

The Cove Redevelopment

FINAL ENVIRONMENTAL IMPACT STATEMENT (EIS)

VOLUME II: APPENDICES

KAPOLEI, ISLAND OF O'AHU, HAWAII



APPLICANT:

Cove Campbell Kobayashi LLC

PREPARED BY:



111 S. King Street, Suite 170
Honolulu, Hawai'i 96813

JANUARY 2025

THE COVE REDEVELOPMENT

Kapolei, Island of O‘ahu, Hawai‘i

Tax Map Key: (1) 9-1-057:027

Final Environmental Impact Statement Volume II: Appendices

Applicant:

Cove Campbell Kobayashi LLC

Prepared By:



111 S. King Street, Suite 170
Honolulu, Hawai‘i 96813

January 2025

This Final Environmental Impact Statement and all ancillary documents were prepared under my direction or supervision, and the information submitted, to the best of my knowledge, fully address document content requirements set forth in Hawai‘i Revised Statutes, Chapter 343 and Hawai‘i Administrative Rules § 11-200.1 Subchapter 10.


Tracy Camuso, AICP
Principal Planner

January 14, 2025

Date

Volume II: Appendices

A. Comment Letters

A-1: EISPN Comment Letters

A-2: Draft EIS Comment Letters

- B. Cultural Surveys Hawai'i, Inc. ~~2020-2024~~. *Draft Archaeological Inventory Survey Report for The Cove Redevelopment Project, Honouliuli Ahupua'a, 'Ewa District, O'ahu*. Prepared for the James Campbell Company, LLC. ~~February 2020-November 2024~~.
- C. Cultural Surveys Hawai'i, Inc. ~~2022-2024~~. ~~Draft~~ *Cultural Impact Assessment for The Cove Redevelopment Project, Honouliuli Ahupua'a, 'Ewa District, O'ahu*. Prepared for the James Campbell Company, LLC. ~~November 2022-November 2024~~.
- D. Wilson Okamoto Corporation. 2024. *Traffic Impact Report for The Cove Redevelopment*. Prepared for James Campbell Company LLC. ~~March-November 2024~~.
- E. Fehr & Peers. 2024. *Parking Management Plan for The Cove Redevelopment Project*. Prepared for James Campbell Company. ~~May 28, 2024-November 18, 2024~~.
- F. G70. 2024. *The Cove Redevelopment Preliminary Engineering Report*. Prepared for Campbell Hawai'i Investor, LLC. ~~March-November 2024~~.
- G. Commercial Plumbing Inc. 2024. Blackwater System Description Memo. October 4, 2024.
- ~~G.H.~~ Y. Ebisu & Associates. 2024. *Acoustic Study for The Cove Redevelopment, O'ahu, Hawai'i*. ~~May-September 2024~~.
- ~~H.I.~~ Environmental Economics, LLC. 2024. *Final Economic Impact Report for the Cove Redevelopment*. ~~May-August 2024~~.

Appendix A

Comment Letters

Appendix A-1

EISPN Comment Letters

Federal



United States Department of the Interior

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



In Reply Refer To:
01EPIF00-2021-TA-0371

July 21, 2021

Ms. Tracy Camuso
Associate Principal
Group 70 International, Inc. dba G70
111 South King Street, Suite 170
Honolulu, Hawai'i 96813

Subject: Technical Assistance Pre-EIS Consultation for Redevelopment at the Cove at Ko
Olina, Kapolei, O'ahu

Dear Ms. Camuso:

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 your project occurs on the island of Hawai'i, we have also enclosed our biosecurity protocol for activities in or near natural areas.

If you are representing a federal action agency, please request an official species list following the instructions at our PIFWO website

INTERIOR REGION 9 COLUMBIA-PACIFIC NORTHWEST

IDAHO, MONTANA*, OREGON*, WASHINGTON
*PARTIAL

INTERIOR REGION 12 PACIFIC ISLANDS

AMERICAN SĀMOA, GUAM, HAWAII, NORTHERN
MARIANA ISLANDS

<https://www.fws.gov/pacificislands/articles.cfm?id=149489558>. 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 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,

Island Team Manager
Pacific Islands Fish and Wildlife Office

Enclosures (2)

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

Enclosure 1. Federal Status of Animal Species

<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 distinct population segment (DPS)	T	<input checked="" type="checkbox"/>
<i>Eretmochelys imbricata</i>	hawksbill sea turtle/ honu ‘ea or ‘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 ke‘oke‘o	E	<input type="checkbox"/>
<i>Gallinula galeata sandvicensis</i>	Hawaiian gallinule/‘alae ‘ula	E	<input type="checkbox"/>
<i>Himantopus mexicanus knudseni</i>	Hawaiian stilt/ae‘o	E	<input type="checkbox"/>
<i>Oceanodroma castro</i>	band-rumped storm-petrel Hawai‘i DPS/‘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>Buteo solitarius</i>	Hawaiian hawk/‘io	MBTA	<input type="checkbox"/>
<i>Gygis alba</i>	white tern/manu-o-kū	MBTA	<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>Megalagrion xanthomelas</i>	orangeblack Hawaiian damselfly	E	<input type="checkbox"/>
<i>Megalagrion nigrohamatum nigrolineatum</i>	blackline Hawaiian damselfly	E	<input type="checkbox"/>

Enclosure 2. Federal Status of Plant Species

Plants				
<u>Scientific Name</u>	<u>Common Name</u> <u>or</u> <u>Hawaiian Name</u>	<u>Federal Status</u>	<u>Locations</u>	<u>May Occur In Project Area</u>
<i>Abutilon menziesii</i>	ko'olua'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 checked="" 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>Isodendrion pyrifolium</i>	wahine noho kula	E	O, H	<input type="checkbox"/>
<i>Marsilea villosa</i>	'ihi'ihhi	E	Ni, O, Mo	<input type="checkbox"/>
<i>Mezoneuron kavaense</i>	uhuihi	E	O, H	<input type="checkbox"/>
<i>Nothocestrum 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	O, Mo, M	<input checked="" 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 checked="" 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=island of Hawai'i, L=Lāna'i, Mo=Moloka'i, Ka=Kaho'olawe, Ni=Ni'ihau, Le=Lehua

State of Hawai'i

DAVID Y. IGE
GOVERNOR



CATHY BETTS
DIRECTOR

JOSEPH CAMPOS II
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
BENEFIT, EMPLOYMENT AND SUPPORT SERVICES DIVISION
1010 Richards Street, Suite 512
Honolulu, Hawaii 96813

Re: 21-0615

July 8, 2021

Tracy Camuso, AICP
Associate Principal
G70 INTERNATIONAL, INC.
dba G70
111 S. King Street, Suite 170
Honolulu, Hawaii 96813



Dear Ms. Camuso:

Subject: Environmental Impact Statement Preparation Notice (EISPN) for The Cove at Ko Olina
Redevelopment project located in Kapolei, Island of Oahu, Hawaii

This is in response to your letter dated June 23, 2021 requesting the Department of Human Services (DHS) review and comment on the above-named project.

The DHS has reviewed The Cove at Ko Olina Redevelopment project and the map of the area. A check on DHS' internal data system and Google Maps found several licensed Before and After School Child Care Facilities and one Group Child Care Center located within a one (1) mile radius of the area that may be affected during the construction phase.

If you should have any questions regarding this matter, please contact Ms. Lisa Galino, Child Care Program Specialist at (808) 586-5712.

Sincerely,

A handwritten signature in black ink that reads "Scott Nakasone".

Scott Nakasone
Assistant Division Administrator

c: Cathy Betts, Director

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 0634
STP 8.3210



July 8, 2021

Ms. Tracy Camuso, AICP
Associate Principal
Group 70 International, Inc. dba G70
111 South King Street, Suite 170
Honolulu, Hawaii 96813

Dear Ms. Camuso:

Subject: Environmental Impact Statement Preparation Notice (EISPN)
The Cove at Ko Olina Redevelopment
Kapolei, Oahu, Hawaii
Tax Map Key: (1) 9-1-057: 027

Thank you for your letter dated June 23, 2021 requesting comments on the proposed project. The State of Hawaii Department of Transportation (HDOT) has reviewed the subject EISPN and understands James Campbell Company (JCC), LLC is proposing to redevelop the 10.85-acre property located between Ali'i Nui Drive and the shoreline makai of the entrance to the Ko Olina Resort in Kapolei. The site is currently occupied by the Paradise Cove, whose lease ends in 2023. The redevelopment of the site includes a new entertainment/performing arts venue, retail shops, open-air marketplace, restaurants, and other amenities to capture the coastal setting and Hawaiian culture.

HDOT has the following comments:

Airports Division (HDOT-A)

1. The proposed project is approximately 3.42 miles from Kalaeloa Airport (JRF). All projects within 5 miles from Hawaii State airports are advised to read the Technical Assistance Memorandum (TAM) for guidance with development and activities that may require further review and permits. The TAM can be viewed at this link:
http://files.hawaii.gov/dbedt/op/docs/TAM-FAA-DOT-Airports_08-01-2016.pdf.
2. The proposed project is approximately 18,190 feet from the end of Runway 29 at JRF. Federal Aviation Administration (FAA) regulation requires the submittal of FAA Form 7460-1 Notice of Proposed Construction or alteration pursuant to the Code of Federal Regulations, Title 14, Part 77.9, if the construction or alteration is within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with its longest runway more than 3,200 feet. Construction equipment and staging area heights, including heights of temporary construction cranes, shall be included in the submittal. The form and criteria for submittal can be found at the following website:
<https://ocaaa.faa.gov/ocaaa/external/portal.jsp>.
3. Due to the proximity to the airport, the developer should be aware of potential noise from aircraft operations. There is also a potential for fumes, smoke, vibrations, odors, etc.,

resulting from occasional aircraft flight operations over or near the project location. These impacts may increase or decrease over time and depending on airport operations.

4. The HDOT-A requires that the proposed landscaping does not create a wildlife hazard attractant. Please review the FAA Advisory Circular (AC) 150/5200-33C Hazardous Wildlife Attractants On or Near Airports for guidance. If the project results in a wildlife attractant, these effects shall be immediately mitigated by the developer upon notification by the HDOT-A and/or FAA.

Highways Division (HDOT-HWY)

HDOT-HWY has the following comments relevant to State highways which are to be addressed in the Draft Environmental Impact Statement (EIS):

1. Based on a review of the provided project information, we anticipate a potential adverse impact to State highways. Submit a Traffic Impact Analysis Report (TIAR) prepared and stamped by a licensed engineer. The TIAR and Draft EIS should include:
 - a. A description of existing traffic conditions and use of multimodal routes in the study area.
 - b. Forecasted traffic and multimodal conditions in the horizon year (year at full project build-out), with and without the project, and including trips generated by planned developments in the study area.
 - c. An analysis of project related direct, indirect, and cumulative transportation impacts, including impacts associated with multimodal transportation and safety.
 - d. Recommended mitigation for impacts to transportation.
2. The TIAR study area should include the Farrington Highway/Aliinui Drive and Farrington Highway/Koio Drive intersections.

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,



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 21, 2021

LD 0705

Group 70 International, *dba* G70
111 South King Street, Suite 170
Honolulu, HI 96813

Via email: thecovekoolina@g70.design

Attn: Tracy Camuso, AICP

Dear Sirs:

**SUBJECT: Environmental Impact Statement Preparation Notice
The Cove at Ko Olina Redevelopment
Kapolei, Island of Oahu, Hawaii
TMK: (1) 9-1-057:027**

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 various DLNR divisions, as indicated on the attached, for their review and comment.

Attached are comments received from our (a) Engineering Division, (b) Division of Forestry and Wildlife, and (c) Office of Conservation and Coastal Lands. Should you have any questions, please feel free to contact Barbara Lee via email at barbara.j.lee@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Attachments

Cc: Central Files



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 01, 2021

LD 0705

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 (via email: sharleen.k.kuba@hawaii.gov)

☒ Land Division – Oahu District (via email: barry.w.cheung@hawaii.gov)

TO:

Russell Tsuji

FROM:

Russell Y. Tsuji, Land Administrator

SUBJECT:

**Environmental Impact Statement Preparation Notice (EISPN)
The Cove at Ko Olina Redevelopment**

LOCATION:

Kapolei, Island of Oahu, Hawaii; TMK: (1) 9-1-057:027

APPLICANT:

G70 on behalf of the James Campbell Company

Transmitted for your review and comment is information on the above-referenced subject. The subject [EISPN](#) was published on June 23, 2021 in the Office of Environmental Quality Control's periodic bulletin, [The Environmental Notice](#), available at the following link:

http://oegc2.doh.hawaii.gov/The_Environmental_Notice/2021-06-23-TEN.pdf

Please submit any comments by **Thursday, July 22, 2021** to DLNR.Land@hawaii.gov, and copied to barbara.j.lee@hawaii.gov. If no response is received by this date, we will assume your agency has no comments. If you have any questions, please contact Barbara Lee directly via email at barbara.j.lee@hawaii.gov. Thank you.

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

Signed:

Print Name:

Carty S. Chang, Chief Engineer

Division:

Engineering Division

Date:

Jul 15, 2021

Attachments

Cc: Central Files

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

LD/Russell Y. Tsuji

Ref: Environmental Impact Statement Preparation Notice (EISPN)

The Cove at Ko Olina Redevelopment

Location: Kapolei, Island of Oahu, Hawaii

TMK(s): (1) 9-1-057:027

Applicant: G70 on behalf of the James Campbell Company

COMMENTS

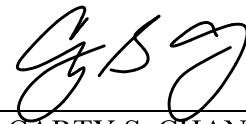
The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high-risk areas). State projects are required to comply with 44CFR regulations as stipulated in Section 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: _____



CARTY S. CHANG, CHIEF ENGINEER

Date: Jul 15, 2021

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

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

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

July 19, 2021

MEMORANDUM

Log no. 3232

TO: RUSSEL Y. TSUJI, Administrator
Land Division

FROM: DAVID G. SMITH, Administrator
Division of Forestry and Wildlife

SUBJECT: Division of Forestry and Wildlife Comments on Environmental Impact Statement Preparation Notice for the Cove at Ko 'Olina Redevelopment

The Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) has received your inquiry regarding an Environmental Impact Statement Preparation Notice for The Cove at Ko 'Olina Resort redevelopment project at Kapolei on O'ahu, Hawai'i; TMK: (1) 9-1-057:027. The proposed project consists of demolition and renovation of existing structures, excavation for foundations, and construction of new structures and associated utilities. These activities are noted as possibly resulting in soil disturbance, hazardous materials removal/disposal, dust and erosion due to demolition and grading, parking and traffic impacts due to construction equipment and trucks, and increased noise due to the construction.

The State threatened White Tern (*Gygis alba*) or Manu o Kū may occur in the vicinity of the proposed project site. If frequent activity of White Terns is observed in trees at the site, DOFAW recommends a qualified biologist survey for the presence of nests and/or nesting behavior prior to any action that could disturb the trees, such as trimming or tree removal. White Tern pairs lay their single egg in a branch fork with no nest. The eggs and chicks can be easily dislodged by construction equipment that nudges the trees. If a nest is discovered, DOFAW staff should be notified at (808) 587-0166 for assistance.

The State listed Hawaiian Hoary Bat or 'Ōpe'ape'a (*Lasiurus cinereus semotus*) has the potential to occur in the vicinity of the project area and may roost in nearby trees. If any site clearing is required this should be timed to avoid disturbance during the bat birthing and pup rearing season (June 1 through September 15). During this period, woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed.

The state endangered Hawaiian Monk Seal (*Monachus schauinslandi*) and threatened Green Sea Turtle (*Chelonia mydas*) may potentially occur or haul out on shore within the vicinity of the proposed project site. If either species is detected within 100 meters of the project area all nearby construction operations should cease and not continue until the focal animal has departed the area on its own accord.

DOFAW recommends minimizing the movement of plant or soil material between worksites, such as in fill. Soil and plant material may contain invasive fungal pathogens, vertebrate and invertebrate pests (e.g. Little Fire Ants, Coconut Rhinoceros Beetles), or invasive plant parts that could harm our native species and ecosystems. We recommend consulting the O'ahu Invasive Species Committee at (808) 266-7994 in planning, design, and construction of the project to learn of any high-risk invasive species in the area and ways to mitigate spread. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species.

DOFAW recommends using native plant species for landscaping that are appropriate for the area (i.e. climate conditions are suitable for the plants to thrive, historically occurred there, etc.). Please do not plant invasive species. DOFAW recommends consulting the Hawai'i-Pacific Weed Risk Assessment website to determine the potential invasiveness of plants proposed for use in the project (<https://sites.google.com/site/weedriskassessment/home>).

Artificial lighting can adversely impact seabirds that may pass through the area at night by causing disorientation. This disorientation can result in collision with manmade artifacts or grounding of birds. For nighttime lighting that might be required, DOFAW recommends that all lights be fully shielded to minimize impacts. Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season from September 15 through December 15. This is the period when young seabirds take their maiden voyage to the open sea. For illustrations and guidance related to seabird-friendly light styles that also protect the dark, starry skies of Hawai'i please visit: <https://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf>. If nighttime work is needed, we understand downward and shielded lights will be used. We recommend a monitor be present and if any seabirds are observed circling lights, they should be turned off immediately. Any grounded seabirds should be brought to a permitted rehabber and DOFAW should be notified.

We appreciate your efforts to work with our office for the conservation of our native species. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Paul Radley, Protected Species Habitat Conservation Planning Coordinator at (808) 587-0010 or paul.m.radley@hawaii.gov.

Sincerely,



DAVID G. SMITH
Administrator

DAVID Y. IGE
GOVERNOR OF HAWAII



RECEIVED
LAND DIVISION

2021 JUL 14 AM 10:48

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

RECEIVED
OFFICE OF CONSERVATION
AND COASTAL LANDS

2021 JUL -8 P 3:57

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

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

July 01, 2021

LD 0705

MEMORANDUM

TO: **DLNR Agencies:**
X Div. of Aquatic Resources (via email: kendall.l.tucker@hawaii.gov)
 Div. of Boating & Ocean Recreation
X Engineering Division (via email: DLNR.Engr@hawaii.gov)
X Div. of Forestry & Wildlife (via email: Rubyrosa.T.Terrago@hawaii.gov)
 Div. of State Parks
X Commission on Water Resource Management (via email: DLNR.CWRM@hawaii.gov)
X Office of Conservation & Coastal Lands (via email: sharleen.k.kuba@hawaii.gov)
X Land Division – Oahu District (via email: barry.w.cheung@hawaii.gov)

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: **Environmental Impact Statement Preparation Notice (EISPN)**
The Cove at Ko Olina Redevelopment
LOCATION: Kapolei, Island of Oahu, Hawaii; TMK: (1) 9-1-057:027
APPLICANT: **G70 on behalf of the James Campbell Company**

Russell Tsuji

Transmitted for your review and comment is information on the above-referenced subject. The subject EISPN was published on June 23, 2021 in the Office of Environmental Quality Control's periodic bulletin, The Environmental Notice, available at the following link:

http://oegc2.doh.hawaii.gov/The_Environmental_Notice/2021-06-23-TEN.pdf

Please submit any comments by **Thursday, July 22, 2021** to DLNR.Land@hawaii.gov, and copied to barbara.j.lee@hawaii.gov. If no response is received by this date, we will assume your agency has no comments. If you have any questions, please contact Barbara Lee directly via email at barbara.j.lee@hawaii.gov. Thank you.

Not in conservation
district

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

Attachments
Cc: Central Files

Signed: Rachel Deasley
Print Name: R D
Division: OCC
Date: 7/13/2021



RECEIVED
LAND DIVISION

2021 JUN 24 AM 10:47

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

DEPT. OF LAND
& NATURAL RESOURCES
STATE OF HAWAII

2021 JUN 24 AM 8:11

RECEIVED

LD Ø7Ø5

111 S. King Street June 23, 2021
Suite 170
Honolulu, HI 96813
808.523.5866
www.g70.design

Subject: Environmental Impact Statement Preparation Notice
The Cove at Ko Olina Redevelopment
Tas Map Key (TMK): (1) 9-1-057: 027
(Kapolei, O'ahu, Hawai'i)

Dear Participant:

On behalf of the James Campbell Company (JCC), G70 is notifying you of the availability of the Environmental Impact Statement Preparation Notice (EISPN) for The Cove at Ko Olina Redevelopment project located in Kapolei, Island of O'ahu, Hawai'i.

The EISPN document can be downloaded from the website of the Office of Environmental Quality Control online at this link: http://oegc2.doh.hawaii.gov/Doc_Library/2021-06-23-0A-EISPN-The-Cove-at-Ko-Olina-Redevelopment.pdf

Please provide comments via email, fax, or U.S. Mail. The 30-day comment period begins on June 23, 2021 and ends on July 23, 2021. Please submit your comments to:

Group 70 International, Inc. dba G70
111 S. King Street, Suite 170
Honolulu, HI 96813
Attn: Tracy Camuso, AICP
Email: thecovekoolina@g70.design
Fax: (808) 523-5874

An EIS public scoping meeting will be held on **Wednesday, July 7, 2021 at 6:00 PM**. The EIS scoping meeting allows for agencies and the public to assist JCC in determining the range of actions, alternatives, impacts, significant issues and proposed mitigation to be considered in the Draft EIS.

