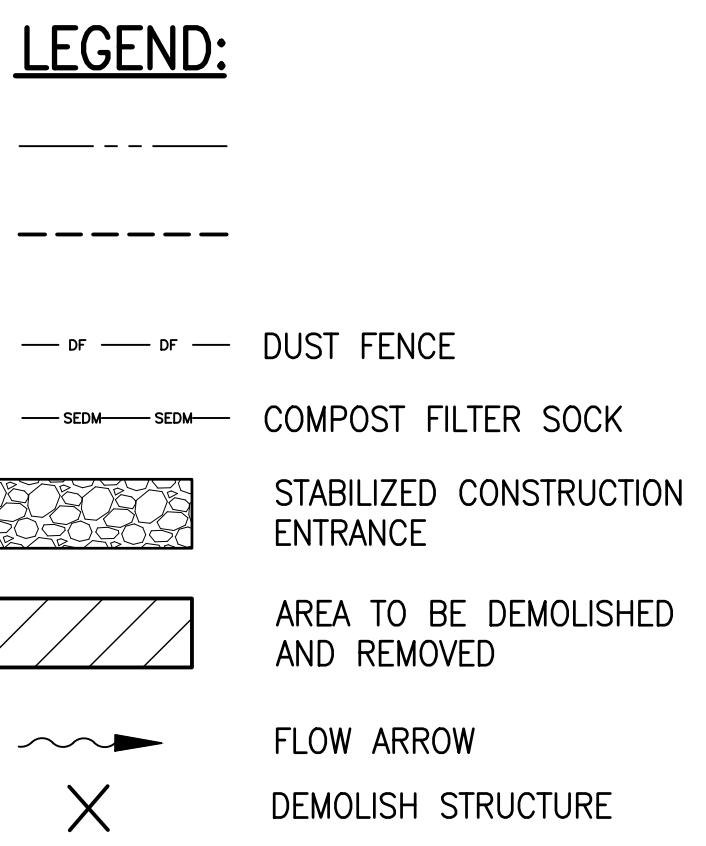
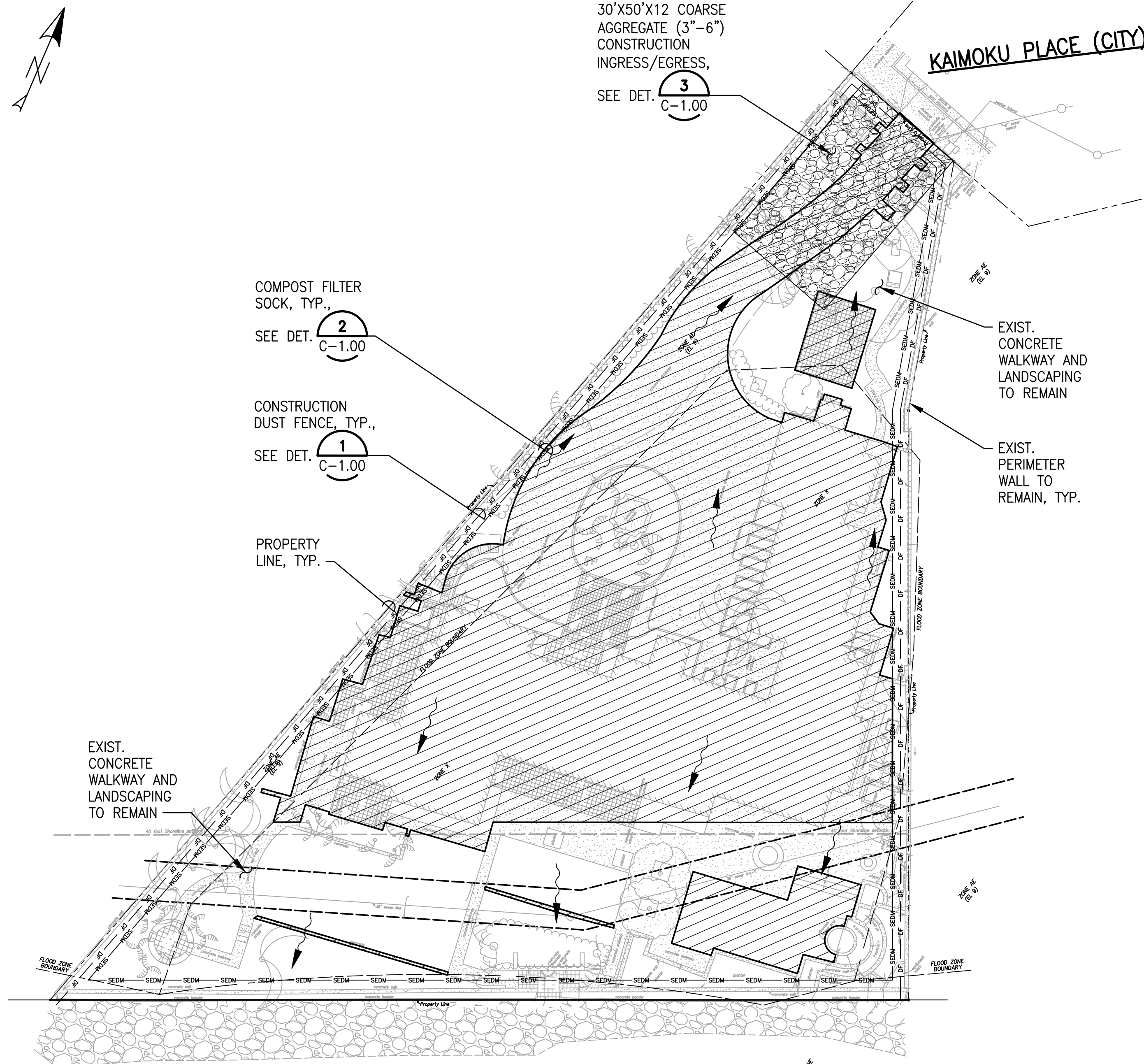
BUILDING SECTION B

BUILDING SECTIONS

SCALE: 1/8" = 1'-0"



APPENDIX D
DEMOLITION AND
CONSTRUCTION PHASING PLAN SET



EROSION CONTROL AND DEMOLITION PLAN
SCALE: 1" = 20'

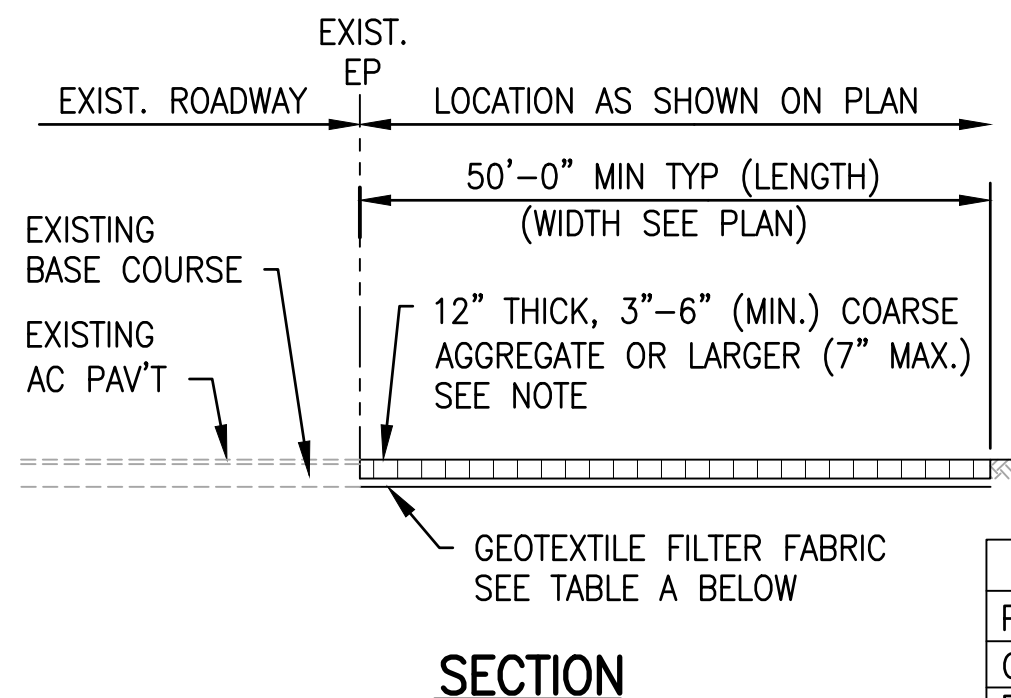
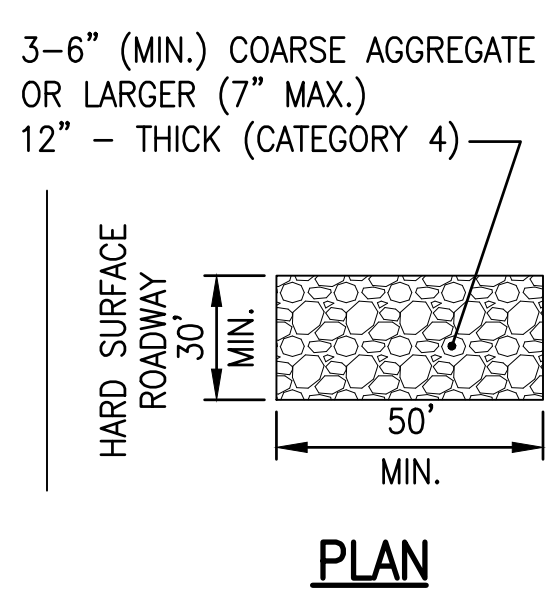
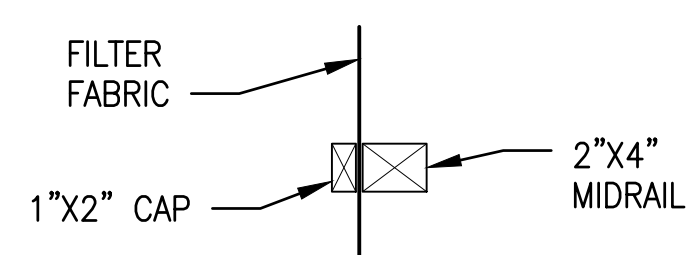
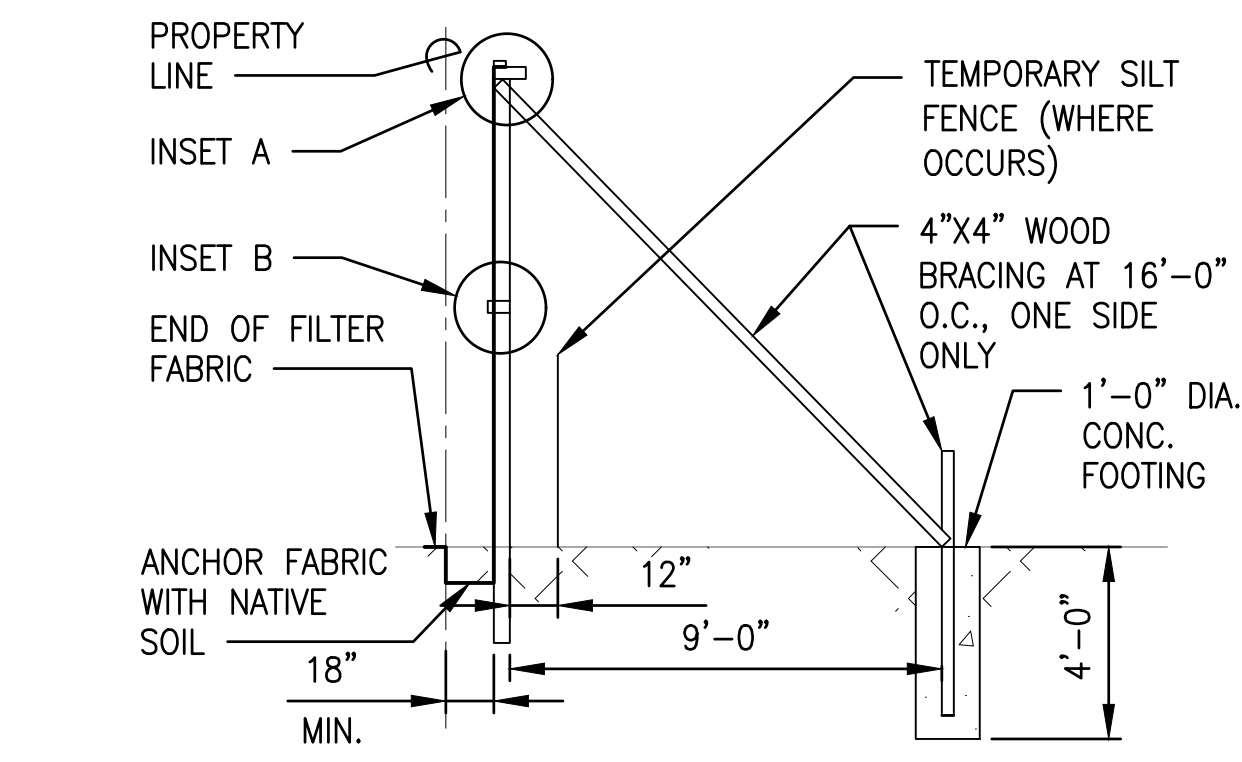
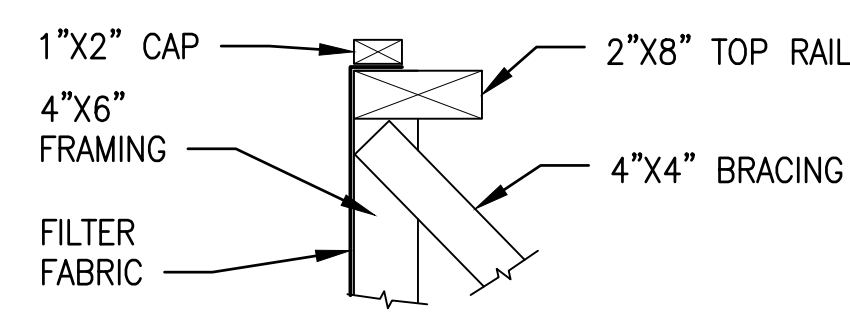
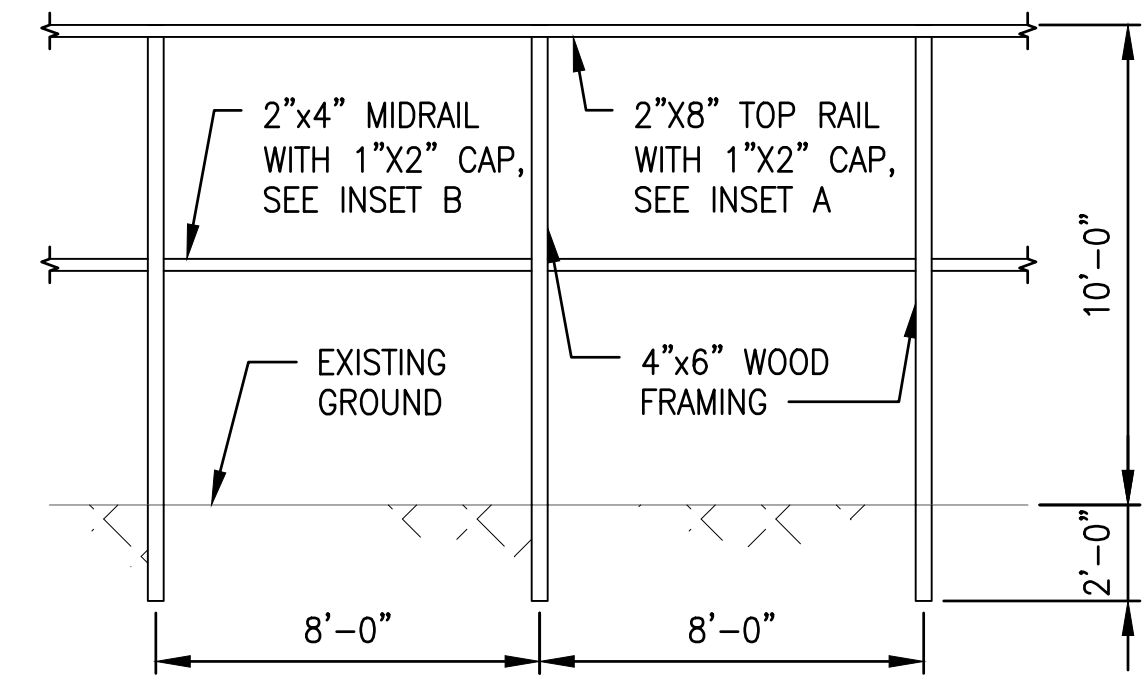


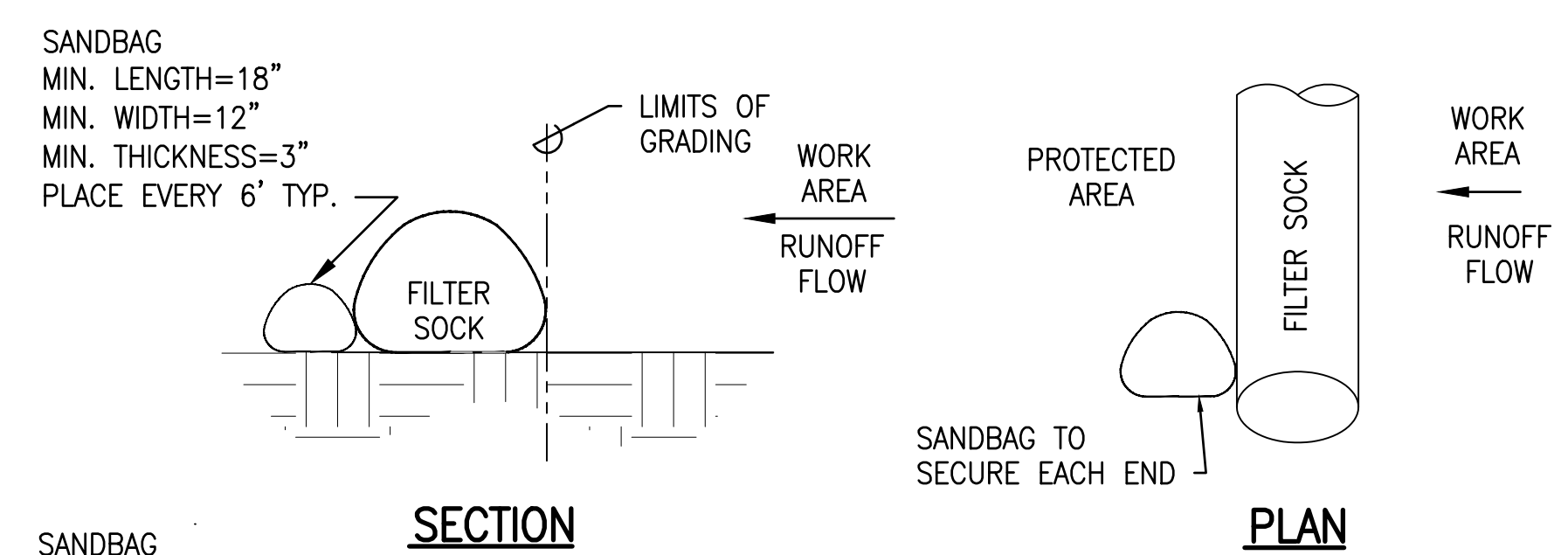
TABLE A GEOTEXTILE REQUIREMENTS

PHYSICAL PROPERTY	REQUIREMENTS
GRAB TENSILE STRENGTH	220 LB (ASTM D1682)
ELONGATION FAILURE	60% (ASTM D1682)
MULLEN BURST STRENGTH	430 LB (ASTM D3768)
PUNCTURE STRENGTH	125 LB (ASTM D751, MODIFIED)
EQUIVALENT OPENING	SIZE 40-80 (US STD SIEVE, CW-02215)



- NOTES:**
1. FILTER FABRIC NOT SHOWN IN FRONT VIEW
 2. FILTER FABRIC TO BE A GEOTEXTILE OR NURSERY SHADE
 3. LUMBER SIZES SHOWN ARE NOMINAL INCHES
 4. AS SHOWN, FABRIC TO BE ANCHORED WITH NATIVE SOIL
 5. 1"x2" FILTER FABRIC CAPS TO BE NAILED 12" O.C.
 6. BURLAP IS NOT ACCEPTABLE AS THE FILTER FABRIC
 7. FABRIC TO HAVE NO HORIZONTAL SEAMS
 8. VERTICAL SEAMS TO BE MADE OVER UPRIGHTS ONLY
 9. ALL SEAMS TO BE CAPPED WITH MINIMUM OF 1"x2"
 10. ALL JOINTS TO BE SECURELY FASTENED BY MECHANICAL MEANS

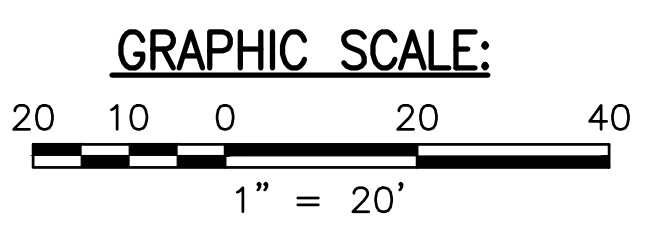
1 DUST BARRIER DETAIL
NOT TO SCALE



- NOTES:**
1. COMPOST SHALL NOT CONTAIN BIOSOLIDS AND SHOULD BE CONSISTENT WITH EPA GUIDELINES.
 2. STAKING OF COMPOST FILTER SOCK IS NOT REQUIRED.

2 COMPOST FILTER SOCK DETAIL
NOT TO SCALE

3 CONSTRUCTION INGRESS/EGRESS DETAIL
NOT TO SCALE



Plotted: Fri, 17 Jul 2020 - 2:05pm By: DYANDS File Name: C:\temp\AcP\ulsh_21304\C-100_Kim Residence-Erosion_Demo_Plan.dwg

Bow Engineering & Development, Inc.
CIVIL ENGINEERS
PLANNERS
195 S. BERETANIA ST., SUITE PH-A HONOLULU, HI 96826
Telephone (808) 941-8833
Fax (808) 945-9259
Email: bow@bowengineering.com

KIM RESIDENCE
1001 Kaimoku Place, Kahaione, Oahu, Hawaii T.M.K. (1)-5-0688-011
EROSION CONTROL & DEMOLITION PLAN & DETAILS

Designed by: ET
Checked by: WB
Drawn by: DY
Approved by: WB
Date: JULY 2020
Scale: AS NOTED
T.M.K.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF HAWAII. I WILL BE UNDER MY REGISTRATION.
4/29/2022
SIGNATURE

WILLIAM H. Q. BOY
LICENSED PROFESSIONAL ENGINEER
NO. 4904-C
HAWAII USA

C-1.00
SHT. - OF - SHTS.

APPENDIX E
GEOTECHNICAL INVESTIGATION REPORT

**REPORT
GEOTECHNICAL INVESTIGATION**

**PROPOSED KIM RESIDENCE
1001 KAIMOKU PLACE
HONOLULU, HAWAII 96816
TMK: (1) 3-5-058: 011**

for

DAVID KIM

Project No. 19-0092
November 6, 2019

SHINSATO ENGINEERING, INC.
98-747 KUAHAO PLACE, #E
PEARL CITY, HI 96782

SHINSATO ENGINEERING, INC.

CONSULTING GEOTECHNICAL ENGINEERS

98-747 KUAHAO PLACE, SUITE E
PEARL CITY, HAWAII 96782
PHONE: (808) 487-7855
FAX: (808) 487-7854

November 6, 2019
Project No. 19-0092

Mr. David Kim
c/o Eiserloh Architects
820 W. Hind Drive, #240139
Honolulu, HI 96824

Dear Mr. Kim:

This report presents the results of a geotechnical investigation for your proposed residence to be constructed at 1001 Kaimoku Place in Honolulu, Hawaii.

- 1) The subsurface condition at the site was explored by drilling 3 test borings to depths of 22.2 to 25.2 feet below existing grade. A summary of the findings is as follows:
 - Boring 1 (performed through the existing concrete pool deck) encountered a surficial layer of CONCRETE that was 5 inches thick, followed by loose to very dense calcareous silty SAND to the final depths of the boring.
 - Boring 2 encountered a surficial layer of elastic SILT that was 12 inches thick, followed by loose to very dense calcareous silty SAND to the final depths of the boring.
 - Boring 3 encountered a surficial layer of basaltic silty GRAVEL that was approximately 30 inches thick followed by very stiff CLAY to the depth of 4.0 feet, followed by loose to very dense calcareous silty SAND to the final depths of the boring.
 - Groundwater was encountered at depths varying from 7.0 to 7.5 feet below grade at the time of the field investigation.
- 2) Based on the findings and observations made during this investigation, it is concluded that from a geotechnical perspective, the site may be developed for the intended use provided the recommendations contained in this report are included in the design and construction of the project. The proposed structures can be supported on relatively shallow footings.
- 3) Special considerations will be required in the design and construction of the project due to existing site conditions. These include but may not be limited to the following:
 - a) The underlying SAND is susceptible to caving especially near groundwater level. Proper safety precautions should be used when excavating into the underlying soils.
 - b) No expansive soils were encountered in the upper 2.5 feet below existing grade in the subsurface explorations. However, if expansive clayey soils are encountered during the excavation of shallow spread footings, the footing shall be deepened to a minimum depth of 24 inches below the adjacent finish grade, or the expansive clayey soils shall be removed and replaced with properly compacted structural fill.

Mr. David Kim
November 6, 2019
Page Two

- c) Compaction of fill and backfill material should be done with care due to the close proximity of the neighboring structures.

Details of the findings and recommendations are presented in the attached report.

This investigation was made in accordance with generally accepted engineering procedures and included such field and laboratory tests considered necessary for the project. In the opinion of the undersigned, the accompanying report has been substantiated by mathematical data in conformity with generally accepted engineering principles and presents fairly the design information requested by your organization. No other warranty is either expressed or given.

Respectfully submitted,

SHINSATO ENGINEERING, INC.



Lawrence S. Shinsato, P.E.
President

LSS:ks



This work was prepared by me
or under my supervision.
License Expires 04/30/20

GEOTECHNICAL INVESTIGATION REPORT

Proposed Kim Residence

1001 Kaimoku Place

Honolulu, Hawaii 96816

TMK: (1) 3-5-058: 011

1.0 INTRODUCTION

This investigation was made for the purpose of obtaining information on the subsurface conditions from which to base recommendations for foundation design for the proposed Kim residence to be constructed at 1001 Kaimoku Place in Honolulu, Hawaii. The location of the site, relative to the existing streets and landmarks, is shown on the Vicinity Map, Plate 1.

2.0 SCOPE OF WORK

The services included drilling 3 test borings to the depths of 22.2 to 25.2 feet below existing grade, obtaining samples of the underlying soils, performing laboratory tests to determine pertinent engineering properties of the representative soil samples, and performing an engineering analysis to determine foundation design parameters. The following information is provided for use by the Architect and/or Engineer:

- 1) General subsurface conditions, as disclosed by the test borings.
- 2) Physical characteristics of the soils encountered.
- 3) Recommendations for foundation design, including bearing values, embedment depth and estimated settlement.
- 4) Recommendations for placement of fill and backfill.
- 5) Special considerations.

3.0 PLANNED DEVELOPMENT

From the information provided, the project will consist of demolishing the existing house and constructing a new residence.

4.0 FIELD INVESTIGATION

4.1 Drilling

The subsurface explorations consisted of drilling test borings at the locations shown on the Plot Plan, Plate 2. The test borings were advanced with a Minuteman drill rig using continuous flight augers.

The augers were 4-inch diameter continuous helical flight augers with the lead auger having a head equipped with changeable cutting teeth. Soil cuttings were brought to the surface by the continuous flights. After the bore hole was advanced to the required depth and cleaned of cuttings by additional rotation of the augers, the augers were retracted for soil sampling or in-situ testing.

Probing was done to determine soil consistency at deeper depths. The probe consists of a 2-inch diameter steel tip that is attached to AW drilling rods. The probe was driven into the underlying material with a 140-pound safety hammer falling from a height of 30 inches. The number of blows required to drive the sampler at 12 inch intervals are shown on the boring logs.

4.2 Soil Sampling

Samples of the underlying soils were obtained from the boring by driving a soil sampler into the subsurface material using a 140-pound safety hammer falling from a height of 30 inches. The sampler was driven

approximately 18 inches into the soil (or until refusal is encountered) and the number of blows required to drive the sampler was recorded at 6 inch intervals. The blow count for the last 12 inches of sampling are shown on the boring log.