The scoping meeting will be a virtual meeting held via the Zoom platform at the following link: <https://g70design.zoom.us/j/99536447944>. We encourage you to download the application prior to the meeting. If you have questions regarding the virtual scoping meeting, please contact us at thecovekoolina@g70.design, and we can assist you.

Thank you for your participation in the environmental review process.

Sincerely,
Group 70 International, Inc., dba G70

Tracy Camuso, AICP
Associate Principal

Standard Comments for Land Use Reviews
Clean Air Branch
Hawaii State Department of Health

If your proposed project:

Requires an Air Pollution Control Permit

You must obtain an air pollution control permit from the Clean Air Branch and comply with all applicable conditions and requirements. If you do not know if you need an air pollution control permit, please contact the Permitting Section of the Clean Air Branch.

Includes construction or demolition activities that involve asbestos

You must contact the Asbestos Abatement Office in the Indoor and Radiological Health Branch.

Has the potential to generate fugitive dust

You must control the generation of all airborne, visible fugitive dust. Note that construction activities that occur near to existing residences, business, public areas and major thoroughfares exacerbate potential dust concerns. It is recommended that a dust control management plan be developed which identifies and mitigates all activities that may generate airborne, visible fugitive dust. The plan, which does *not* require Department of Health approval, should help you recognize and minimize potential airborne, visible fugitive dust problems.

Construction activities must comply with the provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust. In addition, for cases involving mixed land use, we strongly recommend that buffer zones be established, wherever possible, in order to alleviate potential nuisance complaints.

You should provide reasonable measures to control airborne, visible fugitive dust from the road areas and during the various phases of construction. These measures include, but are not limited to, the following:

- a) Planning the different phases of construction, focusing on minimizing the amount of airborne, visible fugitive dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;
- b) Providing an adequate water source at the site prior to start-up of construction activities;
- c) Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;
- d) Minimizing airborne, visible fugitive dust from shoulders and access roads;
- e) Providing reasonable dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- f) Controlling airborne, visible fugitive dust from debris being hauled away from the project site.

If you have questions about fugitive dust, please contact the Enforcement Section of the Clean Air Branch

Clean Air Branch (808) 586-4200 cab@doh.hawaii.gov	Indoor Radiological Health Branch (808) 586-4700
--	---

April 1, 2019



STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF FACILITIES AND OPERATIONS



July 22, 2021

Tracy Camuso, AICP
Group 70 International, Inc. dba G70
111 S. King Street, Suite 170
Honolulu, Hawaii 96813

Re: Environmental Impact Statement Preparation Notice for the Cove at Ko Olina
Redevelopment, Kapolei, Hawaii, TMK (1) 9-1-057:027

Dear Ms. Camuso:

Thank you for your letter dated June 23, 2021. The Hawaii State Department of Education (HIDOE) has the following pre-consultation comments for the preparation of a Draft Environmental Impact Statement for the proposed redevelopment of the Cove at Ko Olina (Project) located at Kapolei, Island of Oahu, TMK (1) 9-1-057:027.

Based upon the information provided, the Project will not impact HIDOE schools.

Thank you for the opportunity to comment. Should you have questions, please contact Robyn Loudermilk, School Lands and Facilities Specialist, Facilities Development Branch, Planning Section, at 784-5093 or by email at robyn.loudermilk@k12.hi.us.

Sincerely,

A handwritten signature in dark ink, appearing to read "Roy Ikeda", written over a light blue horizontal line.

Roy Ikeda
Interim Public Works Manager
Planning Section

RI:rlI

DAVID Y. IGE
GOVERNOR



CURT T. OTAGURO
COMPTROLLER
AUDREY HIDANO
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)21.135

JUL 14 2021



Tracy Camuso, AICP
Group 70 International, Inc., dba G70
111 S. King Street, Suite 170
Honolulu, Hawaii 96813

Dear Ms. Camuso:

Subject: Environmental Impact Statement Preparation Notice
The Cove at Ko Olina Redevelopment
Kapolei, Oahu, Hawaii
TMK: (1) 9-1-057: 027

Thank you for the opportunity to comment on the subject project. We have no comments to offer at this time as the proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities.

If you have any questions, your staff may call Ms. Gayle Takasaki of the Planning Branch at 586-0584.

Sincerely,

A handwritten signature in blue ink, appearing to read "Christine L. Kinimaka".

CHRISTINE L. KINIMAKA
Public Works Administrator

GT:mo

City and County of Honolulu

DEPARTMENT OF COMMUNITY SERVICES
CITY AND COUNTY OF HONOLULU

925 DILLINGHAM BOULEVARD, SUITE 200 • HONOLULU, HAWAII 96817
PHONE: (808) 768-7762 • FAX: (808) 768-7792
www.honolulu.gov/dcs

RICK BLANGIARDI
MAYOR



SARAH ALLEN
DIRECTOR

JOY BARUA
DEPUTY DIRECTOR



June 30, 2021

Ms. Tracy Camuso, AICP
Associate Principal
Group 70 International, Inc.
111 So. King Street, Suite 170
Honolulu, Hawai'i 96813

Dear Ms. Camuso:

SUBJECT: Environmental Impact Statement Preparation Notice
The Cove at Ko Olina Redevelopment
TMK: (1) 9-1-057:027, O'ahu, Hawai'i

Thank you for your letter dated June 23, 2021 notifying the City and County of Honolulu, Department of Community Services (DCS), about the availability of an Environmental Impact Statement Preparation Notice (EISPN) for the above-named property.

Our review of the documents indicates that the proposed project will have no adverse impacts on any DCS activities or projects in the surrounding neighborhood.

Thank you for providing us the opportunity to comment on this matter.

Sincerely,

A handwritten signature in dark ink, appearing to read "Sarah Allen".

Sarah Allen
Director



21 JUL 24 P2:18

111 S. King Street June 23, 2021

Suite 170

Honolulu, HI 96813

808.523.5866

www.g70.design

Subject: Environmental Impact Statement Preparation Notice
The Cove at Ko Olina Redevelopment
Tas Map Key (TMK): (1) 9-1-057: 027
(Kapolei, O'ahu, Hawai'i)

Dear Participant:

On behalf of the James Campbell Company (JCC), G70 is notifying you of the availability of the Environmental Impact Statement Preparation Notice (EISP) for The Cove at Ko Olina Redevelopment project located in Kapolei, Island of O'ahu, Hawai'i.

The EISP document can be downloaded from the website of the Office of Environmental Quality Control online at this link: http://oeqc2.doh.hawaii.gov/Doc_Library/2021-06-23-OA-EISP-The-Cove-at-Ko-Olina-Redevelopment.pdf

Please provide comments via email, fax, or U.S. Mail. The 30-day comment period begins on June 23, 2021 and ends on July 23, 2021. Please submit your comments to:

Group 70 International, Inc. dba G70
111 S. King Street, Suite 170
Honolulu, HI 96813
Attn: Tracy Camuso, AICP
Email: thecovekoolina@g70.design
Fax: (808) 523-5874

An EIS public scoping meeting will be held on **Wednesday, July 7, 2021 at 6:00 PM**. The EIS scoping meeting allows for agencies and the public to assist JCC in determining the range of actions, alternatives, impacts, significant issues and proposed mitigation to be considered in the Draft EIS.

The scoping meeting will be a virtual meeting held via the Zoom platform at the following link: <https://g70design.zoom.us/j/99536447944>. We encourage you to download the application prior to the meeting. If you have questions regarding the virtual scoping meeting, please contact us at thecovekoolina@g70.design, and we can assist you.

Thank you for your participation in the environmental review process.

Sincerely,
Group 70 International, Inc., dba G70

Tracy Camuso, AICP
Associate Principal

DEPARTMENT OF FACILITY MAINTENANCE
CITY AND COUNTY OF HONOLULU

1000 Ulu'ohia Street, Suite 215, Kapolei, Hawaii 96707
Phone: (808) 768-3343 • Fax: (808) 768-3381
Website: www.honolulu.gov

RICK BLANGIARDI
MAYOR



ROGER BABCOCK, JR., Ph.D., P.E.
DIRECTOR AND CHIEF ENGINEER

DAWN B. SZEWCZYK, P.E.
DEPUTY DIRECTOR

IN REPLY REFER TO:
DRM 21-407

June 30, 2021

G70
Mr. Tracy Camuso, AICP
111 S. King Street, Suite 170
Honolulu, Hawaii 96813



Dear Mr. Camuso


Subject: Environmental Impact Statement Preparation Notice
The Cove at Ko Olina Redevelopment
TMK: (1) 9-1-057:027

Thank you for the opportunity to review and comment on the subject project.

We have no comments at this time, as we do not have any facilities or easements on the subject property.

If you have any questions, please call Mr. Kyle Oyasato of the Division of Road Maintenance at 768-3697.

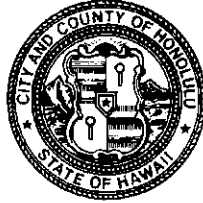
Sincerely,


✓ Roger Babcock, Jr., Ph.D., P.E.
Director and Chief Engineer

DEPARTMENT OF PARKS & RECREATION
CITY AND COUNTY OF HONOLULU

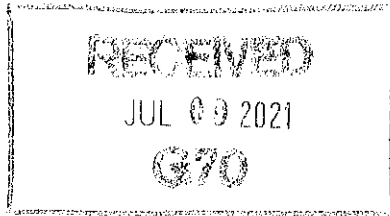
1000 Ulukouia Street, Suite 309, Kapolei, Hawaii 96707
Phone: (808) 768-3003 • Fax: (808) 768-3053
Website: www.honolulu.gov

RICK BLANGIARDI
MAYOR



LAURA H. THIELEN
DIRECTOR

KEHAULANI PU'U
DEPUTY DIRECTOR



June 30, 2021

Ms. Tracy Camuso, AICP
G-70
111 South King Street, Suite 170
Honolulu, Hawaii 96813

Dear Ms. Camuso:

Subject: Draft Environmental Assessment Preparation Notice
The Cove at Ko Olina Redevelopment
Tax Map Key (TMK) 9-1-057:027
Kapolei, Hawaii

Thank you for the opportunity to review and comment at the Pre-Consultation Stage of the Draft Environmental Assessment for the Cove at Ko Olina Redevelopment.

The Department of Parks and Recreation has no comment. As the proposed project will have no impact on any program or facility of the department you may remove us as a consulted party to the balance of the EIS process.

Sincerely,

A handwritten signature in black ink, appearing to read "Laura H. Thielen".

Laura H. Thielen
Director

LHT:jr
(855379)

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU

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



RICK BLANGIARDI
MAYOR

RADE X. VANIG
INTERIM CHIEF

OUR REFERENCE **EO-DK**

July 9, 2021

SENT VIA EMAIL

Ms. Tracy Camuso
thecovekoolina@g70.design

Dear Ms. Camuso:

This is in response to your letter of June 23, 2021, requesting input on the Environmental Impact Statement Preparation Notice for the proposed redevelopment of The Cove at Ko Olina located in Kapolei.

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 Gail Beckley of District 8 (Kapolei, Waianae) at 723-8400.

Thank you for the opportunity to review this project.

Sincerely,

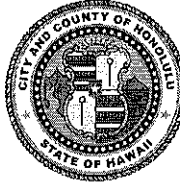
A handwritten signature in black ink, appearing to read "Darren Chun", with a horizontal line extending to the right.

DARREN CHUN
Assistant Chief of Police
Support Services Bureau

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

RICK BLANGIARDI
MAYOR



DEAN UCHIDA
DIRECTOR

DAWN TAKEUCHI APUNA
DEPUTY DIRECTOR

EUGENE H. TAKAHASHI
DEPUTY DIRECTOR

July 15, 2021

2021/ELOG-772(MS)
2021/ED-6

Ms. Tracy Camuso
G70
111 South King Street, Suite 170
Honolulu, Hawaii 96813

Dear Ms. Camuso:

SUBJECT: The Cove at Ko Olina Redevelopment Project
Chapter 343, Hawaii Revised Statutes
Environmental Impact Statement Preparation Notice
92-1086 Alii Nui Drive - Honouliuli
Tax Map Key 9-1-057: 27

This responds to your request for comments on the forthcoming Draft Environmental Impact Statement (DEIS) which is to be prepared for the above Project. We look forward to reviewing the DEIS, and we have the following suggestions:

1. Section 1 Project Information: Include a shoreline survey and plans that identify and label the proposed distance from the shoreline.
2. Section 2.1 Project Setting and Description: Provide a more detailed description of the "wide range of events." Note that Condition 1 of the Unilateral Agreement (UA), Ordinance No. 89-27, states that the site is limited to "restaurants and retail activity associated with a Hawaiian Theme Park and a commercial luau operation."
3. Section 2.2 Development Schedule: Include a timeline and describe any proposed phased development of the Project.
4. Section 3.6 Land Use Plans, Policies and Controls: Include details on lot coverage and provision of the 40-foot-wide strip as required by Conditions 2 and 3 of the UA.

Ms. Tracy Camuso
July 15, 2021
Page 2

Should you have any questions, please contact Malynne Simeon, of our Land Use Approval Branch, at (808) 768-8023, or msimeon@honolulu.gov.

Very truly yours,

FOR 
Dean Uchida
Director

Enclosure: Receipt No. 131440

OFFICIAL RECEIPT
DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

131440

Date: May 17, 2021

Received From: G70

Four hundred and no/100 DOLLARS

For: 2021/ED-6 app review fee

Tax Map Key: 9-1-057: 027

\$400.00

30H Waterfront Plaza-V #52646

T. L.
DEPARTMENT OF PLANNING AND PERMITTING

OFFICIAL RECEIPT
DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

131440

Date: May 17, 2021

Received From: 6710

Four hundred and no/100 DOLLARS

For: 2021/ED-6 app review fee

Tax Map Key: 9-1-057: 027

\$400.00

30th Waterfront Plaza - 145264 DEPARTMENT OF PLANNING AND PERMITTING

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

RICK BLANGIARDI
MAYOR



ALEX KOZLOV, P.E.
DIRECTOR

HAKU MILLES, P.E.
DEPUTY DIRECTOR



July 14, 2021

Group 70 International, Inc. dba G70
111 S. King Street, Suite 170
Honolulu, Hawaii 96813

Attn: Tracy Camuso, ICP

Dear Tracy:

Subject: Environmental Impact Statement Preparation Notice
The Cove at Ko Olina Redevelopment
TMK: (1) 9-1-057:027
(Kapolei, Oahu, Hawaii)

Thank you for the opportunity to review and comment. The Department of Design and Construction has no comments to offer at this time.

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

Sincerely,

A handwritten signature in dark ink, appearing to read "Alex Kozlov", written over a faint, larger signature.

AK Alex Kozlov, P.E.
Director

AK:krm (855349)

BOARD OF WATER SUPPLY

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



July 28, 2021

RICK BLANGIARDI, MAYOR

BRYAN P. ANDAYA, Chair
KAPUA SPROAT, Vice Chair
RAY C. SOON
MAX J. SWORD
NA'ALEHU ANTHONY

JADE T. BUTAY, Ex-Officio
ROGER BABCOCK, Jr., Ex-Officio

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

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

Ms. Tracy Camuso, AICP
Group 70 International, Inc.
111 South King Street, Suite 170
Honolulu, Hawaii 96813



Dear Ms. Camuso:

Subject: Your Letter Dated June 23, 2021 Requesting Comments on the
Environmental Impact Statement Preparation Notice for The Cove at
Ko Olina Redevelopment Project in Kapolei - Tax Map Key: 9-1-057: 027

Thank you for your letter regarding the proposed redevelopment project at The Cove at Ko Olina.

The parcel has an existing nonpotable water meter. However, as of the submittal of this Environmental Impact Statement Preparation Notice, the Barbers Point Nonpotable Wells pumping exceeds State Permitted Use and could be in violation of the State Water Use Permit. We understand that Ko Olina Resort is planning an additional nonpotable well to accommodate future irrigation demands, however, the exploratory well has not been constructed to date. A commitment and schedule for the construction and connection of the nonpotable well is required before the Board of Water Supply (BWS) will approve building permits for the Ko Olina Resort. BWS Rules & Regulations require the use of nonpotable water for irrigation of large landscaped areas, if available. The developer of this project is required to coordinate with Ko Olina Resort for the development of the new nonpotable source. A source development plan should be submitted for BWS review. Confirmation on the adequacy of the wells yield and chloride content are also required before building permits will be approved.

The existing potable water system is adequate to provide off-site fire protection and accommodate the domestic demands of the proposed development. However, please be advised that this information is based upon current data, and therefore, the BWS 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.

Ms. Tracy Camuso
July 28, 2021
Page 2

The developer will need to obtain a potable water allocation from the Ko Olina Resort and Marina. A copy of the letter should be submitted to the BWS for documentation.

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

Water conservation measures are required for all proposed developments. These measures include the selection of Water Sense labeled ultra-low-flow plumbing fixtures and toilets, utilization of nonpotable water for irrigation using rain catchment and chiller/air handler condensate, cooling tower conductivity meters and water softening recycling systems, drought and salt tolerant plants, and xeriscaping principles in all landscaping. We recommend installing efficient irrigation systems, such as drip irrigation, and incorporating moisture sensors to avoid operating the irrigation system in the rain and/or if the ground has adequate moisture.

The proposed project is subject to BWS Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit Applications.

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

cc: Ko Olina Resort

2021/ELOG-1508

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813

Phone: (808) 768-8305 • Fax: (808) 768-4730 • web: www.honolulu.gov

RICK BLANGIARDI
MAYOR



2021 AUG -3 PM 1:08
DEPT OF PLANNING
AND PERMITTING
CITY & COUNTY OF HONOLULU

J. ROGER MORTON
DIRECTOR


JON Y. NOUCHI
DEPUTY DIRECTOR

TP6/21-855237

August 3, 2021

MEMORANDUM

TO: Dean Uchida, Director
Department of Planning and Permitting

FROM: J. Roger Morton, Director
Department of Transportation Services (DTS) 

SUBJECT: Environmental Impact Statement Preparation Notice
The Cove at Ko Olina Redevelopment
Tax Map Key (TMK): (1) 9-1-057: 027
(Kapolei, Oahu, Hawaii)

Thank you for the opportunity to provide written comments regarding the subject project. We have the following comments.

1. **Transportation Impact Assessment (TIA).** The applicant should perform a TIA to examine the vehicle, pedestrian, bicycle, and public transit stress and comfort levels at the nearby intersections and driveways with corresponding improvements to mitigate these impacts by applying Complete Streets principles. The applicant shall discuss the future year growth rate, trip distribution, mode split, and route assignment assumptions used in the TIA.

The TIA should identify an appropriate speed limit for the streets adjacent to the project by analyzing conflict density and activity level, among other contextual factors, to determine the speed limit that will best minimize the risk of a person being killed or seriously injured. The National Association of City Transportation Officials Safe Speed Study methodology is recommended. A Safe Speed Study should be conducted for the longest relevant segment of a street corridor affected by the project.

The applicant shall submit all native files (e.g., Synchro, Excel, etc.) for the raw multi-modal counts and accompanying analyses to the Regional Planning Branch at dtsplanningdiv@honolulu.gov. Please refer to the DTS TIA Guide for multimodal assessment tools and recommended analyses. The TIA Guide can be found at <http://www4.honolulu.gov/docushare/dsweb/View/Collection-7723>.

2. **Neighborhood Impacts.** The area representatives, neighborhood board, as well as the area residents, businesses, emergency personnel (fire, ambulance, and police), Oahu Transit Services, Inc. (TheBus and TheHandi-Van), etc., should be kept apprised of the details and status throughout the project and the impacts that the project may have on the adjoining local street area network.
3. **Disability and Communication Access Board (DCAB).** Project plans (vehicular and pedestrian circulation, sidewalks, parking and pedestrian pathways, vehicular ingress/egress, etc.) should be reviewed and approved by DCAB to ensure full compliance with Americans with Disabilities Act requirements.
4. **Parking.** If the project intends to increase the number of on-site parking stalls substantially, a discussion regarding the generation and accommodation of parking demand should be included in the Environmental Impact Statement.

Should you have any questions, please contact Greg Tsugawa, of my staff, at (808) 768-6683.

Individuals and Organizations

Noelle Besa Wright

From: Karen Messick <karenlmessick@me.com>
Sent: Wednesday, June 23, 2021 5:01 PM
To: The Cove at Ko Olina - 220069-01
Subject: The Cove Ko Olina

Follow Up Flag: Follow up
Flag Status: Flagged

Aloha,

Very exciting new on the Cove.

As a resident who walks by the existing Paradise Cove location daily and observes traffic flow....
I noticed on the proposed site plan only one traffic entrance/exit..this could present a traffic flow problem.
Obviously with retail and other commercial interests of all day activity, deliveries, and patrons I would suggest a turn lane into the new Cove area, otherwise the two main lanes on Ali'nui Drive will back up. In addition, suggest a left turn signal at both the exit/entrance to the New Cove, as well as a left turn signal at Olani St. and Ali'nui Drive.

Traffic flow is a major concern to keep residential traffic flowing. Rush hours returning home is pretty heavy and when there could be a significant problem.

As well as Saturday and Sunday mornings when traffic flows in for beach access.

Controlling parking for beach access will also be an issue, as it is now for the marketplace.

In addition parking for delivery vehicles needs to be created because if there is none and the delivery trucks park on Ali'nui drive, like they do now on Olani Street while servicing the market and restaurants, it will be a traffic nightmare.

Thank you for listening.

Karen Messick

President The Coconut Plantation at Ko Olina HOA

Noelle Besa Wright

From: Kathryn N <katneko@gmail.com>
Sent: Monday, July 19, 2021 8:46 AM
To: The Cove at Ko Olina - 220069-01
Subject: Feedback on development

Follow Up Flag: Follow up
Flag Status: Completed

Aloha,

I saw the recent article in mid week about the possible plans for the cove at Koolina. As a resident of Kapolei I frequent the area and have enjoyed the temporary relief of an excessive amount of tourists over the last year. Now that tourism is in full effect once again, it is sad to see how all of our beaches including those in Ko'Olina have been inundated with visitors who are not mindful respectful of our wildlife or aina. I see trash on the beach and people harassing the Hawaiian sea turtles. On a recent trip when I was watching the gorgeous fish in the water and group of people jumped into the water next to me. Immediately a film of oil covered the top of the water from sprayed on sunscreen. It honestly breaks my heart. I'm sure that this letter will not sway any planned development but our hidden gems like the Cove is slowing fading away. As much as you may try to "embrace the hawaiian culture and respect the history of the place" the more you attract the more will be extracted until we are left with places like Waikiki. We all know that that is not true Hawaii.

Thank you for taking the time to read my comment, Kathryn

Sent from my iPhone



July 23, 2021

Steve Kelly, President
Kapolei Properties Division
James Campbell Company, LLC
1001 Kamokila Boulevard
Kapolei, Hawai'i 96707

ATTN: Matt Caires, Manager, Development, James Campbell Company, LLC

Dear Mr. Kelly,

This letter confirms receipt of an email notice received by the Declarant of Ko Olina Community Association, Inc. (KOCA), Ko Olina Development, LLC, dated June 21, 2021, that was forwarded to KOCA and the Ko Olina Resort Operators Association, Inc. (KORA). The correspondence provided notice of the June 23 publication of an Environmental Impact Statement Preparation Notice (EISPN) for the James Campbell Company, LLC's (JCC) "Cove at Ko Olina" ("project"). Written notice was not sent directly to KOCA or KORA.

KOCA was incorporated in 1989 and is responsible for the maintenance and security of all common areas within the resort. This includes all landscaping, flora, street trees, traffic signs, streetlights, drainage ways, shoreline restrooms and showers and common area roadways including the Farrington Highway interchanges. Also included are areas leased and licensed from the State of Hawai'i like the rocky shoreline and lands around the marina entrance. These efforts are essential in achieving a uniform, consistent and appealing foundation for maximizing property values.

KOCA also provides benefitted services to individual properties like shoreline sand cleaning/grooming, mowing, trash collection, in-water lagoon maintenance, periodic sand reclamation and other services. A Beach & Sports Club is also provided for residents.

KORA is responsible for destination marketing for Ko Olina Resort. This includes market research, public relations, advertising, sales promotion, and travel industry partnerships. Also included is creation and production of marketing and community events such as the Hawai'i Food & Wine Festival, Ko Olina Children's Festival, and the Annual Thanksgiving Outreach program.

KORA also provides benefitted services to individual properties such as support of appropriate independent marketing activities & events, outreach and community service, access to koolina.com and its related social media programs.

1. As you are aware, Ko Olina Resort is an approximately 642-acre master planned resort and residential community – for which entitlements, planning, and environmental reviews were completed and approved decades ago. By contrast, upon review of the project description outlined in the EISPN, it is evident that scope of the proposed project is not



aligned with the Ko Olina Resort Master Plan. Consequently, we are concerned with the potential for cumulative and secondary environmental impacts that may arise from the increased use of the project site (which lies within the geographic footprint of Ko Olina Resort).

We request that JCC designate a representative(s) to serve as a liaison(s) to KOCA and KORA throughout the length of the construction process, as well as during tenant improvements. We also request that in anticipation of construction, project presentations be made available to these entities in the form of in-person and/or virtual events scheduled at various times to provide ample opportunity for participation. The JCC should also regularly provide the community with a schedule of periodic communication updates, which could include a quarterly newsletter, contact information and community opportunities for in-person and/or virtual events to address questions or concerns regarding the progress of the project.

2. The EISPN document states that “Existing civil infrastructure will also be evaluated” in the forthcoming Draft EIS. The project site is served by private infrastructure (i.e. roadways, drainage, wastewater, potable and non-potable water, street cleaning, sidewalk and lighting maintenance, etc.) also utilized by other developments within the Ko Olina Resort area. The scope of development proposed under the EISPN is not in alignment with the overall program of development outlined and approved for Ko Olina Resort. We request JCC consider the impacts of the proposed project on infrastructure systems in the area and ask that the following concerns also be addressed:
 - a. The Draft EIS should address increased demand on resort infrastructure and safety as a result of the proposed project. The JCC should also include proposals to ensure equitable responsibility with KOCA regarding the procurement of security services, infrastructure repairs and continued maintenance of the resort’s common areas and agreement to collaborate with KORA with regards to project sales and marketing to ensure brand consistency.
 - b. There is one entry and exit point into the Ko Olina community that the proposed project will share. As part of our commitment to the community, Ko Olina requires Aloha Team, contracted by KOCA for security services, to operate 24-hour front gate greeting services to ensure efficient traffic flow and to answer resort-related security and safety inquiries. This creates a premiere resort experience for all guests at first contact point. Guests of the new JCC project will also enjoy this experience.

The proposed project, however, will cause increased congestion at the resort’s entry making it difficult for the Aloha Team to keep traffic flowing safely while continuing to provide a unique arrival experience for Ko Olina’s residents and guests. The Draft EIS should address any potential conflicts between the two uses since the proposed improvements and activities are intended to be open and activated during daytime hours.



- c. The Draft EIS should discuss specific plans to manage public access to the shoreline and beach areas including vehicle parking, public pathways and beach and water activities. We are concerned with the potential cumulative and secondary impacts to the environment and public access resulting from increased activity along the pristine shoreline, a noted sanctuary for endangered marine life. It is critical for JCC to ensure the preservation of the shoreline area which is especially significant to West O'ahu communities. Providing adequate infrastructure to support increased shoreline use, including, but not limited to, restrooms, refuse and recycling containers and posted guidelines to ensure care for the area, is also essential.
 - d. Regular consultation with our team at KOCA should be undertaken to coordinate infrastructure related improvements, operations, logistical demands and any changes that impact resort common areas.
3. The EISPN document outlines that an Archaeological Inventory Survey (AIS) of the project site was conducted in February 2020 and that a Cultural Impact Assessment (CIA) will be prepared in accordance with the regulatory requirements of HRS Chapter 343. It is anticipated that these AIS and CIA documents will be included and assessed within the forthcoming Draft EIS. Nonetheless, the project site lies within a region of Archaeological and Cultural Significance, and there are a number of known archaeological and cultural sites within the boundary of the project site. It is advised that the EIS closely consider and evaluate potential impacts to these archaeological and cultural sites. Future design and programming efforts for the project should appropriately align to the context and presence of archaeological and cultural sites and resources.
4. The EISPN states that development of the project will support the local economy and stimulate economic recovery in the project region. It highlights significant economic impacts resulting from the COVID-19 pandemic. However, tourism in the state of Hawai'i is recuperating. According to the Hawai'i Tourism Authority (HTA), approximately 30,000 travelers are now flying into the state of Hawai'i each day, approximately 80% of the number of 2019 visitor arrivals at this time.

The volume of visitors travelling to Hawai'i is presently overwhelming existing infrastructure and degrading the natural environment. It is understood that HTA, in partnership with local communities, the state of Hawai'i and the City and County of Honolulu, is currently in the process of developing the O'ahu Destination Management Action Plan (O'ahu DMAP), with planned publication in August 2021. The O'ahu DMAP will propose tourism strategies intended to redefine, rebuild and reset the direction of tourism over a three-year period. A key component of the O'ahu DMAP is regenerative tourism. This is an important shift away from exploitative tourism toward contributory tourism. This means the hospitality industry will target visitors interested in ecotourism, agritourism, volunteer-tourism and authentic cultural experiences. Ko Olina has made this sustainable tourism model a priority. It is critical that JCC also commit to this model to support our efforts. JCC should also consult with regenerative tourism experts and partner with experienced and relevant community-based organizations.



The proposed draft references the cultural significance of the location and we acknowledge that this is an important part of JCC's heritage. The current project plans, however, are indiscriminate. They generally intend to activate the site during both day- and nighttime hours, with facilities for entertainment, dining and retail. It is unclear from the draft document whether the proposed plan will promote the regenerative tourism goals of HTA and the Ko Olina community. Historically, the project site operated during the evening hours. It provided entertainment catered towards visitors that attend an evening event for 2-3 hours and then depart. The proposed project will significantly intensify the use of the site during all hours of the day and there is no reference to the quality or quantity of the activities and experiences. There is also the potential that increased use will interfere with the existing natural environment, including the natural shoreline, and potentially disturb cultural artifacts at the site.

5. The project site lies within Ko Olina Resort, a fully master planned resort and residential community. The resort continues to be developed under previously approved design guidelines. The EIS should address the potential impacts of the proposed project on visual resources and environment. Ko Olina's design committee currently reviews proposals and plans to ensure that any new development complies with Ko Olina's design guidelines and is constructed in harmony with the environment and aesthetics of the Ko Olina community.
6. We request further consultation regarding project security, pedestrian and vehicle traffic, parking operations and any anticipated impacts (both during and after construction).
7. The EISPN suggests that the project will meet the City's vision for the 'Ewa Region from a resort commercial development standpoint. As discussed previously, however, Ko Olina Resort is a fully master planned resort and residential community. The additional commercial activities and uses proposed within the EISPN do not align with the vision and program set forth under the master plan for Ko Olina Resort.
 - a. As stated in the EISPN, the "addition of new retail and restaurants at the site" is anticipated to "activate the site during day- and nighttime hours, attracting both locals and visitors to enjoy new, authentic experiences in the Ko Olina Resort." To be clear, the proposed project site lies within the geographic borders of Ko Olina Resort but the proposed activation of the site during both day- and nighttime hours is out of character for its existing use, and is not compatible with the program outlined under Ko Olina Resort's master plan, which fully anticipated and contemplated the commercial needs of the community.
 - b. Given the expansive social and environmental impacts of "over-tourism" during the post-pandemic era, we are concerned about the potential for commercial over-saturation and over-development of the Ko Olina Resort area. We ask that the EIS consider, evaluate and speak to the appropriate management of tourism and tourism related impacts and that the suggested activities, retail and entertainment complement, rather than impede, those already in operation or planned for at Ko Olina.



- c. Finally, the EIS should also contain a detailed review of potential economic impacts and demand for the project, as proposed. The EIS should also discuss and comparatively evaluate alternatives to the proposed project, in alignment with the requirements of Chapter 343, HRS.

We look forward to reviewing the forthcoming Draft EIS document and participating in the project community engagement and public comment process. It is further requested that the project Team engage and formally consult with both the Ko Olina Community Association and the Ko Olina Resort Operators Association in conjunction with and pursuant to the on-going EIS process for the proposed project.

Sincerely,
Ko Olina Community Association, Inc.
Ko Olina Resort Operators Association, Inc.

Ken Williams
General Manager

Copy to: Malynne Simeon
City and County of Honolulu
Department of Planning and Permitting
650 S. King St., 7th Floor
Honolulu, Hawai'i 96813
msimeon@honolulu.gov

Draft EIS Comment Letters

Federal

From: Sachs, Elyse M <elyse_sachs@fws.gov>
Sent: Friday, June 7, 2024 2:02 PM
To: The Cove at Ko Olina - 220069-01
Subject: USFWS Comments Regarding the Draft Environmental Impact Statement for The Cove at Ko Olina Project on O'ahu

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon,

We have reviewed the Draft Environmental Impact Statement for The Cove at Ko Olina Project on O'ahu. The U.S. Fish and Wildlife Service (Service) appreciates the mitigation and best management practices included for federally listed species in Table 1.1 Summary of Impacts and Mitigation Measures.

The Service would like to discuss some concerns about Figure 4.7 on page 4-32. In the figure, there are three buildings planned to be built directly next to a beach where there is proposed green sea turtle (*Chelonia mydas*) critical habitat. These buildings are Building 1, Building 6, and Building 7. Due to the area being known for both sea turtles and seabirds, light disorientation is a high risk in this area. In addition to all lights being "wildlife friendly" and shielded with automatic sensors, we recommend also ensuring that no lights can be seen from the beach. Lights visible from the beach could disorient sea turtles during nesting and/or hatching. Additionally, permanent exterior lighting as is mentioned on page 1-22 is a risk to seabirds year-round, but even more so during seabird fledging season.

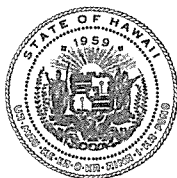
Please reach out to us to discuss alternative options for wildlife friendly lighting to use for this project. Please use reference code 2024-0095249-S7-001 when referring to this project.

Thanks so much,
Elyse

Elyse Sachs
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawai'i 96850
Office: 808-210-6119
Email: elyse_sachs@fws.gov

State of Hawai'i

JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA



KEITH A. REGAN
COMPTROLLER
KA LUNA HO'OMALU HANA LAULĀ

MEOH-LENG SILLIMAN
DEPUTY COMPTROLLER
KA HOPE LUNA HO'OMALU HANA LAULĀ

STATE OF HAWAII | KA MOKU'ĀINA O HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES | KA 'OIHANA LOIHELU A LAWELawe LAULĀ
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)24.104

MAY 16 2024

RECEIVED
MAY 20 2024
G70

Tracy Camuso, AICP, Principal Planner
Group 70 International, Inc. dba G70
111 S. King Street, Suite 170
Honolulu, Hawaii 96813

Dear Tracy Camuso:

Subject: Draft Environmental Impact Statement
The Cove at Ko Olina Redevelopment
Ko Olina, Island of Oahu, Hawaii
TMK No. (1) 9-1-057:027

Thank you for the opportunity to comment on the subject project. We have no comments to offer at this time as the proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities.

If you have any questions, your staff may call Dora Choy-Johnson of the Public Works Division at (808) 586-0488.

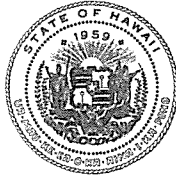
Sincerely,

A handwritten signature in black ink, appearing to read "Gordon S. Wood".

GORDON S. WOOD
Acting Public Works Administrator

DC:mc

JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA



KEITH A. REGAN
COMPTROLLER
KA LUNA HO'OMALU HANA LAULĀ

MEOH-LENG SILLIMAN
DEPUTY COMPTROLLER
KA HOPE LUNA HO'OMALU HANA LAULĀ

STATE OF HAWAII | KA MOKU'ĀINA O HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES | KA 'OIHANA LOIHELU A LAWELAWÉ LAULĀ
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)24.145

JUL - 4 2024

Tracy Camuso, AICP, Principal Planner
Group 70 International, Inc. dba G70
111 S. King Street, Suite 170
Honolulu, Hawaii 96813

RECEIVED
JUL 08 2024
G70

Dear Tracy Camuso:

Subject: Second Draft Environmental Impact Statement
The Cove at Ko Olina Redevelopment
Ko Olina, Island of Oahu, Hawaii
TMK: (1) 9-1-057:027

Thank you for the opportunity to comment on the subject project. We have no comments to offer at this time as the proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities.

If you have any questions, your staff may call Dora Choy-Johnson of the Planning Branch at (808) 586-0488.

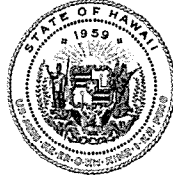
Sincerely,

A handwritten signature in black ink, appearing to read "Gordon S. Wood".

GORDON S. WOOD
Public Works Administrator

DC:mc

JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA



RYAN YAMANE
DIRECTOR
KA LUNA HO'OKELE

JOSEPH CAMPOS II
DEPUTY DIRECTOR
KA HOPE LUNA HO'OKELE

STATE OF HAWAII
KA MOKU'ĀINA O HAWAI'I
DEPARTMENT OF HUMAN SERVICES
KA 'OIHANA MĀLAMA LAWELAWE KANAKA
Benefit, Employment and Support Services
1010 Richards Street, Suite 512
Honolulu, Hawaii 96813

TRISTA SPEER
DEPUTY DIRECTOR
KA HOPE LUNA HO'OKELE

May 24, 2024

Ms. Tracy Camuso
AICP, Principal Planner
G70
111 South King Street, Suite 170
Honolulu, Hawaii 96813

RECEIVED
MAY 28 2024
G70

Dear Ms. Camuso:

Subject: Draft EIS for The Cove at Ko Olina Redevelopment; Tax Map Key (TMK): (1) 9-1-057;
027; Ko Olina, Oahu, Hawaii

This is in response to letter dated May 8, 2024, requesting the Department of Human Services (DHS) to comment on the above-named project.

DHS has reviewed the proposed the Cove at Ko Olina Redevelopment project and the map of the area. A check on DHS' internal data system and Google Maps found two (2) licensed Group Child Care Centers, and three (3) licensed Before and After School Facilities located within a one (1) mile radius of the area that may be affected by the traffic during the construction phase.

Should you have any questions regarding this matter, please contact Ms. Lisa Galino, Child Care Program Specialist, at (808) 586-5712.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Nakasone".

Scott Nakasone
Assistant Division Administrator



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII'
DEPARTMENT OF LAND AND NATURAL RESOURCES | KA 'ŌIHANA KUMUWAIWAI 'ĀINA
COMMISSION ON WATER RESOURCE MANAGEMENT | KE KAHUWAI PONO
P.O. BOX 621
HONOLULU, HAWAII 96809

July 10, 2024

REF: RFD.5715.3

TO: Tracy Camuso, AICP, Principal Planner
Group 70 International, Inc

FROM: Dean D. Uyeno, Acting Deputy Director 
Commission on Water Resource Management

SUBJECT: The Cove Redevelopment, Second Draft Environmental Impact Statement

FILE NO.: RFD.5715.3
TMK NO.: (1) 9-1-057:027

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at <http://dlnr.hawaii.gov/cwrw>.

Our comments related to water resources are checked off below.

- ☒ 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.
- ☐ 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- ☐ 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.
- ☒ 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at <http://www.usgbc.org/leed>. A listing of fixtures certified by the EPA as having high water efficiency can be found at <http://www.epa.gov/watersense>.
- ☒ 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at <http://planning.hawaii.gov/czm/initiatives/low-impact-development/>
- ☒ 6. We recommend the use of alternative water sources, wherever practicable.
- ☒ 7. We recommend participating in the Hawaii Green Business Program, that assists and recognizes businesses that strive to operate in an environmentally and socially responsible manner. The program description can be found online at <http://energy.hawaii.gov/green-business-program>.
- ☒ 8. We recommend adopting landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawaii. These practices can be found online at http://www.hawaiiscape.com/wp-content/uploads/2013/04/LICH_Irrigation_Conservation_BMPs.pdf.

- ☒ 9. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
- ☐ 10. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water. The Water Use Permit may be conditioned on the requirement to use dual line water supply systems for new industrial and commercial developments.
- ☒ 11. The Hawaii Water Plan is directed toward the achievement of the utilization of reclaimed water for uses other than drinking and for potable water needs in one hundred per cent of State and County facilities by December 31, 2045 (§174C-31(g)(6), Hawaii Revised Statutes). We strongly recommend that this project consider using reclaimed water for its non-potable water needs, such as irrigation. Reclaimed water may include, but is not limited to, recycled wastewater, gray water, and captured rainwater/stormwater. Please contact the Hawai'i Department of Health, Wastewater Branch, for more information on their reuse guidelines and the availability of reclaimed water in the project area.
- ☒ 12. A Well Construction Permit(s) is (are) are required before the commencement of any well construction work.
- ☒ 13. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
- ☐ 14. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
- ☐ 15. Ground-water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- ☐ 16. A Stream Channel Alteration Permit(s) is (are) required before any alteration can be made to the bed and/or banks of a stream channel.
- ☐ 17. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is constructed or altered.
- ☐ 18. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
- ☐ 19. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.
- ☐ OTHER:

If you have any questions, please contact Ryan Imata of the Regulation Branch at (808) 587-0225 or Katie Roth of the Planning Branch (808) 587-0216.