The sampler was retracted from the bore hole and a section of the retrieved soil was placed in a close-fitting waterproof container in order to retain field conditions until completion of the laboratory tests. Samples were then transported to the laboratory for testing.

Soil samples were obtained using a modified California Sampler which is a 3 inch outside diameter, 2-1/2 inch inside diameter steel sampler with an interior lining of one-inch long, thin brass rings, or a split spoon sampler which is a 2 inch outside diameter, 1-3/8 inch inside diameter steel sampler.

During the subsurface explorations, continuous logs of the borings were kept. The logs included visual classification of the soils encountered using the Unified Soil Classification System as well as other pertinent information which were gathered during the drilling process. The final boring logs included in this report incorporates engineering analysis and results of the laboratory tests.

5.0 SITE CONDITIONS

5.1 Surface

The property, designated by Tax Map Key number: (1) 3-5-058: 011, is located in Waiialae Kahala near the westerly end of Kaimoku Street. The lot is bordered by a residence to the east, the Waiialae Country Club to the west, the Pacific Ocean to the south, and Kaimoku Street to the north.

At the time of the investigation the lot was occupied by a single family residence and swimming pool. The ground surface was relatively flat.

5.2 Subsurface

The subsurface condition at the site was explored by drilling 3 test borings to depths of 22.2 to 25.2 below existing grade. The locations of the borings are shown on the Plot Plan, Plate 2. Detailed logs of the borings are presented in the Log of Borings, Plates 3 through 5.

A summary of the findings is as follows:

- Boring 1 (performed through the existing concrete pool deck) encountered a surficial layer of CONCRETE that was 5 inches thick, followed by loose to very dense calcareous silty SAND to the final depths of the boring.
- Boring 2 encountered a surficial layer of elastic SILT that was 12 inches thick, followed by loose to very dense calcareous silty SAND to the final depths of the boring.
- Boring 3 encountered a surficial layer of basaltic silty GRAVEL that was approximately 30 inches thick followed by very stiff CLAY to the depth of 4.0 feet, followed by loose to very dense calcareous silty SAND to the final depths of the boring.
- Groundwater was encountered at depths varying from 7.0 to 7.5 feet below grade at the time of the field investigation.

From the USDA Soil Conservation Service "Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii," the site is located in an area designated as Jaucas sand, 0 to 15 percent slopes (JaC). This series consists of excessively drained, calcareous soils that occur as narrow strips on coastal plains, adjacent to the ocean on all islands. These soils developed in wind- and water-deposited sand from coral and seashells. On this soil, permeability is rapid. Runoff is very slow to slow, and the hazard of water erosion is slight, but wind erosion is a severe hazard where vegetation has been removed (USDA, 1972, pg. 48, Plate 68).

6.0 LABORATORY TESTING

6.1 General

Laboratory tests are performed on various soil samples to determine their engineering properties. Descriptions of the various tests are listed below.

6.2 Unit Weight and Moisture Content

The in-situ unit weight and moisture content of the samples are used to correlate similar soils at various depths. The sample is weighed, the volume determined, and a portion of the sample is placed in the oven. After oven-drying, the sample is again weighed to determine the moisture loss. The data is used to determine the wet-density, dry-density, and moisture content.

6.3 Direct Shear

Direct shear tests are performed to determine the strength characteristics of the representative soil samples. The test consists of placing the sample into a shear box, applying a normal load and then shearing the sample at a constant rate of strain. The shearing resistance is recorded at various stages of the test. By repeating the test with varying normal load conditions, the angle of internal friction and cohesion can be determined.

6.4 Expansion Test - Ring Swell

Expansion tests are performed on clayey soils to determine the expansion potential of the sample. The test is performed using either a remolded or relatively undisturbed field sample. The sample is placed in an expansion apparatus with a one (1) psi surcharge. The sample is saturated and the change in vertical height is recorded. The initial moisture content is varied (field moisture or air-dried) to determine the variation in expansion potential with moisture changes. The data is used to determine the expansion potential of the soil.

6.5 Classification Tests

The terms and symbols used to describe the soil materials are based on the Unified Soil Classification System which provides a basis for classifying soils using either visual methods or laboratory test results. Laboratory tests include sieve and hydrometer analysis for particle size distribution, and Atterberg Limits test for liquid limit, and plasticity index determination.

Grain-size distribution of the soil is determined by passing the soil through a series of sieves. If 50 percent or more of the soil by dry weight passes the #200 sieve, the soil is classified as fine-grained. If more than 50 percent of the soil by dry weight is retained on the #200 sieve, the soil is classified as coarse grained.

Coarse grained soils are described as follows:

Boulder	Material retained on a 12 inch square sieve
Cobble	Material passing a 12 inch sieve but retained on a 3 inch sieve
Gravel	Material passing a 3 inch sieve but retained on a #4 sieve
Sand	Material passing a #4 sieve but retained on a #200 sieve

Fine-grained materials are silts and clays. The liquid limit and plastic limit results from an Atterberg Limits test are used to determine if the soil is a silt or clay.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 General

Based on the findings and observations made during this investigation, it is concluded that from a geotechnical perspective, the site may be developed for the intended use provided the recommendations contained in this report are included in the design and construction of the project.

7.2 Special Considerations

Special considerations will be required in the design and construction of the project due to the existing soil conditions. These include but may not be limited to the following:

- a) The underlying SAND is susceptible to caving especially near groundwater level. Proper safety precautions should be used when excavating into the underlying soils.
- b) No expansive soils were encountered in the upper 2.5 feet below existing grade in the subsurface explorations. However, if expansive clayey soils are encountered during the excavation of shallow spread footings, the footing shall be deepened to a minimum depth of 24 inches below the adjacent finish grade, or the expansive clayey soils shall be removed and replaced with properly compacted structural fill.
- c) Compaction of fill and backfill material should be done with care due to the close proximity of the neighboring structures.

7.3 Foundations

Relatively shallow spread footings may be used to support the proposed structures. An allowable bearing value of 2,500 pounds per square foot may be used for footings that bear on either firm on-site soil and/or on properly compacted structural fill. The bearing value is for dead plus live loads and may be increased by one-third (1/3) for momentary loads due to wind or seismic forces. If any footing is eccentrically loaded, the maximum edge pressure shall not exceed the bearing pressure for permanent or for momentary loads.

The minimum footing embedment depth shall be as follows:

- a) For footings constructed on relatively level ground: minimum 12 inches below the lowest adjacent finished grade (measured to the bottom of the footing).
- b) For footings located adjacent to utility trenches: the bottom of the footing shall be deepened

below a 1 horizontal to 1 vertical plane projected upwards from the edge of the utility trench.

- c) For footings located adjacent to retaining walls or other structural elements which are not designed for surcharge loading, the new footing shall be deepened below a 45-degree plane projected upwards from the adjacent structure.

All loose and disturbed soil at the bottom of footing excavations shall be removed to firm soil or the disturbed soil shall be compacted prior to laying of steel or pouring of concrete.

7.4 Site Class Definition

In accordance with the 2006 International Building Code, the site class and soil profile name may be assumed as D: stiff soil profile.

7.5 Settlement

Under the fully applied recommended bearing pressure of 2,500 psf, it is estimated that the total settlement of 5-foot square column footings and 3-foot wide continuous footings that bear on firm on-site soils and properly compacted fill will be on the order of 1-inch. The total settlement is estimated to occur rapidly with load application. Approximately 90 percent of the total settlement is estimated to occur within 4-weeks of full load application.

For the purpose of estimating the differential settlement between footings, the total settlement may be assumed to increase or decrease in proportion to the increase or decrease in footing width and the applied bearing pressure.

7.6 Lateral Earth Pressures and Frictional Resistance

The values for the lateral earth coefficients and frictional resistance may be assumed as follows:

Material	Unit Weight (pcf)	Passive Coefficient (Kp)	Active Coefficient (Ka)	At-rest Coefficient (Ko)	Coefficient of friction
on-site clayey soils	100	3.00	0.30	0.45	0.50
properly compacted structural fill	140	3.50	0.27	0.42	0.70

Lateral resistance and friction may be combined.

7.7 Slab-on-Grade

Conventional slab-on-grade construction may be used. However, during construction should expansive soils be found under slab areas, the expansive soils shall be over excavated to a minimum depth of 24 inches below the bottom of slab elevation and be replaced with non-expansive granular fill. The thickness of the non-expansive granular fill may be reduced to 6 inches for exterior concrete slabs such as sidewalks.

It is recommended that concrete floor slabs that have moisture sensitive floor covering be constructed using a vapor retarder and a capillary moisture barrier of 4 inches of clean gravel cushion material such as #3 fine gravel (ASTM Designation No. 67).

For the design of slabs on grade, a modulus of subgrade reaction of 100 pci may be used for the on-site soil or properly compacted structural fill.

Preparation of the subgrade shall be in accordance with the Site Preparation and Grading section to this report.

7.8 Pavement Design

Flexible (asphaltic concrete) pavement areas to be used by cars and light trucks (up to 10,000 pound GVW) may be designed using 2 inches of asphaltic concrete on 6 inches of compacted base course gravel. In areas used by heavier vehicles, the flexible pavement section shall be increased to 2-1/2 inches of A.C., 6 inches of base course gravel, and 6 inches of select borrow.

Rigid (concrete) pavements for cars and light trucks may be designed using 5 inches of concrete poured on 4-inches of compacted base course gravel. For heavier traffic, the pavement section should be increased to 6-inches of concrete and 6 inches of compacted base course gravel. Expansion/contraction joints shall be provided in the concrete slab. Prior to constructing the concrete pavement, the subgrade soil shall be moisture conditioned to plus or minus 2 percent of optimum moisture content (ASTM D1557-00).

The base course gravel, any select borrow and the top 6 inches of subgrade shall be compacted to at least 95 percent of the maximum dry density as determined by the ASTM D1557-00 test procedure.

All material quality and compaction requirements for the pavement section shall be in accordance with Hawaii Standard Specifications for Road and Bridge Construction, dated 2005.

7.9 Site Preparation and Grading

It is recommended that the site be prepared in the following manner:

- a) Clearing and Grubbing:
In all areas to receive fill and in structural areas, all vegetation, weeds, brush, roots, stumps, rubbish, debris, soft soil and other deleterious material shall be removed and disposed of off-site.
- b) Preparation of Ground to Receive Fill:
The exposed surface shall then be scarified to a depth of 6 inches, moisture conditioned to near optimum moisture (ASTM D1557) and then compacted to the degree of compaction specified below. If soft or loose spots are encountered, the loose/soft areas shall be removed to firm material and the resulting depression shall be filled with properly compacted fill.
- c) Types of Fill and Backfill Material:
Structural fill and backfill shall be described as material placed beneath buildings and extending a horizontal distance of 3 feet beyond the edge of the building line. Non-structural fill shall be described as material placed beyond 3 feet from the building line.
- d) Material Quality:
Fill and backfill material shall consist of soil which is free of organics and debris. The maximum size particle for fill and backfill material shall be as follows:

Structural Fill	
Top 2 feet below finished subgrade (FSG)	3"
Below 2 feet from FSG	6"
Non-structural fill and Pavement areas	
Top 2 feet from FSG	3"
2 to 6 feet from FSG	6"
Below 6 feet from FSG	12"

Structural fill shall have a Unified Soil Classification of either GW, GM, SW, or SM. The plasticity index of the fine portion as determined by the ASTM D4318 test shall be less than 15.

e) Placement of Fill and Backfill:

Each layer of fill and backfill material shall be placed in lifts not exceeding the following (loose thickness):

Structural Fill (including pavement areas)	
Top 2 feet below finished subgrade (FSG)	8"
Below 2 feet from FSG	12"
Non-structural fill	
Top 6 feet from FSG	12"
Below 6 feet from FSG	*

*The loose thickness of this layer shall not exceed 1.5 times the largest size particle; this is predicated upon proper compaction of each lift.

Prior to placing of fill and backfill material, the material shall be aerated or moistened to near optimum moisture content (ASTM D1557 test procedure).

Where fill is placed on existing ground that is steeper than 5 horizontal to 1 vertical, the existing ground surface shall be benched into firm soil as the fill is placed.

f) Degree of Compaction:

Each layer of fill and backfill shall be thoroughly compacted from edge to edge using conventional compaction equipment designed for the purpose. The minimum degree of compaction for each layer (as determined by the ASTM D1557 test procedure) shall be as follows:

Structural Fill (under and 3 feet beyond the edge of buildings)	95 %
Non-structural fill	* 90 %

*Where compaction tests are not practical due to the size of the material, each layer shall be compacted by track rolling until it does not weave or creep under the weight of the track rolling equipment (D-8 dozer or larger).

It is particularly important to see that all fill and backfill soils are properly compacted in order for the design parameters to remain applicable.

- g) Preparation of Footing Excavations:
Footing excavations shall be cleaned of loose material and soils disturbed by the excavation prior to placing of steel or pouring of concrete. Any soft soil encountered at the bottom of the footing excavation shall be removed to firm material. The resulting depression shall then be backfilled with properly compacted structural fill.
- h) Site Drainage:
During construction, drainage shall be provided to minimize ponding of water adjacent to or on foundation and pavement areas. Ponded areas shall be drained immediately. Any subgrade soil that has become soft due to ponding shall be removed to firm material and replaced with compacted structural fill.
- i) Slopes

The maximum recommended slope gradient for cut and fill slopes is 2 horizontal to 1 vertical (2H:1V). Exposed slopes shall be covered as soon as practical after construction to minimize erosion. Fill slopes shall be constructed by either overfilling and cutting back to compacted soil, or the slope shall be track-rolled.

8.0 INSPECTION

During the progress of construction, so as to evaluate compliance with the design concepts, specifications and recommendations contained in this report, it is recommended that a representative from Shinsato Engineering be present to observe the following operations:

- 1) Site preparation and grading including field density tests for soil compaction.
- 2) Foundation excavations to verify that suitable bearing material has been encountered at the bottom of foundation excavations.
- 3) Any special inspection services that may apply.

9.0 REMARKS

The conclusions and recommendations contained herein are based on the findings and observations made at the test boring locations. If conditions are encountered during construction which appear to differ from those disclosed by the explorations, this office shall be notified so as to consider the need for modifications.

This report has been prepared for the exclusive use of Mr. David Kim and his respective design consultants. It shall not be used by or transferred to any other party or to another project without the consent and/or thorough review by this facility. Should the project be delayed beyond the period of one year from the date of this report, the report shall be reviewed relative to possible changed conditions.

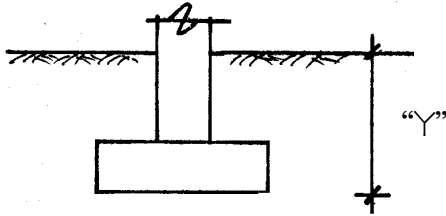
Samples obtained in this investigation will deteriorate with time and will be unsuitable for further laboratory tests within one (1) month from the date of this report. Unless otherwise advised, the samples will be discarded at that time.

- o o o -

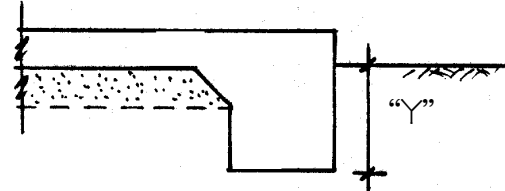
The following are included and complete this report:

	<u>Plate</u>
Foundation Design Details -----	A
Vicinity Map -----	1
Plot Plan -----	2
Logs of Test Borings -----	3 through 5
Results of Laboratory Tests -----	6 through 8

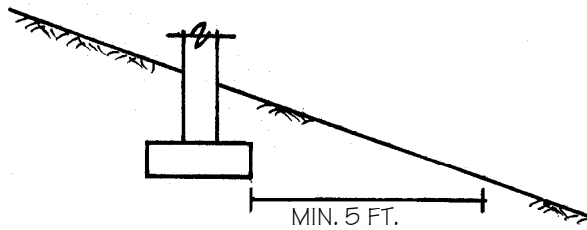
- "Y" = min. 12-inches to bottom of footing;
- Allowable soil bearing pressure = 2,500 psf for footings bearing on firm on-site soil or on compacted structural fill.
- Remove any soft soil found at bottom of the footing trench and replace with compacted structural fill.
- Reinforcing details to be provided by others.
- Site Class (2006 IBC): D (stiff soil profile)



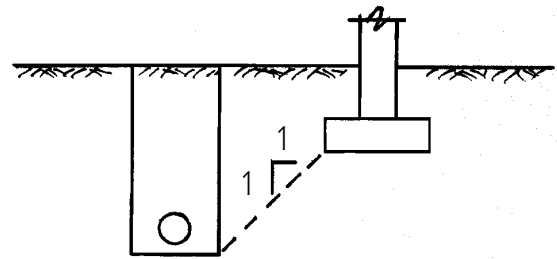
COLUMN FOOTING



THICKENED EDGE FOOTING

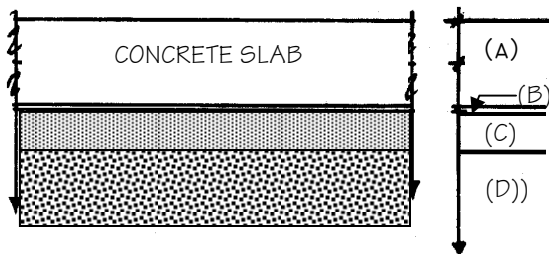


FOOTING ON SLOPE



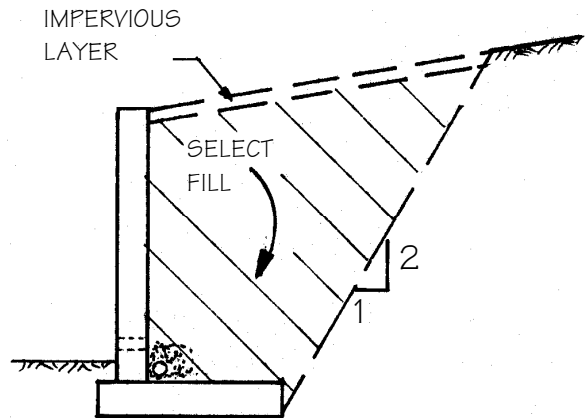
FOOTING ADJACENT TO UTILITY TRENCH

FOOTING EMBEDMENT DEPTH DETAILS



- (A) Slab thickness and reinforcing details by others.
 (B) Vapor retarder
 (C) Capillary clean gravel fill such as #3-fine; detail by others.
 (D) Firm subgrade soil. Remove any soft or disturbed soil and replace it with compacted structural fill.

SLAB-ON-GRADE



- Provide backfill drainage using weepholes or a footing drain;
 Cap the top 12-inches of backfill with an impervious layer (clayey soil, concrete AC, etc.)
 If the on-site clayey soil is used as backfill material in lieu of select (granular) fill, design the wall for a higher active earth pressure.

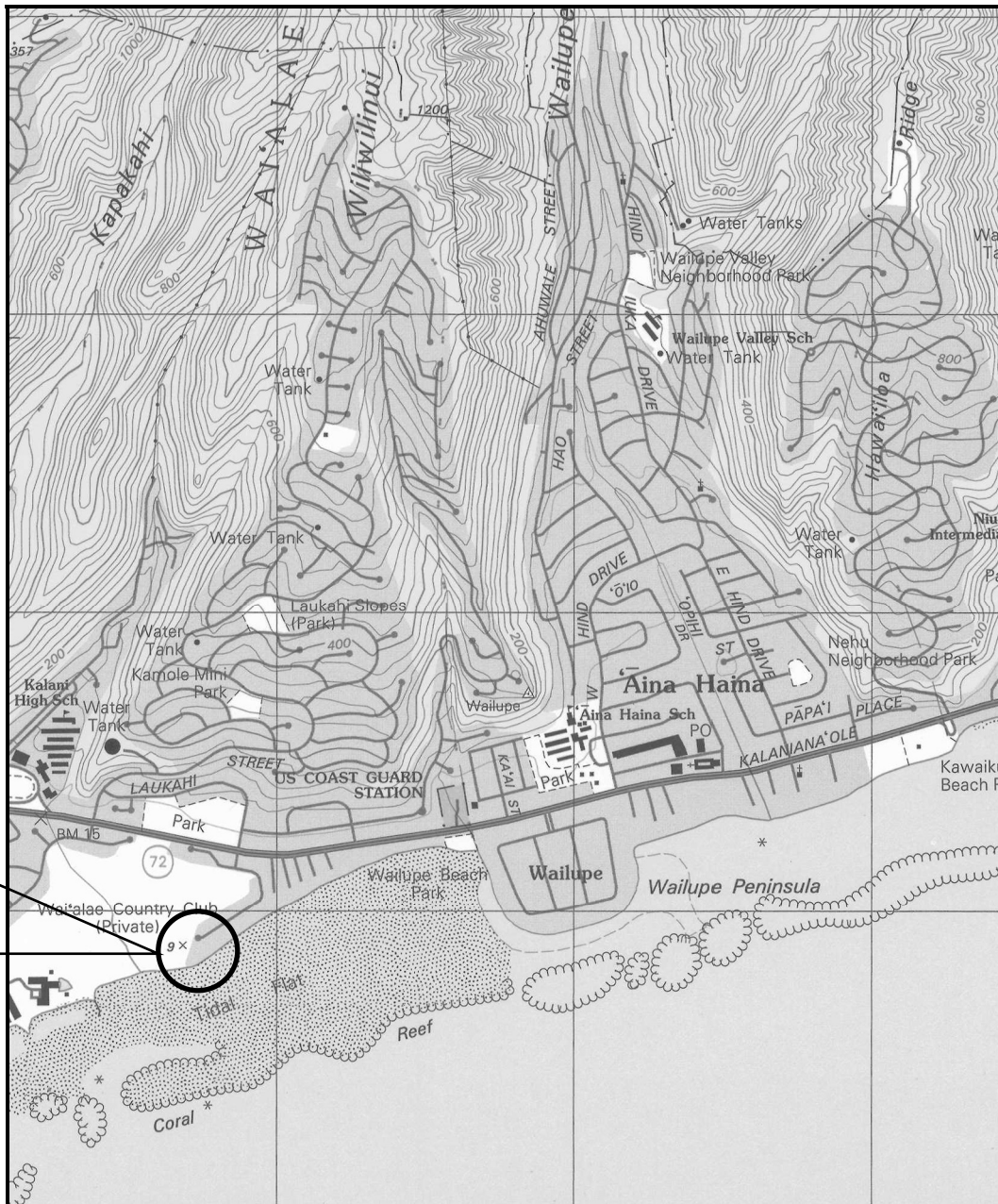
RETAINING WALL BACKFILL

Project: PROPOSED KIM RESIDENCE
 1001 KAIMOKU PLACE
 Project No. 19-0092

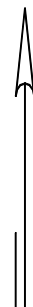
SHINSATO ENGINEERING, INC.
 CONSULTING GEOTECHNICAL ENGINEERS
 98-747 KUAHAO PL. PEARL CITY, HI 96782

**PLATE
 A**

VICINITY MAP



TRUE NORTH



SITE LOCATION

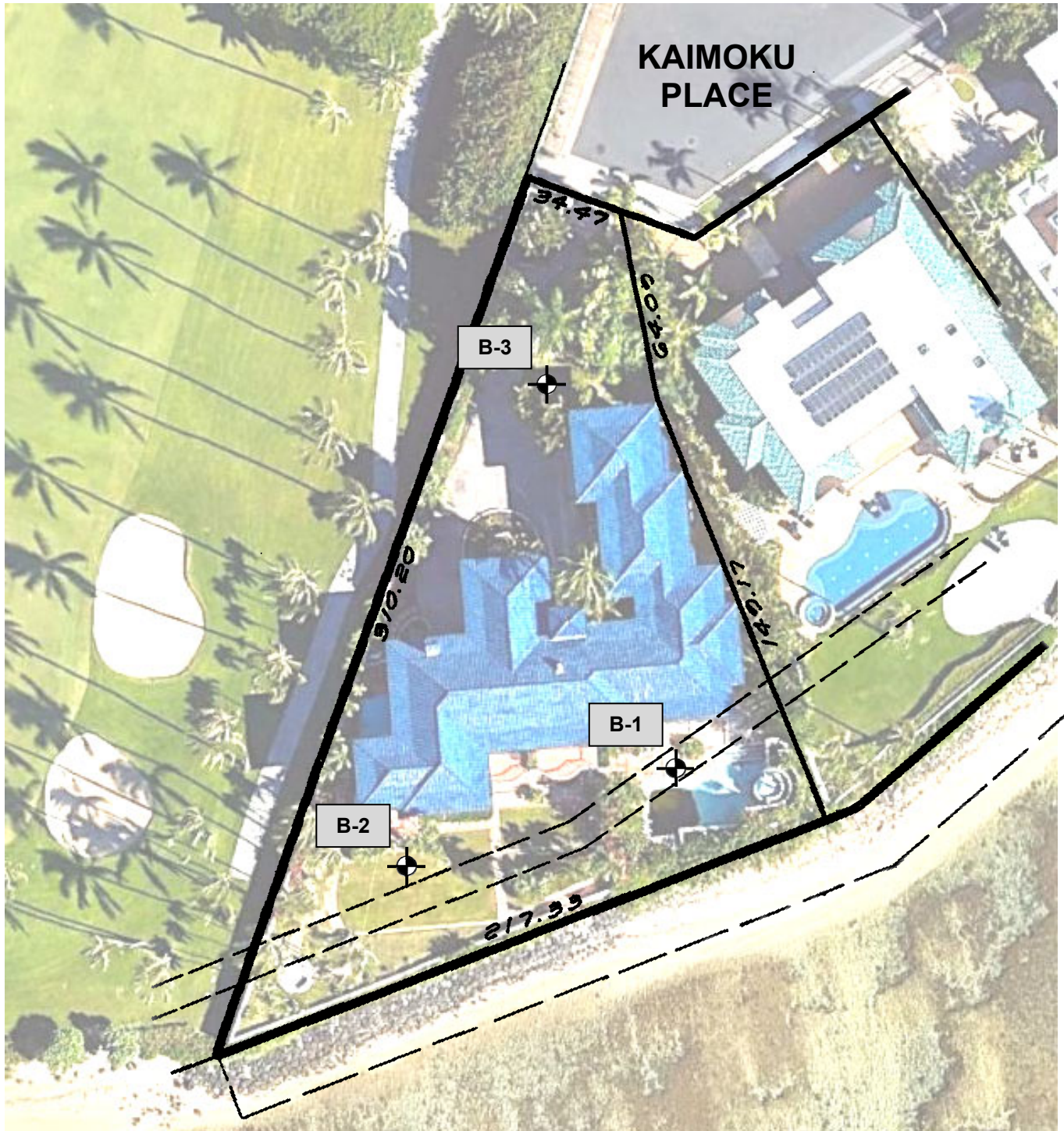
REFERENCE:
 USGS TOPOGRAPHIC MAP
 KOKOHEAD QUADRANGLE
 DATED 1999
 SCALE: 1"=2000'



Project: PROPOSED KIM RESIDENCE
 1001 KAIMOKU PLACE
 Project No.: 19-0092

SHINSATO ENGINEERING, INC.
 CONSULTING GEOTECHNICAL ENGINEERS
 98-747 KUAHAO PL. #E, PEARL CITY, HI 96782

PLATE
1



PLOT PLAN
SCALE: 1" = 50'

TRUE NORTH

LEGEND:

 APPROXIMATE TEST BORING LOCATION



Project: PROPOSED KIM RESIDENCE
1001 KAIMOKU PLACE
Project No.: 19-0092


SHINSATO ENGINEERING, INC.
CONSULTING GEOTECHNICAL ENGINEERS
98-747 KUAHAO PL. #E, PEARL CITY, HI 96782

**PLATE
2**

LOG OF BORING NO. 1

DRILLING METHOD: Minuteman/Tripod
 HAMMER WEIGHT (lbs): 140
 HAMMER DROP (in): 30

ELEVATION (FT.): Unknown
 DEPTH OF BORING (FT.): 22.5
 DEPTH TO GROUNDWATER (FT.): 7.5
 DATE DRILLED: September 17, 2019

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		SM	5" CONCRETE;									
2			silty SAND (calcareous, fine grain); with gravel		30	tan and light brown	medium moist	medium dense	96.5	9.9		
4			--auger grinding from 4.5' to 5.5'; potential cobbles;		66			dense				
6			--some gravel		39	tan white		medium dense	93.0	17.2		
8				12	loose							
10		(PRB)	PROBE to determine soil consistency		8				97.1	21.8		
12					6							
14					4							
16					6							
18					5							
20					2							
22					2							
24					3							
26					10							
28					9							
30				44								
				42				dense				
			END OF BORING									