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

July 23, 2024

LD 0627

Group 70 International, Inc. dba G70
111 S. King Street, Suite 170
Honolulu, Hawaii 96813
Attn: Tracy Camuso, AICP, Principal Planner

Via email: thecove@g70.design

**SUBJECT: The Cove Redevelopment, Second Draft Environmental Impact Statement,
Kapolei, Island of Oahu, Hawaii, TMK: (1) 9-1-057:027**

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 comments received from the Office of Conservation and Coastal Lands. Should you have any questions, please feel free to contact Timothy Chee via email at timothy.chee@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Attachments

cc: Central Files

COR: OA 24-194
AW

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

RECEIVED
LAND DIVISION



DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE 'ĀINA

2024 JUN 18 AM 10:33



DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

KA 'OIHANA KUMUWAIWAI 'ĀINA

LAND DIVISION

RECEIVED
OFFICE OF CONSERVATION
AND COASTAL LANDS

2024 JUN 14 P 12:13

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

P.O. BOX 621
HONOLULU, HAWAII 96809

June 12, 2024

LD 0627

MEMORANDUM

TO:

DLNR Agencies:

- ☒ Div. of Aquatic Resources (via email: kendall.l.tucker@hawaii.gov)
- ☒ Div. of Boating & Ocean Recreation (via email: richard.t.howard@hawaii.gov)
- ☒ Engineering Division (via email: DLNR.Engr@hawaii.gov)
- ☒ Div. of Forestry & Wildlife (via email: Rubyrosa.T.Terrago@hawaii.gov)
- ☒ Div. of State Parks (curt.a.cottrell@hawaii.gov)
- ☒ Commission on Water Resource Management (via email: DLNR.CWRM@hawaii.gov)
- ☒ Office of Conservation & Coastal Lands (via email: Sharleen.k.kuba@hawaii.gov)
- ☒ Land Division – Oahu District (via email: barry.w.cheung@hawaii.gov)
- ☒ Aha Moku (via email: leimana.k.damate@hawaii.gov)

FROM:

Russell Y. Tsuji, Land Administrator *Russell Tsuji*

SUBJECT:

**The Cove Redevelopment,
Second Draft Environmental Impact Statement**

LOCATION:

Kapolei, Island of Oahu, Hawaii

TMK: (1) 9-1-057:027

APPLICANT:

Group 70 International, Inc., dba G70

Transmitted for your review and comment is information on the above-referenced project. Please submit any comments to timothy.chee@hawaii.gov at the Land Division by the internal deadline of **July 19, 2024**. If no response is received by this date, we will assume your agency has no comments. If you have any questions, please contact Timothy Chee at the above email address. Thank you.

BRIEF COMMENTS:

Development is not in
the Conservation District
and EIS already addresses
the SCR-XA

- ☐ We have no objections.
- ☐ We have no comments.
- ☒ We have no additional comments.
- ☐ Comments are included/attached.

Signed:

Print Name:

Division:

Date:

[Signature]
Michael Cain
OCCL
6-17-24

Attachments

Cc: Central Files



111 S. King Street June 8, 2024

Suite 170

Honolulu, HI 96813

808.523.5866

www.g70.design

Subject: The Cove Redevelopment
Second Draft Environmental Impact Statement
Tax Map Key (TMK): (1) 9-1-057:027
Kapolei, Island of O'ahu, Hawai'i

Dear Participant:

On behalf of the Applicant, Cove Campbell Kobayashi LLC, G70 is notifying you of the availability of the Second Draft Environmental Impact Statement (EIS) for The Cove Redevelopment project located in Kapolei, O'ahu, Hawai'i.

The Second Draft EIS document can be downloaded from the Office of Planning and Sustainable Development (OPSD), Environmental Review Program (ERP) website on June 8, 2024 at the below links:

- Volume I, Draft EIS Document: https://files.hawaii.gov/dbedt/erp/Doc_Library/2024-06-08-0A-2nd-DEIS-The-Cove-Redevelopment-Vol-I.pdf
- Volume II, Appendices: https://files.hawaii.gov/dbedt/erp/Doc_Library/2024-06-08-0A-2nd-DEIS-The-Cove-Redevelopment-Vol-II.pdf

Please note that an error message may be received if the link is used prior to this date.

Notably, a Draft EIS for the project was published in the May 8, 2024 edition of *TEN*. On May 10, 2024 the Applicant was informed that "Ko Olina" is a trademarked name not intended for unauthorized use. An addendum to the Draft EIS was submitted to the OPSD-ERP on May 20, 2024 as a clerical correction to the unintended use of the trademarked term "Ko Olina," which was originally used as a place name identifier. The Second Draft EIS corrects this clerical error by ceasing to use the phrase "at Ko Olina" as a descriptor for the project, which will henceforth be referred to as "The Cove." No substantive changes to the project and Draft EIS were made.

Please provide comments via email, fax, or U.S. Mail. The 45-day public comment period begins on June 8, 2024 and ends on July 23, 2024. Comments received during the first Draft EIS publication will still be considered. Please submit your comments to:

Group 70 International, Inc. dba G70
111 S. King Street, Suite 170
Honolulu, HI 96813
Attn: Tracy Camuso, AICP, Principal Planner
Email: thecove@g70.design
Fax: (808) 523-5866

Thank you for your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC., dba G70

Tracy Camuso, AICP
Principal

RECEIVED
LAND DIVISION
2024 JUN 10 AM 10:47
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII






REQUEST FOR COMMENTS-LD0627-THE COVE REDEVELOPMENT

Final Audit Report

2024-06-12

Created:	2024-06-12 (Hawaii-Aleutian Standard Time)
By:	Timothy Chee (timothy.chee@hawaii.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAA2tHHu8B3le-X-bHJB0nzo6Ho9g2Vpeku
Number of Documents:	2
Document page count:	2
Number of supporting files:	0
Supporting files page count:	0

"REQUEST FOR COMMENTS-LD0627-THE COVE REDEVELOPMENT" History

-  Document created by Timothy Chee (timothy.chee@hawaii.gov)
2024-06-12 - 10:21:15 AM HST- IP address: 162.221.246.37
-  Document emailed to Kevin Moore (kevin.e.moore@hawaii.gov) for approval
2024-06-12 - 2:31:05 PM HST
-  Email viewed by Kevin Moore (kevin.e.moore@hawaii.gov)
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-  Document approved by Kevin Moore (kevin.e.moore@hawaii.gov)
Approval Date: 2024-06-12 - 2:42:11 PM HST - Time Source: server- IP address: 162.221.246.37
-  Document emailed to Russell Tsuji (Russell.Y.Tsuji@hawaii.gov) for signature
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-  Agreement viewed by Curt Cottrell (curt.a.cottrell@hawaii.gov)
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-  Agreement viewed by Russell Tsuji (Russell.Y.Tsuji@hawaii.gov)
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JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

DAWN N. S. CHANG
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DEAN D. UYENO
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AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
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ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

July 15, 2024

Matthew Pennaz, Manager
Cove Campbell Kobayashi LLC
1288 Ala Moana Boulevard, Suite 201
Honolulu, Hawaii 96814
Email: mpennaz@kobayashi-group.com

Lena Phomsouvanh
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813
Email: lena.phomsouvanh@honolulu.gov

Tracy Camuso, Principal
G70
111 South King Street, Suite 170
Honolulu, Hawaii 96813
Email: thecovekoolina@g70.design

IN REPLY REFER TO:
Project No. 2020PR32795
Doc. No. 2407SL02
Archaeology
History and Culture

Dear Matthew Pennaz, Lena Phomsouvanh, and Tracy Camuso:

SUBJECT: **Draft Environmental Impact Statement
The Cove at Ko Olina Redevelopment
Honouliuli Ahupua'a, 'Ewa District, Island of O'ahu
TMK: (1) 9-1-057:027**

The Department of Land and Natural Resources, State Historic Preservation Division (SHPD) appreciates the opportunity to provide written comments on the document, *The Cove at Ko Olina Redevelopment, Draft Environmental Impact Statement (Volumes I-II), Ko 'Olina, Island of O'ahu, Hawai'i* (G70, May 2024). This document provides an assessment of the potential environmental impacts associated with the Cove Campbell Kobayashi LLC's proposed resort/recreation redevelopment project within a 10.85-acre portion of TMK: (1) 9-1-057:027, within a Special Management Area (SMA). Per the Environmental Impact Statement (EIS), the project site is currently leased and occupied by several commercial uses and the lease is anticipated to end in 2025. The proposed redevelopment project (Project) will include replacing existing dated structures and programming.

SHPD's comments focus on Table 1.1: Summary of Impacts and Mitigation Measures. With respect to Archaeological, Cultural, and Historic Resources, Table 1.1 indicates the following:

1. The Project may potentially affect two historic properties within the Project area: State Inventory of Historic Places (SIHP) Site 50-80-12-3362 (wetland and cultural layer) and SIHP Site 50-80-12-4968 (Burials 1 through 5).
2. Consultation is reported to have occurred with SHPD and cultural descendant Ms. Nettie Fernandez Tiffany.

3. The burial preserve area (SIHP Site 50-80-12-4968) “shall remain in perpetuity to preserve the iwi kūpuna (Native Hawaiian skeletal remains).”
4. The AIS is reported is currently being reviewed by SHPD.
5. Future ground disturbing work will be subject to archaeological monitoring to be preceded by the submittal of an archaeological monitoring plan (AMP) meeting the requirements of HAR §13-279-4 and its acceptance by SHPD.

Comment 1

SHPD agrees that the Project has potential to affect the two historic properties documented in previous studies as being present within the proposed redevelopment property. SIHP Site 50-80-12-3362 has integrity of location and materials, is significant under HAR §13-284-6 Criterion d for its potential to yield information about the former wetland environ and its use by native Hawaiians. Mitigation through archaeological monitoring (a form of data recovery) including some controlled sampling is appropriate. SIHP Site 50-80-12-4968 consists of five inadvertent burial finds in an unofficial preserve, i.e., with no established preserve boundary or preservation plan. As the spatial extent of SIHP Site 50-80-12-4968 is not known, potential exists for the Project to impact yet unidentified burials and archaeological data. To avoid such impacts, SHPD recommends (1) consultation (see Comment 2) regarding several approaches: (a) additional testing in the vicinity to establish the spatial limits of the site or (b) establish a large buffer around the known burials; SHPD’s AIS review recommended 10 meters (Email, November 27, 2022; Susan A. Lebo (SHPD) to David Shideler and Brittany Enanoria (Cultural Surveys Hawai‘i, Inc); SHPD review comments have been uploaded to the Documents section of HICRIS Project No. 2020PR32795.

HRS 6E consultation regarding SIHP Site 50-80-12-4968 (burial preserve) and the mitigation measures for both sites must be incorporated into the revised AIS report prepared for the Project.

Comment 2

Consultation with SHPD and Ms. Tiffany, representing Lanikuhonua, is inadequate. Please ensure consultation is conducted and provide a summary of the consultation results with the Office of Hawaiian Affairs (OHA), the geographic area representative on the O‘ahu Island Burial Council (OIBC), or with any of the Native Hawaiian Organizations (NHOs) and recognized descendants that consulted regarding the inadvertent burial finds comprising SIHP Site 50-80-12-4968 or regarding other cultural and historic properties within the Project area or vicinity.

SHPD requests that to the extent feasible, all parties involved in the 1995 consultation regarding the burials be consulted in the development of the Burial Site Component of a Preservation Plan (BSCPP). Preparation of the BSCPP should follow the process detailed in HAR §13-300-40(i)(1-2). The parties identified in SHPD’s letter dated January 18, 1995 (Log No. 13707, Doc. No. 9501KM05) included representatives of the Estate of James Campbell, Paradise Cove Luau, Lanikuhonua, Cultural Surveys Hawai‘i, Inc., Koa Mana, Na Keiki Ka Mo‘i Canoe Club, Nordic Construction Co., and SHPD. The Office of Hawaiian Affairs should also be consulted along with any Native Hawaiian Organizations or descendants who have requested consultation regarding burials in the area in the intervening years. SHPD’s letter has been uploaded to the Documents section of HICRIS Project No. 2020PR32795.

Comment 3

To date, no preserve boundaries have been agreed on, no burial treatment plan in the form of a BSCPP has been prepared, reviewed, and filed with the Bureau of Conveyances. Pursuant to HAR §13-300-40(h), within 90 days following a determination to preserve in place or relocate, the department shall approve the burial site component of either a preservation plan [BSCPP] or an archaeological data recovery plan [BSCDRP].”

In a consultation meeting held on July 5, 2024 among SHPD (Susan A. Lebo and Samantha Hemenway), Cove Campbell Kobayashi LLC (Matthew Pennaz), James Campbell Co., LLC (Matthew Caires), and Cultural Surveys Hawai'i, Inc (archaeological consultants; Scott Belluomini and Brittany Enanoria), SHPD indicated that submittal of a BSCPP for SIHP Site 50-80-12-4968 (Burials 1 through 5) remains an outstanding mitigation commitment for the inadvertent burial discoveries documented during excavation for gas lines in 1995 (Jourdan 1995, Hammatt 1995) within the southwestern portion of the current proposed redevelopment project area. A decision to preserve the five burials comprising SIHP Site 50-80-12-4968 was reached on January 18, 1995 as detailed in SHPD's letter (Log No. 13707, Doc. No. 9501KM05). A copy of the letter was emailed to the consultation participants following the meeting and was also uploaded to HICRIS Project No. 2020PR32795, along with a copy of Jourdan (1995).

Further, to ensure preservation "in perpetuity," SHPD requests the landowner implement HAR §13-300-40(i)(3) which states that "In order to provide perpetual protection for human skeletal remains inadvertently discovered, departmental determinations to preserve in place shall be recorded with the bureau of conveyances. In addition, any affected landowner may enter into an in situ burial agreement with the State." Details regarding the five burial finds and the preservation measures implemented thus far are provided in SHPD's letter dated January 18, 1995 (Log No. 13707, Doc. No. 9501KM05).

Further, implementation of the BSCPP shall be the responsibility of the landowner, permittee, or developer, in discoveries related to development where land alteration project activities exist (HAR §13-300-40(l)(1)).

Comment 4

SHPD reviewed the draft archaeological inventory survey (AIS) report (Enanoria et al. 2020) and requested revisions via email on November 27, 2022 (see Comment 1), including, but not limited to, concerns regarding SIHP Site 50-80-12-4968 (Burials 1 through 5). SHPD has not yet received a revised draft AIS for review and acceptance.

Please highlight the revisions in the text and submit the revised AIS report along with a cover letter that specifies the changes made to the document with their page numbers. Please submit the cover letter, the highlighted revised AIS report, and any additional project related documents to SHPD via HICRIS Project No. 2020PR32795 using the Project Supplement option.

SHPD requests that when the AIS is accepted, that the Final AIS replace the draft AIS (Enanoria et al. 2020) provided in the draft EIS (Volume II, Appendix B).

Comment 5

SHPD requests an archaeological monitoring plan (AMP) meeting the requirements of HAR 13-279-4 be prepared and submitted for review and acceptance prior to initiation of any project-related ground disturbing activities. Further, SHPD requests the AMP include provisions to ensure minimize the potential for project excavations to impact human burials such as the implementation of shallow lifts (max. 10 centimeters in thickness) and short draws (max. 1 meter in length) within 10 feet of the preserve boundary. Additionally, SHPD requests the AMP include a sampling strategy to obtain controlled stratigraphic data associated with SIHP Site 50-80-12-3362 (wetland deposits).

SHPD's additional comments include the following related to Section 4.1 Archaeological, Cultural, and Historic Resources:

Comment 1

Revise the text and tables describing SIHP 50-80-12-4968 (Burials 1 through 5) to correlate with the information provided in Jourdan (1995) and SHPD's letter dated January 18, 1995. If additional information is available from notes recorded by Hal Hammatt in 1995, upload this information to HICRIS Project No. 2020PR32795 and

ensure it is included in the revised AIS report to be submitted to SHPD for review and acceptance and included in EIS Volume II, Appendix B.

Comment 2

Note, page 4-1, the AIS has been reviewed. SHPD is awaiting submission of a revised AIS. SHPD does not provide concurrences with AIS reports. SHPD's responsibility is to review and accept an AIS report for the project, make a HRS §6E-42 project effect determination, agree with appropriate mitigation commitments, and to request and review agreed upon mitigation plans for implementation.

Comment 3

Note, the section titled *Previous Archaeological Studies*, page 4-2 through page 4-4, does not include the current AIS. This is acceptable as it summarizes work completed prior to the current AIS (presented in EIS Volume II, Appendix B). However, the section titled *Archaeological Testing*, page 4-4 through 4-5 needs to be relabeled as *Current AIS*. Archaeological testing does not appropriately describe the study in accordance with HAR §13-276 and the requirements of Archaeological Inventory Surveys.

Within these two sections, please address the following:

1. The number of inadvertent burial finds is five, not six.

Jourdane (1995) indicated the inadvertent find reported on January 10, 1995, represented a "minimum of one individual ... although it is possible that more than [one] set of remains may be represented." The burial was in Jaucas sand and no burial pit was identified.

SHPD's letter dated January 18, 1995 (Log No. 13707, Doc. No. 9501KM05) indicates a total of five burials, while the draft EIS, page 4-2 describes SIHP Site 50-80-12-04968 as consisting "of approximately six sets of human skeletal remains." Please address.

2. Table 4.1. Please correct Hammatt to Hammatt; both Jourdane and Hammatt are Burial Documentation of Inadvertent Burial Finds; correct # of burials documented.
3. The *Archaeological Testing* section needs to be revised to reflect it concerns the current AIS; needs to include the additional consultation requested pursuant to HAR 13-284-6 and HAR 13-276 regarding SIHP Site 50-80-12-4968 and inclusion of the consultation methods and results in the revised AIS. Additionally, this section needs a map similar to Figure 4.1, but updated to include the additional locations of SIHP Site 50-80-12-3362 identified during the current AIS. Lastly, Table 4.2 needs to be revised to indicate SIHP Site 50-80-12-4968 consists of five human burials, was exposed in a gas line trench excavation, is significant under Criteria d and e, not d and c, and mitigation is preservation in perpetuity via BSCPP filed with the DLNR Bureau of Conveyances. Additionally, remove mention of "eligibility" as these sites were assessed for integrity and significance per HAR 13-284-6, not for eligibility for inclusion in the Hawaii Register of Historic Places. Lastly, archaeological monitoring is recommended for all Project-related ground disturbing activities, not just for impacts to SIHP Site 50-80-12-3362.

On page 4-5, Change (HAR, Section 13-284-7) to HAR §13-284-7. Same comment, page 4-6, HAR, Section 13-279-4. On page 4-6, revise discussion of burial preserve to reflect SHPD's comments. Remove SHPD's concurrence and change Log No. 2020.00688 to HICRIS Project No. 2020PR32795.

4. The *Potential Impacts and Mitigation Measure* section needs to be ... Measures. Additionally, (1) revise to expand consultation to other Native Hawaiian Organizations and recognized descendants, (2) codify in an agreement document that access to the shoreline for maintenance of ongoing traditional cultural practices will be protected and maintained, and (3) revise to indicate "in the event that potential iwi kūpuna are identified..." the following will occur (1) an osteologist will determine if the find is human and, if so determined, then ... comply with HAR §13-300-40 and HRS §6E-43, including completion of a BSCPP or BSCDRP (as appropriate, depending on decision to preserve in

Matthew Pennaz, Lena Phomsouvanh, and Tracy Camuso

July 15, 2024

Page 5

place or relocate) and filing of the BSCPP or BSCDRP with the DLNR Bureau of Conveyances. The discussion of a reinterment plan and cultural preservation plan should be removed as the consultation, short-term and long-term treatment, maintenance, etc. shall be included in the BSCPP or BSCDRP, which every is appropriate.

Mahalo for the opportunity to comment. The SHPD looks forward to seeing our comments taken into consideration, with meaningful revisions made to the draft EIS.

Please contact Jordan Kea Calpito, Acting History and Culture Branch Chief, at Jordan.Calpito@hawaii.gov for any questions regarding burial resources, and Susan A. Lebo, Archaeology Branch Chief, at Susan.A.Lebo@hawaii.gov for any concerns regarding archaeological resources or this letter.

Aloha,



Dawn N. S. Chang, Esq.

DLNR Chairperson

State Historic Preservation Officer

cc: Ryan Kanaka'ole, DLNR, ryan.kp.kanakaole@hawaii.gov
Matthew Caires, mattc@jamescambell.com
Tracy Camuso, Tracyc@g70.design
Noelle Wright, noellew@g70.design
Scott Belluomini, sbelluomini@culturalsurveys.com
Brittany Enanoria, benanoria@culturalsurveys.com

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

June 20, 2024

LD 0531

Group 70 International, Inc. dba G70
111 S. King Street, Suite 170
Honolulu, Hawaii 96813
Attn: Tracy Camuso, AICP, Principal Planner

Via email: thecovekoolina@g70.design

**SUBJECT: The Cove at Ko Olina Redevelopment, Draft Environmental Statement,
Ko Olina, Island of Oahu, Hawaii, TMK: (1) 9-1-057:027**

Thank you for the opportunity to review and comment on the subject. In addition to previous comments sent to you from the Department of Land and Natural Resources (DLNR), enclosed are also comments received from the Division of Forestry and Wildlife.

Should you have any questions, please feel free to contact Timothy Chee at timothy.chee@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Attachments

cc: Central Files

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII'
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

May 13, 2024

LD 0531

MEMORANDUM

FROM:

DLNR Agencies:

- X Div. of Aquatic Resources (via email: kendall.l.tucker@hawaii.gov)
- X Div. of Boating & Ocean Recreation (via email: richard.t.howard@hawaii.gov)
- X Engineering Division (via email: DLNR.Engr@hawaii.gov)
- X Div. of Forestry & Wildlife (via email: Rubyrosa.T.Terrago@hawaii.gov)
- X Div. of State Parks (curt.a.cottrell@hawaii.gov)
- X Commission on Water Resource Management (via email: DLNR.CWRM@hawaii.gov)
- X Office of Conservation & Coastal Lands (via email: Sharleen.k.kuba@hawaii.gov)
- X Land Division – Oahu District (via email: barry.w.cheung@hawaii.gov)
- X Aha Moku (via email: leimana.k.damate@hawaii.gov)

TO:

Russell Y. Tsuji, Land Administrator

Russell Tsuji

SUBJECT:

The Cove at Ko Olina Redevelopment, Draft Environmental Statement

LOCATION:

Ko Olina, Island of Oahu, Hawaii

TMK: (1) 9-1-057:027

APPLICANT:

Hawaii Community Development Authority

Transmitted for your review and comment is information on the above-referenced project. Please submit any comments to timothy.chee@hawaii.gov at the Land Division by the internal deadline of **June 5, 2024**. If no response is received by this date, we will assume your agency has no comments. If you have any questions, please contact Timothy Chee at the above email address. Thank you.

BRIEF COMMENTS:

- ☐ We have no objections.
- ☐ We have no comments.
- ☐ We have no additional comments.
- ☒ Comments are included/attached.

Signed:

Kathryn Stanaway

Print Name: Kathryn Stanaway, Acting Wildlife Prog. Mgr.

Division:

Forestry and Wildlife

Date:

Jun 20, 2024

Attachments

Cc: Central Files

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA

DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

DAWN N.S. CHANG
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ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

June 20, 2024

Log no.4567

MEMORANDUM

TO: RUSSEL Y. TSUJI, Administrator
Land Division

FROM: KATHRYN E. STANAWAY, Acting Wildlife Program Manager
Division of Forestry and Wildlife

SUBJECT: Environmental Impact Statement for The Cove at Ko Olina
Redevelopment Project in Ko Olina, O'ahu

The Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) has received your request for comments on the Ko Olina Redevelopment Project in Ko Olina on the island of O'ahu; TMK: (1) 9-1-057:027. Cove Campbell Kobayashi LLC (CCK) plans to improve the 10.85-acre property located between Ali'inui Drive and the shoreline makai of the entrance to the Ko Olina Resort. The site is currently occupied by the Paradise Cove lū'au/entertainment operations. The redevelopment of the site as The Cove Redevelopment will be the first major improvement of the property in over 25 years. Proposed improvements will update the existing property and create an authentic, welcoming, and enjoyable experience for the public that recognizes the unique setting and the history of the 'Ewa region. Redevelopment of the site includes a new entertainment/performing arts venue capable of housing a dailyrun entertainment experience focused on Hawaiian culture. The property will also serve as a landscaped gathering area where educational or interactive experiences could occur during the daytime hours. Other planned improvements to modernize the property include the addition of small-scale retail shops, as well as restaurants highlighting local cuisine and agricultural products, and engaging common areas.

The State listed 'ōpe'ape'a or Hawaiian Hoary Bat (*Lasiurus cinereus semotus*) could potentially occur at or in the vicinity of the project and may roost in nearby trees. Any required site clearing should be timed to avoid disturbance to bats during their birthing and pup rearing season (June 1 through September 15). During this period woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed. Barbed wire should also be avoided in any construction as bats can become ensnared and killed by such fencing material during flight.

Artificial lighting can adversely impact seabirds that may pass through the area at night by causing them to become disoriented. This disorientation can result in their collision with manmade structures or the grounding of birds. For nighttime work that might be required, DOFAW recommends that all lights used be fully shielded to minimize the attraction of seabirds. Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season, from September 15 through December 15, when young seabirds make their maiden voyage to sea.

If nighttime construction is required during the seabird fledging season (September 15 to December 15), we recommend that a qualified biologist be present at the project site to monitor and assess the risk of seabirds being attracted or grounded due to the lighting. If seabirds are seen circling around the area, lights should then be turned off. If a downed seabird is detected, please follow DOFAW's recommended response protocol by visiting <https://dlnr.hawaii.gov/wildlife/seabird-fallout-season/>.

Permanent lighting also poses a risk of seabird attraction, and as such should be minimized or eliminated to protect seabird flyways and preserve the night sky. For illustrations and guidance related to seabird-friendly light styles that also protect seabirds and the dark starry skies of Hawai'i please visit <https://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf>.

The State endangered 'Ōlio holo i ka uaua or Hawaiian Monk Seal (*Monachus schauinslandi*) and threatened honu or Green Sea Turtle (*Chelonia mydas*) could potentially occur or haul out onshore within the vicinity of the proposed project site. Nesting season for honu is April through December and 'Ōlio holo i ka uaua can give birth to pups all year round. If either species is detected within 100 feet (30 meters) of the project area, all nearby construction operations should cease and not continue until the focal animal has departed the area on its own accord.

State-listed waterbirds such as ae'o or Hawaiian stilt (*Himantopus mexicanus knudseni*), 'ālae ke'oke'o or Hawaiian coot (*Fulica alai*), and 'ālae 'ula or Hawaiian gallinule (*Gallinula chloropus sandvicensis*) could potentially occur at or in the vicinity of the proposed project site. It is against State law to harm or harass these species. If any of these species are present during construction, all activities within 100 feet (30 meters) should cease and the bird or birds should not be approached. Work may continue after the bird or birds leave the area of their own accord. If a nest is discovered at any point, please contact the O'ahu Branch DOFAW Office at (808) 973-9778 and establish a buffer zone around the nest.

The State endangered pueo or Hawaiian Short-eared owl (*Asio flammeus sandwichensis*) could potentially occur in the project vicinity. Pueo are most active during dawn and dusk twilights. Remove and exclude non-native mammals such as mongoose, cats, dogs, and ungulates from the nesting area. Minimize habitat alterations and disturbance during pueo breeding season. Pueo nest on the ground and active nests have been found year-round. Before any potentially disturbing activity like clearing vegetation, especially ground-based disturbance, DOFAW recommends a qualified biologist conduct surveys during crepuscular hours and walk line transects through the area to detect any active pueo nests. If a pueo nest is discovered, notify DOFAW staff, minimize time spent at the nest, and establish a minimum buffer distance of 100 meters from the nest until chicks are capable of flight.

DOFAW is concerned about impacts to vulnerable birds from nonnative predators such as cats, rodents, and mongooses. We recommend taking action to minimize predator presence; remove cats, place bait stations for rodents and mongoose, and provide covered trash receptacles.

DOFAW recommends using native plant species for landscaping that are appropriate for the area; i.e., plants for which climate conditions are suitable for them to thrive, plants that historically occurred there, etc. Please do not plant invasive species. DOFAW also recommends referring to www.plantpono.org for guidance on the selection and evaluation of landscaping plants and to determine the potential invasiveness of plants proposed for use in the project.

DOFAW recommends minimizing the movement of plant or soil material between worksites. Soil and plant material may contain detrimental fungal pathogens (e.g., Rapid 'Ōhi'a Death), vertebrate and invertebrate pests (e.g., Little Fire Ants, Coconut Rhinoceros Beetles, etc.), or invasive plant parts (e.g., Miconia, Pampas Grass, etc.) that could harm our native species and ecosystems. We recommend consulting the O'ahu Invasive Species Committee (OISC) at (808) 266-7994 to help plan, design, and construct the project, learn of any high-risk invasive species in the area, and ways to mitigate their spread. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species.

The invasive Coconut Rhinoceros Beetle (CRB) or *Oryctes rhinoceros* is found on the islands of O'ahu, Hawai'i Island, Maui and Kaua'i. On July 1, 2022, the Hawai'i Department of Agriculture (HDOA) approved Plant Quarantine Interim Rule 22-1. This rule restricts the movement of CRB-host material within or to and from the island of O'ahu, which is defined as the Quarantine Area. Regulated material (host material or host plants) is considered a risk for potential CRB infestation. Host material for the beetle specifically includes a) entire dead trees, b) mulch, compost, trimmings, fruit and vegetative scraps, and c) decaying stumps. CRB host plants include the live palm plants in the following genera: *Washingtonia*, *Livistona*, and *Pritchardia* (all commonly known as fan palms), *Cocos* (coconut palms), *Phoenix* (date palms), and *Roystonea* (royal palms). When such material or these specific plants are moved there is a risk of spreading CRB because they may contain CRB in any life stage. For more information regarding CRB, please visit <https://dlnr.hawaii.gov/hisc/info/invasive-species-profiles/coconut-rhinoceros-beetle/>.

We recommend that Best Management Practices are employed during and after construction to contain any soils and sediment with the purpose of preventing damage to near-shore waters and marine ecosystems.

Due to the arid climate and risks of wildfire to listed species, we recommend coordinating with the Hawai'i Wildfire Management Organization at (808) 850-0900 or admin@hawaiiwildfire.org, on how wildfire prevention can be addressed in the project area. When engaging in activities that have a high risk of starting a wildfire (i.e. welding in grass), it is recommended that you:

- Wet down the area before starting your task,
- Continuously wet down the area as needed,

- Have a fire extinguisher on hand, and
- In the event that your vision is impaired, (i.e. welding goggles) have a spotter to watch for fire starts.

We appreciate your efforts to work with our office for the conservation of our native species. These comments are general guidelines and should not be considered comprehensive for this site or project. It is the responsibility of the applicant to do their own due diligence to avoid any negative environmental impacts. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Kate Cullison, Protected Species Habitat Conservation Planning Coordinator via email at katherine.cullison@hawaii.gov.

Sincerely,

Kathryn Stanaway

KATHRYN E. STANAWAY
Acting Wildlife Program Manager

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

June 7, 2024

LD 0531

Group 70 International, Inc. dba G70
111 S. King Street, Suite 170
Honolulu, Hawaii 96813
Attn: Tracy Camuso, AICP, Principal Planner

Via email: thecovekoolina@g70.design

**SUBJECT: The Cove at Ko Olina Redevelopment, Draft Environmental Statement,
Ko Olina, Island of Oahu, Hawaii, TMK: (1) 9-1-057:027**

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 comments received from the Engineering Division and the Division of Aquatic Resources. Should you have any questions, please feel free to contact Timothy Chee via email at timothy.chee@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji
Land Administrator

Attachments

cc: Central Files

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

May 13, 2024

LD 0531

MEMORANDUM

FROM: ~~TO:~~

DLNR Agencies:

- ☒ Div. of Aquatic Resources (via email: kendall.l.tucker@hawaii.gov)
- ☒ Div. of Boating & Ocean Recreation (via email: richard.t.howard@hawaii.gov)
- ☒ **Engineering Division** (via email: DLNR.Engr@hawaii.gov)
- ☒ Div. of Forestry & Wildlife (via email: Rubyrosa.T.Terrago@hawaii.gov)
- ☒ Div. of State Parks (curt.a.cottrell@hawaii.gov)
- ☒ Commission on Water Resource Management (via email: DLNR.CWRM@hawaii.gov)
- ☒ Office of Conservation & Coastal Lands (via email: Sharleen.k.kuba@hawaii.gov)
- ☒ Land Division – Oahu District (via email: barry.w.cheung@hawaii.gov)
- ☒ Aha Moku (via email: leimana.k.damate@hawaii.gov)

TO: ~~FROM:~~

Russell Y. Tsuji, Land Administrator

Russell Tsuji

SUBJECT:

The Cove at Ko Olina Redevelopment, Draft Environmental Statement

LOCATION:

Ko Olina, Island of Oahu, Hawaii

TMK: (1) 9-1-057:027

APPLICANT:

Hawaii Community Development Authority

Transmitted for your review and comment is information on the above-referenced project. Please submit any comments to timothy.chee@hawaii.gov at the Land Division by the internal deadline of **June 5, 2024**. If no response is received by this date, we will assume your agency has no comments. If you have any questions, please contact Timothy Chee at the above email address. Thank you.

BRIEF COMMENTS:

- ☐ We have no objections.
- ☐ We have no comments.
- ☒ We have no additional comments.
- ☐ Comments are included/attached.

Signed:

CS

Print Name:

Carty S. Chang, Chief Engineer

Division:

Engineering Division

Date:

05/23/2024

Attachments

Cc: Central Files



111 S. King Street May 8, 2024

Suite 170

Honolulu, HI 96813

808.523.5866

www.g70.design

Subject: The Cove at Ko Olina Redevelopment
Draft Environmental Impact Statement
Tax Map Key (TMK): (1) 9-1-057:027
Ko Olina, Island of O'ahu, Hawai'i

Dear Participant:

On behalf of the Applicant, Cove Campbell Kobayashi LLC, G70 is notifying you of the availability of the Draft Environmental Impact Statement (EIS) for The Cove at Ko Olina Redevelopment project located in Ko Olina, O'ahu, Hawai'i.

The Draft EIS document can be downloaded from the Office of Planning and Sustainable Development, Environmental Review Program website on May 8, 2024 at the below links:

- Volume I, Draft EIS Document: https://files.hawaii.gov/dbedt/erp/Doc_Library/2024-05-08-OA-DEIS-The-Cove-at-Ko-Olina-Redevelopment-Vol-I.pdf.
- Volume II, Appendices: https://files.hawaii.gov/dbedt/erp/Doc_Library/2024-05-08-OA-DEIS-The-Cove-at-Ko-Olina-Redevelopment-Vol-II-Appendices.pdf

Please note that an error message may be received if the link is used prior to this date.

Please provide comments via email, fax, or U.S. Mail. The 45-day public comment period begins on May 8, 2024, and ends on June 22, 2024. Please submit your comments to:

Group 70 International, Inc. dba G70
111 S. King Street, Suite 170
Honolulu, HI 96813
Attn: Tracy Camuso, AICP, Principal Planner
Email: thecovekoolina@g70.design
Fax: (808) 523-5866

Thank you for your participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC., dba G70

Tracy Camuso, AICP
Principal

RECEIVED
LAND DIVISION
2024 MAY 10 AM 10:28
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
LAND DIVISION

P.O. BOX 621
HONOLULU, HAWAII 96809

May 13, 2024

LD 0531

MEMORANDUM

TO: **DLNR Agencies:**
X Div. of Aquatic Resources (via email: kendall.l.tucker@hawaii.gov)
X Div. of Boating & Ocean Recreation (via email: richard.t.howard@hawaii.gov)
X Engineering Division (via email: DLNR.Engr@hawaii.gov)
X Div. of Forestry & Wildlife (via email: Rubyrosa.T.Terrago@hawaii.gov)
X Div. of State Parks (curt.a.cottrell@hawaii.gov)
X Commission on Water Resource Management (via email: DLNR.CWRM@hawaii.gov)
X Office of Conservation & Coastal Lands (via email: Sharleen.k.kuba@hawaii.gov)
X Land Division – Oahu District (via email: barry.w.cheung@hawaii.gov)
X Aha Moku (via email: leimana.k.damate@hawaii.gov)

FROM: **Russell Y. Tsuji, Land Administrator** *Russell Tsuji*
SUBJECT: **The Cove at Ko Olina Redevelopment, Draft Environmental Statement**
LOCATION: **Ko Olina, Island of Oahu, Hawaii**
TMK: (1) 9-1-057:027
APPLICANT: **Hawaii Community Development Authority**

Transmitted for your review and comment is information on the above-referenced project. Please submit any comments to timothy.chee@hawaii.gov at the Land Division by the internal deadline of **June 5, 2024**. If no response is received by this date, we will assume your agency has no comments. If you have any questions, please contact Timothy Chee at the above email address. Thank you.

BRIEF COMMENTS:

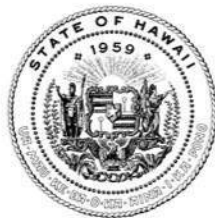
- () We have no objections.
() We have no comments.
() We have no additional comments.
(☒) Comments are included/attached.

Signed: *David Sakoda*
Print Name: David Sakoda
Division: DAR
Date: Jun 6, 2024

Attachments
Cc: Central Files

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII
DEPARTMENT OF LAND AND NATURAL
RESOURCES DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 330
HONOLULU, HAWAII 96813

Date: 6/5/2024

DAR #6666

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

RYAN K.P. KANAKA'OLE
FIRST DEPUTY

DEAN D. UYENO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION BUREAU
OF CONVEYANCES
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES
ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

MEMORANDUM

TO: Brian J. Neilson
DAR Administrator

FROM: Jesse Boord, Aquatic Biologist

SUBJECT: The Cove at Ko Olina Redevelopment, Draft Environmental Statement

Request Submitted by: Hawaii Community Development Authority
Ko Olina, Kapolei, Island of Oahu, Hawaii
TMK: (1) 9-1-057:027

Location of Project:

Brief Description of Project:

The Applicant plans to redevelop the 10.85-acre Cove Property as The Cove at Ko Olina (The Cove). The redevelopment will be contained entirely within the subject parcel. The planned improvements will be the first major enhancement of existing amenities on the property in over 25 years. The intent of the Project is to update the commercial lū'au show and create an authentic Hawaiian outdoor recreation facility and community gathering place for kama'āina (Hawai'i residents) and visitors that honors and reflects history, culture, and connection to place. Revitalization of the Cove Property will provide ancillary uses comprised of a dynamic mix of retail, entertainment, and dining experiences

Comments:

☐ No Comments ☒ Comments Attached

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the project plan, DAR requests the opportunity to review and comment on those changes.

Comments Approved:

Date: Jun 6, 2024

Brian J. Neilson
DAR Administrator

Brief Description of Project

within an immersive coastal setting that authentically honors the property's Hawaiian legacy in a contemporary form. The Cove is envisioned to serve as a major recreational resource, visual amenity, and economic generator for the community.

Several existing dated structures at the site will first be demolished. Following demolition, the site will be restored to its pre-existing condition before redevelopment commences. Central to the redevelopment is a new amphitheater/performing arts venue capable of housing the daily-run commercial lūau and other events, as appropriate. Ancillary improvements to update and modernize the Cove Property and complement the Hawaiian community gathering place and commercial lūau will also be developed, including an improved main arrival area, retail shops hosting goods made in Hawai'i, restaurants and a marketplace showcasing local cuisine and agricultural products, and welcoming and engaging common areas. Retail and dining options will attract visitors and families in the 'Ewa region and across the island looking for a unique experience in a relaxed and beautiful setting. The existing wedding chapel and support building will remain in place and may also be improved. Additionally, a cultural pavilion and open-air activity lawn areas may be included. Potential programming at the pavilion and on the lawns may include pre- and post-lūau show educational and cultural workshops and/or activities that highlight the sense of place and fit appropriately within the coastal setting (i.e., demonstrations featuring lei-making, kapa-making canoe/wa'a activities, and imu activities) or coordinated events and programs with the neighboring Lanikūhonua Cultural Institute. Planned programming will be supported by back of house areas and restrooms throughout. Finally, existing parking areas located at the north and east portions of the Cove Property will be reconfigured. No improvements are proposed to the parking lot located on the adjacent Lanikūhonua property.

Preliminary design of The Cove may encompass a total building area of approximately 71,860 square feet (sf), which will cover approximately 15.20 percent of the 10.85-acre (472,757-sf) lot and complies with the 30 percent lot coverage limit articulated in the UA. Design of the structures will be inspired by both contemporary and Hawaiian architecture to provide a welcoming and authentic setting. To enhance the ocean views afforded throughout the Cove Property, open-air structures and pavilions consisting of clean, natural, and textured materials will be constructed. Structures will adhere to the 40-foot height limit of the B-1, Neighborhood Business District, and will be set back at least 60 feet from the shoreline. Finished floor elevations of the planned structures may range from eight to 19.5 feet above msl. The Cove Property will be enhanced by pockets of open space with lush landscaping, shading, and natural pathways to create an inviting experience that highlights the beauty of the surrounding coastal area.

DAR# 6666

Brief Description of Project

Structures on the site will be set back at least 60 feet from the shoreline to consider resilience and adaptation to climate change and its anticipated impacts, including SLR and increased storm events. Elevations of the planned structures may range from eight to 19.5 feet above msl. Existing beach access and parking will be maintained to protect the natural cove and lagoon that is considered a valued resource in the area.