Project: PROPOSED KIM RESIDENCE
 1001 KAIMOKU PLACE
 Project No.: 19-0092

SHINSATO ENGINEERING, INC.
 CONSULTING GEOTECHNICAL ENGINEERS
 98-747 KUAHAO PL. #E, PEARL CITY, HI 96782

PLATE
3

LOG OF BORING NO. 2

DRILLING METHOD: **Minuteman/Tripod**
 HAMMER WEIGHT (lbs): **140**
 HAMMER DROP (in): **30**

ELEVATION (FT.): **Unknown**
 DEPTH OF BORING (FT.): **25.2**
 DEPTH TO GROUNDWATER (FT.): **7.3**
 DATE DRILLED: **September 17, 2019**

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		MH	elastic SILT; with sand			brown	medium moist	stiff				
2		SM	silty SAND (calcareous, fine grain); with gravel --sampler refusal --trace gravel --sampler refusal, no sample return --auger grinding from 9.5' to 10.2'		10/1"	tan and light brown		medium dense	66.8	11.9		
4				18				loose	77.7	20.0		
8				12		tan white		medium dense	79.7	20.2		
10				28/5"				very dense				
12		(PRB)	PROBE to determine soil consistency		1							
14					1							
16					4							
18					3							
20					3							
22					2							
24					2							
26					15							
28					8							
30					11							
32					70			very dense				
34			END OF BORING		26/2"							

Project: **PROPOSED KIM RESIDENCE**
1001 KAIMOKU PLACE
 Project No.: **19-0092**

SHINSATO ENGINEERING, INC.
 CONSULTING GEOTECHNICAL ENGINEERS
 98-747 KUAHAO PL. #E, PEARL CITY, HI 96782

PLATE
4

LOG OF BORING NO. 3

DRILLING METHOD: Minuteman/Tripod
 HAMMER WEIGHT (lbs): 140
 HAMMER DROP (in): 30

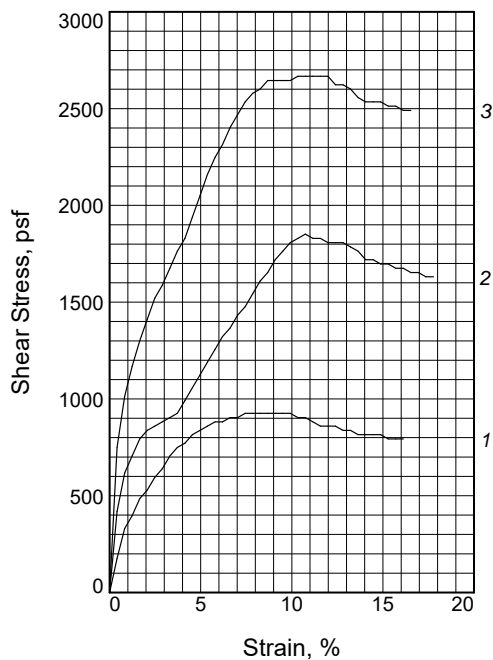
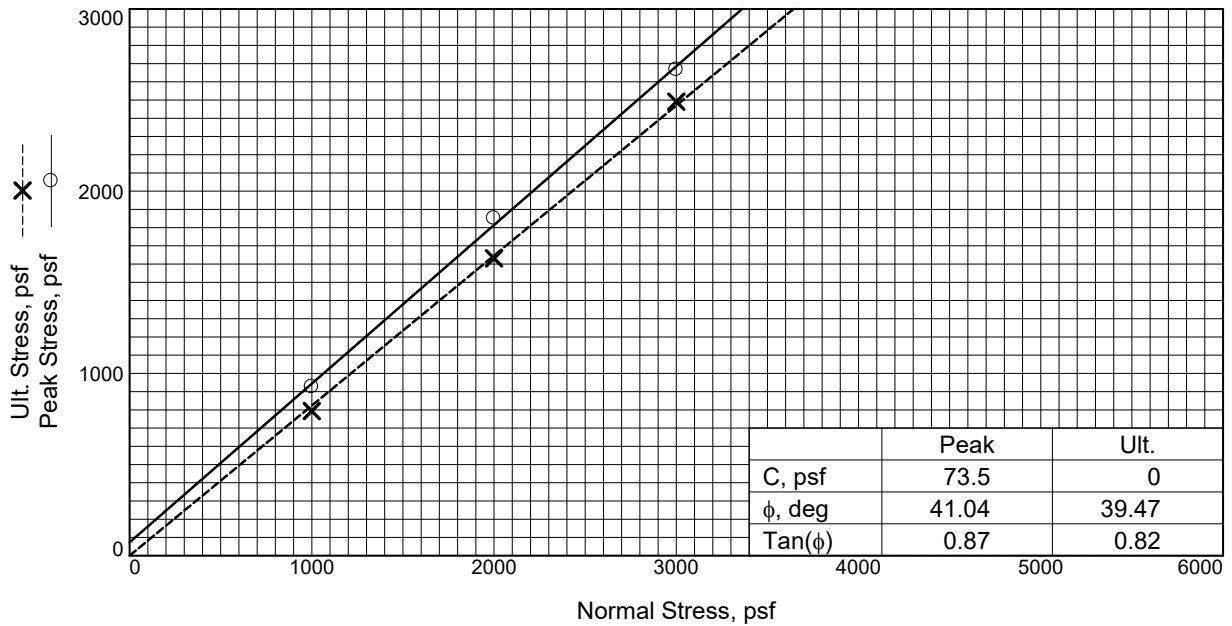
ELEVATION (FT.): Unknown
 DEPTH OF BORING (FT.): 22.2
 DEPTH TO GROUNDWATER (FT.): 7.0
 DATE DRILLED: September 17, 2019

DEPTH (FT.)	GRAPHIC SYMBOL	UNIFIED SOIL CLASSIFICATION	DESCRIPTION	SAMPLE	BLOWS/FOOT	COLOR	MOISTURE	CONSISTENCY	DRY DENSITY (PCF)	MOISTURE CONTENT (% OF DRY WT.)	PENETROMETER (TSF)	TORVANE STRENGTH (TSF)
0		GM	silty GRAVEL (basaltic); with sand			light brown	medium moist	dense				
2		CH	CLAY; with calcareous sand and gravel		94	brown with tan white		very stiff	87.0	19.7		
4		SM	silty SAND (calcareous, fine grain);		36	tan and light brown		medium dense	87.9	15.8		
6					22				76.9	17.1		
8			--auger grinding from 8.5' to 9.5'									
10			--with gravel			tan white		dense to very dense loose				
10					18				92.1	21.6		
12		(PRB)	PROBE to determine soil consistency		7							
14					3							
16					1							
18					1							
20					4							
22					1							
22					3							
22					3							
22					6							
22					6							
22					38			dense				
22			END OF BORING		20 1/2"			very dense				

Project: PROPOSED KIM RESIDENCE
 1001 KAIMOKU PLACE
 Project No.: 19-0092

SHINSATO ENGINEERING, INC.
 CONSULTING GEOTECHNICAL ENGINEERS
 98-747 KUAHAO PL. #E, PEARL CITY, HI 96782

PLATE 5



Sample No.	1	2	3	
Initial	Water Content, %	N/A	N/A	N/A
	Dry Density, pcf	N/A	N/A	N/A
	Saturation, %	N/A	N/A	N/A
	Void Ratio	N/A	N/A	N/A
	Diameter, in.	2.420	2.420	2.420
At Test	Height, in.	1.000	1.000	1.000
	Water Content, %	N/A	N/A	N/A
	Dry Density, pcf	N/A	N/A	N/A
	Saturation, %	N/A	N/A	N/A
	Void Ratio	N/A	N/A	N/A
Diameter, in.				
Height, in.				
Normal Stress, psf	1000.0	2000.0	3000.0	
Peak Stress, psf	925.7	1851.4	2666.9	
Strain, %	7.4	10.7	10.3	
Ult. Stress, psf	793.4	1631.0	2490.5	
Strain, %	15.3	17.4	16.1	
Strain rate, in./min.	N/A	N/A	N/A	

Sample Type: SM
Description: silty SAND

Specific Gravity=
Remarks:

Client:

Project: PROPOSED KIM RESIDENCE
 1001 KAIMOKU PLACE
Source of Sample: 3 **Depth:** 4

Sample Number: 3

Proj. No.: 19-0092

Date Sampled:

DIRECT SHEAR TEST REPORT
 SHINSATO ENGINEERING, INC.
 Pearl City, HI

Figure 6

EXPANSION TEST REPORT

LOCATION	DEPTH (ft)	TEST DRY DENSITY (pcf)	MOISTURE CONTENT (%)			SWELL (%)	TEST CONDITION	SWELL POTENTIAL
			BEFORE	AIR DRIED	SATURATED			
Boring 3, Sample 1	2.0	101.0	15.7	6.7	20.6	0.0	remolded, air dried to saturation	low

NOTES:

- 1) 1 psi surcharge.

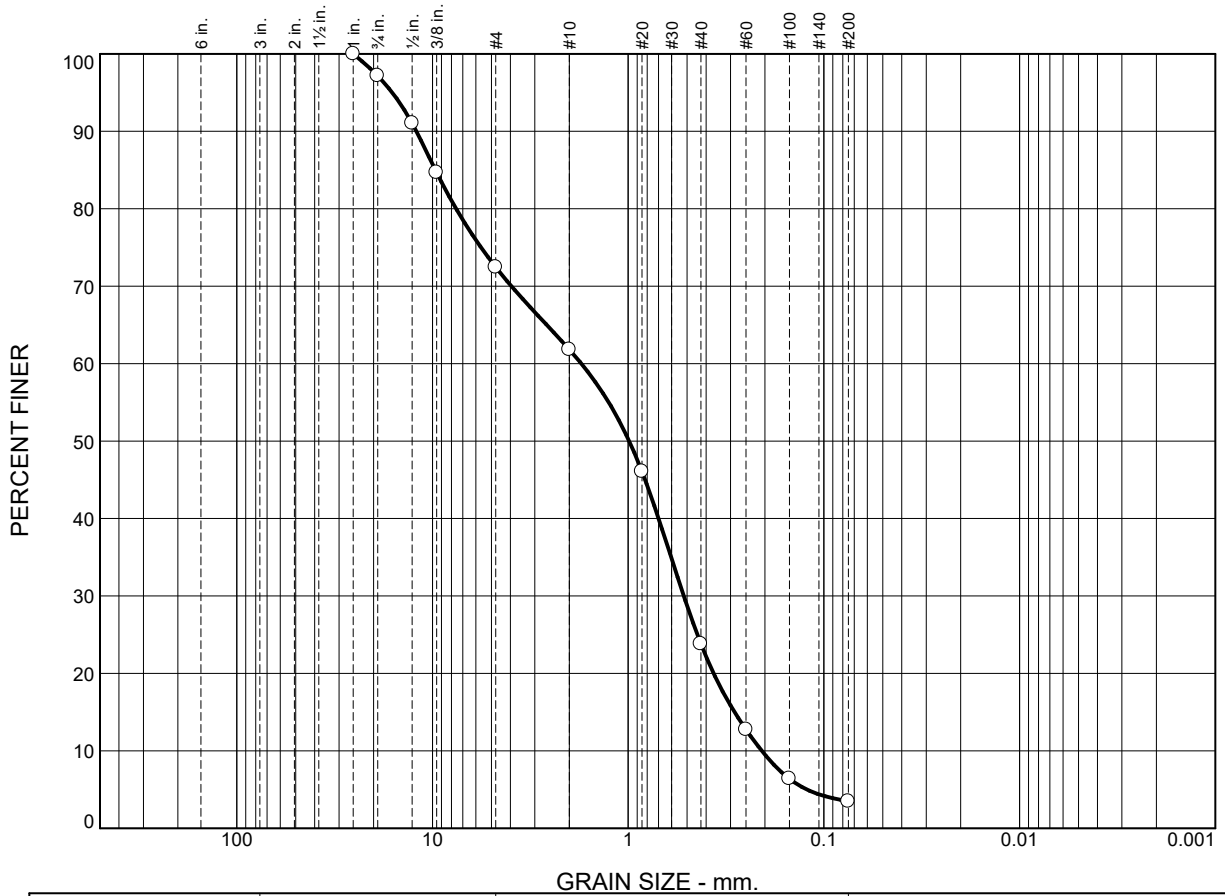
PERCENT SWELL	SWELL POTENTIAL
<2	low
2-6	moderate
6-10	high
>10	very high

Project: PROPOSED KIM RESIDENCE
1001 KAIMOKU PLACE
Project No.: 19-0092

SHINSATO ENGINEERING, INC.
CONSULTING GEOTECHNICAL ENGINEERS
98-747 KUAHAO PL. #E, PEARL CITY, HI 96782

PLATE
7

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0	3	25	10	38	21	3	

SOIL DATA					
SYMBOL	SOURCE	SAMPLE NO.	DEPTH (ft.)	Material Description	USCS
○	1	4	10	poorly graded SAND with gravel	SP

<p>SHINSATO ENGINEERING, INC.</p> <p style="text-align: center;">Pearl City, HI</p>	<p>Client:</p> <p>Project: PROPOSED KIM RESIDENCE 1001 KAIMOKU PLACE</p> <p>Project No.: 19-0092</p>
<p>Figure 8</p>	

APPENDIX F
DRAINAGE REPORT



**DRAINAGE ANALYSIS
FOR
KIM RESIDENCE**

1001 Kaimoku Place
Kahala, Oahu, Hawaii
TMK: (1) 3-5-058: 011

July 16, 2020

The Kim residence project is located at TMK: 3-5-058:011 in Kahala on Oahu. The proposed project consists of a two-story single family residence, approximately 17,518 sq. ft. The project site is located at 1001 Kaimoku Place, east of Waialae Country Club Golf Course, along the Pacific Ocean, bounded by a seawall to the south.

Existing Conditions

The site currently consists of a single family residence with a driveway and landscaped backyard with a pool. The site is relatively flat with ground surface slopes ranging from approximately 0.3% to 1.5%. The site is also located in the VE, X, and AE flood zones. Runoff generated from the site is directed to four discharge points at the northern, southern, eastern and western portions of the site. See attached Figure 1 for the Existing Drainage Map.

Proposed Conditions

The proposed development will include a new two-story single family residence with a driveway, pool, deck and landscaped backyard. The drainage patterns will generally be the same as existing conditions with the exception of drywells. Runoff generated from the roof will be collected to roof downspouts and piped to three drywells located in the front and backyard. This will allow the total proposed flow rate to slightly decrease compared to the existing flow rate. See attached Figure 2 for the Proposed Drainage Map.

Drainage Analysis

The drainage analysis is in conformance to the City and County of Honolulu's Storm Drainage Standards, August 2017. The site drainage area is less than 100 acres, therefore the site storm runoff rate (Q, cfs) will be based on a 10 year recurrence interval and the rational method will be used. See attached Drainage Calculations.

As shown in the Drainage Calculations, the proposed development results in a total net decrease of 0.33 cfs and 0.48 cfs for the 10-year and 50-year recurrence interval, respectively.

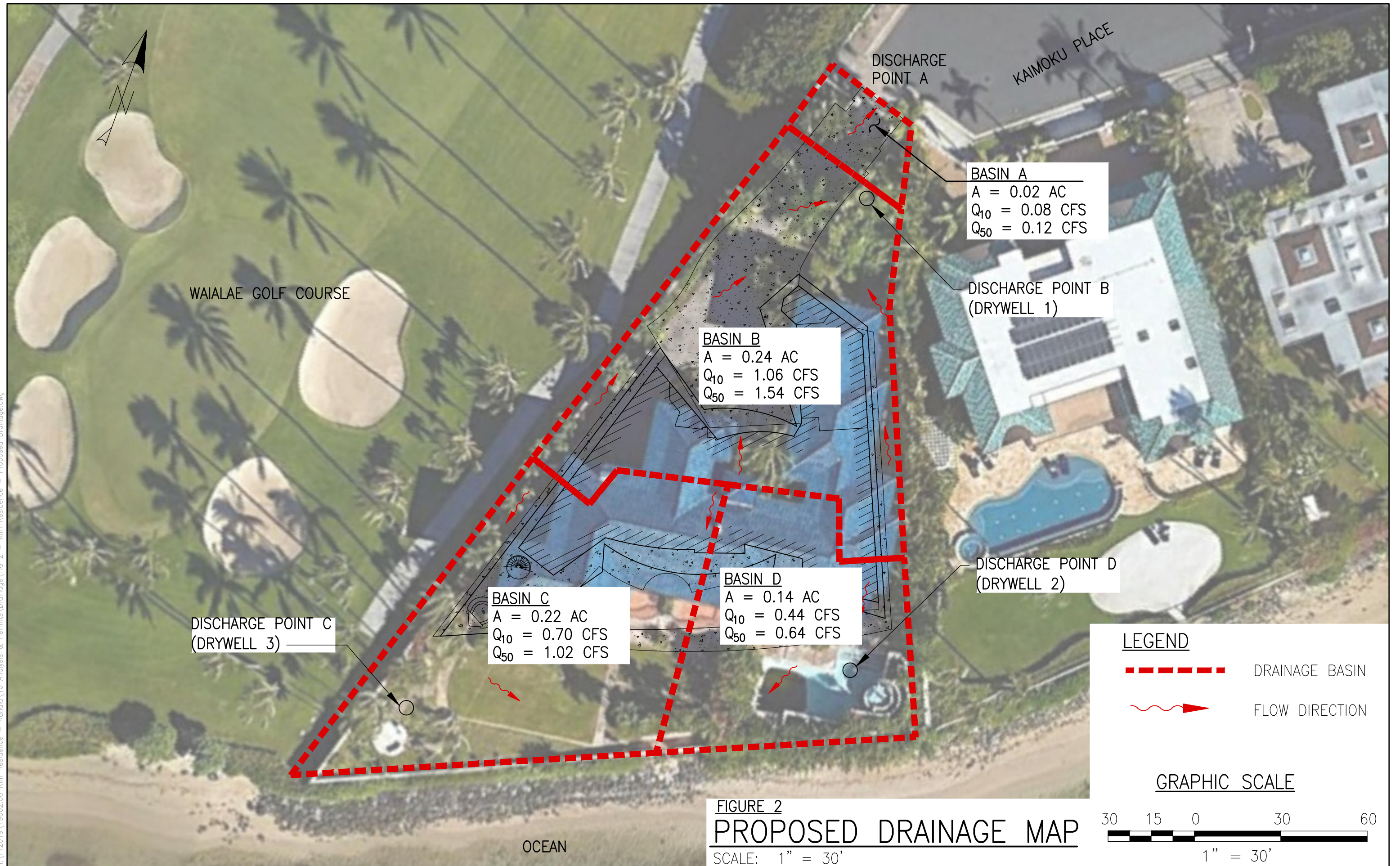


Attachments

Figure 1 – Existing Drainage Map
Figure 2 – Proposed Drainage Map
Drainage Calculations



H:\FY2019\19002.00 Kim Residence - Kohala\10 Analysis & Permits\Drainage\FIG. 2 - Kim Residence - Proposed Drainage.dwg



WAIALAE GOLF COURSE

KAIMOKU PLACE

DISCHARGE POINT A

BASIN A
A = 0.02 AC
Q₁₀ = 0.08 CFS
Q₅₀ = 0.12 CFS

DISCHARGE POINT B (DRYWELL 1)

BASIN B
A = 0.24 AC
Q₁₀ = 1.06 CFS
Q₅₀ = 1.54 CFS

DISCHARGE POINT D (DRYWELL 2)

BASIN C
A = 0.22 AC
Q₁₀ = 0.70 CFS
Q₅₀ = 1.02 CFS

DISCHARGE POINT C (DRYWELL 3)

BASIN D
A = 0.14 AC
Q₁₀ = 0.44 CFS
Q₅₀ = 0.64 CFS

OCEAN

FIGURE 2
PROPOSED DRAINAGE MAP
SCALE: 1" = 30'

KIM RESIDENCE DRAINAGE CALCULATIONS

<i>EXISTING CONDITIONS</i>																	
BASIN	AREA (SF)		C _{WT}	TIME OF CONCENTRATION					i ₁₀ (in./hr.)	i ₅₀ (in./hr.)	I ₁₀ (in./hr.)	I ₅₀ (in./hr.)	AREA		Q ₁₀ (cfs)	Q ₅₀ (cfs)	Discharge Point
	Open Area C=0.18	Paved C=0.90		L (ft.)	S (%)	G.C.*	t (min.)	CF					(SF)	(AC)			
A	1,067	872	0.50	77	1.0%	O, P	5.0	2.8	2.16	3.15	6.05	8.82	1939	0.04	0.14	0.20	To Kaimoku Place
B	1,278	9,347	0.81	166	1.0%	O, P	7.0	2.8	2.16	3.15	6.05	8.82	10625	0.24	1.20	1.75	To Golf Course
C	5,552	7,397	0.59	80	1.0%	O, P	5.0	2.8	2.16	3.15	6.05	8.82	12949	0.30	1.06	1.55	To ocean
D	359	1,620	0.77	60	1.0%	O, P	5.0	2.8	2.16	3.15	6.05	8.82	1979	0.05	0.21	0.31	To eastern low point
TOTAL													0.63	2.61	3.81		

<i>PROPOSED CONDITIONS</i>																	
BASIN	AREA (SF)		C _{WT}	TIME OF CONCENTRATION					i ₁₀ (in./hr.)	i ₅₀ (in./hr.)	I ₁₀ (in./hr.)	I ₅₀ (in./hr.)	AREA		Q ₁₀ (cfs)	Q ₅₀ (cfs)	Discharge Point
	Open Area C=0.18	Paved C=0.90		L (ft.)	S (%)	G.C.*	t (min.)	CF					(SF)	(AC)			
A	500	579	0.57	30	1.0%	O, P	6.0	2.8	2.16	3.15	6.05	8.82	1079	0.02	0.08	0.12	To Kaimoku Place
B	2662	7941	0.72	150	1.0%	O, P	6.0	2.8	2.16	3.15	6.05	8.82	10603	0.24	1.06	1.54	To Drywell 1
C	5159	4575	0.52	108	1.0%	O, P	6.0	2.8	2.16	3.15	6.05	8.82	9734	0.22	0.70	1.02	To Drywell 3
D	3220	2856	0.52	45	1.0%	O, P	6.0	2.8	2.16	3.15	6.05	8.82	6076	0.14	0.44	0.64	To Drywell 2
TOTAL													0.63	2.28	3.33		

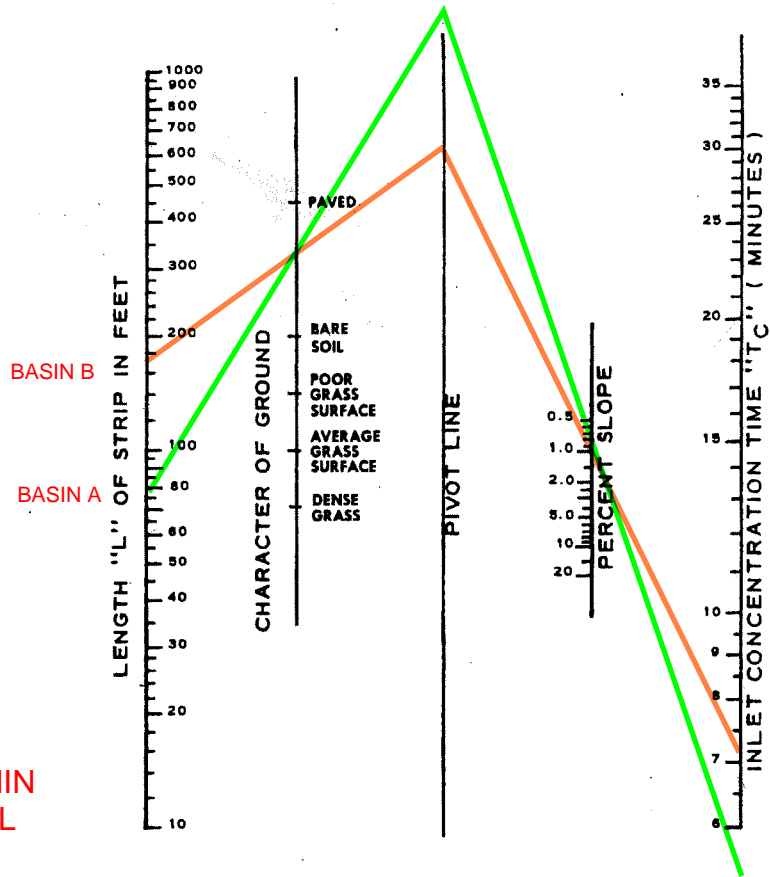
* Ground Cover : O - OPEN AREA

INCREASE IN FLOW	-0.33	-0.48
-------------------------	--------------	--------------

Plate 3

Overland Flow Chart

ASSUME TC OF 6 MIN
AND CF 2.8 FOR ALL
EXISTING BASINS



CORRECTION FACTOR APPLIED TO ONE HOUR RAINFALL IN INCHES
TO OBTAIN RAINFALL INTENSITY OF GIVEN DURATION

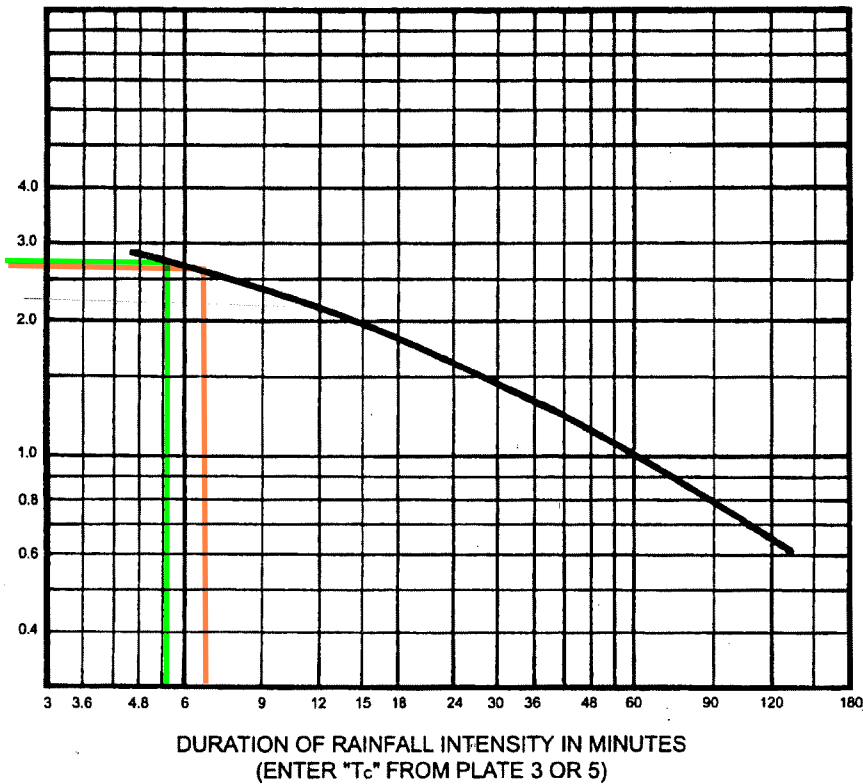


Plate 4

CORRECTION FACTOR
FOR CONVERTING 1 HR. RAINFALL
TO RAINFALL INTENSITY
OF VARIOUS DURATIONS

TO BE USED FOR AREA
LESS THAN 100 ACRES

(See Plate 6 for area
more than 100 acres)



NOAA Atlas 14, Volume 4, Version 3
Location name: Honolulu, Hawaii, USA*
Latitude: 21.2729°, Longitude: -157.769°
Elevation: 8.56 ft**
 * source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

S. Perica, D. Martin, B. Lin, T. Parzybok, D. Riley, M. Yekta, L. Hiner, L.-C. Chen, D. Brewer, F. Yan, K. Maitaria, C. Trypaluk, G. M. Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps & aeriels](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.307 (0.266-0.347)	0.387 (0.338-0.447)	0.516 (0.448-0.597)	0.625 (0.537-0.724)	0.783 (0.660-0.910)	0.914 (0.757-1.07)	1.05 (0.856-1.24)	1.20 (0.956-1.42)	1.42 (1.09-1.70)	1.61 (1.19-1.93)
10-min	0.455 (0.394-0.514)	0.574 (0.501-0.663)	0.765 (0.664-0.886)	0.927 (0.797-1.07)	1.16 (0.979-1.35)	1.36 (1.12-1.58)	1.56 (1.27-1.83)	1.79 (1.42-2.11)	2.11 (1.61-2.52)	2.38 (1.76-2.87)
15-min	0.571 (0.495-0.646)	0.721 (0.630-0.833)	0.960 (0.834-1.11)	1.16 (1.00-1.35)	1.46 (1.23-1.70)	1.70 (1.41-1.99)	1.96 (1.59-2.30)	2.24 (1.78-2.65)	2.65 (2.03-3.16)	2.99 (2.22-3.60)
30-min	0.803 (0.696-0.909)	1.01 (0.886-1.17)	1.35 (1.17-1.57)	1.64 (1.41-1.90)	2.05 (1.73-2.39)	2.40 (1.98-2.80)	2.76 (2.24-3.24)	3.16 (2.51-3.73)	3.73 (2.85-4.45)	4.21 (3.12-5.07)
60-min	1.06 (0.916-1.20)	1.34 (1.17-1.54)	1.78 (1.54-2.06)	2.16 (1.85-2.50)	2.70 (2.28-3.14)	3.15 (2.61-3.68)	3.63 (2.95-4.27)	4.15 (3.30-4.91)	4.91 (3.75-5.86)	5.54 (4.10-6.67)
2-hr	1.40 (1.21-1.56)	1.79 (1.56-2.06)	2.40 (2.09-2.78)	2.91 (2.50-3.37)	3.64 (3.08-4.24)	4.25 (3.54-4.97)	4.90 (4.00-5.77)	5.60 (4.47-6.63)	6.60 (5.07-7.91)	7.44 (5.52-8.98)
3-hr	1.59 (1.38-1.78)	2.09 (1.83-2.41)	2.81 (2.44-3.25)	3.40 (2.93-3.95)	4.26 (3.60-4.96)	4.96 (4.12-5.81)	5.71 (4.65-6.72)	6.52 (5.18-7.72)	7.67 (5.87-9.18)	8.63 (6.38-10.4)
6-hr	2.03 (1.74-2.28)	2.66 (2.32-3.07)	3.60 (3.12-4.16)	4.37 (3.75-5.06)	5.46 (4.63-6.36)	6.36 (5.29-7.44)	7.32 (5.96-8.60)	8.34 (6.63-9.87)	9.81 (7.50-11.7)	11.0 (8.14-13.3)
12-hr	2.44 (2.10-2.75)	3.23 (2.82-3.74)	4.42 (3.83-5.12)	5.39 (4.62-6.24)	6.75 (5.69-7.86)	7.86 (6.51-9.19)	9.02 (7.33-10.6)	10.3 (8.15-12.2)	12.0 (9.19-14.4)	13.5 (9.94-16.3)
24-hr	2.91 (2.55-3.34)	3.97 (3.47-4.56)	5.49 (4.77-6.31)	6.71 (5.81-7.74)	8.46 (7.27-9.80)	9.89 (8.42-11.5)	11.4 (9.62-13.3)	13.0 (10.9-15.3)	15.4 (12.6-18.2)	17.3 (13.9-20.6)
2-day	3.50 (3.09-3.99)	4.77 (4.19-5.44)	6.56 (5.74-7.51)	7.99 (6.97-9.18)	10.0 (8.66-11.6)	11.7 (9.99-13.5)	13.4 (11.3-15.6)	15.2 (12.7-17.8)	17.8 (14.6-21.1)	19.8 (16.0-23.7)
3-day	3.89 (3.43-4.44)	5.30 (4.66-6.06)	7.27 (6.37-8.33)	8.84 (7.71-10.2)	11.0 (9.54-12.7)	12.8 (11.0-14.8)	14.6 (12.4-17.1)	16.6 (13.9-19.4)	19.2 (15.8-22.8)	21.4 (17.3-25.5)
4-day	4.28 (3.77-4.89)	5.83 (5.13-6.67)	7.99 (7.00-9.16)	9.70 (8.45-11.1)	12.1 (10.4-13.9)	13.9 (11.9-16.2)	15.9 (13.5-18.5)	17.9 (15.0-21.0)	20.7 (17.0-24.5)	22.9 (18.5-27.3)
7-day	4.71 (4.15-5.38)	6.39 (5.63-7.31)	8.73 (7.65-10.00)	10.6 (9.23-12.2)	13.1 (11.4-15.2)	15.2 (13.0-17.6)	17.2 (14.6-20.1)	19.4 (16.3-22.8)	22.4 (18.5-26.6)	24.8 (20.1-29.7)
10-day	5.21 (4.59-5.93)	7.03 (6.19-8.04)	9.56 (8.38-11.0)	11.5 (10.1-13.3)	14.3 (12.3-16.5)	16.4 (14.1-19.0)	18.6 (15.8-21.7)	20.9 (17.5-24.5)	24.0 (19.7-28.4)	26.5 (21.3-31.6)
20-day	6.26 (5.53-7.14)	8.40 (7.41-9.59)	11.3 (9.92-12.9)	13.5 (11.8-15.5)	16.5 (14.3-19.1)	18.8 (16.2-21.8)	21.2 (18.0-24.7)	23.5 (19.7-27.6)	26.7 (21.9-31.6)	29.1 (23.5-34.7)
30-day	7.27 (6.41-8.30)	9.73 (8.57-11.1)	13.0 (11.4-14.9)	15.5 (13.5-17.8)	18.8 (16.3-21.8)	21.4 (18.3-24.8)	23.9 (20.3-27.9)	26.5 (22.2-31.1)	29.8 (24.5-35.3)	32.4 (26.2-38.7)
45-day	8.82 (7.78-10.0)	11.7 (10.3-13.4)	15.6 (13.7-17.8)	18.5 (16.1-21.2)	22.3 (19.3-25.7)	25.1 (21.6-29.1)	28.0 (23.8-32.6)	30.8 (25.9-36.1)	34.6 (28.4-40.9)	37.4 (30.2-44.5)
60-day	10.1 (8.92-11.5)	13.3 (11.7-15.2)	17.4 (15.3-19.9)	20.5 (17.9-23.5)	24.5 (21.2-28.2)	27.5 (23.5-31.8)	30.3 (25.7-35.3)	33.2 (27.8-38.9)	36.8 (30.3-43.6)	39.5 (31.9-47.2)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

PF graphical

APPENDIX G
BIOLOGICAL SURVEY REPORT

Natural resources assessment for 1001 Kaimoku Place (TMK: 3-5-058:11) in Kahala, O'ahu



Prepared by:

AECOS, Inc.

45-939 Kamehameha Hwy, Suite 104
Kāne'ohe, Hawai'i 96744-3221

November 27, 2019

Natural resources assessment for 1001 Kaimoku Place (TMK: 3-5-058:11) in Kahala, O‘ahu ¹

December 4, 2019

AECOS No. 1605

Bryson Luke and David Miranda

AECOS Inc.

Kamehameha Highway, Kāne‘ohe, Hawai‘i 96744

Phone: (808) 234-7770 Fax: (808) 234-7775 Email: guinther@aecos.com

Introduction

Eiserloh Architects proposes to demolish and reconstruct a single-home residence at 1001 Kaimoku Place (“Project”), TMK: 3-5-058:011, Kahala, O‘ahu. The parcel is approximately 0.63 ac located at the end of Kaimoku Place, a beachfront lot adjacent to the Wai‘ālae Country Club golf course. The Project parcel is within the City and County of Honolulu, Coastal Zone Management (CZM), Special Management Area (SMA). Proposed construction activities for the Project will require a SMA Major Permit. Eiserloh Architects contracted *AECOS*, Inc. to conduct a biological survey for protected species at the Project location as part of the permitting effort.²

Methods

Botanical Survey

AECOS biologist David Miranda walked the Project parcel and adjacent beachfront on the morning of October 29, 2019. Plant species were identified as they were encountered, and notes taken to develop a relative abundance for each species recorded.

¹ Report prepared for Eiserloh Architects, for planning and permitting purposes.

²At the time of this report, the anticipated construction activities at the Project under the SMA Major Permit application do not include modifications to the existing seawall nor work *makai* (seaward) of the seawall. The recommendations provided by *AECOS* do not account for shoreline modifications or in-water work.

Plant species names in this report follow *Manual of the Flowering Plants of Hawai'i* (Wagner, Herbst, & Sohmer, 1990; Wagner & Herbst, 1999) for native and naturalized flowering plants and *A Tropical Garden Flora* (Staples & Herbst, 2005) for ornamental plants. More recent name changes for naturalized plant species follow Imada (2012).



Figure 1. Location of Project parcel (TMK: 3-5-058:011; outlined in red). Shown are two avian point-count stations (green dots).

Avian biota

AECOS biologist Bryson Luke characterized the avian assemblage at the Project parcel in the morning hours of October 29, 2019, the most active time of day for birds. Two point-count stations were selected on the east and west ends of the Project parcel (Figure 1, above). Weather conditions were ideal for avian observations, with no rain and only a light wind. All birds observed and/or

heard during an 8-minute period were identified to species and counted. Additional avian species observed in the Project area beyond the point-counts were noted as incidental observations.

The avian phylogenetic order and nomenclature used in this report follow the *Hawaiian Island Birds Checklist* (VanderWerf et al., 2018), which is based on the *Checklist of North and Middle America Birds* by American Ornithological Society (AOS; Chesser et al., 2018). Hawaiian common names are provided for indigenous and endemic species.

Wedge-tailed Shearwater or 'ūa'u kani (*Ardenna pacifica*) is a seabird species protected under the Migratory Bird Treaty Act (MBTA) of 1918. Wedge-tailed Shearwater nest in coastal locations throughout the Hawaiian Islands and a breeding colony is known to be present at Black Point, 1.9 mi (3 km) southwest of the Project parcel. Typical nests of Wedge-tailed Shearwater are found beneath littoral vegetation, rock ledges, or excavated burrows in coastal dunes. USFWS recommends surveys of projects impacting coastal areas during Wedge-tailed Shearwater breeding season (March through November) (USFWS, 2005; USFWS, nd). While on-site, AECOS biologists surveyed the Project site for seabird burrows and any suspect areas noted where found.

Terrestrial Mammals

Surveys for terrestrial mammals was limited to visual detection, coupled with observations for scat, tracks, and other animal sign. A running tally of all terrestrial mammal species detected within the project area was kept along with notes of general abundances. No survey was conducted for Hawaiian hoary bat ('ōpe'ape'a or *Lasiurus cinereus semotus*). Detection of Hawaiian hoary bat requires night surveys and deployment of special detection equipment. The population of this bat on O'ahu is sparse.

Insects

An abbreviated insect survey was conducted at the Project parcel. A visual search of flowering plants for any bee species was conducted, and any plant that could serve as habitat for endangered Hawaiian yellow-faced bee (*Hylaeus* spp.) was noted.

Marine Biota

The survey for marine biota was limited to visual observation from the Project seawall and fronting beach. Any detection of state- or federally-listed

(endangered or threatened) marine species was noted, including Hawaiian monk seal (*Monachus schauinslandi*), green sea turtle (*Chelonia mydas*), and hawksbill sea turtle (*Eretmochelys imbricata*; HDLNR, 2015; USFWS, 2019).

Results

Botanical

Vegetation at the Project parcel is dominated by a lawn of Bermuda grass (*Cynodon dactylon*) interspersed with ornamental landscaped plants (Cover photo and Figure 2). Several species of palms are planted throughout the grounds, which provide minimal canopy cover throughout the property. Oleander (*Nerium oleander*) grows as a hedge along a wall bordering the Wai'ālae Country Club golf course. *Naupaka* (*Scaevola taccada*) grows low along the base of the beachfront seawall, and is a plant also incorporated into the landscape near the pool. The Project parcel is maintained as a landscape; leaf litter and plant debris are absent.



Figure 2. Existing single family home and lawn, looking *mauka* (inland) from southwest corner of the Project parcel.

Most of the species listed in Table 1 are ornamental plantings (“Orn”) in the landscape of the Project parcel. Second in abundance are those plant species with a status of naturalized (“Nat”). These latter species may or may not be landscape plantings, but are introduced species naturalized in Hawai‘i. Few native endemic, native indigenous, or early Polynesian-introduced species are present on site. Those that are present are incorporated into the landscape design. These are noted by “End”, “Ind”, and “Pol”.

Table 1. Checklist of plants growing on the Project parcel
at TMK: 3-5-058:11 in Kahala, O‘ahu.

Family	Species	COMMON NAME	STATUS	ABUNDANCE
FERNS AND FERN ALLIES				
POLYPODIACEAE				
	<i>Phymatosorus grossus</i> (Langsd. & Fisch.) Brownlie	<i>laua‘e</i>	Nat	--
PSILOTACEAE				
	<i>Psilotum nudum</i> (L.) P.Beauv.	<i>moa</i>	Ind	0
FLOWERING PLANTS – DICOTS				
ACANTHACEAE				
	<i>Ruellia brevifolia</i> (Pohl) C. Ezcurra	ruellia	Nat	--
ANACARDEACEAE				
	<i>Mangifera indica</i> L.	mango	Nat	--
	<i>Schinus terebinthifolius</i> Raddi	Christmas berry	Nat	R
APOCYNACEAE				
	<i>Carissa macrocarpa</i> (Ecklon) A. de Candolle	Natal-plum	Nat	0
	<i>Nerium oleander</i> L.	oleander	Orn	--
ARALIACEAE				
	<i>Polyscias fruticosa</i> (L.) Harms	parsley panax	Orn	--
	<i>Schefflera actinophylla</i> (Endl.) Harms	octopus tree	Nat	R
ASTERACEAE				
	<i>Senecio mikanioides</i> Otto ex Walp	German ivy	Nat	R
CELASTRACEAE				
	<i>Elaeodendron glaucum</i> (Rott.) Pers.	false olive	Orn	--
EUPHORBIACEAE				
	<i>Euphorbia cotinifolia</i> L.	red spurge	Orn	--
	<i>Euphorbia hirta</i> L.	garden spurge	Nat	0

Table 1(continued).

Family	<i>Species</i>	COMMON NAME	STATUS	ABUNDANCE
EUPHORBIACEAE (cont.)				
	<i>Euphorbia prostrata</i> Aiton	prostrate spurge	Nat	O
	<i>Phyllanthus debilis</i> Klein ex Willd.	niruri	Nat	O
FABACEAE				
	<i>Desmanthus virgatus</i> (L.) Willd.	virgate mimosa	Nat	R
	<i>Leucaena leucocephala</i> (Lam.) deWit	<i>koa haole</i>	Nat	U
	<i>Mimosa pudica</i> var. <i>unijuga</i> (Duchass. & Walp.) Griseb.	sensitive plant	Nat	U
GOODENIACEAE				
	<i>Scaevola taccada</i> (Gaertn.) Roxb.	<i>naupaka kahakai</i>	Ind	--
MALVACEAE				
	<i>Hibiscus rosa-sinensis</i> L.	Chinese red hibiscus	Orn	--
MORACEAE				
	<i>Ficus microcarpa</i> L. fil.	Chinese banyan	Nat	--
	<i>Ficus pumila</i> L.	creeping fig	Orn	--
NYCTAGINACEAE				
	<i>Bougainvillea spectabilis</i> Willd.	bougainvillea	Orn	--
OXALIDACEAE				
	<i>Oxalis corniculata</i> L.	' <i>hi'ai</i> , yellow wood sorrel	Pol	O
PASSIFLORACEAE				
	<i>Passiflora edulis</i> Sims	passion fruit	Nat	R
	<i>Passiflora suberosa</i> L.	<i>huehue haole</i>	Nat	R
POLYGONACEAE				
	<i>Coccoloba uvifera</i> (L.) L.	sea grape	Orn	--
RUBIACEAE				
	<i>Gardenia</i> sp.	tiare gardenia	Orn	--
	<i>Ixora</i> hyb.	dwarf ixora	Orn	--
	<i>Pentas lanceolata</i> (Forssk.) Deflers	pentas	Orn	--
RUTACEAE				
	<i>Citrus</i> sp.	---	Orn	--
THYMELAEACEAE				
	<i>Wikstroemia uva-ursi</i> A. Gray	' <i>akia</i>	End	--
URTICACEAE				
	<i>Pilea microphylla</i> (L.) Liebm.	artillery plant	Nat	R
VERBENACEAE				
	<i>Citharexylum spinosum</i> L.	fiddlewood	Nat	R
	<i>Lantana camara</i> L.	lantana	Nat	--

Table 1(continued).

Family	<i>Species</i>	COMMON NAME	STATUS	ABUNDANCE
FLOWERING PLANTS - MONOCOTS				
AGAVACEAE				
	<i>Cordyline fruticosa</i> (L.) A. Chev.	<i>tī</i> , green ti	Pol	--
	<i>Cordyline fruticosa</i> Cv.	various colors	Orn	--
ARACEAE				
	<i>Epipremnum pinnatum</i> (L.) Engler	pothos, taro vine	Nat	--
ARECACEAE				
	<i>Chamaedorea elegans</i> Martius	parlor palm	Orn	--
	<i>Cocos nucifera</i> L.	coconut palm; <i>niu</i>	Pol	--
	<i>Dypsis lutescens</i> (H. Wendl.) Beentje & J. Dransfield	areca palm	Orn	--
	<i>Hyophorbe lagenicaulis</i> (L.H. Bailey) H.E. Moore	bottle palm	Orn	--
	<i>Latania loddigesii</i> Martius	blue Latan palm	Orn	--
	<i>Livistona chinensis</i> (N. Jacq.) Martius	Chinese fan palm	Nat	--
	<i>Phoenix roebelenii</i> O'Brien	dwarf date palm	Orn	--
	<i>Ptychosperma macarthurii</i> (Veitch) J.D. Hook.	Macarthur palm	Orn	--
	<i>Roystonea regia</i> (Kunth) O.F. Cook	Cuban royal palm	Orn	--
	<i>Raphis excelsa</i> (Thunb.) Rehder	bamboo palm, lady palm	Orn	--
	<i>Vietchia merrilli</i> (Becarri) H.E. Moore	Manila palm	Orn	--
BROMELIACEAE				
	<i>Portea petropolitana</i> (Wawra) Mez	bromeliad	Orn	--
LILIACEAE				
	<i>Asparagus densiflorus</i> (Kunth) Jess.	Sprengeri	Nat	--
	<i>Crinum asiaticum</i> L.	giant lily	Nat	--
POACEAE				
	<i>Cynodon dactylon</i> (L.) Pers.	Bermuda grass, <i>mānienie</i>	Nat	--
	<i>Dactyloctenium aegypticum</i> (L.) Willd.	beach wiregrass	Nat	R
STRELITIZACEAE				
	<i>Strelitzia reginae</i> Drynander	bird-of-paradise	Orn	--

Table 1 (continued).

Key to Table 1.

Status = distributional status

End = endemic: native and unique to the Hawaiian Islands.

Ind = indigenous; native to Hawaii, but not unique to the Hawaiian Islands.

Nat = naturalized, exotic, plant introduced to the Hawaiian Islands since 1778 and well-established.

Orn = exotic, ornamental or cultivated; plant not naturalized (not well-established outside of cultivation).

Pol = Polynesian introduction before 1778.

Abundance = Occurrence ratings for plants in survey area.

R - Rare - only one, two, or three plants seen.

U - Uncommon - several to a dozen plants observed.

O - Occasional - found regularly around the site.

C - Common - considered an important part of the vegetation and observed numerous times.

A - Abundant - found in large numbers; may be locally dominant.

-- - Not Applicable - landscape or cultivated plants are not given an abundance rating.

A total of 54 plant taxa were recorded, of which one is an endemic species (*'ākia* or *Wikstroemea uva-ursi*) and two are indigenous species (*moa* or *Psilotum nudum* and *naupaka*). These are all plantings in the landscaping. In the case of *naupaka*, the plantings make up a substantial portion of a boundary hedge along the beachfront seawall.

Avian Biota

The avian survey of the Project area recorded a total of 57 individual birds of 12 species (Table 2). Native bird species found at the Project or vicinity comprise indigenous White Tern (*Gygis alba*), indigenous migratory Pacific Golden-Plover (*Pluvialis fulva*), and indigenous Wandering Tattler (*Tringa incana*). The remaining species recorded are non-native introductions that have become naturalized in Hawai'i.

Terrestrial Mammals

No terrestrial mammalian species were observed during the survey, although it is possible that dog (*Canis familiaris*), cat (*Felis catus*), small Indian mongoose (*Herpestes javanicus*), and some rodents (Family Muridae) use various resources within the general Project area. The aforementioned mammalian species are non-native and deleterious to native ecosystems and native faunal species within them.

Insects

Only European honey bee (*Apis mellifera*) was observed among Christmas berry (*Schinus terebinthifolius*) shrubs during the survey. *Naupaka* shrubs at the base of the existing beachfront seawall could serve as potential habitat for federally

endangered Hawaiian yellow-faced bee species (*Hylaeus* spp.), although none were observed during the survey.

Table 2. Avian species detected on October 29, 2019 survey of
TMK: 3-5-058:11 in Kahala, O'ahu.

ORDER			
FAMILY			
<i>Species</i>	Common Name	Status	Total Count
COLUMBIFORMES			
COLUMBIDAE			
<i>Streptopelia chinensis</i>	Spotted Dove	NN	3
<i>Geopelia striata</i>	Zebra Dove	NN	5
CHARADRIIFORMES			
CHARADRIIDAE			
<i>Pluvialis fulva</i>	Pacific Golden-Plover, <i>kōlea</i>	IM	7
SCOLOPACIDAE			
<i>Tringa incana</i>	Wandering Tattler, <i>'ulili</i>	IM	1
LARIDAE			
<i>Gygis alba</i>	White Tern, <i>manu o Kū</i>	I	4
PELECANIFORMES			
ARDEIDAE			
<i>Bubulcus ibis</i>	Cattle Egret	NN	2
PSITTACIFORMES			
PSITTACULIDAE			
<i>Psittacula krameri</i>	Rose-ringed Parakeet	NN	5
PASSERIFORMES			
PYCNONOTIDAE			
<i>Pycnonotus cafer</i>	Red-vented Bulbul	NN	7
ZOSTEROPIIDAE			
<i>Zosterops japonicus</i>	Japanese White-eye	NN	9
STURNIDAE			
<i>Acridotheres tristis</i>	Common Myna	NN	11
THRAUPIDAE			
<i>Paroaria coronata</i>	Red-crested Cardinal	NN	2
FRINGILLIDAE			
<i>Haemorhous mexicanus</i>	House Finch	NN	1

Legend to Table 2.

Status – **I** = Indigenous

IM = Indigenous migratory species

NN = Naturalized, non-native species (introduced).

Marine Biota

No protected marine species were observed from the parcel seawall.

Discussion

Botanical Resources

No plant species of any concern with respect to listing under either federal or State of Hawai'i as threatened or endangered under endangered species statutes (HDLNR, 1998; USFWS, 2019) occur on or near the Project site. No plants of any particular resource value were observed, and only plants in the Project parcel may be subject to loss from activity associated with the project. As is evident in Figure 3 (and Fig. 2, above), most of the parcel is landscaped. No trees listed by the C&C Exceptional Tree Program (C&C, 2017) occur on the property.



Figure 3. Plant species growing on the Project parcel are primarily ornamental landscape plants.

Avian Resources

The avian assemblage observed at the Project site is consistent with the coastal and urban environments found there. Most birds recorded during the survey are non-native species naturalized in Hawai'i. Common Myna (*Acridotheres tristis*) and Japanese White-eye (*Zosterops japonicus*) were the two most abundant species observed during the survey, with Common Myna most abundant on the golf course adjacent to the Project parcel; and Japanese White-eye abundant in the fruiting Christmas berry shrub along the beachfront seawall. Pacific Golden-Plover were common on the Wai'ālae Country Club golf course, and nearby rooftops, while a single Wandering Tattler was observed among rocks on the parcel beachfront.

White Tern is listed as threatened on O'ahu under the State of Hawai'i endangered species statute HRS 195D (HDLNR, 2015). Several White Tern were observed flying inland over the golf course during the survey. White tern typically nest from January to June, and preferable nesting trees can be found on the golf course. Suitable nesting trees are not present on the Project parcel. However, U.S. Fish and Wildlife Service (USFWS) provides the following recommendations for the species:

- If tree trimming or removal is anticipated for the Project, trees slated to be cut should be surveyed for nesting White Terns, especially during the White Tern breeding season (January to June). If an egg is found, the nesting tree or branch should not be disturbed for at least 80 days (USFWS, nd).

Given the Project location in a coastal environment, protected night-flying Hawaiian seabirds are at greater risk to overfly or otherwise utilize the Project parcel. Protected Hawaiian seabirds include Wedge-tailed Shearwater, Newell's Shearwater or 'a'o (*Puffinus newelli*), Hawaiian Petrel or 'ua'u (*Pterodroma sandwichensis*), and Band-rumped Storm-Petrel or 'akē'akē (*Oceanodroma castro*). USFWS advises that lighting BMPs for Hawaiian seabirds be implemented during the breeding, nesting, and fledging seasons (March 1 to December 15) when nocturnally flying seabirds are most likely to traverse Project areas. Night lights can disorient seabirds, resulting in their potential downing and harm from collision with objects and/or predation by dogs and cats if downed (Reed et al., 1985; Telfer et al., 1987).

- If the Project work will result in night-time lighting sources, including lights from night-time construction or facilities operations, then risk of incidentally downing nocturnally-flying seabirds will increase. To avoid and minimize potential Project impacts to seabirds, USFWS recommends

the following applicable measures: fully shield all outdoor lights so the bulb can only be seen from below bulb height and only use when necessary; install automatic motion sensor switches and timer controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area; and avoid all night-time construction during the seabird fledging period from September 15 through December 15 (USFWS, nd). All external lighting structures should be fully “dark sky compliant” (HDLNR-DOFAW, 2016).

No nests, burrows, or other sign (feathers, eggs, scat) of Wedge-tailed Shearwater were observed at the Project parcel, and it appears that no seabirds have recruited to the site. Rocks and crevices on the beachfront seawall are well-covered by *naupaka* and shrubby Christmas berry, but occur at the high-tide line and subject to wave splash, making the area undesirable for nesting. Ornamental shrubs beside the parcel lawn could provide adequate cover, but no evidence of nesting was observed.

Project construction activities at the residential parcel at 1001 Kaimoku Place should not be anticipated to adversely impact Wedge-tailed Shearwater nests, as none are present on-site. As Wedge-tailed Shearwater typically return to their natal colonies, recruitment away from such locations is limited. Despite a low probability, if a nest is found, work should be suspended and USFWS notified. USFWS provide the following recommendations:

- If Wedge-tailed Shearwater nest within a proposed Project area and construction would cause ground disturbance, time project construction to occur outside of the breeding season (March through November) (USFWS, nd).

Three of the other night-flying Hawaiian seabird species (Hawaiian Petrel, Newell’s Shearwater, and Band-rumped Storm-petrel) nest at high elevations in the mountains, precluding nesting disturbance at the Project parcel.

Terrestrial Mammals

The Hawaiian hoary bat or ‘*ōpe‘ape‘a* (*Lasiurus cinereus semotus*) is the only native terrestrial mammal in the Hawaiian Islands. No attempt was made to survey for Hawaiian hoary bats as this effort would require night-time observations with specialized equipment. Although sparsely distributed in the low- to mid-elevation areas on the Island, the Project site itself offers minimal habitat for this species (Tomich, 1986; USFWS 1998). The following recommendation, although not really applicable to the Project site, will minimize adverse impacts to this species.

- Potential adverse impacts to pupping bats can be avoided or minimized by not clearing woody vegetation taller than 15 ft (4.6 m) between June 1 and September 15, the period in which young bats are potentially at risk from clearing of a roost tree.

Insects

Seven species of yellow-faced bees (*Hylaeus anthracinus*, *H. assimulans*, *H. facilis*, *H. hilaris*, *H. kuakea*, *H. longiceps*, and *H. mana*) from the Hawaiian Islands are currently listed as endangered under ESA (USFWS, 2016). No individual yellow-faced bee species was observed during the survey, but potential habitat was noted. Coastal populations of yellow-faced bees may occur along rocky shorelines with *naupaka* and tree heliotrope (*Heliotropium foertherianum*), *kiawe* (*Prosopis pallida*), woody debris, or bare rock. Bees do not occur on sandy beaches, inland, or on landscaped native plants on hotel grounds (USFWS, nd). The survey found potential Hawaiian yellow-faced bee habitat in the *naupaka* on the beachfront. The current Project plans will not impact or remove the existing *naupaka* from the seawall, but could remove *naupaka* shrubs that are ornamental plantings in the lawn area.