DAR# 6666

Comments

Light Pollution:

Artificial lighting from construction sites can disorient and confuse marine wildlife such as sea turtles, fish, crabs, and birds. The disruption of their natural rhythms can have long-lasting consequences on their survival and population dynamics.

DAR recommends that construction activities occur during the daylight hours to the extent possible. All outdoor lighting should be fully shielded and pointed downward. Outdoor lighting should be turned off when not necessary, and automatic sensors are recommended.

Seabird fledgeling season occurs during Sept 15th - Dec 15th, and nighttime activity should be halted during this time. Fledglings become easily confused by artificial lighting, which can cause them to crash or land on the ground. Downed fledgelings become easy prey for cats, mongoose, or other predators. If downed or injured fledgelings are observed in the construction area, they should be reported for rescue:

Hawaii Wildlife Center

(808) 884-5000

9:00 am – 5:00 pm, 7 days a week

Hawaii Marine Animal Response

(808) 220-7802

7:00am – 7:00pm, 7 days a week

<https://dlnr.hawaii.gov/wildlife/seabird-fallout-season/#response>

Personnel working on-site should be informed of the hazards light pollution may pose to seabirds and other wildlife and be able to recognize native species.

DAR# 6666

Comments

Sedimentation:

Sedimentation can introduce suspended solids, nutrients, and pollutants into aquatic ecosystems, leading to turbidity, reduced light penetration, and impaired water quality. Implement erosion and sediment control measures such as silt fences, sediment traps, and erosion control blankets to minimize soil disturbance and sediment runoff during construction activities.

Vegetation buffers: Maintain vegetative buffers along coastal areas to stabilize soil, reduce erosion, and filter sediment-laden runoff before it reaches the ocean.

Stormwater management: Implement stormwater management practices such as permeable pavement, vegetated swales, and retention ponds to reduce stormwater runoff volume and pollutant loads.

Monitoring and compliance: Consider establishing monitoring protocols to assess sedimentation levels, water quality parameters, and compliance with regulatory requirements throughout the project lifecycle.

DAR would like to request notification, photo-documentation, and GPS-coordinates for any occurrence where above-average amounts of sediment have entered the water, in order to assess impact, if any.

Comments

Erosion/LBSP:

DAR recommends that best management practices for mitigation of erosion and LBSP be followed. The close proximity to aquatic resources should be considered during design and construction. Landscape design and leveling should be such that long-term erosion and LBSP are minimized.

During construction, these measures would include any type of barrier (e.g. sediment barriers/bags, petroleum absorption diapers, etc.) that limits the amount of sediment or LBSP (e.g. petroleum products, chemicals, debris, etc.) to the maximum extent practicable. DAR recommends that all construction materials be composed of environmentally inert materials to the extent practicable. The Contractor shall consider the weather while performing construction. Some work may be performed during low rain conditions, but all construction would be halted during storm conditions or when storm conditions threaten the watershed.

DAR would like to request notification, photo documentation, and GPS coordinates for any occurrence where above-average amounts of sediment or pollution have entered the water, to assess the impact, if any.

Vegetation/Restoration:

DAR recommends that the applicant take steps to plant native vegetation, that actively acts to retain surface storm-water run-off and sediment during precipitation events. Short grass will be likely ineffective at retaining surface stormwater run-off and sediment. Planting an effective vegetated buffer, down the slope of the construction site will help to capture soil and pollutants and absorb excess surface runoff from precipitation before they reach the shoreline.

DAR recommends planting native species. The most effective native soil/sand stabilizer and with water and sediment retention capabilities is Pohinahina (*Vitex rotundifolia*).

Others include

`aki`aki (*Sporobolus virginicus*), Pa`u o Hi`iaka (*Jaquemontia sandwicense*), Pohuehue (*Ipomoea pes-capre*). The former species will act as a barrier much like a gravel berm, whereas the latter species are low-growing and hearty enough for walking on. They can be purchased at Hui Ku Maoli Ola nursery www.hawaiiannativeplants.com

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

RYAN K.P. KANAKA'OLE
FIRST DEPUTY


DEAN D. UYENO
ACTING DEPUTY DIRECTOR - WATER

BRIAN J. NEILSON
ADMINISTRATOR - AQUATIC RESOURCES

STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA
DIVISION OF AQUATIC RESOURCES
1151 PUNCHBOWL STREET, ROOM 330
HONOLULU, HAWAII 96813

May 15, 2024

TO: Dawn N. S. Chang, Chairperson
Department of Land and Natural Resources

FROM: Brian J. Neilson, Administrator 
Division of Aquatic Resources

SUBJECT: DAR Acting Administrator

I will be on personal leave from May 17, 2024, through June 10, 2024. The following staff will be acting administrators:

David Sakoda	5/17/24 - 5/24/24
Edward Kekoa	5/25/24 - 5/28/24
Kimberly Fuller	5/29/24 - 5/31/24
Edward Kekoa	6/01/24 - 6/05/24
David Sakoda	6/06/24 - 6/10/24

Your usual cooperation and courtesy extended to David, Luna, and Kim are greatly appreciated.



DAWN N. S. CHANG, CHAIRPERSON

May 16, 2024

DATE

C: DLNR HR
DAR Staff








DAR Acting Administrator May 17, 2024-June 10, 2024

Final Audit Report

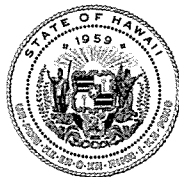
2024-05-16

Created:	2024-05-15 (Hawaii-Aleutian Standard Time)
By:	Carole Fagaragan (carole.c.fagaragan@hawaii.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAA2MJlenv0IAlos9nZ2yY_1o0QyWRD8eQH
Number of Documents:	1
Document page count:	1
Number of supporting files:	0
Supporting files page count:	0

"DAR Acting Administrator May 17, 2024-June 10, 2024" History

-  Document created by Carole Fagaragan (carole.c.fagaragan@hawaii.gov)
2024-05-15 - 3:53:45 PM HST - IP address: 162.221.246.37
-  Document emailed to Brian Neilson (brian.j.neilson@hawaii.gov) for signature
2024-05-15 - 3:56:28 PM HST
-  Agreement viewed by Brian Neilson (brian.j.neilson@hawaii.gov)
2024-05-16 - 7:42:33 AM HST - IP address: 166.196.68.55
-  Document e-signed by Brian Neilson (brian.j.neilson@hawaii.gov)
Signature Date: 2024-05-16 - 7:43:11 AM HST - Time Source: server- IP address: 166.196.68.55
-  Document emailed to Dawn Chang (dawn.chang@hawaii.gov) for signature
2024-05-16 - 7:43:12 AM HST
-  Agreement viewed by Dawn Chang (dawn.chang@hawaii.gov)
2024-05-16 - 9:33:14 AM HST - IP address: 162.221.246.37
-  Document e-signed by Dawn Chang (dawn.chang@hawaii.gov)
Signature Date: 2024-05-16 - 9:33:21 AM HST - Time Source: server- IP address: 162.221.246.37
-  Agreement completed.
2024-05-16 - 9:33:21 AM HST

JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA



STATE OF HAWAII
KA MOKU'ĀINA O HAWAII
DEPARTMENT OF DEFENSE
KA 'OIHANA PILI KAUA
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

May 30, 2024

KENNETH S. HARA
MAJOR GENERAL
ADJUTANT GENERAL
KA 'AKUKANA KENELALA

STEPHEN F. LOGAN
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL
KA HOPE 'AKUKANA KENELALA

Tracy Camuso, AICP, Principal Planner
Group 70 International, Inc. dba G70
111 S. King Street, Suite 170
Honolulu, HI 96813

SUBJECT: Draft Environmental Impact Statement
The Cove at Ko Olina Redevelopment
Ko Olina, Oahu, Hawaii
TMK: (1) 9-1-057:027

Dear Ms. Camuso:

Thank you for the opportunity to comment on the above project. The State of Hawaii Department of Defense has no comments to offer relative to the project at this time.

Should there be any questions, please contact Captain Randall Duldulao at 808-369-3487 or randall.s.duldulao@hawaii.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Shao Yu L. Lee".

Shao Yu L. Lee, R.A.
Major, Hawaii National Guard
Chief Engineering Officer

RECEIVED

JUN 03 2024

G70



STATE OF HAWAII
DEPARTMENT OF EDUCATION
KA 'OIHANA HO'ONA'AUAO
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF FACILITIES AND OPERATIONS

July 16, 2024

Mr. Tracy Camuso, AICP
Principal Planner
Group 70 International, Inc., dba G70
111 South King Street, Suite 170
Honolulu, Hawaii 96813

Re: The Cove Redevelopment
Second Draft Environmental Impact Statement
Tax Map Key (TMK): (1)9-1-057:027, Kapolei, Island of Oahu, Hawaii

Dear Mr. Camuso:

Thank you for your letter dated June 8, 2024. The Hawaii State Department of Education previously provided comments and has no additional comments on this project.

Should you have any questions, please contact Cori China of the Facilities Development Branch, Planning Section, at (808) 784-5080 or via email at cori.china@k12.hi.us.

We appreciate the opportunity to comment.

Sincerely,

A handwritten signature in blue ink, appearing to read "Roy Ikeda".

Roy Ikeda
Interim Public Works Manager
Planning Section

RI:ctc
c: Facilities Development Branch



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII'
DEPARTMENT OF TRANSPORTATION | KA 'ŌIHANA ALAKAU
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

June 21, 2024

IN REPLY REFER TO:

DIR 0000573
DIR 0000433
STP 8.3775

VIA EMAIL: thecove@g70.design

Ms. Tracy Camuso, AICP
Principal Planner
Group 70 International, Inc. dba G70
111 South King Street, Suite 170
Honolulu, Hawaii 96813

Dear Ms. Camuso:

Subject: First and Second Draft Environmental Impact Statement (EIS)
The Cove Redevelopment
Kapolei, Oahu, Hawaii
Tax Map Key: (1) 9-1-057:027

Thank you for your letters, dated May 8, 2024 and June 8, 2024, requesting the Hawaii Department of Transportation's (HDOT) review and comments on the first and second Draft EIS for the subject project. HDOT understands Cove Campbell Kobayashi LLC is proposing to redevelop the approximately 10.85-acre parcel, identified as the Cove Property, located between Aliinui Drive and the shoreline, adjacent to the entrance of the neighboring Ko Olina Resort.

HDOT has the following comments:

1. HDOT's Environmental Impact Statement Preparation Notice comments related to Airports, numbers 1 through 4 of letter STP 8.3210, dated July 8, 2021, are still valid and applicable. Please include a copy of HDOT's comments and appropriate responses in the Final EIS.
2. Describe strategies to reduce carbon emissions from the project, if any.

Please submit any subsequent land use entitlement-related requests for review or correspondence to the HDOT Land Use Intake email address at DOT.LandUse@hawaii.gov.

Ms. Tracy Camuso
June 21, 2024
Page 2

STP 8.3775

If there are any questions, please contact Mr. Blayne Nikaido, Planner, Land Use Section 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 "Ed Sniffen".

EDWIN H. SNIFFEN
Director of Transportation

Noelle Besa Wright

From: Kamakana Ferreira <kamakanaf@oha.org>
Sent: Friday, May 17, 2024 1:57 PM
To: The Cove at Ko Olina - 220069-01
Cc: lena.phomsouvanh@honolulu.gov; mpennaz@kobayashi-group.com
Subject: OHA Comment Re: Ko Olina DEIS

Aloha,

The Office of Hawaiian Affairs (OHA) is in receipt of your letter dated May 8, 2024, informing us about the release of the draft environmental impact statement (DEIS) for The Cove at Ko Olina Redevelopment Project on Oahu, TMK (1)9-1-05:027. Group 70 has prepared this DEIS on behalf of Cove Campbell Kobayashi LLC pursuant to Hawaii Revised Statutes (HRS) Chapter 343. The project includes the replacement of dated structures and existing programming at the site with a new performing arts venue. Improvements will also include ancillary uses (Village Walk, common areas, pedestrian pathways, cultural pavilion and open space), such as programming (pre and post show cultural activities), restaurants, and retail (marketplace). OHA offers the following comments pertaining to archaeological resources.

A draft archaeological inventory survey (AIS) was prepared by Cultural Surveys Hawaii (CSH) in consultation with the State Historic Preservation Division (SHPD) and cultural descendant, Nettie Fernandez. The report noted that previously 5 sets of human remains were found (SIHP #4968) in the project area. The burial was in fact re-identified during the recent fieldwork and was assessed to be significant under Criterion D and E. Continued preservation is proposed for the burial, as well as archaeological monitoring.

OHA notes that pursuant to Hawaii Administrative Rules (HAR) 12-284-6(c), consultation with OHA is required for Criterion E sites. As of the writing of this email, OHA does not have any records of being consulted. We encourage the applicant to consult with OHA as required by the rules.

While preservation is proposed, it's unclear if a burial treatment plan (BTP) will be prepared or if one was already in place when the burials were found in 1995. Could you please clarify if there is a BTP in place or if one will be developed? If one is already in place, OHA would further like to request assurances that protections measures have been carried out. If a BTP is being developed, OHA again calls for consultation as part of the drafting of the BTP. Further, we recommend consulting with the Oahu Island Burial Council (OIBC) and any recognized descendants as part of the drafting process.

Mahalo for the opportunity to review the DEIS. We hope that our comments are taken into consideration and the information requested is provided in a reasonable time frame. Please let me know if you have any questions at this time.

Mahalo,
Kamakana C. Ferreira, M.A.
Lead Compliance Specialist
Office of Hawaiian Affairs
560 N. Nimitz Hwy
Honolulu, HI 96817

(808)594-0227

City and County of Honolulu

**BOARD OF WATER SUPPLY
KA 'OIHANA WAI
CITY AND COUNTY OF HONOLULU**

630 SOUTH BERETANIA STREET • HONOLULU, HAWAII 96843
Phone: (808) 748-5000 • www.boardofwatersupply.com

RICK BLANGIARDI
MAYOR
MEIA

ERNEST Y. W. LAU, P.E.
MANAGER AND CHIEF ENGINEER
MANAKIA A ME KAHU WILIKI

ERWIN KAWATA
DEPUTY MANAGER
HOPE MANAKIA



NĀ'ĀLEHU ANTHONY, Chair
JONATHAN KANESHIRO, Vice Chair
BRYAN P. ANDAYA
KAPUA SPROAT
EDWIN H. SNIFFEN, Ex-Officio
GENE C. ALBANO, P.E., Ex-Officio

July 3, 2024

RECEIVED

JUL 05 2024

G70

Ms. Tracy Camuso, AICP
G70
111 South King Street
Honolulu, Hawaii 96813

Dear Ms. Camuso:

Subject: Your Letter Dated May 8, 2024, Requesting Comments on the
Draft Environmental Impact Statement for The Cove at Ko Olina
Redevelopment Project in Kapolei – Tax Map Key: 9-1-057: 027

Thank you for your letter regarding the proposed redevelopment project at The Cove at Ko Olina.

The existing potable water system is adequate to accommodate the proposed development. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply (BWS) 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, 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.

BWS understands that the proposed development will not require additional nonpotable water from the BWS Barbers Point nonpotable water system. However, water conservation measures are still required for nonpotable irrigation systems. The proposed project is subject to BWS Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit Applications.

Ms. Tracy Camuso

July 3, 2024



Page 2

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 Daniel Koge, Project Review Branch of our Water Resources Division at (808) 748-5444.

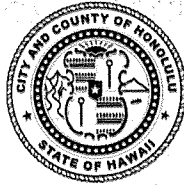
Very truly yours,


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


DEPARTMENT OF COMMUNITY SERVICES
KA 'OIHANA LAWELAWE KAIĀULU
CITY AND COUNTY OF HONOLULU

925 DILLINGHAM BOULEVARD, SUITE 200 • HONOLULU, HAWAII 96817
PHONE: (808) 768-7762 • FAX: (808) 768-7792 • WEB: www.honolulu.gov

RICK BLANGIARDI
MAYOR
MEIA



ANTON C. KRUCKY
DIRECTOR
PO'O

AEDWARD LOS BANOS
DEPUTY DIRECTOR
HOPE PO'O

May 10, 2024

RECEIVED

MAY 15 2024

G70

Ms. Tracy Camuso, AICP, Principal Planner
Group 70 International, Inc. dba G70
111 South King Street, Suite 170
Honolulu, Hawaii 96813

Dear Ms. Camuso:

SUBJECT: DRAFT Environmental Impact Statement
The Cove at Ko Olina Redevelopment
Cove Campbell Kobayashi LLC
TMKs: (1) 9-1-057:027

Thank you for notifying us that G70 has published the Draft Environmental Impact Statement for the above-named project on behalf of Cove Campbell Kobayashi LLC.

Our review indicates that the project should have no adverse impacts on any Department of Community Services activities, projects, or plans in the surrounding neighborhood. Nevertheless, we ask that the project take into consideration the health, safety, accessibility, and long-term wellbeing of area residents and others living nearby and/or involved with activities in the surrounding neighborhood.

Thank you for providing us the opportunity to comment on this matter.

Sincerely,

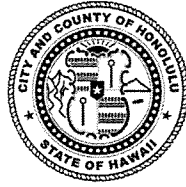
A handwritten signature in black ink, appearing to read "Anton C. Krucky".

Anton C. Krucky
Director

DEPARTMENT OF COMMUNITY SERVICES
KA 'OIHANA LAWELAWE KAIĀULU
CITY AND COUNTY OF HONOLULU

925 DILLINGHAM BOULEVARD, SUITE 200 • HONOLULU, HAWAII 96817
PHONE: (808) 768-7762 • FAX: (808) 768-7792 • WEB: www.honolulu.gov

RICK BLANGIARDI
MAYOR
MEIA



ANTON C. KRUCKY
DIRECTOR
PO'O

AEDWARD LOS BANOS
DEPUTY DIRECTOR
HOPE PO'O

June 14, 2024

RECEIVED
JUN 20 2024
G70

Ms. Tracy Camuso, AICP, Principal Planner
Group 70 International, Inc. dba G70
111 South King Street, Suite 170
Honolulu, Hawaii 96813

Dear Ms. Camuso:

SUBJECT: Second Draft Environmental Impact Statement
The Cove Redevelopment
Cove Campbell Kobayashi LLC
TMKs: (1) 9-1-057:027

Thank you for notifying us that G70 has published the Second Draft Environmental Impact Statement for the above-named project on behalf of Cove Campbell Kobayashi LLC.

Our review indicates that the proposed project should have no adverse impacts on any Department of Community Services activities or projects in the surrounding neighborhood. Nevertheless, we ask that the applicant take into consideration the health, safety, accessibility, and long-term wellbeing of area residents and others living nearby and/or involved with activities in the project vicinity.

Thank you for providing us the opportunity to comment on this matter.

Sincerely,

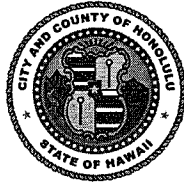
A handwritten signature in black ink, appearing to read "Anton C. Krucky".

Anton C. Krucky
Director

DEPARTMENT OF DESIGN AND CONSTRUCTION
KA 'OIHANA HAKULAU A ME KE KĀPILI
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8480 • FAX: (808) 768-4567 • WEBSITE: honolulu.gov

RICK BLANGIARDI
MAYOR
MEIA



HAKU MILLES, P.E.
DIRECTOR
PO'O

BRYAN GALLAGHER, P.E.
DEPUTY DIRECTOR
HOPE PO'O

May 30, 2024

SENT VIA EMAIL

G70
thecovekoolina@g70.design

Dear G70:

Subject: The Cove at Ko Olina Redevelopment
Draft Environmental Impact Statement
Tax Map Key (TMK): (1) 9-1-057:027
Ko Olina, Island of O'ahu, Hawaii

Thank you for the opportunity to review and comment. The Department of Design and Construction has no comments to offer at this time.

Should you have any questions, please contact me at (808) 768-8480.

Sincerely,

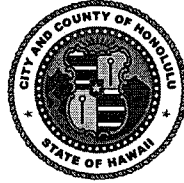

for Haku Milles, P.E., LEED AP
Director

HM:cf (921808)

DEPARTMENT OF DESIGN AND CONSTRUCTION
KA 'OIHANA HAKULAU A ME KE KĀPILI
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8480 • FAX: (808) 768-4567 • WEBSITE: honolulu.gov

RICK BLANGIARDI
MAYOR
MEIA



HAKU MILLES, P.E.
DIRECTOR
PO'O

July 9, 2024

SENT VIA EMAIL

Tracy Camuso
thecove@g70.design

Dear Tracy:

Subject: The Cove Redevelopment
Second Draft Environmental Impact Statement
Tax Map Key (TMK): (1) 9-1-057:027
Kapolei, Island of O'ahu, Hawai'i

Thank you for the opportunity to review and comment. The Department of Design and Construction has no comments to offer at this time.