- If Project action will occur in or adjacent to known occupied habitat, a buffer area around the habitat may be required and can be worked out on a site-specific basis through consultation with USFWS.

Marine Biota

The Hawaiian monk seal (*Monachus schauinslandi*) is a marine mammal that is federally-listed as an endangered species. Critical habitat for Hawaiian monk seal in the Main Hawaiian Islands (MHI) is marine habitat from the 200-m (650 ft) depth contour line, including the seafloor and all subsurface waters and marine habitat within 10 m (33 ft) of the seafloor to the water's edge. This critical habitat extends 5 m beyond the water's edge into the terrestrial environment only between identified boundary points. Boundary points identify preferred Hawaiian monk seal pupping areas and significant haul-out areas, as defined under the final rule: *Final Rulemaking To Revise Critical Habitat for Hawaiian Monk Seal* (NOAA-NMFS, 2015). The shoreline off the Project site falls beyond assigned boundary points and therefore is not designated monk seal terrestrial critical habitat. Furthermore, all man-made structures, such as seawalls, are excluded from critical habitat (NOAA-NMFS, 2015). The waters *makai* (seaward) of the high tide line are designated monk seal marine critical habitat.

The distinct population segment of green sea turtle that occurs in Hawai'i is federally-listed as a threatened species (USFWS and NOAA-NMFS, 2016c; USFWS, nd) and as a threatened subspecies (*Chelonia mydas agassizi*) under Hawai'i regulations (DLNR, 2014). Hawksbill sea turtle is much less common in the Hawaiian Islands than green sea turtle and is known to nest only in the southern reaches of the state (NOAA-PIFSC, 2010). Hawksbill sea turtle is federally-listed as endangered (USFWS, 2019) and is also listed as an endangered subspecies (*Eretmochelys imbricata bissa*) under Hawai'i regulations (HDLNR, 2014). Nesting and foraging habitat for both sea turtle species may be altered and destroyed by coastal development, beach armoring, beachfront lighting, vehicular/pedestrian traffic, introduction of invasive species, and pollution from discharges and runoff (NOAA-NMFS & USFWS, 2007a, 2007b).

At the time of the survey, boulder rip-rap extends out from the seawall to the water's edge, leaving very little beach sand fronting the Project parcel, precluding the likelihood of sea turtle nesting. However, the extent of sand beach may change seasonally.

- If a basking sea turtle is found at the project area, cease all mechanical or construction activities within 30 m (100 ft) until the animal voluntarily leaves the area. Do not stockpile project-related materials in the intertidal zone or on the reef flat.
- Minimize the use of lighting and shield all project-related lights so the light is not visible from any beach, as this may interfere with sea turtles during the nesting season (May to December). Incorporate design measures into the construction of buildings adjacent to the beach to reduce ambient outdoor lighting, such as tinting or using automatic window shades for exterior windows that face the beach; reducing the height of exterior lighting to below 3 feet and pointed downward or away from the beach; and minimize light intensity to the lowest level feasible and, when possible, include timers and motion sensors.

Critical Habitat

Federally delineated Critical Habitat is not present in the Project area. No in-water work or modifications to the existing seawall is proposed, thus, the Project will not impinge on federally designated Critical Habitat or jurisdictional waters that extend seaward from the high tide line. No equivalent designation exists under state law.

References

- American Ornithologists' Society (AOS). 2017. AOS Checklist of North and Middle American Birds (7th Edition through 57th supplement). Available online at: URL: <http://checklist.aou.org/taxa/>.
- Chesser, R. T., K. J. Burns, C. Cicero, J. L. Dunn, A. W. Kratter, I. J. Lovette, P. C. Rasmussen, J. V., Remsen, Jr., D. F. Stotz, B. M. Winger, and K. Winker. 2018. Check-list of North American Birds (online). American Ornithological Society. Available online at URL: <http://checklist.aou.org/taxa>.
- City and County of Honolulu, Department of Parks and Recreation (C&C). 2017. Exceptional Tree Program website, URL: http://www.honolulu.gov/rep/site/dpr/hbg_docs/ROH_Chapter_41a1-25.pdf.
- Hawaii Department of Land and Natural Resources (HDLNR). 1998. Indigenous Wildlife, Endangered And Threatened Wildlife And Plants, And Introduced Wild Birds. Department of Land and Natural Resources. State of Hawaii. Administrative Rule §13-134-1 through §13-134-10, dated March 02, 1998.
- _____. 2014. Hawai'i Administrative Rules, Title 13, Department of Land and Natural Resources, Chapter 95, Protected Marine Fisheries Resources, Rules Regulating the Taking and Selling of Certain Marine Resources. 14 pp.
- _____. 2015. Hawai'i Administrative Rules, Title 13, Department of Land and Natural Resources, Subtitle 5 Forestry and Wildlife, Part 2 Wildlife, Chapter 124, Indigenous Wildlife, Endangered and Threatened Wildlife, Injurious Wildlife, Introduced Wild Birds, and Introduced Wildlife. February 27, 2015. 16 pp.
- _____-Division of Forestry and Wildlife (HDLNR-DOFAW). 2016. Wildlife Lighting. PDF available at URL: <http://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf>; last accessed on May 7, 2019.
- Imada, C. T. 2012. Hawaiian Native and Naturalized Vascular Plants Checklist (December 2012 update). Bishop Museum Tech. Rept. 60. 380 pp.
- National Oceanic and Atmospheric Administration – National Marine Fisheries Service (NOAA-NMFS). 2015. Endangered and Threatened Species: Final

- Rulemaking To Revise Critical Habitat for Hawaiian Monk Seals. *Federal Register*, 80 (162; August 21, 2015): 50925-50988.
- Reed, J. R., J. L. Sincock, and J. P. Hailman 1985. Light Attraction in Endangered Procellariiform Birds: Reduction by Shielding Upward Radiation. *The Auk*, 102: 377-383.
- Staples, G. W. and D. R. Herbst. 2005. *A Tropical Garden Flora. Plants Cultivated in the Hawaiian Islands and other Tropical Places*. Bishop Museum, Honolulu. 908 pp.
- Telfer, T. C., J. L. Sincock, G. V. Byrd, and J. R. Reed. 1987. Attraction of Hawaiian seabirds to lights: Conservation efforts and effects of moon phase. *Wildlife Society Bulletin*, 15: 406-413.
- Tomich, P.Q. 1986. *Mammals in Hawaii*. Bishop Museum Press. Honolulu, Hawaii. 37 pp.
- U.S. Fish and Wildlife Service (USFWS). 1998. Recovery Plan for the Hawaiian Hoary Bat (*Lasiurus cinereus semotus*). U.S. Fish and Wildlife Service, Region 1, Portland, OR. Available online at URL: https://ecos.fws.gov/docs/recovery_plans/1998/980511b.pdf; Last accessed April 1, 2019.
- _____. 2005. Regional Seabird Conservation Plan, Pacific Region. U.S. Fish and Wildlife Service, Migratory Birds and Habitat Programs, Pacific Region, Portland, Oregon. 264 pp.
- _____. 2016. 50 CFR 17. Final Rule: Endangered and Threatened Wildlife and Plants; Endangered Status for 49 Species from the Hawaiian Islands. *Federal Register*, 81 (Vol. 190; Friday, September 30, 2016): 67786-67860.
- _____. 2019. USFWS Endangered Species. Available online at URL: <https://www.fws.gov/endangered/>; last accessed on May 7, 2019 and Environmental Conservation Online System (ECOS), online at URL: <https://ecos.fws.gov/ecp/species-reports>.
- _____. no date (nd). USFWS Pacific Islands Fish and Wildlife Office. Avoidance and Minimization Measures. Available online at URL: <https://www.fws.gov/Pacificislands/promo.cfm?id=177175840/>; last accessed on April 1, 2019.

VanderWerf, E.A., R. E. David, P. Donaldson, R. May, H. D. Pratt, P. Pyle, and L. Tanino. 2018. First report of the Hawaii Bird Records Committee: records reviewed 2014- 2016. *Western Birds* 49(1):2-23.

Wagner, W. L., D. R. Herbst and S. H. Sohmer. 1990. *Manual of the Flowering Plants of Hawai'i: Volume I and II*. Bishop Museum Special Publication 83. University of Hawai'i Press. 1853 pp.

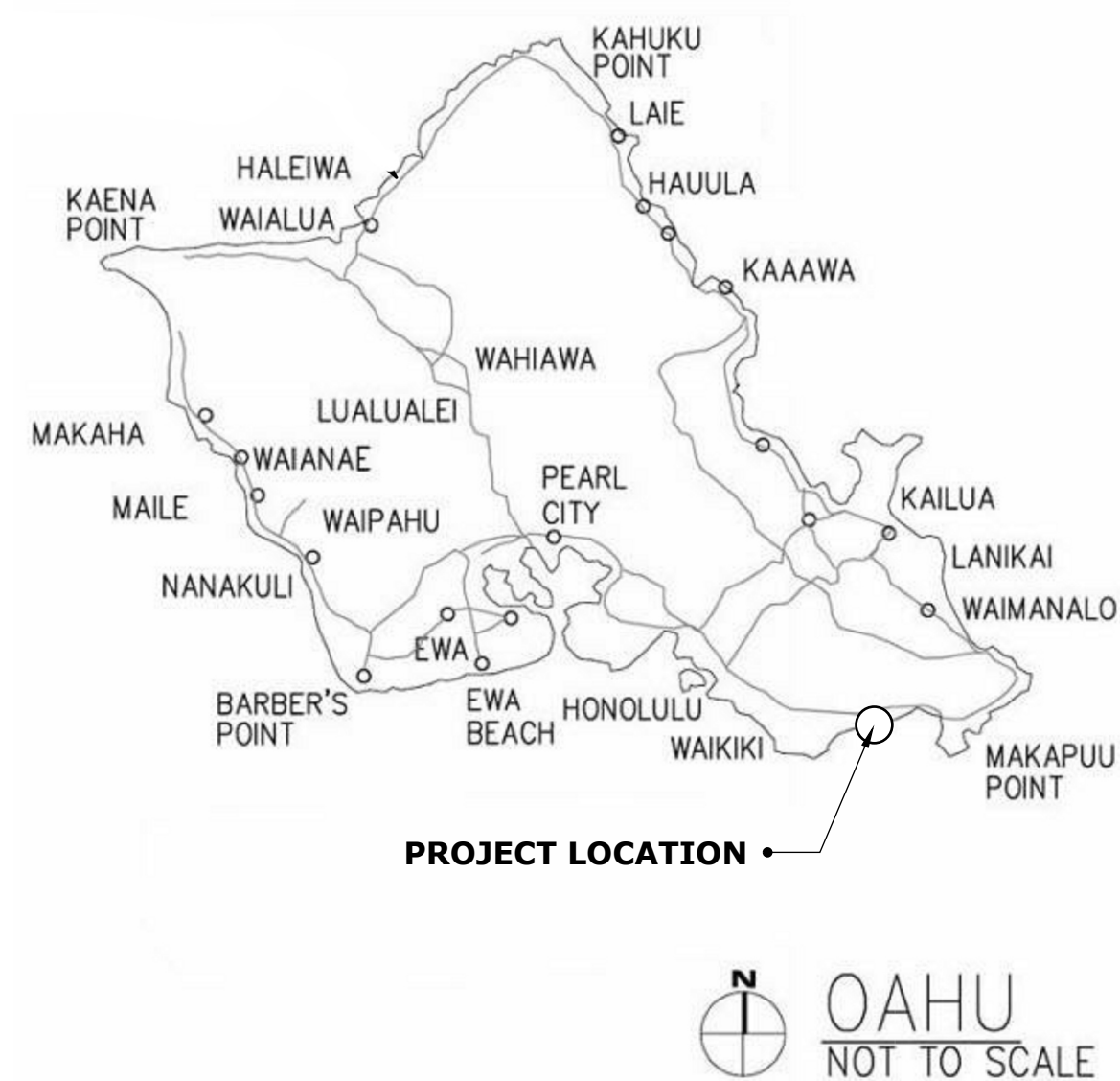
_____ and _____. 1999. *Supplement to the Manual of the flowering plants of Hawai'i*, pp. 1855-1918. *In: Wagner, W.L., D.R. Herbst, and S.H. Sohmer, Manual of the flowering plants of Hawai'i. Revised edition. 2 vols. University of Hawaii Press and B.P. Bishop Museum.*



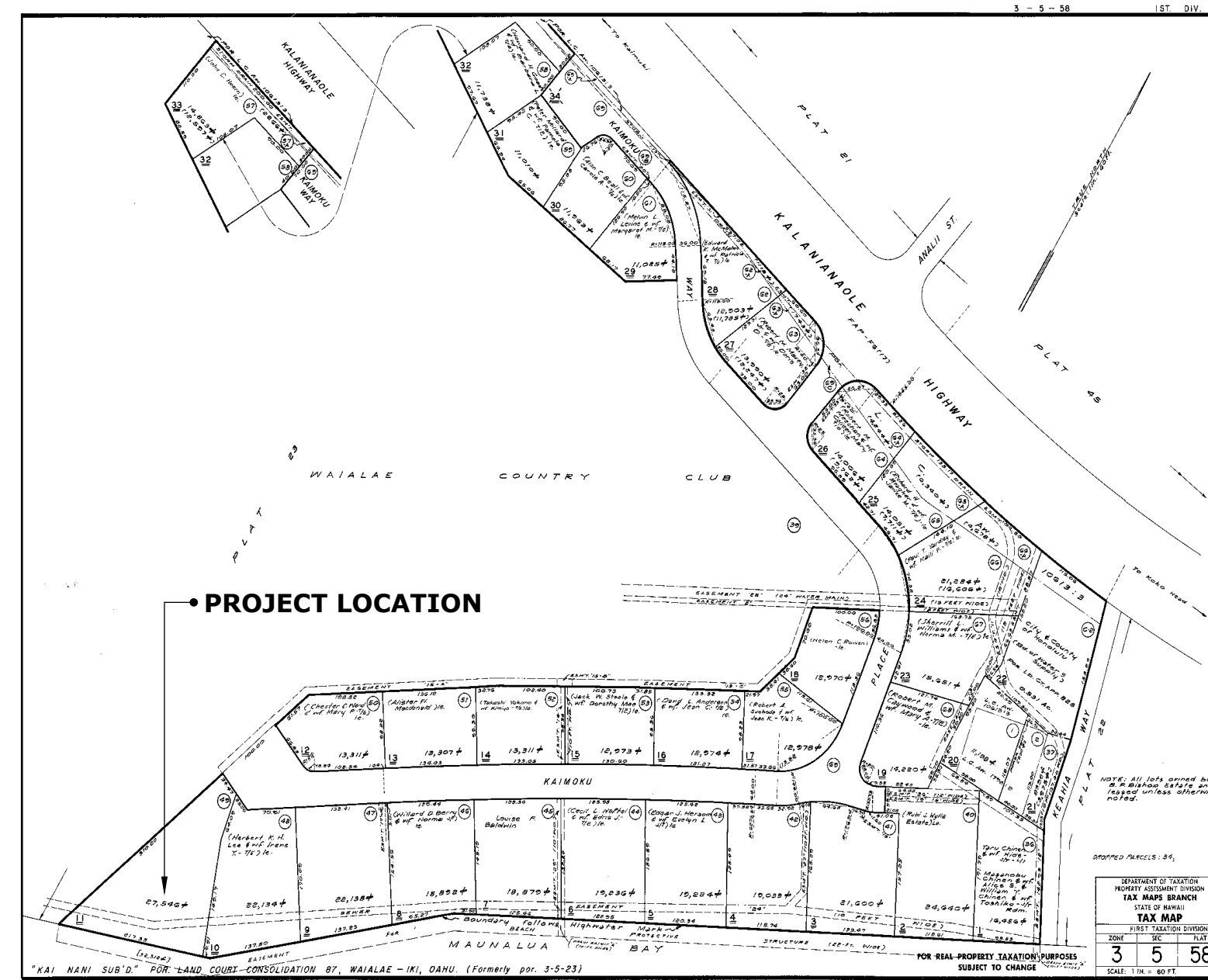
DRAWINGS



VICINITY MAP



LOCATION MAP



PROJECT DATA

OWNER: KAIMOKU RESIDENCE
 ADDRESS: 1001 KAIMOKU PLACE HON HI 96821
 T.M.K. #: 3-5-058:011
 LOT SIZE: 27,546 SQ. FT.
 ZONING DISTRICT: R-7.5 RESIDENTIAL DISTRICT
 OCCUPANCY: RESIDENTIAL
 FLOOD ZONE: X, AE, VE
 SMA: IN SMA

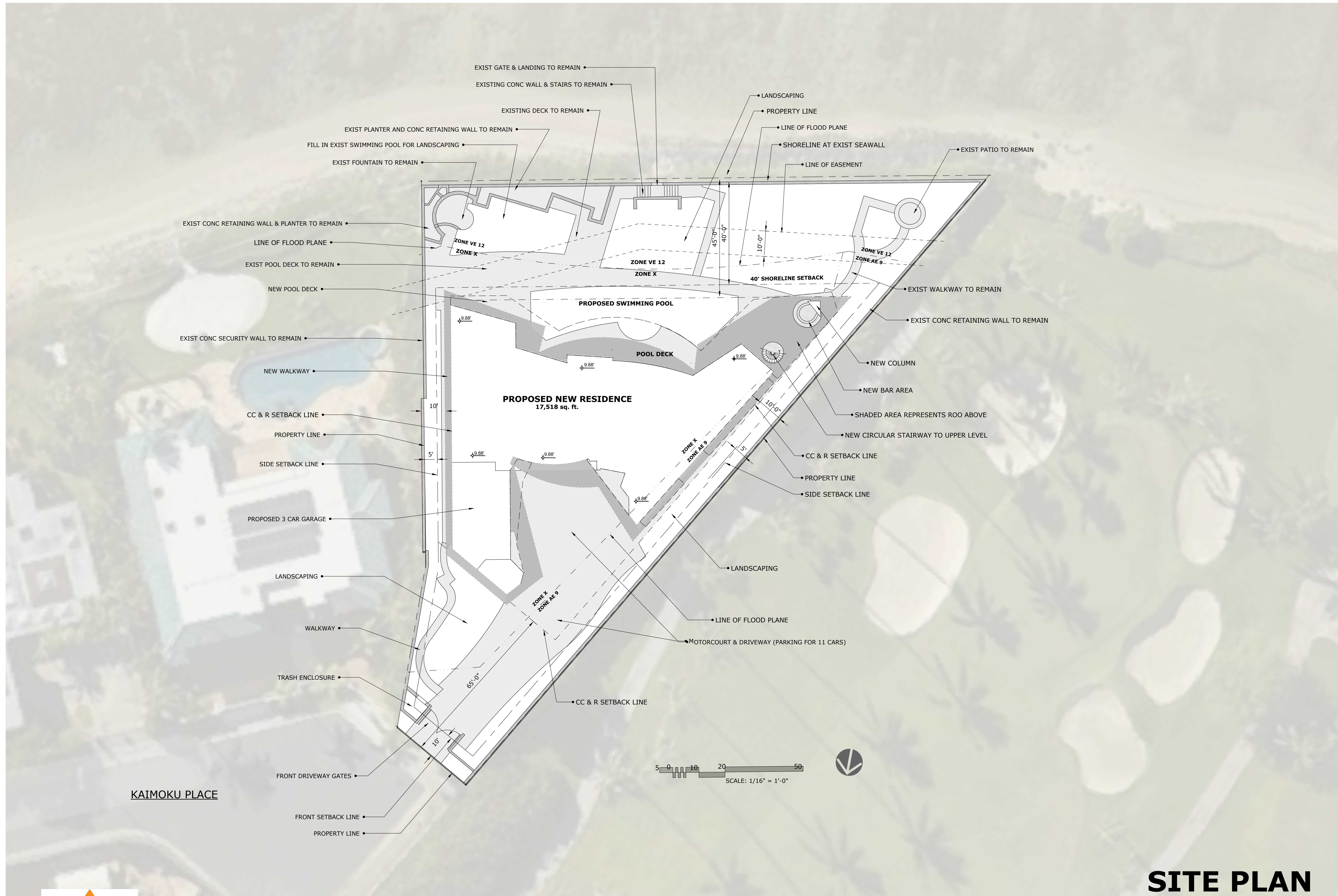
SQ FTGE CALCS:

INTERIOR LOWER LEVEL:	5,594 sq. ft.
INTERIOR UPPER LEVEL:	<u>6,351</u>
	SUB-TOTAL 11,945
LANAI LOWER LEVEL:	2,302
LANAI UPPER LEVEL:	2,424
GARAGE:	<u>837</u>
	TOTAL 17,518

SHEET INDEX

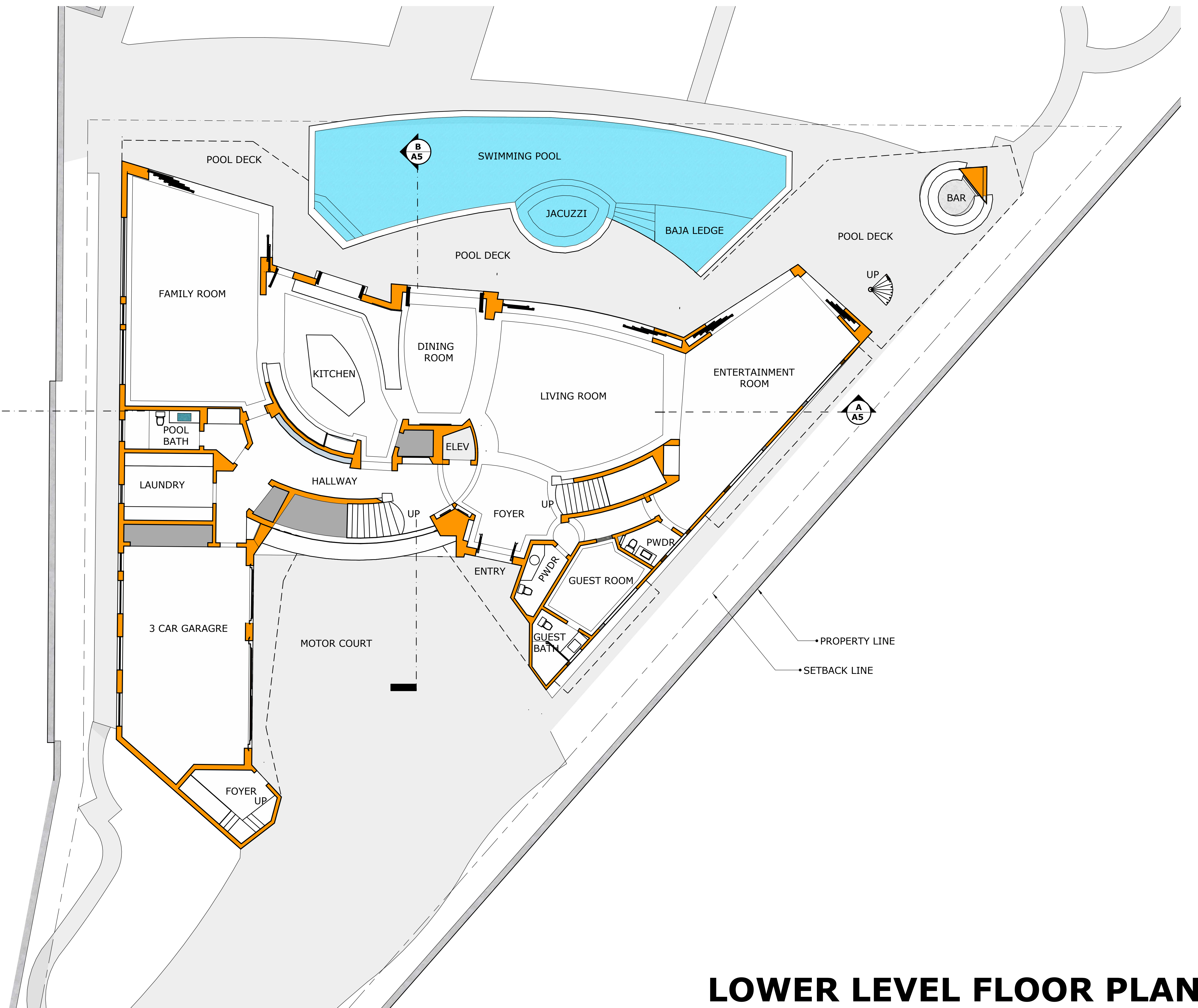
T-1	TITLE SHEET
C-1	SITE PLAN
A-1	LOWER LEVEL FLOOR PLAN
A-2	UPPER LEVEL FLOOR PLAN
A-3	ROOF PLAN
A-4	EXTERIOR ELEVATIONS
A-5	BUILDING SECTIONS