Should you have any questions, please contact me at (808) 768-8480.

Sincerely,

A handwritten signature in black ink, appearing to read "Haku Milles", is written over a horizontal line.

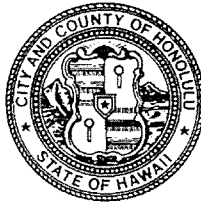
Haku Milles, P.E., LEED AP
Director

HM:krm (923220)

DEPARTMENT OF FACILITY MAINTENANCE
KA 'OIHANA MĀLAMA HALE
CITY AND COUNTY OF HONOLULU

1000 ULU'OHIA STREET, SUITE 215, KAPOLEI, HAWAII 96707
PHONE: (808) 768-3343 • Fax: (808) 768-3381 • WEBSITE: honolulu.gov

RICK BLANGIARDI
MAYOR
MEIA



GENE C. ALBANO, P.E.
DIRECTOR AND CHIEF ENGINEER
PO'O A ME LUNA NUI 'ENEKINIA

WARREN K. MAMIZUKA
DEPUTY DIRECTOR
HOPE PO'O

IN REPLY REFER TO:
DRM 24-218

June 13, 2024

Mr. Tracy Camuno, AICP, Principal Planner
G70
111 S. King Street, Suite 170
Honolulu, Hawaii 96813

RECEIVED

JUN 20 2024

G70

Dear Ms. Okoji:




Subject: The Cove at Ko Olina Redevelopment
Draft Environmental Impact Statement
TMK: (1) 9-1-057:027

Thank you for the opportunity to review and comment on the subject project.

We have no comments at this time, as we do not have any facilities or easements on the subject property.

If you have any questions, please call Mr. Kyle Oyasato of the Division of Road Maintenance at 768-3697.

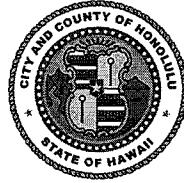
Sincerely,


Gene C. Albano, P.E.
Director and Chief Engineer



DEPARTMENT OF PLANNING AND PERMITTING
KA 'OIHANA HO'OLĀLĀ A ME NĀ PALAPALA 'AE
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041 • WEBSITE: honolulu.gov/dpp

RICK BLANGIARDI
MAYOR
MEI



DAWN TAKEUCHI APUNA
DIRECTOR
PO'O

BRYAN GALLAGHER, P.E.
DEPUTY DIRECTOR
HOPE PO'O

REGINA MALEPEAI
2ND DEPUTY DIRECTOR
HOPE PO'O KUALUA

July 19, 2024

2024/ED-3 (LP)

SENT VIA EMAIL

Ms. Tracie Camuso
tracyc@g70.design

Dear Ms. Camuso:

SUBJECT: Chapter 343 Hawaii Revised Statutes
Draft Environmental Impact Study (EIS)
The Cove at Ko 'Olina Redevelopment
92-1089 Ali'inui Drive – Honouliuli
Tax Map Key 9-1-057: 027

This is in response to your submittal, received on May 8, 2024 and June 10, 2024, of a Draft EIS for the subject site. Below are our comments that should be addressed in the Draft EIS.

1. The Final EIS should reference the West Beach Urban Design Plan and how the Project conforms with the Urban Design Plan.
2. The Final EIS should revise the following Figures:
 - a. Figure 3.2 Existing Conditions – Demolition Plan, legend, plan and text are not legible.
 - b. Figure 3.3 Preliminary Site Plan, legend text is not legible.
3. Figure 1.8 Preliminary Shoreline Survey indicates there are concrete rubble masonry walls within the shoreline setback. Verify that these walls were legally built and if any work is proposed.
4. The Draft EIS complies with the objectives and conditions of the General Plan, the 'Ewa Development Plan and the unilateral agreement (UA) in Ordinance 89-27 (File No. 88/Z-2).

- a. General Plan --The Project would support the objective of a secondary resort area at Ko 'Olina, and help maintain a successful visitor industry that respects Hawaiian culture.
 - b. 'Ewa Development Plan --The Project would support Ko 'Olina's role as an integral part of O'ahu's Secondary Urban Center. It is consistent with the Resort/Recreation designation on the 'Ewa Development Plan Land Use Map.
 - c. Ordinance 89-27 – The Project complies with UA conditions to limit commercial activity to restaurants and retail activity associated with a Hawaiian Theme Park and a commercial lū'au operation; limit lot coverage to 30 percent; maintain a 40-foot shoreline setback area free from structures; and connect to the Ko 'Olina public sewer system.
5. Comments relating to public health and safety should be addressed prior to building permit submittals:
- a. An overall timeline or phasing plan should be provided for the proposed development. This overall timeline should include the anticipated dates to obtain major building permit(s) for demolition/construction work, including the projected date of occupancy, shall be prepared by the applicant in a format acceptable to the Department. The timeline should identify when the traffic management plan (TMP), updates and/or validation to the findings of the initial traffic impact report (TIR) and off-site roadway work will be submitted for review and approval in relation to when approvals for construction plans, building and occupancy permits will be necessary. Typically, the TMP or subsequent updates should be submitted and approved prior to the issuance of the (temporary) certificate of occupancy (CO), however in this case, a portion of the TMP should be prepared which addresses the design adequacy of the porte-cochere area depending on what parking operations measures are implemented from the parking management plan. A new TIR may be required if there is a significant change to the scope or timing of the major work items contained in the initial report.
 - b. A TMP shall include traffic demand management (TDM) strategies and parking management strategies from the Parking Management Plan (PMP) to minimize the amount of vehicular trips for daily activities. TDM strategies could include carpooling and ride sharing programs, transit, bicycle and pedestrian incentives and other similar TDM measures. A pedestrian and bicycle circulation plan should also be included to provide accessibility and connectivity to and along the surrounding sidewalks and at street

intersections, as it relates to complete streets initiatives. A post TMP will be required after full build-out, to validate the relative effectiveness of the various TDM and parking management strategies identified in the report.

- c. Updates to the TIR will be required approximately six months after the issuance of the CO, to validate the traffic projections, trip reduction rates, distribution and assignment contained in the initial TIR. If additional traffic mitigation measures or modifications are necessary to support related traffic impacts directly attributable to this development, the applicant will be required to implement these measures.
- d. Construction plans for all work within or affecting future public streets should be submitted for review and approval. All vehicular access points shall be constructed as standard City dropped driveways. Adequate vehicular sight distance shall be provided and maintained at all driveways to pedestrians and other vehicles.
- e. Driveway grades shall not exceed five percent for a minimum distance of 5-feet from the back of the designated pedestrian walkway.
- f. All loading and parking areas shall be designed such that vehicles enter and exit, front first.
- g. Bicycle parking or bike racks shall be provided within this project and shall be located in a safe and convenient location.
- h. Drop-off/pick-up areas should be done on-site. Access to these areas should be via standard dropped driveways and the length of this area shall be designed to accommodate the anticipated type and number of vehicles to prevent any overflow of vehicles onto the Ali'inui Drive. The design shall be wide enough to allow a moving vehicle to safely pass a stationary parked vehicle. The TMP should address minimizing the average dwell time for these users and how it will be managed.
- i. The TIR should be expanded to quantify and verify the trip generation rates discounts taken. Please quantify the reductions taken from comparisons to the compatible uses near the project site.
- j. The TIR should expand on the existing operations at the projects driveways. Do median openings adequately serve incoming and exiting traffic currently without affecting thru traffic on Ali'inui Drive? Is there currently a

need for left turn lanes and acceleration lanes? Depending on the PMP strategies implemented, will there be a need for turn lanes and/or acceleration lanes?

- k. Clarify the operations during inclement weather conditions. Will shows go on or be cancelled? Vehicular use will increase during inclement weather. The TIR should include a scenario for inclement weather whereby increased projected trips (above the 10 percent) are analyzed, and its potential impacts are known and see if any mitigative measures are needed.
- l. Adequate on-site parking should be provided. The PMP should be a working document until all parking management strategies are implemented and effectively working. The strategies chosen will affect the porte-cochere areas and driveway entry/exit points and operations. The type of design and improvements needed (ex. turn lanes, acceleration lanes, storage lengths, etc.), should accommodate the parking management strategies that are implemented.

Thank you for the opportunity to comment on this proposal. Should you have any questions, please contact Lena Phomsouvanh, of our staff, at (808) 768-8052 or via email at lena.phomsouvanh@honolulu.gov.

Sincerely,

FOR 
Dawn Takeuchi Apuna
Director

Enclosed: Receipt Nos. 24-0060 and 24-0061

Department of Planning and Permitting

KA 'OIHANA HO'OLĀLĀ A ME NĀ PALAPALA 'AE

Official Receipt 24-00661

Total Paid: \$2,400.00
Received On: 04/19/2024 7:36AM

<u>Job</u>	<u>Distribution</u>
2024/ED-3 (Draft e.a. complete)	
Environmental Assessment Total Bas	\$2,400.00
Total:	\$2,400.00

	<u>Payment</u>
Check 58969	\$2,400.00
Total Received:	\$2,400.00

Department of Planning and Permitting

KA 'OIHANA HO'OLĀLĀ A ME NĀ PALAPALA 'AE

Official Receipt 24-00660

Total Paid: \$400.00
Received On: 04/19/2024 7:35AM

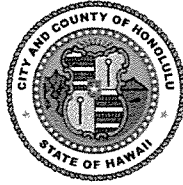
<u>Job</u>	<u>Distribution</u>
2024/ED-3 (Draft e.a. complete)	
Application Review Fee	\$400.00
Total:	\$400.00

	<u>Payment</u>
Check 58970	\$400.00
Total Received:	\$400.00

**HONOLULU FIRE DEPARTMENT
KA 'OIHANA KINAI AHI O HONOLULU
CITY AND COUNTY OF HONOLULU**

636 SOUTH STREET • HONOLULU, HAWAII 96813
PHONE: (808) 723-7139 • FAX: (808) 723-7111 • WEBSITE: honolulu.gov

RICK BLANGIARDI
MAYOR
MEIA



SHELDON K. HAO
FIRE CHIEF
LUNA NUI KINAI AHI

JASON SAMALA
DEPUTY FIRE CHIEF
HOPE LUNA NUI KINAI AHI

June 14, 2024

RECEIVED
JUN 20 2024
G70

Ms. Tracy Camuso, AICP
Principal Planner
Group 70 International, Inc., dba G70
111 South King Street, Suite 170
Honolulu, Hawaii 96813

Dear Ms. Camuso:

Subject: The Cove Redevelopment
Second Draft Environmental Impact Statement
Tax Map Key: 9-1-057: 027
Kapolei, O'ahu, Hawaii

In response to your letter received on June 11, 2024, regarding the abovementioned subject, the Honolulu Fire Department (HFD) reviewed the submitted information and requires the following be complied with:

1. Fire department access roads shall be in accordance with National Fire Protection Association (NFPA) 1; 2018 Edition, Section 18.2.3.
2. A fire department access road shall extend to within 50 feet (15 meters) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1; 2018 Edition, Section 18.2.3.2.1.)
3. 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. (NFPA 1; 2018 Edition, Sections 18.2.3.2.2 and 18.2.3.2.2.1, as amended.)

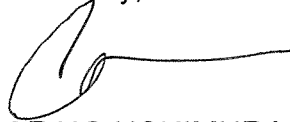
Ms. Tracy Camuso, AICP
Page 2
June 14, 2024

4. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into the jurisdiction. The approved water supply shall be in accordance with NFPA 1; 2018 Edition, Sections 18.3 and 18.4.
5. Submit civil drawings to the City and County of Honolulu's Department of Planning and Permitting and route them to the HFD for review and approval.

The abovementioned provisions are required by the HFD. This project may necessitate that additional requirements be met as determined by other agencies.

Should you have questions, please contact Battalion Chief Jean-Claude Bisch of our Fire Prevention Bureau at 808-723-7154 or jbisch@honolulu.gov.

Sincerely,

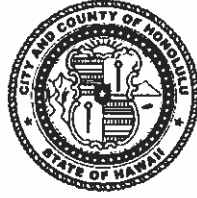
A handwritten signature in black ink, appearing to read 'CRAIG UCHIMURA', with a long horizontal line extending to the right.

CRAIG UCHIMURA
Assistant Chief

CU/MN:bh

HONOLULU POLICE DEPARTMENT
KA 'OIHANA MĀKA'I O HONOLULU
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET • HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 • WEBSITE: www.honoluluupd.org

RICK BLANGIARDI
MAYOR
MEIA



ARTHUR J. LOGAN
CHIEF
KAHU MĀKA'I

KEITH K. HORIKAWA
RADE K. VANIC
DEPUTY CHIEFS
HOPE LUNA NUI MĀKA'I

OUR REFERENCE **EO-SH**

May 17, 2024

SENT VIA EMAIL

Ms. Tracy Camuso, AICP
thecovekoolina@g70.design

Dear Ms. Camuso:

This is in response to your letter of May 8, 2024, requesting input on the Draft Environmental Impact Statement for The Cove at Ko Olina Redevelopment project.

Based on the information provided, the Honolulu Police Department does not have any concerns at this time.

If there are any questions, please call Major Gail Beckley of District 8 (Kapolei, Wai'anae) at (808) 723-8400.

Thank you for the opportunity to review this project.

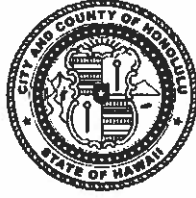
Sincerely,

A handwritten signature in black ink, reading "Glenn Hayashi".

GLENN HAYASHI
Assistant Chief of Police
Support Services Bureau

HONOLULU POLICE DEPARTMENT
KA 'OIHANA MĀKA'I O HONOLULU
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET • HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 • WEBSITE: www.honolulupd.org

RICK BLANGIARDI
MAYOR
MEIA



ARTHUR J. LOGAN
CHIEF
KAHU MĀKA'I

KEITH K. HORIKAWA
RADE K. VANIC
DEPUTY CHIEFS
HOPE LUNA NUI MĀKA'I

OUR REFERENCE **EO-SH**

June 18, 2024

SENT VIA EMAIL

Ms. Tracy Camuso, AICP
thecove@g70.design

Dear Ms. Camuso:

This is in response to your letter of June 8, 2024, requesting input on the Draft Environmental Impact Statement for The Cove Redevelopment project located in Kapolei.

Based on the information provided, the Honolulu Police Department does not have any concerns at this time.

If there are any questions, please call Major Gail Beckley of District 8 (Kapolei, Wai'anae) at (808) 723-8400.

Thank you for the opportunity to review this project.

Sincerely,

A handwritten signature in black ink that reads "Glenn Hayashi". The signature is written in a cursive, flowing style.

GLENN HAYASHI
Assistant Chief of Police
Support Services Bureau

Individuals and Organizations

July 23, 2024

Tracy Camuso
Group 70
111 S. King Street, Suite 170
Honolulu, HI 96813

Subject: Opposition to the Second Draft Environmental Impact Statement for The Cove Redevelopment

Dear Ms. Camuso,

I am writing to express my strong opposition to the second draft of the Environmental Impact Statement (EIS) for the redevelopment of The Cove located at the entry to Ko Olina Resort due to several significant concerns, including traffic congestion, noise pollution, parking and the project's non-contribution to the Ko Olina Community Association. As a full time resident of The Coconut Plantation, as well as the owner of two additional rental properties in Ko Olina, I believe that this project will have detrimental effects on our community's quality of life and sustainability.

Traffic Congestion:

The proposed development will exacerbate the traffic congestion in our area. The EIS fails to adequately address the impact of increased vehicular traffic on our private roads and the Ali'i/Inui/Olani intersection. Adding more vehicles without proper infrastructure improvements will only worsen this situation, making it more difficult for residents to commute to work, access essential services, and go about their daily lives.

Noise Pollution:

The anticipated noise levels from the project is another major concern. The new location of the amphitheater, construction activities and the increased volume of traffic will contribute to higher noise levels, disrupting the peace and tranquility that our community values. The EIS does not provide sufficient mitigation measures to address this issue. Continuous exposure to elevated noise levels can have adverse effects on residents' health, including increased stress, sleep disturbances, and reduced overall well-being.

Parking:

The EIS fails to adequately address parking concerns. The proposed plans reduce employee and bus parking compared to existing provisions, where Paradise Cove efficiently accommodated parking for over 200 employees and facilitated bus transportation to minimize personal vehicle usage. The new plans introduce a day-use activation, necessitating additional parking. This insufficiency will inevitably lead to overflow parking issues in the Ko Olina Resort.

Non-Contribution to the Ko Olina Community Association:

It is also concerning that the proposed project does not include provisions for contributing to the Ko Olina Community Association. Our community relies on contributions from all developments to maintain and improve shared amenities and infrastructure. The lack of contribution from this project sets a concerning precedent and undermines the cooperative spirit that has allowed our community to thrive. It is essential that all developments, including this one, contribute their fair share to ensure the continued upkeep and enhancement of our community facilities.

Thank you for the opportunity to comment. I urge you to reconsider the approval of this project in its current form. The EIS does not adequately address the significant issues of traffic congestion, noise pollution, and non-contribution to the Ko Olina Community Association. These concerns must be thoroughly addressed and mitigated to protect the quality of life for all residents of Ko Olina. I strongly urge you to reject the project until these issues are satisfactorily resolved.

Sincerely,

A handwritten signature in black ink, appearing to read 'Carla L. Kozak', written in a cursive style.

Carla L. Kozak
Coconut Plantation, residential homeowner of 12 years.

Group 70 International, Inc. G70

111 S. King St., Suite 170

Honolulu, HI 96813

Attn: Tracy Camuso, Principal Planner Re. Draft EIS for Paradise Cove, Ko Olina

Re: Comments and Concerns: Paradise Cove Draft EIS

Dear EIS team,

I hope this message finds you well. I am writing with a deep sense of urgency and concern regarding the proposed amphitheater project slated to be constructed a mere 300 yards from my home. As a dedicated resident of this community, I feel compelled to voice the significant and dire impact this proposal would have on our lives.

The proximity of the planned amphitheater to our home means that the amplified sound during events will inevitably permeate our living space, creating an environment that is intolerable and unlivable. The constant barrage of noise will shatter the peace and tranquility that every homeowner values and expects, making daily life an unbearable ordeal. The stress and disruption caused by such intrusive noise levels cannot be overstated; it will affect our ability to work, rest, and even communicate within our own home.

Furthermore, the emotional and psychological strain of living in such conditions must not be underestimated. Our home, which should be a sanctuary and a place of respite, will instead become a source of continuous distress and discomfort. The implications for our health and well-being are profoundly troubling.

I urgently request that you reconsider the location of the proposed amphitheater or implement substantial measures to mitigate the noise pollution it will generate. This may include soundproofing measures, strategic planning of event times to minimize disruption, or even relocating the amphitheater to a more suitable area far removed from residential zones.

The decisions made now will have lasting ramifications on the lives of many residents. I trust that you will take into serious account the voices of those who will be most affected and take immediate action to prevent the deterioration of our living conditions.

Thank you for your prompt attention to this critical matter.

Sincerely,



Cornel Catuna

92-1001 Ali Inui Dr. Unit 1C

Kapolei, HI 96707

ccatuna@gmail.com

508 951 7370

July 23, 2024

Tracy Camuso
Group 70
111 S. King Street, Suite 170
Honolulu, HI 96813

Subject: Opposition to the Second Draft Environmental Impact Statement for The Cove Redevelopment

Dear Ms. Camuso,

I am writing to express my strong opposition to the second draft of the Environmental Impact Statement (EIS) for the redevelopment of The Cove located at the entry to Ko Olina Resort due to several significant concerns, including traffic congestion, noise pollution, parking and the project's non-contribution to the Ko Olina Community Association. As a resident of The Coconut Plantation, this project will have negative effects on our community's quality of life and sustainability.

Traffic Congestion:

The proposed development will worsen traffic congestion in our area. The Environmental Impact Statement does not sufficiently address the effects of increased vehicular traffic on our private roads and the Ali'inui/Olani intersection. Adding more vehicles without corresponding infrastructure upgrades will exacerbate the problem, making it harder for residents to commute, access essential services, and manage their daily activities.

Increased Noise:

The expected noise levels from the project are also a significant concern. The new amphitheater location, construction activities, and increased traffic will raise noise levels, disturbing the peace and tranquility our community cherishes. The EIS lacks adequate mitigation measures for this issue.

Parking:

The EIS does not sufficiently address parking concerns. The proposed plans reduce the number of parking spaces for employees and buses compared to the current setup, where Paradise Cove effectively accommodated parking for over 200 employees and supported bus transportation to reduce personal vehicle use. The new plans include a day-use activation, which will require additional parking. This shortfall will likely result in overflow parking issues within the Ko Olina Resort.

Ko Olina Community Association Membership:

The proposed project does not include provisions for contributing to the Ko Olina Community Association. Our community depends on contributions from all members to maintain and enhance shared amenities and infrastructure. It is crucial that all developments, including this one, contribute their fair share to ensure the ongoing maintenance and improvement of our community facilities.