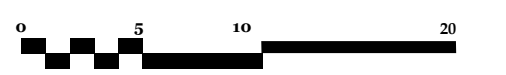


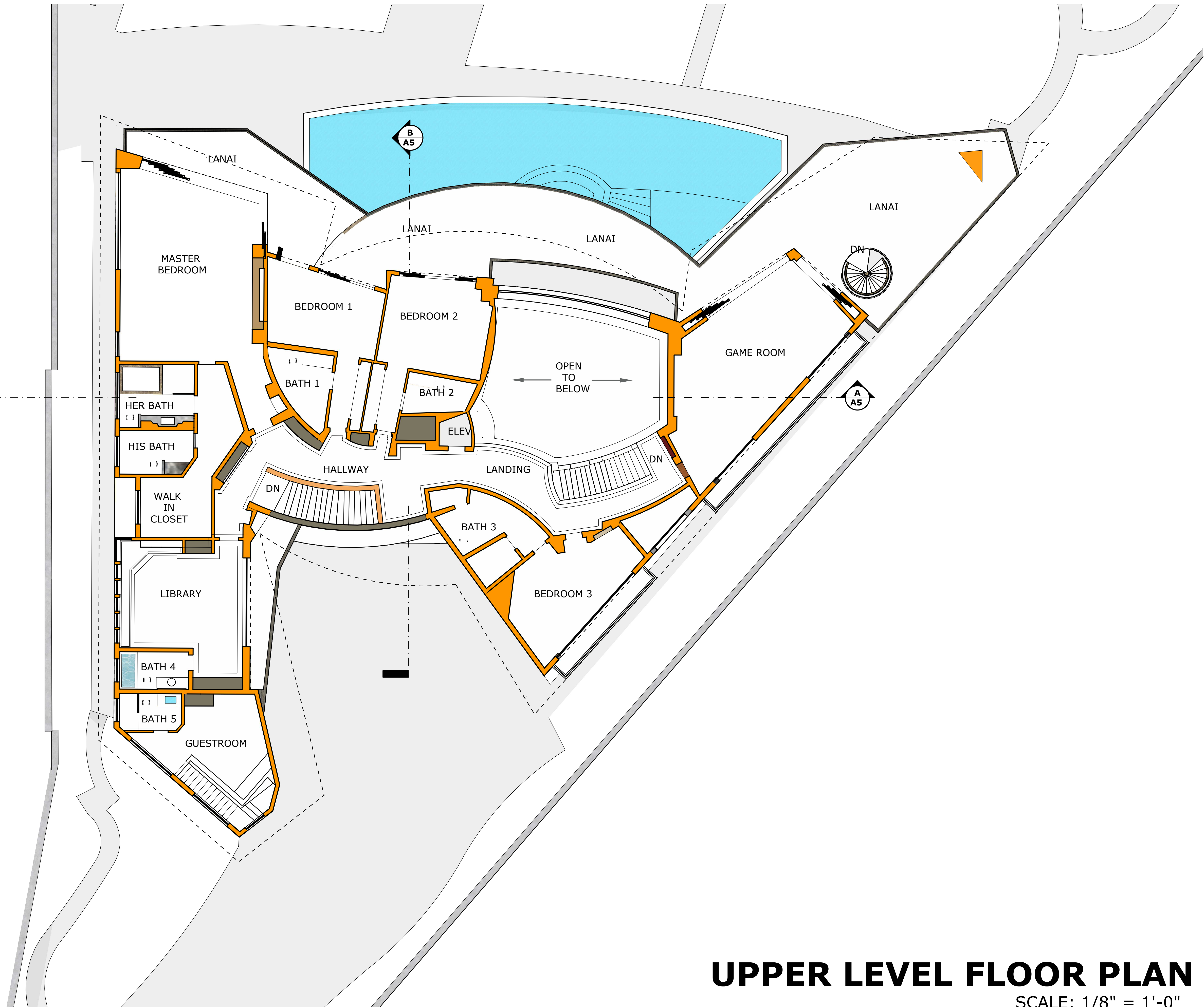
SITE PLAN





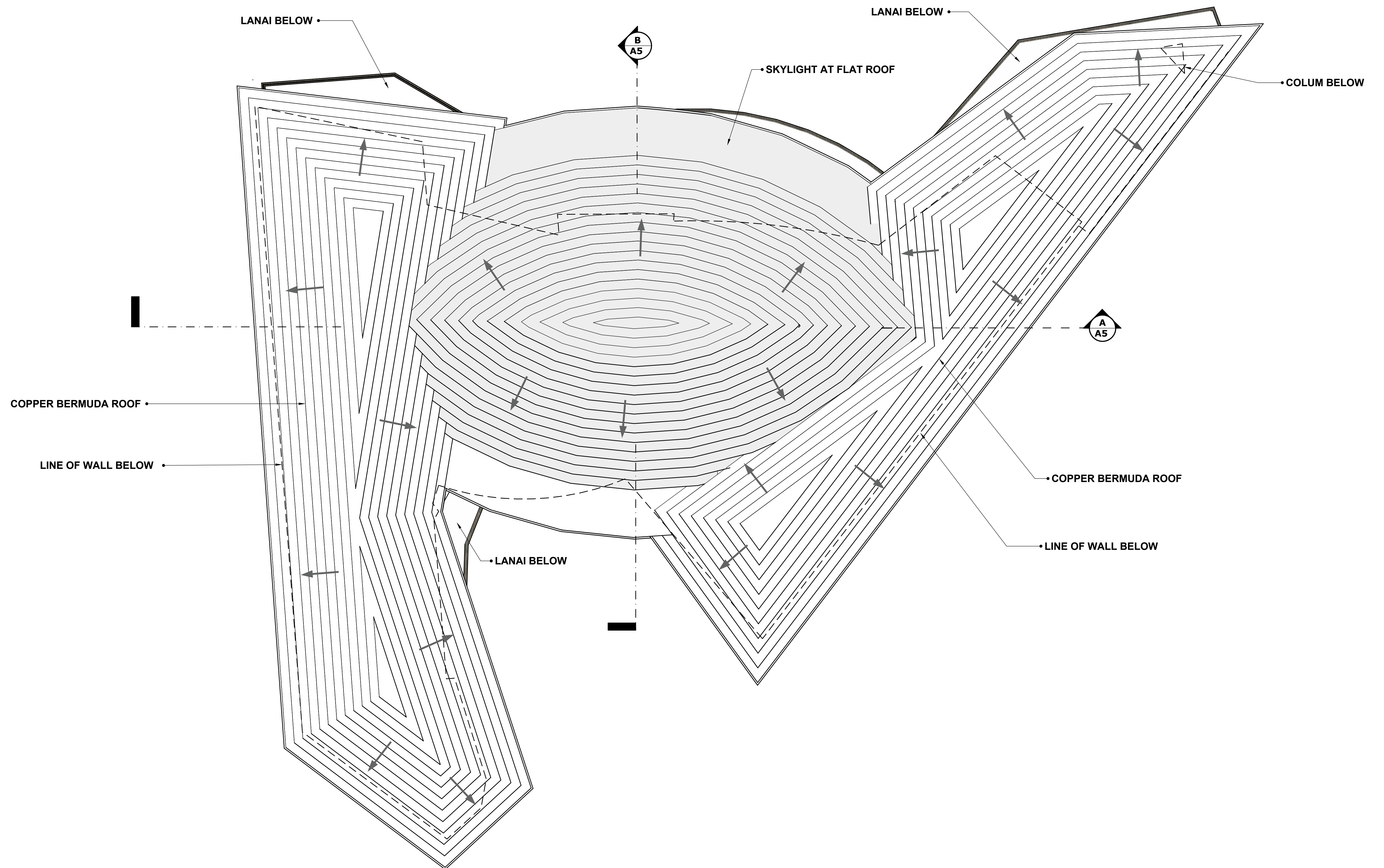
LOWER LEVEL FLOOR PLAN
 SCALE: 1/8" = 1'-0"





UPPER LEVEL FLOOR PLAN
 SCALE: 1/8" = 1'-0"





ROOF PLAN
SCALE: 1/8" = 1'-0"

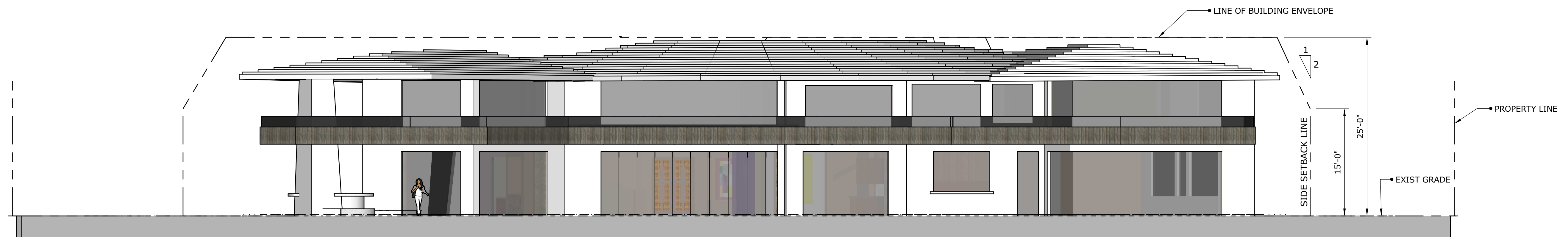




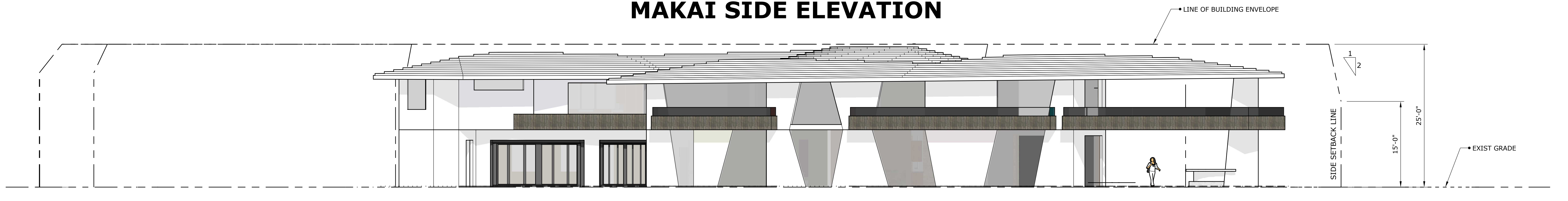
FRONT ELEVATION



KOKO HEAD SIDE ELEVATION



MAKAI SIDE ELEVATION

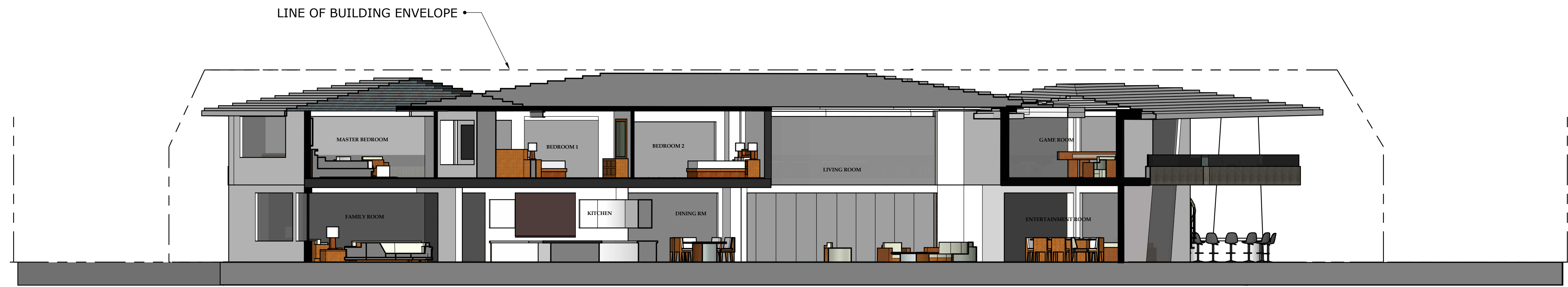


DIAMOND HEAD SIDE ELEVATION

EXTERIOR ELEVATIONS

SCALE: 1/8" = 1'-0"





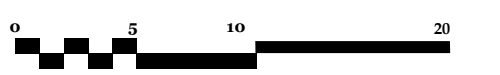
BUILDING SECTION A



BUILDING SECTION B

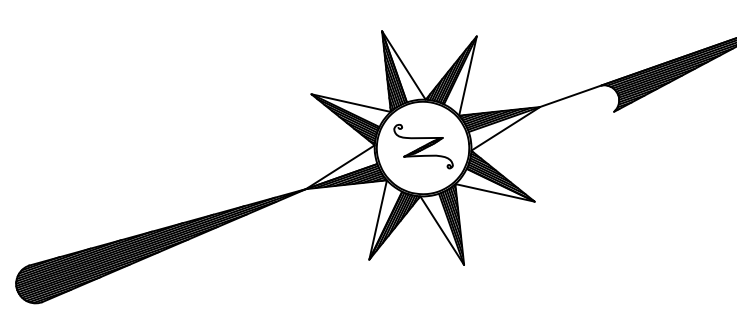
BUILDING SECTIONS

SCALE: 1/8" = 1'-0"



TMK:3-5-023:001

10 foot Easement



ZONE VE (EL 12)

ZONE AE (EL 9)

ZONE X

TMK:3-5-058:011
27,546 SQ. FT.

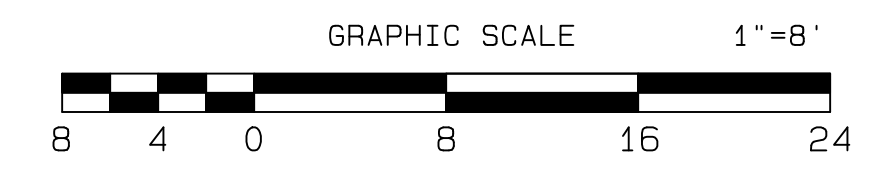
ZONE X

ZONE AE (EL 9)

KAIMOKU PLACE

- LEGEND:**
- b Boile
 - B Bottom
 - BC Bottom Curb
 - BW Bottom Wall
 - C Concrete
 - G Ground
 - h Height
 - s Spread
 - T Top
 - TC Top Curb
 - TW Top Wall

- NOTES:**
- Elevations referred to Coast and Geodetic Survey Benchmark G 11 (TU0322) Disk (Elevation=14.66).
 - Location of utilities shown are approximate and have not been verified in the field.
 - Portion of property is located within the Flood Hazard Area. ZONE AE and ZONE VE as shown on map.

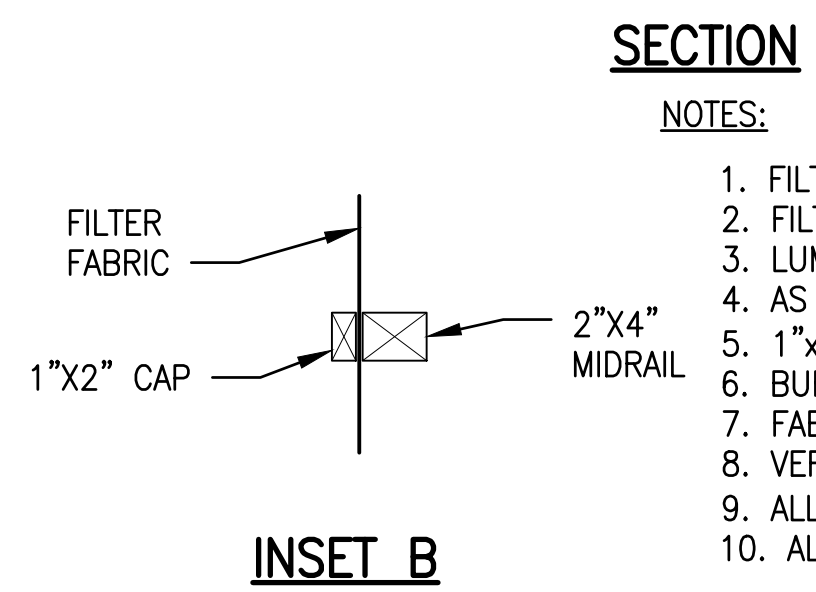
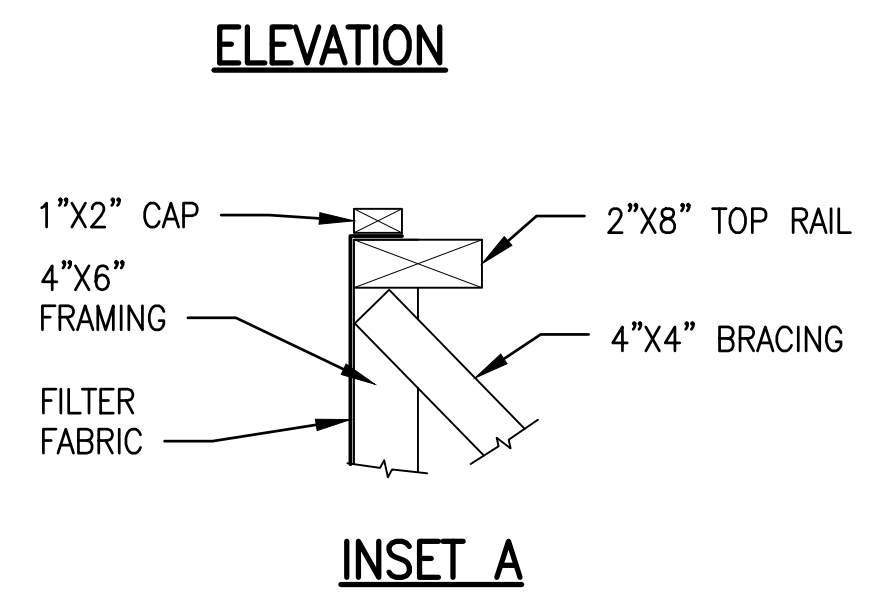
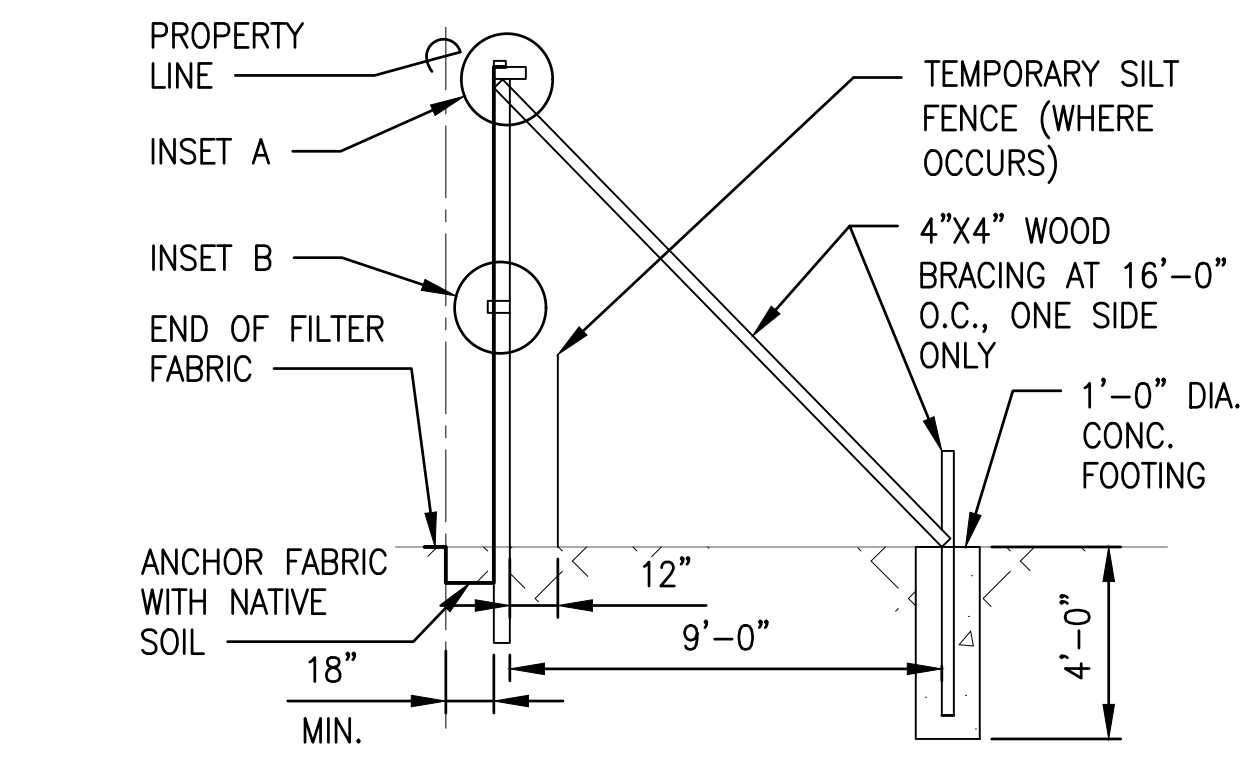
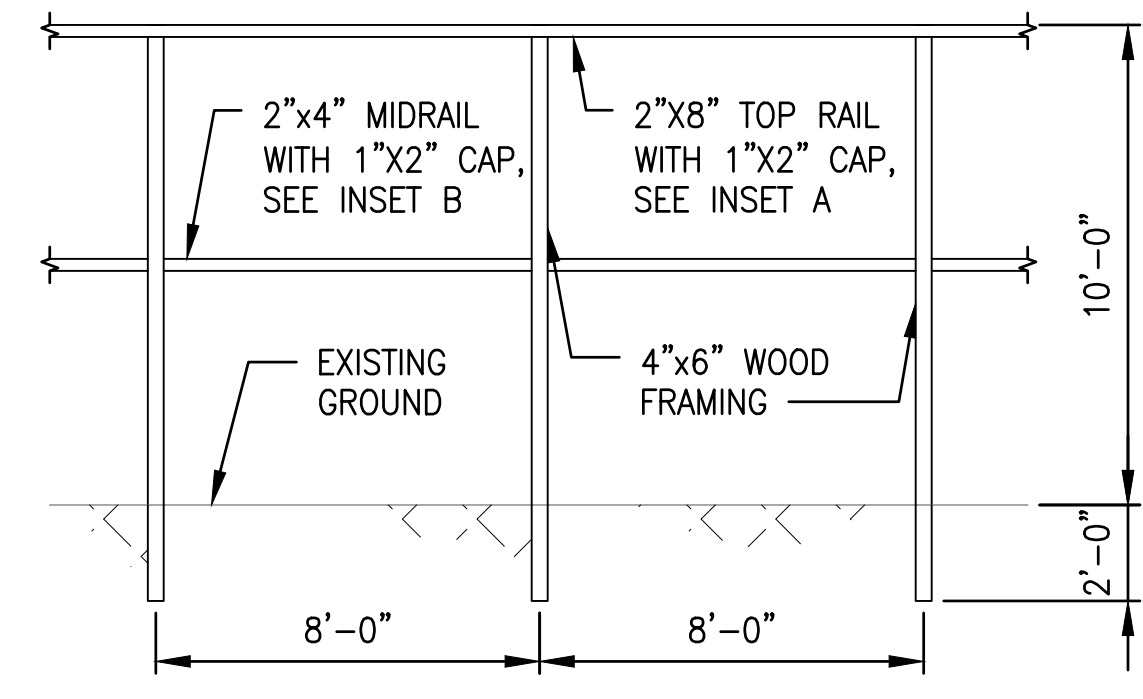
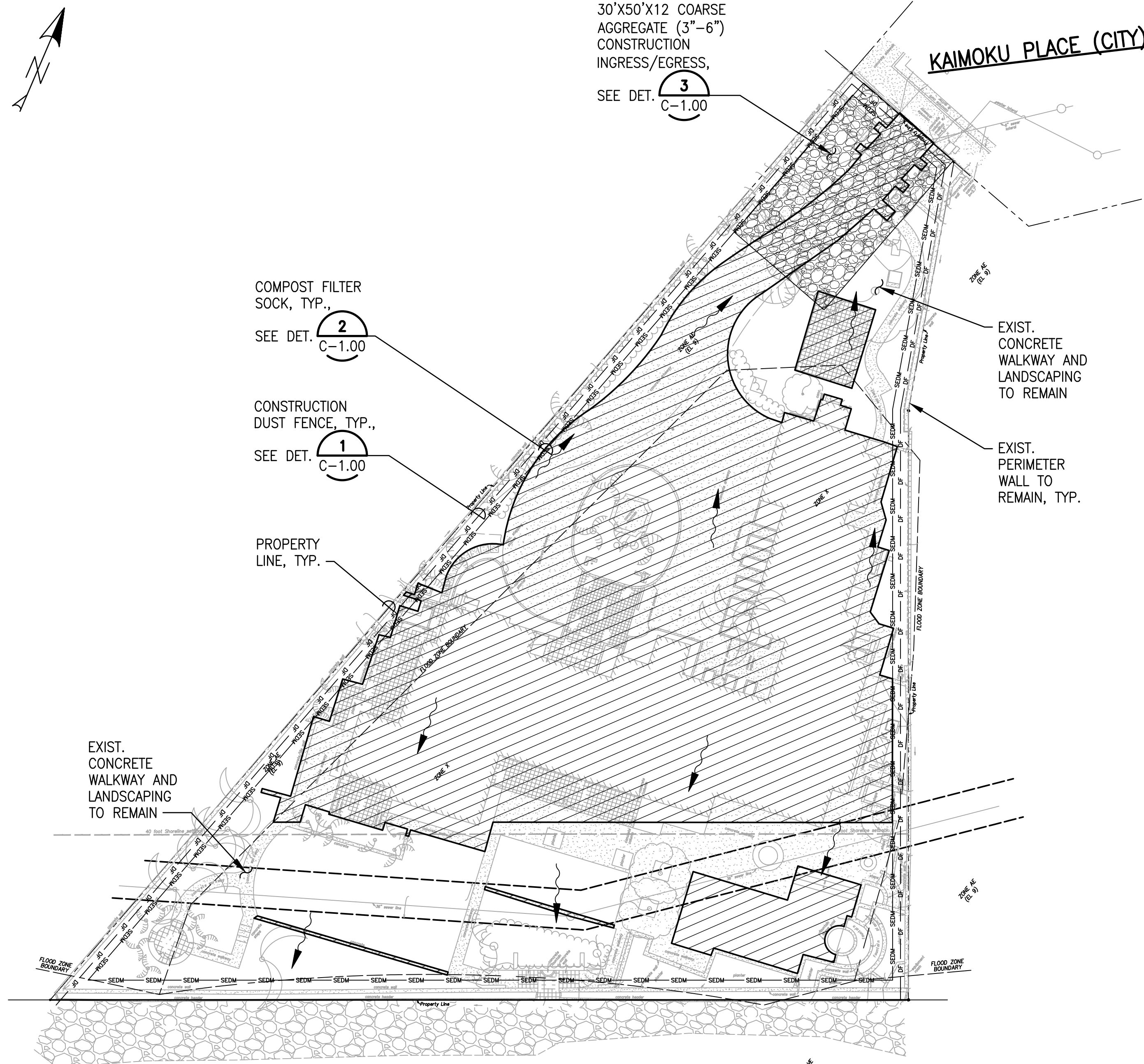


THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
Ken Nishimura Exp. 04/20
 LICENSED PROFESSIONAL LAND SURVEYOR No. 9043

**TOPOGRAPHIC SURVEY
 AT 1001 KAIMOKU PLACE**

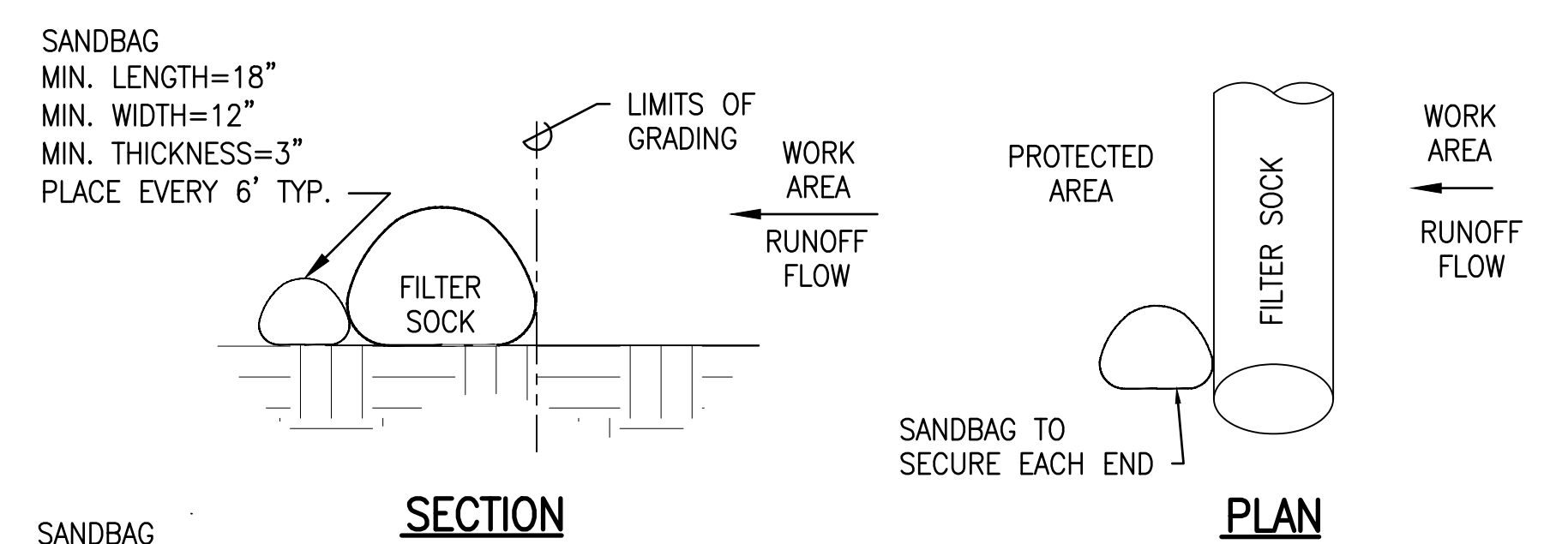
OWNER: KIM
 WAIALAE-IKI, HONOLULU, OAHU, HAWAII
 TAX MAP KEY: 3-5-058: 011
 SCALE: 1 IN. = 8 FT.

SEPTEMBER 10, 2019 FIELD BOOK NO. 298: 1



- NOTES:**
1. FILTER FABRIC NOT SHOWN IN FRONT VIEW
 2. FILTER FABRIC TO BE A GEOTEXTILE OR NURSERY SHADE
 3. LUMBER SIZES SHOWN ARE NOMINAL INCHES
 4. AS SHOWN, FABRIC TO BE ANCHORED WITH NATIVE SOIL
 5. 1"x2" FILTER FABRIC CAPS TO BE NAILED 12" O.C.
 6. BURLAP IS NOT ACCEPTABLE AS THE FILTER FABRIC
 7. FABRIC TO HAVE NO HORIZONTAL SEAMS
 8. VERTICAL SEAMS TO BE MADE OVER UPRIGHTS ONLY
 9. ALL SEAMS TO BE CAPPED WITH MINIMUM OF 1"x2"
 10. ALL JOINTS TO BE SECURELY FASTENED BY MECHANICAL MEANS

1 DUST BARRIER DETAIL
NOT TO SCALE



- NOTES:**
1. COMPOST SHALL NOT CONTAIN BIOSOLIDS AND SHOULD BE CONSISTENT WITH EPA GUIDELINES.
 2. STAKING OF COMPOST FILTER SOCK IS NOT REQUIRED.

2 COMPOST FILTER SOCK DETAIL
NOT TO SCALE

- LEGEND:**
- DUST FENCE
 - COMPOST FILTER SOCK
 - STABILIZED CONSTRUCTION ENTRANCE
 - AREA TO BE DEMOLISHED AND REMOVED
 - FLOW ARROW
 - DEMOLISH STRUCTURE

EROSION CONTROL AND DEMOLITION PLAN
SCALE: 1" = 20'

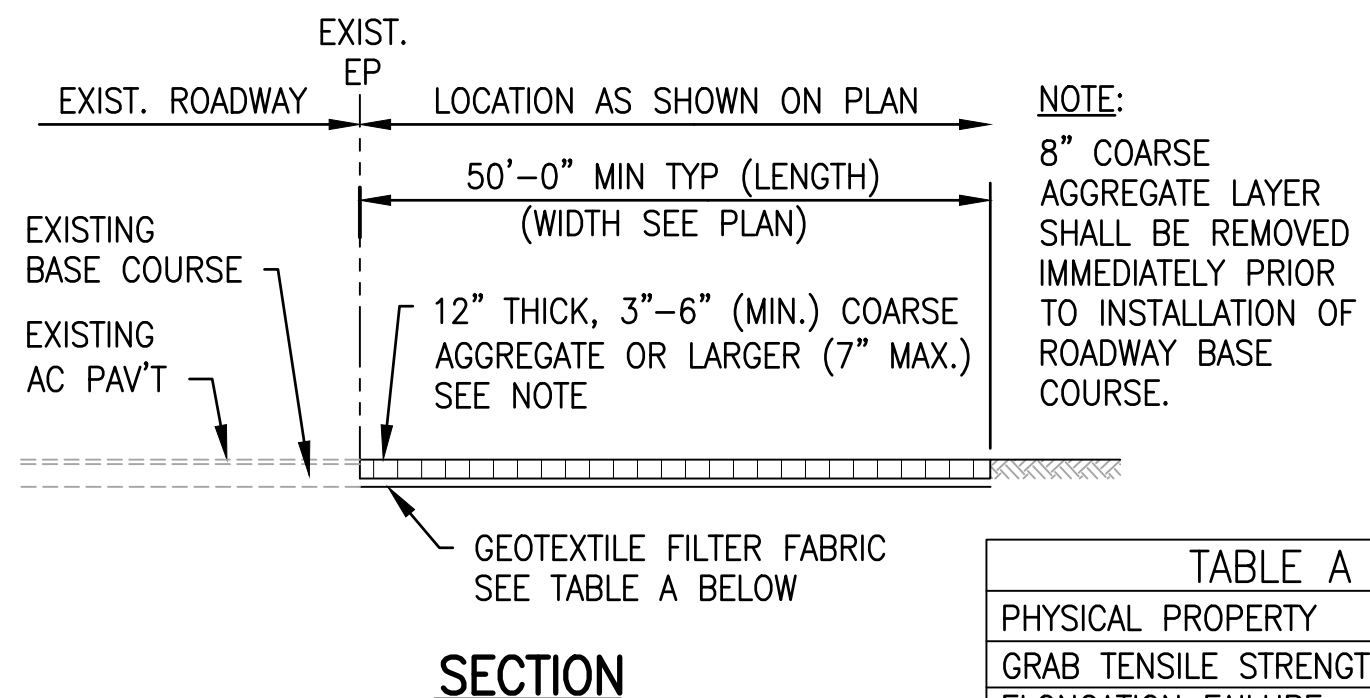
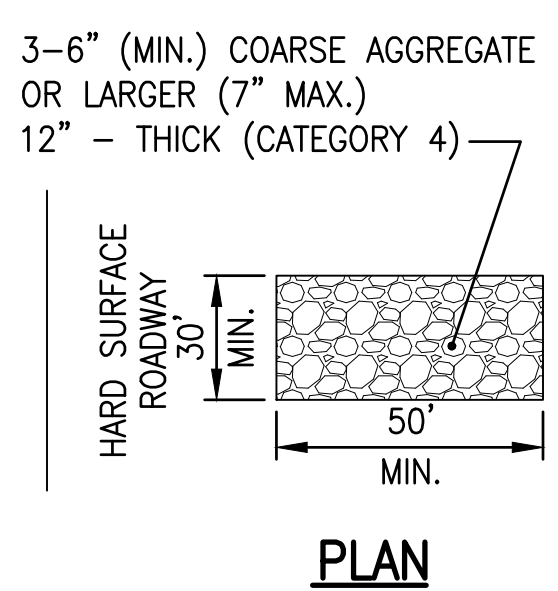
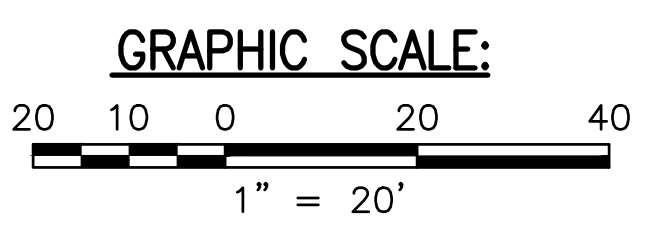


TABLE A GEOTEXTILE REQUIREMENTS	
PHYSICAL PROPERTY	REQUIREMENTS
GRAB TENSILE STRENGTH	220 LB (ASTM D1682)
ELONGATION FAILURE	60% (ASTM D1682)
MULLEN BURST STRENGTH	430 LB (ASTM D3768)
PUNCTURE STRENGTH	125 LB (ASTM D751, MODIFIED)
EQUIVALENT OPENING	SIZE 40-80 (US STD SIEVE, CW-02215)

3 CONSTRUCTION INGRESS/EGRESS DETAIL
NOT TO SCALE



Plotted: Fri, 17 Jul 2020 - 2:05pm By: DYANDS File Name: C:\temp\AcP\ulsh_21304\C-100 Kim Residence-Erosion_Demo Plandwg

Bow Engineering & Development, Inc.
CIVIL ENGINEERS
PLANNERS
195 S. BEREFTANIA ST., SUITE PH-A HONOLULU, HI 96826
Telephone (808) 941-8833
Fax (808) 945-9259
Email: bow@bowengineering.com

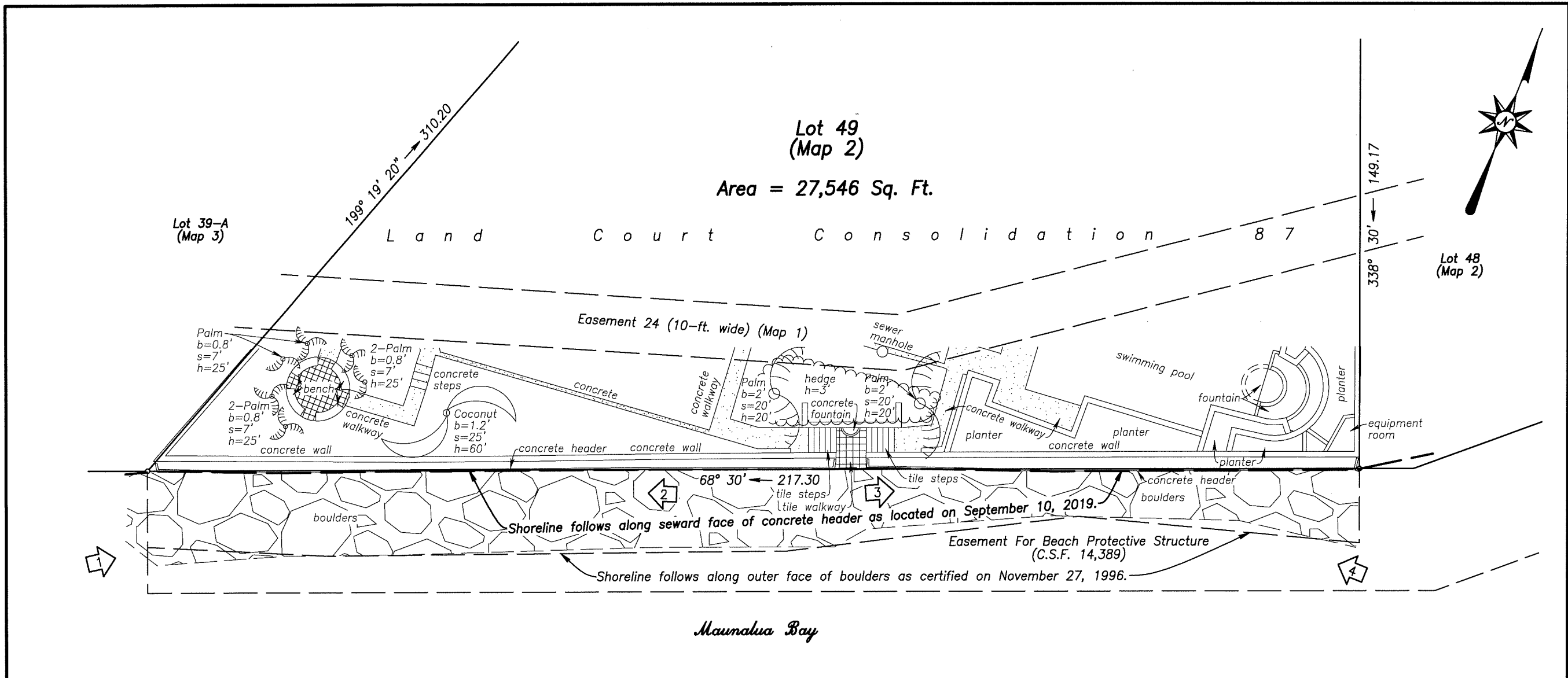
KIM RESIDENCE
1001 Kaimoku Place, Kahaala, Oahu, Hawaii T.M.K. (1)-5-0688-011
EROSION CONTROL & DEMOLITION PLAN & DETAILS

Designed by: ET
Checked by: WB
Drawn by: DY
Approved by: WB
Date: JULY 2020
Scale: AS NOTED
T.M.K.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF HAWAII. I WILL BE UNDER MY JURISDICTION.
4/29/2022
SIGNATURE

WILLIAM H. Q. BOY
LICENSED PROFESSIONAL ENGINEER
NO. 4904-C
HAWAII USA

C-1.00
SHT. - OF - SHTS.



Lot 49
(Map 2)
Area = 27,546 Sq. Ft.

L a n d C o u r t C o n s o l i d a t i o n 8 7


Easement 24 (10-ft. wide) (Map 1)

Shoreline follows along seaward face of concrete header as located on September 10, 2019.

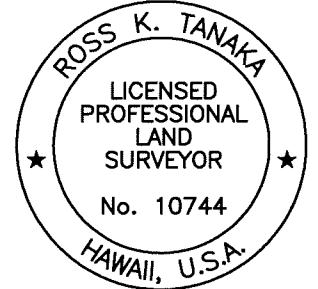
Shoreline follows along outer face of boulders as certified on November 27, 1996.

Easement For Beach Protective Structure (C.S.F. 14,389)

Maunakua Bay

Note:
 Denotes photo number and direction
 PROPERTY ADDRESS: 1001 KAIMOKU PLACE
 Honolulu, HI 96821
 OWNER: DAVID D. KIM
 4 ROBERT S DRIVE
 Menlo Park, CA 94025

SHORELINE SURVEY
 AT LOT 49 (MAP 2) OF
 LAND COURT CONSOLIDATION 87
 WAIALAE-IKI, HONOLULU, OAHU, HAWAII
 TAX MAP KEY: 3-5-058: 011
 SCALE: 1 IN. = 20 FT.



THIS WORK WAS PREPARED BY
 ME OR UNDER MY SUPERVISION

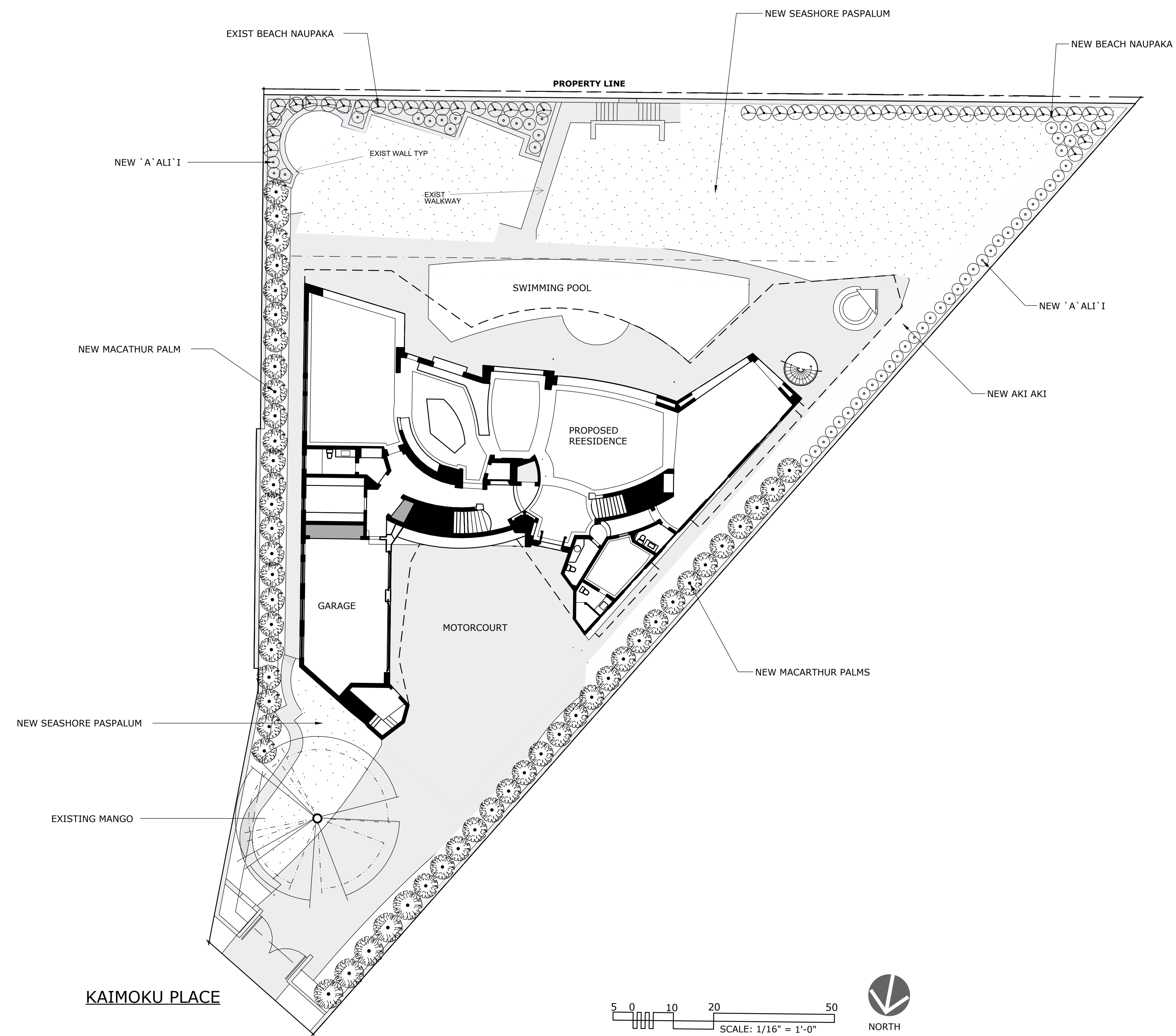
LICENSED PROFESSIONAL
 LAND SURVEYOR No. 10744

DATE: SEPTEMBER 10, 2019

KN SURVEYING, LLC
 500 ALAKAWA STREET #100A
 HONOLULU, HAWAII 96817

FIELD BOOK NO. 304: 1

10" x 15"



NOTES:
 1. EXISTING LANDSCAPE PLAN SHOWN ON TOPO PLAN : SEE CIVIL PLAN C 1
 2. ALL EXISTING TREES & PLANTS TO BE REMOVED UNLESS NOTED OTHERWISE.

LANDSCAPE PLAN





ADDITIONAL INFORMATION

John A. Wade

5361841

vs

3732925

DOC NO 610517

717

CERTIFICATE OF REGISTRATION

172 DEC 13 PM 3:24

George H. Biny
REGISTERAR

NOTED ON CERTIFICATE NO. 108579
IN REGISTRATION BOOK PAGE
TRANSFER OF COPY OF NO. OF FILE ISSUED
AND TRANSFERRED INTO
REGISTRATION BOOK PAGE
BEING CERTIFICATE NO. IN
OFFICE OF THE REGISTERAR
LAND COURT

RECORDATION REQUESTED BY:

AFTER RECORDATION, RETURN TO:

RETURN BY: MAIL () PICKUP ()
REQUESTER TO FILL IN ABOVE

SPACE ABOVE THIS LINE FOR REGISTRAR'S USE

LEASE NO. 14,755

THIS INDENTURE, made this 1st day of August, 1965, by and between the TRUSTEES OF THE ESTATE OF BERNECE PAUHI BISHOP, whose place of business and post-office address is 519 Halekauwila Street, Honolulu, Hawaii, hereinafter called the "Lessors," and JOHN LEE WADE and RUTH JASMINE WADE, husband and wife, whose residence and post-office address is 906 Waiholo Street, Honolulu, Hawaii, as tenants by the entirety,

hereinafter called the "Lessee,"

WITNESSETH: That Lessors, in consideration of the rent hereinafter reserved and of the covenants by Lessee herein contained, hereby demise and lease unto Lessee, and Lessee hereby accepts and rents:

ALL that certain parcel of land situate at Waialae-nui and Waialae-iki, Honolulu, City and County of Honolulu, State of Hawaii, shown on Map 2 filed in the Office of the Assistant Registrar of the Land Court of Hawaii with Land Court Consolidation 87 (a copy of said map being filed in the office of Lessors as Bishop Estate Map 6614) and on the sketch attached hereto and made a part hereof, and described in the Certificate of Title issued to Lessors as follows:

Lot 49, area 27,546 square feet, Certificate of Title No. 102579.

TAX MAP KEY 3-5-58-11
Description Checked

SUBJECT to all easements and setback lines therein designated on said map and sketch.

EXCEPTING AND RESERVING therefrom all rights-of-way now or hereafter granted or required by Lessors to construct, install, operate, maintain, repair and replace lines and other transmission facilities and appurtenances for electricity, telephone, water, sewer, drainage and any other public services and utilities or for highway protective wall over, across and under said easements according to the respective designation thereof on said map or sketch and the right to enter for such purposes and to trim any trees in the way of such lines.

TO HAVE AND TO HOLD the same, together with the rights, easements, privileges and appurtenances thereunto belonging or appertaining, unto Lessee from the first day of AUGUST, 1965, for the term of FIFTY-FIVE (55) YEARS thence next ensuing, subject to extension as herein provided, Lessee YIELDING AND PAYING therefor unto Lessors in equal semiannual installments each in advance on the first day of February and August in each and every year during said term, provided that the first installment thereof shall be paid in full upon the execution hereof, net rent as follows:

(a) \$ 3,600.00 per annum for and during the first 30 years;

(b) Such net annual rent for and during the next 15-year period and last 10-year period as shall be determined for each of said periods by mutual agreement of Lessors and Lessee or, if they fail to reach such agreement at least ninety (90) days before the commencement of such periods, as shall be determined by appraisal.

AND LESSORS hereby covenant with Lessee that upon payment of the rent as aforesaid and upon observance and performance of the covenants by Lessee hereinafter contained, Lessee shall peaceably hold and enjoy said premises for the term hereby demised without hindrance or interruption by Lessors or any other person or persons lawfully claiming by, through or under them except as herein expressly provided.

AND LESSEE hereby covenants with Lessors as follows:

1. PAYMENT OF RENT. Lessee will pay or cause to be paid said rent in lawful money of the United States of America at the times and in the manner aforesaid, without any deduction and without any notice or demand, at the office of Lessors in Honolulu.
2. TAXES AND ASSESSMENTS. Lessee will pay or cause to be paid to Lessors at least ten days before the same become delinquent all real property taxes and assessments of every description to which said premises or any part thereof or improvement thereon, or Lessors or Lessee in respect thereof, are now or may during said term be assessed or become liable, whether assessed to or payable by Lessors or Lessee, except that such taxes shall be prorated as of the dates of commencement and expiration respectively of said term; provided, however, that with respect to any assessment made under any betterment or improvement law which may be payable in installments, Lessee shall be required to pay only such installments together with interest as shall become due and payable during said term.
3. RATES AND OTHER CHARGES. Lessee will pay directly before the same become delinquent all charges, duties, rates and other outgoings of every description to which said premises or any part thereof or improvement thereon, or Lessors or Lessee in respect thereof, may during said term be assessed or become liable for electricity, gas, refuse collection, telephone, sewage disposal, water or any other utilities or services, whether assessed to or payable by Lessors or Lessee.
4. IMPROVEMENTS REQUIRED BY LAW. Lessee will at his own expense during the whole of said term make, build, maintain and repair all fences, sewers, drains, roads, curbs, sidewalks and parking areas which may be required by law to be made, built, maintained and repaired upon or adjoining or in connection with or for the use of said premises or any part thereof.
5. OBSERVANCE OF LAWS. Lessee will at all times during said term keep said premises in a strictly clean and sanitary condition and observe and perform all laws, ordinances, rules and regulations now or hereafter made by any governmental authority for the time being applicable to said premises or any improvement thereon or use thereof, and will indemnify Lessors

against all actions, suits, damages and claims by whomsoever brought or made by reason of the nonobservance or nonperformance of said laws, ordinances, rules and regulations or of this covenant.

6. REPAIR AND MAINTENANCE. Lessee will at his own expense from time to time and at all times during said term well and substantially repair, maintain, amend and keep all buildings and improvements now or hereafter built on the demised land with all necessary reparations and amendments whatsoever in good order and condition, except for damage by unavoidable casualty not herein required to be insured against, and maintain and keep said premises and all adjacent land between any street boundary of said premises and the established curb or street line in a neat and attractive condition and all trees, shrubs and grass thereon in good cultivation and replant the same as may be necessary and also keep said adjacent street land planted with grass and free from weeds.

7. INSPECTION. Lessee will permit Lessors and their agents at all reasonable times during said term to enter said premises and examine the state of repair and condition thereof, and will repair and make good all defects required by the provisions of this lease to be repaired by Lessee of which notice shall be given by Lessors or their agents within 30 days after the giving of such notice.

8. CONSTRUCTION OF IMPROVEMENTS. Lessee will at his own expense during the first 18 months of said term commence, and within six months after commencement thereof complete, construction on the demised land of a single-family dwelling containing enclosed floor area (exclusive of garage, carport and lanais whether attached or not) of at least 2,000 square feet and costing (inclusive of garage, carport and lanais but exclusive of any other improvements) at least \$ 100,000.00 in accordance with complete plans, specifications and detailed plot plans prepared by a licensed architect and first approved in writing by Lessors. Lessee will not erect or place on the demised land any other building or structure including fences and walls, nor make any additions or structural alterations to any building thereon, except in accordance with plans, specifications and detailed plot plan, which shall be prepared by a licensed architect if so required by Lessors, first submitted by Lessee and approved in writing by Lessors. Lessee will not erect or place on said premises any radio or television antenna towers or transmission antenna, or any antenna whatsoever extending more than four feet above the highest point of the roof (exclusive of chimneys) of the main dwelling thereon, or any wall or fence more than six feet in height measured from the top thereof to the ground level at the nearest point on the boundary of said premises. Lessee will install and adequately soundproof any airconditioning and filtering machinery on said premises in accordance with plans

and specifications therefor first approved in writing by Lessors and make all improvements thereof required by Lessors to prevent objectionable noise from such machinery, and upon abandoning the operation of any pool or pond thereon will demolish and fill the same in a manner first approved in writing by Lessors and landscape the site thereof.

9. GRADING OF LAND. Lessee will at his own expense, in accordance with plans first approved in writing by Lessors, do any grading necessary to prepare the demised land for the construction of buildings thereon, which grading shall dispose of surface waters in such manner as to prevent erosion and not obstruct the existing flow thereof, and will not thereafter change such grading except in accordance with plans first approved in writing by Lessors.

10. LANDSCAPING. Lessee will at his own expense within 90 days after completion of the dwelling required to be constructed hereunder landscape the demised land in accordance with plans prepared by a recognized landscape architect and first approved in writing by Lessors.

11. RESIDENTIAL USE. Lessee will use and allow the use of said premises only for residential purposes, and will not at any time during said term erect, place, maintain or allow on said premises more than one single-family dwelling (exclusive of out-buildings), nor keep or allow to be kept on said premises any livestock, poultry or rabbits, nor use or allow the use of any building or structure on said premises as a tenement house, rooming house or apartment house or for or in connection with the carrying on of any business or trade whatsoever.

12. BOND. Lessee will before commencing construction of any improvement on said premises deposit with Lessors a performance bond or certificate thereof in a penal sum not less than the cost of such construction, and a labor and material bond or certificate thereof in a penal sum not less than one-half of the cost of such construction, which bonds shall name Lessors as obligee, be in form and with surety satisfactory to Lessors and guarantee completion of such construction free and clear of all liens.

13. SETBACK LINES. Lessee will observe all setback lines affecting said premises as shown on the sketch hereto attached, and will not erect, place or maintain any building or structure whatsoever except approved fences or walls, or hedges, not exceeding a height of four and one-half feet above ground level between any street boundary of said premises and the setback line along such boundary.

14. INSURANCE. Lessee will at his own expense at all times during said term keep all buildings now or hereafter erected on the demised land insured against loss or damage by fire with extended coverage in a responsible insurance company in the joint names of and payable in case of loss to Lessors, Lessee and the mortgagee (if any) as their interests may appear, in an amount as near as practicable to the maximum insurable value thereof, and will pay all premiums thereon when due, and will from time to time upon request therefor deposit promptly with Lessors a true copy or current certificate of such current insurance policy,

and any money derived therefrom in case of loss shall be immediately available to and used as soon as reasonably possible by Lessee for rebuilding, repairing or otherwise reinstating the same buildings in a good and substantial manner according to the plan and elevation of the buildings so destroyed or damaged or such modified plan as shall be previously approved in writing by Lessors; provided, however, that in case the main dwelling on the demised land shall during the last ten years of said term be destroyed or damaged by any casualty to an extent rendering it unfit for occupancy, Lessee in lieu of such restoration may at his option surrender this lease to Lessors on condition that before such surrender becomes effective Lessee shall promptly remove all debris and remains of the damaged buildings and pay to Lessors all rent then accrued hereunder, taxes for the full current year and the costs of such surrender, and upon such surrender all insurance proceeds shall be payable to and be the property of Lessee and any mortgagee as their interests appear.

15. LESSORS' COSTS AND EXPENSES. Lessee will pay to Lessors on demand all costs and expenses including reasonable attorneys' fees incurred by Lessors in enforcing any of the covenants herein contained, in remedying any breach by Lessee of said covenants, in recovering possession of said premises, in collecting any delinquent rent, taxes or other charges hereunder payable by Lessee, or in connection with any litigation commenced by or against Lessee (other than condemnation proceedings) to which Lessors without any fault on their part shall be made parties.

16. INDEMNITY. Lessee will indemnify and hold Lessors harmless against all claims and demands for loss or damage, including property damage, personal injury and wrongful death, arising out of or in connection with the use or occupancy of said premises by Lessee or any other person claiming by, through or under Lessee, or any accident or fire on said premises, or any nuisance made or suffered thereon, or any failure by Lessee to keep said premises in a safe condition, or any runoff of surface water thereon wherever originating, and will reimburse Lessors for all their costs and expenses including reasonable attorneys' fees incurred in connection with the defense of any such claims, and will hold all goods, materials, furniture, fixtures, equipment, machinery and other property whatsoever on said premises at the sole risk of Lessee and hold Lessors harmless for any loss or damage thereto by any cause whatsoever.

17. WASTE AND UNLAWFUL USE. Lessee will not make or suffer any strip or waste or unlawful, improper or offensive use of said premises or use said premises for or in connection with the manufacture, sale, storage or keeping for sale or barter of any narcotics or alcoholic beverages or liquors.

18. ASSIGNMENTS AND SUBLEASES. Lessee will not without the written consent of Lessors except as herein provided assign or mortgage this lease nor sublet or part with possession of the whole or any part of said premises; provided, however, that Lessors will not require the payment of any moneys except a reasonable service charge for the giving of such consent; provided, further, that prior to completion of the dwelling required to be constructed hereunder Lessee will not assign or otherwise transfer any interest in this lease, except by way of mortgage to an established lending institution.

19. LIENS. Lessee will not commit or suffer any act or

neglect whereby said premises or any improvement thereon or the estate of Lessee therein shall at any time during said term become subject to any attachment, judgment, lien, charge or encumbrance whatsoever except as herein expressly provided, and will indemnify and hold Lessors harmless against all loss, costs and expenses including reasonable attorneys' fees with respect thereto.

20. SURRENDER. At the end of said term or other sooner determination of this lease Lessee will peaceably deliver up to Lessors possession of the demised land, together with all erections and improvements upon or belonging to the same, by whomsoever made, in good repair, order and condition except as aforesaid; provided, however, that if not then in default hereunder Lessee may within 60 days after such termination remove all buildings standing thereon.

AND IT IS HEREBY MUTUALLY AGREED by and between the parties hereto as follows:

A. EXTENSION OPTIONS. Lessee shall have the right from time to time during the continuance of this lease to extend it by the exercise of successive options to a new term of 30 years from the first day of the month following exercise of each option, but not exceeding a total term of 99 years from the commencement of this lease and reduced as necessary to that limit, on the following conditions:

- (1) Lessee shall not then be in default;
- (2) The unexpired term of this lease or any extension thereof shall then be less than 30 years;
- (3) Zoning by governmental authority then applicable to said premises shall be for single-family residential use only; and
- (4) All buildings on said premise shall then equal or exceed the general building standards of Lessors' neighborhood and have an expected useful life for the new term, or Lessee shall agree to renovate said buildings to meet such standards and life expectancy and complete such renovation within two years from the commencement of the new term.

Prior to the exercise of any option hereunder Lessee shall request in writing of Lessors a proposal of rent for either the first 15 years or all of the new term and of any required renovation of buildings, and Lessors shall give such proposal in writing to Lessee as soon as practicable. At any time after such request Lessee may exercise his option to extend this lease by giving written notice thereof to Lessors in which Lessee, with the consent therein of the mortgagee under any subsisting mortgage of this lease, shall;

(a) Accept Lessors' written proposal of rent within any time limit set therein or request that rent be determined as hereinafter provided for either the first 15 years or all of the new term; and

(b) Accept Lessors' written proposal of re-

quired renovation within any time limit set therein or request that such requirement be determined as hereinafter provided.

Unless the net annual rent payable for the new term is fixed by Lessee's acceptance of Lessors' rental proposal, such rent superseding the former rent shall be (i) for the first 15 years of the new term, a fair return on the then market value of the demised land, exclusive of any improvements erected thereon, both as determined by three recognized real estate appraisers appointed as hereinafter provided; (ii) for the remainder of the new term, a sum equal to the annual rent for the first 15 years, as determined by appraisal, increased or decreased in proportion to the net change over the 15 calendar years preceding the new term in the annual Honolulu Consumer Price Index for all items as published by the Hawaii Department of Labor and Industrial Relations or any successor state or federal agency and adjusted as necessary to the same basis; provided, however, that if Lessee's notice of exercise of option accepts Lessors' proposal of rent or requests that rent be determined in either case for only the first 15 years of the new term, rent for the remainder of the new term shall be determined by mutual agreement of the parties or, if they fail to reach such agreement at least 90 days before the commencement of said period, by appraisal as aforesaid; and (iii) for any part of the new term within the period specified in this lease for amortization of the Lessee's cost of off-site subdivision improvements, the annual rent fixed by appraisal alone or with price indices as herein provided for either the first 15 years or remainder of the new term shall be reduced by a sum equal to the product of such cost remaining unamortized at the commencement of such rental period multiplied by the rate of return determined by such appraisal. Unless any required renovation is fixed by Lessee's acceptance of Lessors' renovation proposal, such requirement shall be determined by one impartial licensed architect appointed by mutual agreement of the parties within ten days after notice of the exercise of option or, failing such agreement, appointed by a judge of the Circuit Court of the circuit in which said premises are located on application of either party, and the decision of the architect shall be final and binding on both parties, and each party shall pay one-half of all proper expenses of such determination. Upon final determination of the rent and renovation requirement for any extension as herein provided, Lessors shall prepare and the parties shall execute a recordable amendment of this lease evidencing the same. Upon the enactment of any law granting Lessee an option to purchase the fee simple title to said premises held under this lease or any extension thereof, all further extension options of Lessee under this paragraph A shall terminate.

B. APPRAISAL. Whenever this lease provides that the annual rent payable by Lessee for any period of the term hereof shall be determined by appraisal, such rent shall be a fair return on the then market value of the demised land exclusive of improvements thereon, first deducting from such market value the then unamortized cost to Lessee of \$ 38,665.00 as the prorata share allocated to said premises for off-site improvements in the subdivision of which said premises form a part, amortized on a straight-line basis over said term of 55 years, and such return and market value shall be determined by three recognized real estate appraiser, one to be appointed by each of the parties

hereto, and Lessors and Lessee shall each promptly name one such appraiser and give written notice thereof to the other party, and in case of failure of either party so to do within ten days after such notice by the other the party naming the first appraiser may apply to any person then sitting as judge of the Circuit Court of the circuit in which said premises are located for appointment of a second appraiser, and the two appraisers thus appointed in either manner shall appoint a third appraiser, and in case of their failure so to do within ten days after appointment of the second appraiser either party may have the third appraiser appointed by such judge, and the three appraisers so appointed shall proceed to determine the matters in question, and the decision of said appraisers or a majority of them shall be final, conclusive and binding on both parties hereto, and Lessors and Lessee shall each pay one-half of all proper costs and expenses of such appraisal other than attorneys' fees.

C. CONDEMNATION. In case at any time or times during said term the demised premises or any part thereof shall be taken or condemned by any authority having the power of eminent domain, then and in every such case the estate and interest of Lessee in the demised land so taken or condemned shall at once cease and terminate, and Lessee shall not by reason of such taking or condemnation be entitled to any claim against Lessors or others for compensation or indemnity for leasehold interest, and all compensation and damages for or on account of any land shall be payable to and be the sole property of Lessors, and all compensation and damages for or on account of any improvements on the demised land shall be payable to and be the sole property of Lessee; provided, however, that in case only part of said premises shall be so taken or condemned, the rent thereafter payable for the remainder of said term shall be reduced (calculated to the nearest dollar) in the proportion that the area so taken bears to the total area hereby demised, and if the remaining premises shall thereby become unsuitable for residential purposes appropriate for the neighborhood, Lessee shall have the option to surrender this lease within 30 days thereafter and be relieved of further performance hereunder; provided, further, that in case all of said premises shall be taken or condemned or Lessee shall exercise said option to surrender this lease, Lessors shall pay to Lessee from and to the extent of the net proceeds payable for the demised land the then unamortized cost to Lessee for off-site subdivision improvements computed as hereinbefore provided in paragraph B.

D. CONSENT TO MORTGAGE. Lessee may from time to time without further consent assign this lease by way of mortgage to any bank, insurance company or other established lending institution as mortgagee, provided that upon the execution thereof Lessee shall deliver a true copy of such mortgage to Lessors, and the mortgagee may cause this lease and such mortgage or either of them to be filed of record and enforce such mortgage and acquire title to the leasehold and any removable improvements in any lawful way, and rent the property pending foreclosure and acquisition and disposal of title, and the mortgagee may sell and assign this leasehold and the improvements thereon, or may sublet said premises in whole, but no other or further assignment shall be made without the written consent of Lessors. Any party acquiring the leasehold estate in consideration of the extinguishment of the debt or through foreclosure sale, judicial or otherwise, shall be liable to perform the obligations imposed upon Lessee by this lease only during the

period such party has possession or ownership of the leasehold estate.

E. PROTECTION OF MORTGAGE. During the existence of any authorized mortgage of this lease Lessors will not terminate this lease because of any default by Lessee hereunder if the mortgagee, within 120 days after Lessors have mailed to the mortgagee at its last known address a written notice of intention to terminate this lease for such cause, shall either cure such default, if the same can be cured by the payment of money, or, if such is not the case, shall undertake in writing to perform all the covenants of this lease capable of performance by the mortgagee until such time as this lease shall be sold upon foreclosure pursuant to such mortgage, and in case of such undertaking Lessors will not terminate this lease within such further time as may be required by the mortgagee to complete foreclosure of such mortgage or other remedy thereunder provided (i) that such remedy is pursued promptly and completed with due diligence, and (ii) that Lessors are paid all rent and other charges accruing hereunder as the same become due, and upon foreclosure sale of this lease the time for performance of any obligation of Lessee then in default hereunder other than payment of money shall be extended by the time reasonably necessary to complete such performance with due diligence. Ownership by or for the same person of both the fee and leasehold estates in said premises shall not effect the merger thereof without the prior written consent of any mortgagee to such merger.

F. DEFEASANCE. This demise is upon this condition, that if Lessee shall fail to pay said rent or any part thereof within 30 days after the same becomes due, whether the same shall or shall not have been legally demanded, or shall fail to observe or perform faithfully any of the other covenants or agreements herein contained and on the part of Lessee to be observed and performed and such default shall continue for 30 days after written notice thereof given to Lessee or mailed to his last known address, or if Lessee then owning this lease shall become bankrupt and fail to perform any of the covenants and agreements of Lessee hereunder or shall abandon said premises, or if this lease or any estate or interest of Lessee hereunder shall be sold under any attachment or execution, Lessors may at once re-enter said premises or any part thereof in the name of the whole and, upon or without such entry, at their option terminate this lease, without service of notice or legal process and without prejudice to any other remedy or right of action for arrears of rent or for any preceding or other breach of contract, and in case of such termination all buildings and improvements on the demised land shall become and remain the property of Lessors. If this lease is recorded in the Hawaii Bureau of Conveyances or filed in the Office of the Assistant Registrar of the Land Court of Hawaii, such termination may but need not necessarily be made effective by recording or filing in such place an affidavit thereof by Lessors or a judgment thereof by a court of competent jurisdiction.

G. MISCELLANEOUS. Acceptance of rent by Lessors or their agent shall not be deemed to be a waiver by Lessors of any breach by Lessee of any covenant herein contained or of Lessors' right of re-entry for breach of condition. Lessors' waiver of any breach by Lessee shall not operate to extinguish the term, covenant or condition the breach whereof has been waived nor be deemed a waiver

of Lessors' right to declare a forfeiture for any other breach thereof. The term "premises" herein shall mean and include (except where such meaning would be clearly repugnant to the context) all buildings and improvements now or at any time hereafter built on the land hereby demised. The term "Lessors" herein shall mean and include Lessors, their successors in trust and assigns, and the term "Lessee" herein, or any pronoun used in place thereof, shall mean and include the masculine or feminine, the singular or plural number, and jointly and severally individuals, firms or corporations, and their and each of their respective successors, executors, administrators and permitted assigns, according to the context hereof.

H. MAINTENANCE OF REVETMENT. Subject to their acquisition from the State of Hawaii of an easement therefor Lessors will at their own expense maintain the rock revetment along the water frontage of the demised premises until December 31, 1969, and Lessee will permit Lessors access across said premises for such maintenance work; and thereafter Lessee will at his own expense maintain and keep said revetment in good repair, order and condition, and in case of any failure by Lessee so to do Lessors may at their option undertake such maintenance for the account of Lessee, and all expense thereof incurred by Lessors shall be payable by Lessee on demand.

IN WITNESS WHEREOF the parties hereto have executed these presents the day and year first above written.

APPROVED AS TO FORM,
CONTENT & AUTHORITY

Walter H. McMillan

W. Steppeler

Edwin P. [unclear]

Kubal [unclear]

Trustees of the Estate of Bernice
Pauahi Bishop.

John Lee Wade
John Lee Wade

Ruth Jasmine Wade
Ruth Jasmine Wade

STATE OF HAWAII
City and County of Honolulu } ss.

On this *17th* day of *August*, 1965, before me personally appeared *H. K. Koppeler*, *Edwin P. Murray* and *Richard Lyman, Jr.* three of the TRUSTEES OF THE ESTATE OF BERNICE PAUHI BISHOP, to me known to be the persons described in and who severally executed the foregoing instrument, and severally acknowledged that they executed the same as their free act and deed as such Trustees.

Elova Black
NOTARY PUBLIC, First Judicial Circuit,
State of Hawaii.

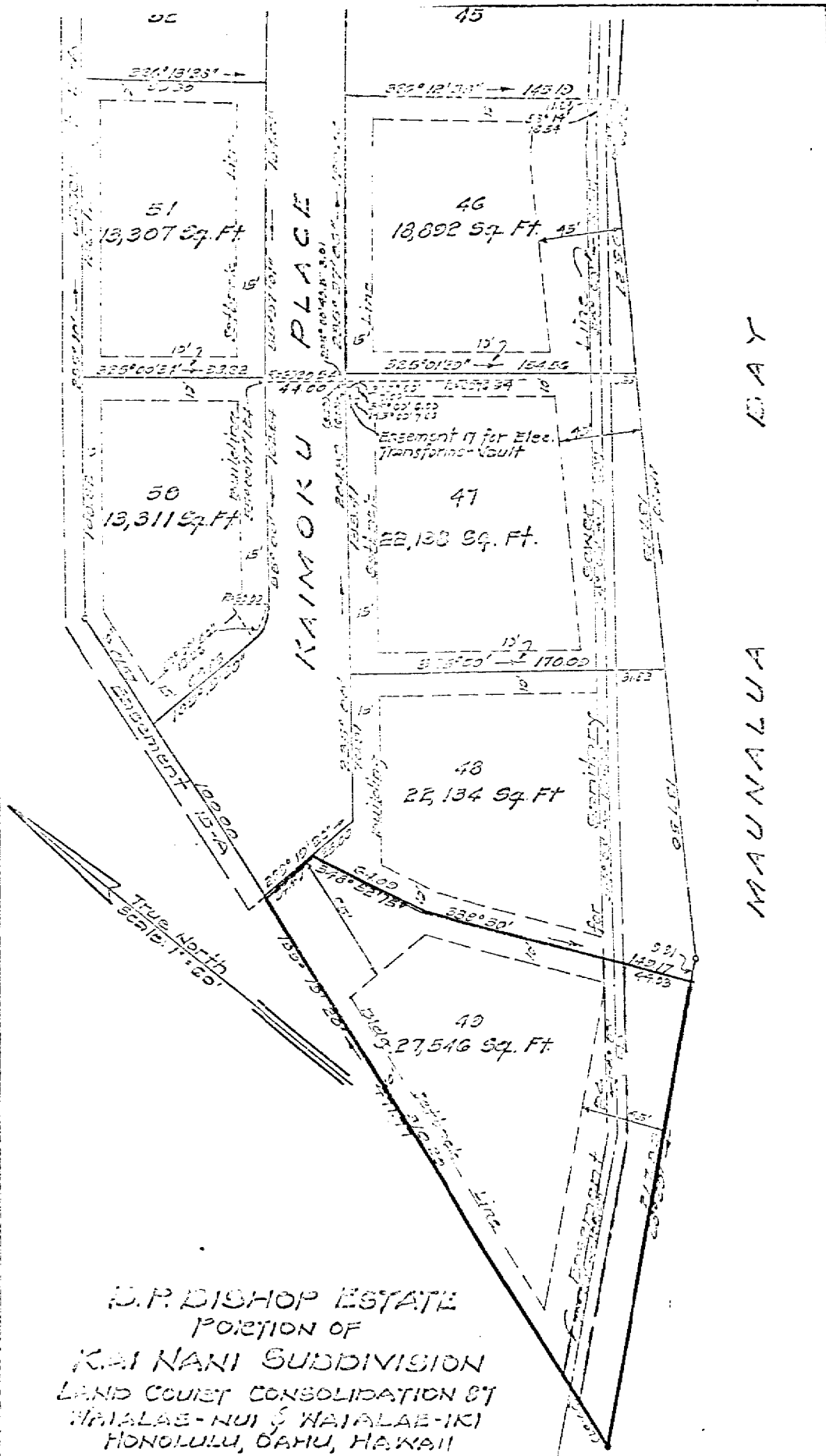
My commission expires: MAR 31 1968

STATE OF HAWAII
} ss.

On this *11th* day of *August*, 1965, before me personally appeared -----JOHN LEE WADE and RUTH JASMINE WADE----- to me known to be the person described in and who executed the foregoing instrument and acknowledged that they executed the same as their free act and deed.

Roberta L. Anderson
NOTARY PUBLIC, *First* Judicial Circuit,
State of Hawaii.

My commission expires: February 26, 1969



D.P. BISHOP ESTATE
 PORTION OF
 KAI NANI SUBDIVISION
 LAND COURT CONSOLIDATION BY
 WAIALAE-NUI & WAIALAE-IKI
 HONOLULU, OAHU, HAWAII

SCALE: 1 IN. = 50 FT.
 June 17, 1965 - M.A.

See Map 1055

SHINSATO ENGINEERING, INC.

CONSULTING GEOTECHNICAL ENGINEERS

98-747 KUAHAO PLACE, SUITE E
PEARL CITY, HAWAII 96782
PHONE: (808) 487-7855
FAX: (808) 487-7854

February 9, 2022
Project No. 19-0092

Mr. David Kim
c/o Eiserloh Architects
820 W. Hind Drive, #240139
Honolulu, HI 96824

Subject: Backfill of Existing Swimming Pool
1001 Kaimoku Place
Honolulu, Hawaii 96816
TMK: (1) 3-5-058:011

Dear Mr. Kim:

Attached please find the recommended procedures for backfilling of the existing swimming pool. This includes backfilling where new structures are to be built over the backfilled area.

The methods are recommended due to the presence of groundwater which would hamper the backfilling operations due to the potential for cave-ins.

Should you have any questions or require any further information, please do not hesitate to contact us.

Very truly yours,

SHINSATO ENGINEERING, INC.



Lawrence S. Shinsato, P.E.
President

LSS:ls



This work was prepared by me
or under my supervision.
License Expires 04/30/22

SHINSATO ENGINEERING, INC.

CONSULTING GEOTECHNICAL ENGINEERS

98-747 KUAHAO PLACE, SUITE E
PEARL CITY, HAWAII 96782
PHONE: (808) 487-7855
FAX: (808) 487-7854

February 9, 2022

RECOMMENDED GUIDELINE FOR BACKFILLING OF THE SWIMMING POOL AT 1001 KAIMOKU STREET

AS A STRUCTURAL AREA:

- a. Demolish the concrete deck and the upper 3 feet of the pool shell.
- b. Break open a minimum 3-foot square hole at the bottom of the pool shell nearest the low spot of the pool. The hole should penetrate into the underlying subgrade soil or rock.
- c. Backfill the pool with select granular material that is placed and compacted in 8-inch loose lifts. The backfill material shall be moisture conditioned to near optimum moisture content (ASTM D1557) prior to compaction. Each lift shall be compacted to at least 95 percent of the maximum dry density (ASTM D1557).
- d. Select granular material shall be City and County grade select borrow or base course gravel, S4C, or crushed coral. The material shall contain no particle over 2-inches in greatest dimension.

AS A NON-STRUCTURAL AREA:

- a. Demolish the concrete deck and the upper 3 feet of the pool shell.
- b. Break open a minimum 3-foot square hole at the bottom of the pool shell nearest the low spot of the pool. The hole should penetrate into the underlying subgrade soil.
- c. Backfill the pool with either concrete rubble obtained from the demolition work or with imported clean gravel. The concrete rubble material shall be less than 6-inches in greatest dimension and shall be cleaned of any exposed reinforcing steel or wire mesh. No loose steel, mesh or rubbish should be allowed in the fill. Imported gravel shall consist of clean gravel not exceeding 2-inches in greatest dimension. The top of this rubble/gravel fill shall not extend above 4-feet from finished subgrade elevation.

The rubble/gravel fill shall be placed in 12-inch thick layers. Each layer shall be compacted with a minimum of 6-passes with a Rammax roller or jumping jack.
- d. Place geotextile filter fabric over the compacted rubble/gravel fill. Geotextile filter fabric shall consist of non-woven fabric such as MIRAFL 180N or similar.
- e. Place and compact imported select granular material over the geotextile filter fabric to finished subgrade elevation. The material shall be placed in 8-inch loose lifts and shall be moisture conditioned to near optimum moisture content (ASTM D1557) prior to compaction. Each lift shall be compacted to at least 90 percent of the maximum dry density (ASTM D1557).
- f. Select granular material shall be City and County grade select borrow or base course gravel, S4C, or crushed coral. The material shall contain no particle over 2-inches in greatest dimension.

October 5, 1967

67/2-76

Mr. Frank W. Mustace, Jr.
347 Alexander Young Building
Honolulu, Hawaii

Dear Sir:

SUBJECT: Variance - Waialae Iki - 1001 Kaiwoku Place
Tax Map Key: 3-5-58: 11
Applicants: Mr. and Mrs. John L. Wade

The Zoning Board of Appeals at its meeting on September 28, 1967, held a public hearing to consider the application of Mr. and Mrs. John L. Wade for a variance from Ordinance No. 2637, relating to setback from zone of wave action, to permit the construction of a vertical masonry wall and a swimming pool within the ten-foot setback from zone of wave action.

It was the decision of the Board to approve the request for variance and a copy of the Findings of Fact, Conclusions of Law, and Decision and Order is enclosed.

Very truly yours,

ZONING BOARD OF APPEALS

By

Frank Skrivenski
Planning Director

Enc.

ZONING BOARD OF APPEALS OF THE CITY AND COUNTY OF HONOLULU

STATE OF HAWAII

IN THE MATTER OF THE APPLICATION)

OF

MR. AND MRS. JOHN L. WADE

FOR A VARIANCE

FINDINGS OF FACT, CONCLUSIONS OF LAW,
AND DECISION AND ORDER

I. APPLICATION

The Zoning Board of Appeals at its meetings on September 14, and September 28, 1967, considered the application by Mr. and Mrs. John L. Wade for a variance from Ordinance No. 2837, relating to setback from zone of wave action, to permit the construction of a vertical masonry wall and a swimming pool within the ten-foot setback from zone of wave action. A public hearing on this matter was held by the Zoning Board of Appeals on September 28, 1967, in accordance with Section 5-515(3) of the City Charter.

II. FINDINGS OF FACT

On the basis of the evidence presented, the Board made the following Findings of Fact:

1. The parcel of land in question is a triangular shaped lot containing an area of 27,546 square feet and is located at 1061 Kaimoku Place within the Kai Nani Subdivision adjoining the Waialeale Golf Course, more particularly identified as Tax Map Key 3-5-58; Parcel 11;
2. The lot is situated within a Class A-1 Residential District by City Planning Commission Resolution No. 109, effective May 4, 1943;
3. The subject property fronts the ocean and presently a new dwelling is under construction;

4. There is an existing rip-rap wall along the shoreline boundary. Earthen fill material has been deposited back of the rip-rap wall preparatory to building the new house;

5. An on-site inspection revealed that the zone of wave action line is approximately the property line of the lot or roughly, the top edge of the existing rip-rap wall;

6. The applicant proposes to construct a 5-foot high vertical masonry wall of hollow-tile along the entire length of the shoreline boundary on top of the existing rip-rap wall which is about two feet inside the boundary line;

7. A swimming pool is also proposed to be constructed which will be within the ten-foot setback area;

8. Under the provisions of the ordinance, no structure of any type is allowed within the ten-foot setback from the zone of wave action;

9. Approximately twenty feet parallel to the shoreline boundary there is a City and County sewer line easement traversing the lot; and

10. There were no protests filed in person or by letter during or prior to the public hearing.

III. CONCLUSIONS OF LAW

The Board members visited the site and made the following Conclusions of Law:

1. By reason of peculiar and unusual circumstances pertaining to the physical characteristics of the property and the proposed use, practical difficulties and unnecessary hardship would result from a strict enforcement of the existing zoning regulations;

2. The request is due to unique circumstances and not to the general conditions in the neighborhood which reflect the unreasonableness of the zoning ordinances; and

3. The use sought by the variance will not alter the essential character of the locality nor be contrary to the intent and purpose of the zoning ordinance and will not adversely affect the adjoining property.

IV. DECISION AND ORDER

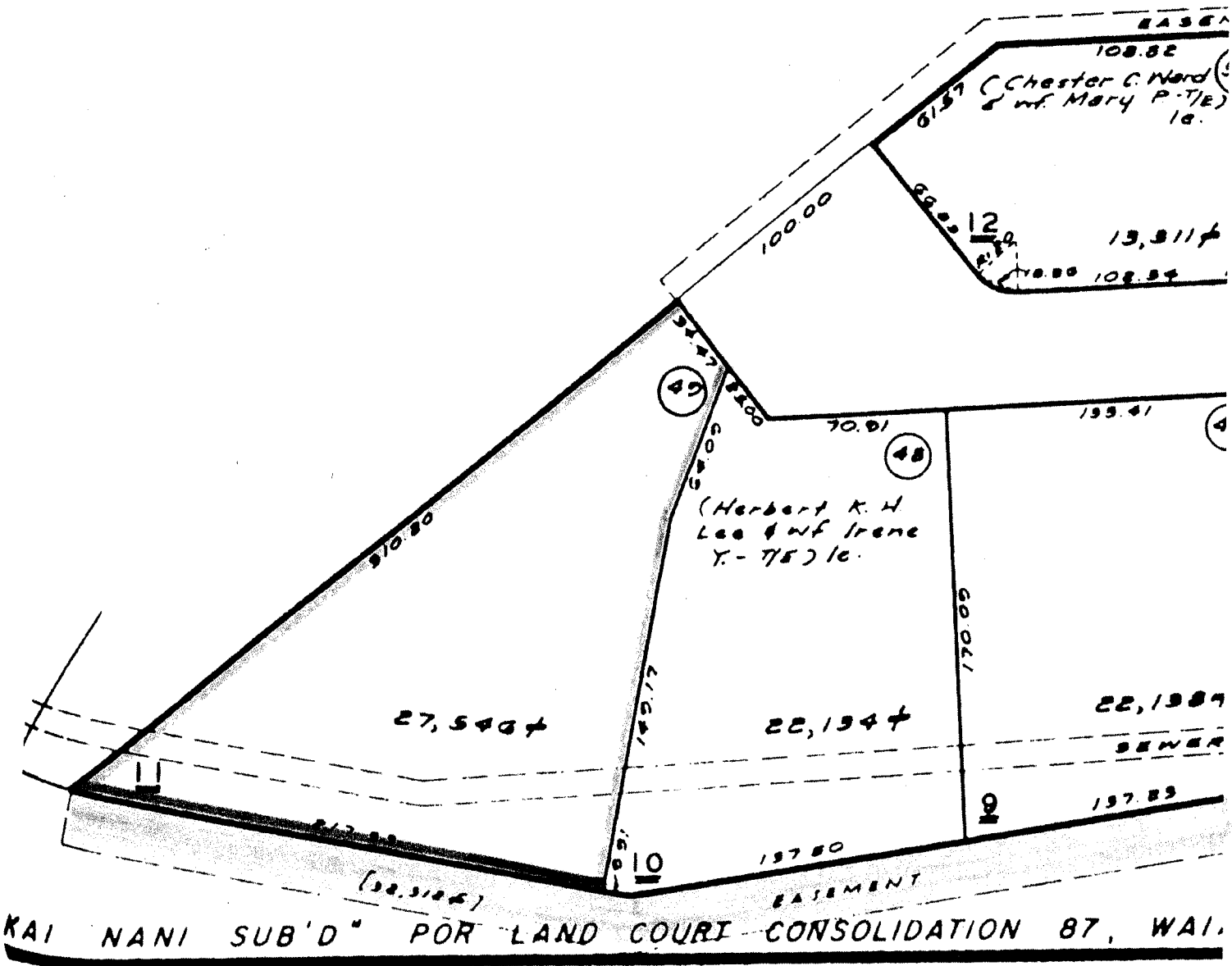
Pursuant to the foregoing Findings of Fact and Conclusions of Law, it was the decision of the Zoning Board of Appeals at its meeting on September 28, 1967, that the application for variance from Ordinance No. 2837, relating to setback from zone of wave action, to permit the construction of a vertical masonry wall and a swimming pool within the ten-foot setback from zone of wave action be approved on the basis that it found sufficient evidence to meet the three conditions of hardship specified in the City Charter.

Dated at Honolulu, Hawaii, this 5th day of October, 1967.

ZONING BOARD OF APPEALS OF THE
CITY AND COUNTY OF HONOLULU
STATE OF HAWAII

By

Harold K. Komatani, Chairman



KAI NANI SUB'D" POR LAND COURT CONSOLIDATION 87, WAI.

- Bp# 42820 8/3/67 6' HIGH H.T. FENCE 524 LINEAR FT.
- Bp# 45637 10/12/67 6' HIGH CEM. PLAS. HT REFT WALL
 217.33' ALONG BACK OF LOT
 67/2-.76 10/5/67 VARIANCE TO APPROX VERT. MASONRY WALL & POOL
- Bp# 3687 12/4/64 3' HIGH CRM SEAWALL
 PARCEL 1 to 15

CONCLUSION THE MASONRY WALLS AT THE REAR, LEFT AND RIGHT SIDE ARE LEGAL. THE CRM REVETMENT IS ALSO A LEGAL SEAWALL.

3 - 5 - 58 : 11