Thank you for the opportunity to provide feedback. I urge you to reconsider approving this project in its current form. The EIS fails to adequately address critical issues such as traffic

congestion, noise pollution, parking and the lack of contribution to the Ko Olina Community Association. These concerns need to be thoroughly addressed and mitigated to safeguard the quality of life for all Ko Olina residents. I strongly recommend rejecting the project until these issues are satisfactorily resolved.

Sincerely,

A handwritten signature in black ink, appearing to read "Dale Fishell", with a stylized flourish at the end.

Dale Fishell
Coconut Plantation Resident

Douglas Meller
dougasmeller@gmail.com
2615 Aaliamanu Place
Honolulu, HI 96813

June 18, 2024 Douglas Meller Email Comments on:

The Cove Redevelopment 2nd Draft Environmental Impact Statement (EIS)
TMK: (1) 9-1-057:027, Kapolei, Oahu, Hawaii

Submitted to: thecove@g70.design
lena.phomsouvanh@honolulu.gov
mpennaz@kobayashi-group.com

Mahalo for the opportunity to share my concerns. I have the following comments:

- There were no buildings or other structures when my wife and I were married on the beach in July 1977. The DEIS proposes a 50-yard-long Restaurant Building No. 1 which will trash the mauka view from the beach. Please, please relocate this building mauka of the rocky shoreline or substantially reduce its frontage mauka of the beach.
- Were you aware that photographs submitted with the 2024 Shoreline Certification Application OA-2103 propose shoreline certification at the toe of two CRM walls on the west side of the beach? The DEIS neither mentions existing nor proposes new shoreline structures. In fact the DEIS points out that the February 1989 Unilateral Agreement for Conditional Zoning promised that structures would not be constructed within 40-feet of the makai (shoreline) property boundary. Are the two shoreline CRM walls illegal?
- Both DEIS Figure 1.8 and pending 2024 Shoreline Certification Application OA-2103 propose shoreline certification at the same location on the beach as the August 3, 2021 certified shoreline. The following photograph from the DAGS shoreline certification website shows that the August 3, 2021 certified shoreline was makai of both the debris line and the vegetation line for a large part of the beach. That is improper, but probably no one paid attention during the covid epidemic. For the pending 2024 Application OA-2103, my understanding is that DAGS Land Survey and DLNR Land Management employees will schedule a site inspection to determine the current highest wash of the waves. But the 2024 application might be rejected because §13-22-19, Hawaii Administrative Rules, prohibits shoreline certification "... where an unauthorized improvement encroaches upon state land or where an unauthorized improvement interferes with the natural shoreline processes."



Picture 8: Facing north

Taken: March 30, 2021

- Resolution 93-318 required that “The Applicant shall provide or cause the landowner to provide in perpetuity: ... Safe lateral access, fronting the Paradise Cove property in accordance with plans approved by the Department of Recreation.” I do not why, but safe lateral public access has not been provided. It may be legal but is not safe for the public to walk along the rocky coastline. Paradise Cove signs currently prohibit the public from walking on level ground mauka of the rocky coastline. Rather than defending the status quo, I request that the FEIS propose a new lateral pedestrian easement for the public to safely walk on level ground mauka of the rocky property coastline.
- Resolution 93-318 also required that “The Applicant shall provide or cause the landowner to provide in perpetuity: ... No less than 5 public parking spaces (which shall be included in the 15 which are required by Lanikuhonua).” Paradise Cove did not provide public parking until the DLU threatened to assess civil fines. But unlike Paradise Cove, which generates most revenues from entertainment and a commercial luau, the DEIS proposes restaurants and shops. DEIS proposals for management of public parking will neither benefit the public nor benefit proposed restaurants and shops. It is anal to limit public beach parking to 15 stalls at times when total parking supply exceeds demand. And even if the DPP allows it, it would be counterproductive to harass people using public beach parking to discourage them from patronizing “commercial components of the project”.
- And Resolution 93-318 required that “[Applicant] Beach activities ... shall be limited to passive activities.... [Commercial] activities ... shall not unreasonably interfere with public use of the public beach or preclude the use of the public beach by the general public.” The DEIS pretended this condition regulates public recreational use of the beach. The FEIS should instead acknowledge that the DPP is authorized to impose civil fines if commercial weddings or commercial placement of rental beach chairs and umbrellas interfere with public use of the beach.

Again, mahalo for the opportunity to share my concerns.

June 24, 2024

Group 70 International, Inc. G70

111 S. King St., Suite 170

Honolulu, HI 96813

Attn: Tracy Camuso, Principal Planner Re. Draft EIS for Paradise Cove, Ko Olina

Re: Comments and Concerns: Paradise Cove Draft EIS

Dear EIS Team:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (EIS) for Paradise Cove (PC), issued on May 8, 2024. As long-time homeowners at Kai Lani in Ko Olina since 2008, we have significant concerns regarding the proposed redevelopment of Paradise Cove.

We would like to outline several areas of strong concern and objection regarding the PC plan proposal. These concerns highlight substantial adverse impacts on the Ko Olina property and its nearby residential communities, such as Kai Lani, as well as the west side communities of Oahu. These issues are critical and threaten the core economic interests and quality of life in Ko Olina. Although the EIS mentions potential mitigations and offsets, these are broadly stated without significant data to support their effectiveness or feasibility. Additionally, there are numerous omissions in the report.

It has come to our attention that although an updated plan has been under study since 2021, there was almost no community communication until May of this year. The EIS was only released on May 8th, announcing a new project that will be three times larger than the current facilities. A public presentation of the plan was made on May 22nd to attendees at the Makakilo/Kapolei/Honokai Hale Neighborhood Board meeting. Nine people, including Ken Williams, the General Manager of Ko Olina, and Kamaki Kanahale, the Director of the Native Hawaiian Traditional Health Center at Waianae and President of the Nanakuli Homestead Community Association, who called the plan “culturally destructive,” spoke strongly about the lack of community involvement with the design and raised numerous fundamental concerns about the plan. No one spoke in favor, and many raised concerns about the lack of transparency in the planning process and the numerous unanswered questions in the EIS. Despite the significant interest from the Ko Olina community, the project proponents have not provided opportunities for dialogue or addressed concerns from interested parties, including the KOCA office, as of the May 22nd meeting.

Here are our primary concerns regarding the information provided in the draft EIS for the future proposed plans for PC:

1. **Expansion and Noise Pollution:** The proposed plan increases the size of entertainment and retail activities at PC by approximately three times and extends

operating hours from 7 AM to 10 PM. The relocation of the lu'au amphitheater closer to the Kai Lani residential community will exacerbate existing noise issues. The EIS admits that amplified sound will impact nearby residents but fails to acknowledge that relocating the amphitheater will worsen the problem. Current noise levels already violate city statutes and disturb residents, which is unacceptable.

Alternative locations should be considered to minimize these impacts.

2. **Infrastructure Strain:** The proposal places additional demands on Ko Olina's infrastructure, including roads, sewer, garbage collection, water, storm drainage, and telecom, without clear plans on how these demands will be met or funded. The EIS estimates a significant increase in wastewater discharge without specifying handling methods or costs. There are no details on how infrastructure capacities will be allocated or protected for the community and other west side users.
3. **Parking Overflow:** The EIS does not provide a viable plan to manage increased parking demand, with current and future parking spaces falling short of requirements. This could lead to overflow parking in areas like Ko Olina's meadow, without assurances from the developer to prevent this issue.
4. **Trash Management:** Increased activities may worsen trash management issues, with reports of excess garbage and feral cats already affecting the environmentally sensitive ocean reefs near PC.
5. **Cultural and Archaeological Impacts:** Potential encroachments on cultural and archaeological resources are not adequately studied in the EIS.
6. **Negative Community Impact:** Increased tourist-oriented retail and restaurants will compete with existing businesses in Ko Olina, adding congestion, noise, and environmental impacts without benefiting the community. The plan does not align with Ko Olina's master plan and will oversaturate Ko Olina with unneeded retail and food service businesses. The plan changes the fundamental nature of the property use from a native Hawaiian cultural area to primarily ordinary retail and food service, an affront and insult to the Hawaiian culture.
7. **Environmental Concerns:** The added density at PC threatens protected monk seals, sea turtles, and shorebirds, moving environmental interests in the wrong direction and potentially violating regulations. The current stewardship of the beach area is inadequate, with garbage regularly overflowing the containers and visitors disturbing sea turtles and other wildlife. Improving shore environments should be an immediate priority.
8. **Sea Rise and Flooding:** Ignoring the risks of sea rise and future flooding, as one-third of PC property is predicted to be subject to repeated flooding within 75 years due to global warming, is irresponsible and impractical for additional development in sensitive areas.
9. **Campbell LLC's Reputation:** The expanded uses and congestion at PC threaten Campbell LLC's reputation and the community's well-being. Access to Lanikuhonua and the adjacent public beach may be compromised, degrading the visitor experience due to increased commercial activity.
10. **Financial Contributions and Benefits:** The PC property, although benefiting from Ko Olina's infrastructure and amenities, reportedly does not contribute to the costs

it imposes on the property. This imbalance is unfair and the proposed expansion would greatly exacerbate the issue. In particular, there is no recognition of the impact to liability that this proposed development brings to the property.

We urge a reconsideration of the proposed plan, taking into account these serious concerns to protect the interests and quality of life for the Ko Olina community and the broader west side of Oahu.

Again, thank you for the opportunity to provide comments.

Sincerely,

Eileen Meuris, Steve Meuris, Marguerite Casillas
92-1001 Aliinui Dr., 24B
Kapolei, HI 96707

From: Elizabeth Rubinstein <bethrubins@gmail.com>
Sent: Tuesday, July 23, 2024 9:52 AM
To: The Cove at Ko Olina - 220069-01
Subject: The Cove Development Public Comments
Attachments: The Cove at Ko.docx; 79849.jpg; IMG_4771.jpg; IMG_4772.jpg; 15332.jpg; IMG_4770.jpg

Follow Up Flag: Follow up
Flag Status: Completed

We are submitting our comments regarding The Cove development. We have serious concerns about the heavy and potentially negative impact such a project will have upon our community. Our Kai Lani complex is directly behind and adjacent to the development and would be highly impacted by a variety of conditions. The first document lists our concerns. The following pictures feature the original Monkey Pod Tree stand that had shielded our community from viewing the service area, garbage activities, parking lot lighting, and provided a sound buffer. The Monkey Pod Tree stand was removed in its entirety by the Campbell company to expose our community to full view of the service area, employee parking lot, garbage facilities, bright parking lot lights directly shining into our complex, plus eliminating the sound buffer of the luau and chapel musical and DJ entertainment activities. There was no offer of replanting a public landscape barrier to shield the exposed activities that impacted the quality of life within the directly facing Kai Lanai apartments. It is of note that the plans presented by the EIS proposal feature the non-existent Monkey Pod Trees lining the property edge as an existing landscape. We have only touched upon some concerns since the overall community of Ko'Olina as a whole has several more.

Sincerely,
Elizabeth and Richard Rubinstein
Kai Lani Owner/Resident
1001-92 Aliinui Drive
Apt. 25B
Kapolei, HI 96707
248-752-6258 cell
bethrubins@gmail.com

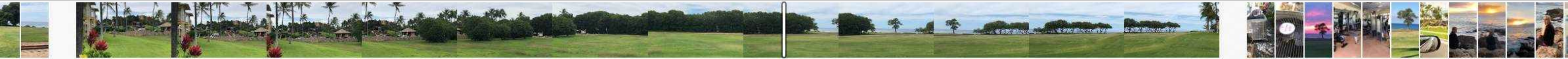
Confidentiality Notice: This email message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and/or privileged information. If you are not the intended recipient(s), you are hereby notified that any dissemination, unauthorized review, use, disclosure or distribution of this email and any materials contained in any attachments is prohibited. If you receive this message in error, or are not the intended recipient(s), please immediately notify the sender by email and destroy all copies of the original message, including attachments.

The Cove Development Project
Kai Lani Resident Concerns
May 22, 2024

1. Noise and monitoring of decibel levels from luau/entertainment activities
2. Light pollution
3. Traffic congestion and control
4. Parking pressure: Both legal and illegal
5. Monitoring and control of all access points to the proposed project
6. Environmental impact on existing sea and wildlife
7. Increase of rodent, feral cat, and non-native avian wildlife
8. Garbage storage and collection
9. Hawaiian cultural authenticity versus commercialization
10. Security in general to include 24 hour security protocols to address open access from Kai Lani Complex. Front entrance of Kai Lani is gated but the ocean side of the complex has open access that is adjacent to the proposed project complex situated along Lot 7, Federal rail access, and Lot 8.
11. Project hours of operation and impact on Kai Lani community
12. Construction duration and disruption for Kai Lani residents
13. Protection and preservation of natural beach areas on both sides of the proposed project
14. Use of resources and infrastructure integrity to support a large scale venue
15. Runoff of polluted waters from complex parking and entertainment areas
16. Air and noise pollution from various activities
17. Emergency access and egress in the presence of large crowds
18. Landscaping screening to protect Kai Lani residential view and noise barrier (see attached photos)
19. Scale of all building structures
20. A clear understanding of exact land use
21. Open communication to include the input of all Ko'Olina AOA's
22. Financial responsibility for community services provided by KOCA proportional to AOA residential dues.
23. Business plan to support viability of project. What type of client/customer/employee volume would have to be solicited to profitably support the project? Important since it determines community impact long term.



Ko Olina
February 23, 2018 12:48 PM









Ko Olina
February 23, 2018 12:48 PM





J. Kimo Alama Keaulana
89-564 Mokiawe Street
Wai'anae, Hawai'i 96792

July 22, 2024

'Ano'ai ke aloha,

The Cove Redevelopment is sorely needed on our side of O'ahu and I was privileged to have been included in its planning from its onset many years ago. I am a native Hawaiian who is a native speaker of Hawaiian and have been teaching Hawaiian language, lore, history and culture in collegiate and school systems here in Hawai'i. I currently reside in the Nānākuli Hawaiian Homestead and am currently in my 53rd year as a *kumu hula*.

I believe it was in 2017 when I came onboard with this project when I was asked for my opinion. At that time, I thought that the architectural concepts were insulting and so was the overall feel for the development. I freely gave my opinions in advocating for a sense of place that would benefit and be meaningful to the *kama'āina*. I left that initial meeting not expecting anything of what I had expressed to be taken seriously. I was mistaken.

Upon reviewing the latest redevelopment plans about 2 months ago, I was pleasantly surprised that my opinion mattered. The kinds of businesses and venues reflected what will be a place where the *kama'āina* will feel that they have a place there. I am sure that the *malihini* will find that being there will also add to their experience of being in a Hawai'i that they came to see.

The low-rise density, ocean views and open spaces are being thoughtfully preserved. These inclusions will naturally allow for cultural activities to come to life. The shoreline and other preserved open spaces are not only beautiful but also reflects the care that the Campbell Company has for these legacy lands.

I have been working with Tihati Productions in producing a venue that reassures that their visitors will be treated to a carefully thought through, place-based experience. It will go beyond mere entertainment to be "edutainment."

The Cove Redevelopment will be good for 'Ewa and Wai'anae Coast in that the responsible economic growth will foster local businesses, entrepreneurs, and cultural heritage avenues. Currently, many of these endeavors are possible largely in Honolulu.

Without any reservation, I wholeheartedly support The Cove Redevelopment.

Mahalo





Group 70 International, Inc. G70
111 S. King St., Suite 170
Honolulu, HI 96813
Attn: Tracy Camuso, Principal Planner Re. Draft EIS for Paradise Cove, Ko Olina

July 21, 2024

Kai Lani at Ko Olina Association of Apartment of Owners
92-1001 Aliinui Drive
Kapolei HI 96707

Re: "The Cove" Draft Environmental Impact Statement

To Whom it May Concern,

Aloha, my name is Jon Utton and I am the current President for Kai Lani at Ko Olina Association of Apartment Owners (AOAO). Thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) regarding the redevelopment of Paradise Cove. The purpose of this letter is to provide a list of significant issues of concern to Kai Lani, and objections regarding the contents of the DEIS.

The community of Kai Lani, part of the greater Ko Olina Community Association (KOCA), is a beautiful 11-acre property that sits East of Paradise Cove. Built in 2004, it consists of 116 apartments spread across 30 buildings. Kai Lani is also the closest neighbor to the existing Paradise Cove with buildings approximately 300 feet away from the current fence line. Like other Ko Olina communities, Kai Lani contributes financially on an annual basis towards infrastructure such as road and pedestrian walkways maintenance, streetlights, staff and security, landscape of common elements, maintenance of public beaches, and restroom facilities. Our owners have voiced serious concerns over the DEIS both verbally, to myself and others, and in writing to you during this community consultation process. These are not trivial concerns; their basis revolves around various areas within the DEIS that lack detail to allow owners to understand the development of the project and its direct, and lasting, impact on Kai Lani. The areas of specific concern involve not just Kai Lani, but the serious impact it may have on other residential communities within Ko Olina as a whole. Riddled with broadly stated mitigations, in our opinion, the DEIS does not contain appropriate, or sufficient information, to support their effectiveness or feasibility, thus putting our community uneasy of what the future may look like with the development of "The Cove".

Although underway since 2021, there has been little to no communication until May 2024. When the initial DEIS was discovered, there was a profound impact voiced by residents, to the size and scope of the new facilities. During a public presentation of the plan to attendees at the Makakilo/Kapolei/Honokai Hale Neighborhood Board meeting on May 22, nine people spoke eloquently and passionately in strong opposition to the project as described in the DEIS. The General Manager of the Ko Olina Resort, Mr. Ken

Williams, detailed how the plan as proposed would adversely affect the whole of Ko Olina. Mr. Williams concerns and warnings were loudly heard by those from Kai Lani attending the meeting, especially when Kai Lani residents learned that the James Campbell Company would not be paying for the existing or future infrastructure; this caused great concern. Each speaker at the meeting voiced their concern that the planning process had not been transparent, and raised many concerns for which the DEIS did not provide answers. Of note, since that public meeting, members of the James Campbell Company have made efforts reach out to Kai Lani. They have addressed owners at a Kai Lani Board meeting on July 8 2024, and provided an opportunity to do a “walk-through” of the project on July 22, 2024. These actions were seen as a positive step towards community consultation by owners; however, it did not answer many questions, or address valid concerns. For some, it raised further concerns for which there were no answers.

There are several urgent concerns regarding the information provided in the draft DEIS pertaining to the future proposed plans for the redevelopment of Paradise Cove. The following concerns are not listed in any particular order; rather, it is a general list of issues identified by owners in opposition to the DEIS.

- **PARKING**: This issue is unavoidable, and it is unfeasible to consider that the proposed suggestions within the DEIS will deal with it appropriately. Parking within Ko Olina has always posed challenges. The report cites that Paradise Cove presently has 354 vehicle spaces on the 10.8-acres. It states that it will be limited to 406 spaces to accommodate an increased parking demand; however, the DEIS projects that the parking demand will increase to 440 spaces or higher. Keeping in mind, “The Cove” project is approximately three times larger than the existing facilities, so the estimate may be inaccurate. This number may be significantly higher, given the fact the number of full-time employees is predicted to rise from approximately 298 to 678. This will pose a significant supply vs demand problem. With this, the DEIS acknowledges that the current plan cannot accommodate the parking demand which is likely to occur. There are no assurances that offsite parking overflow will not be sought by the developer between the grassy area East of the current Paradise Cove and West of Kai Lani. This is a major concern to owners as there isn’t a clear and workable solution with acceptable contingency planning contained in the DEIS.
- **TRAFFIC**: The DEIS does not adequately comment on the potential traffic issues that “The Cove”, as proposed, will have on Ko Olina, and Kai Lani in particular. The traffic study was conducted during the weekday, on Wednesday and Thursday, which are not typically high traffic times, compared to a weekend. This assessment was carried out during the month of September, which is a low tourist density month in Ko Olina. It does not capture the increased number of vehicular right-hand turns entering the proposed development off Ali’Inui Drive at the entrance to Ko Olina, or the number of anticipated right or left hand turns exiting. There are four unregulated crossing lanes which emerge out of the proposed parking lot and development. This would represent additional traffic

flow interruption into AliʻInui Drive. From the very early morning hours each morning, from approximately 4:30am for food service delivery to restaurants and merchants, to closing time of restaurants and events at 11:00pm, with some employees leaving the property after closing duties. These are important statistics to project in any redevelopment project to accurately capture and reflect traffic flow, especially when the hours of operation are different, and the scope; specifically, the size and scale of the developed space, does not align with the proposal. This was not captured in the reported numbers.

- **SOUND/ NOISE POLLUTION:** As per the DEIS, the plan proposes increasing the size of the entertainment and retail activities at Paradise Cove by approximately 3 times its' current size. Further, it is proposes increasing the hours of operation by 10 hours per day, from 7am to 10pm. It proposes to relocate the luau amphitheater to the North side of the property, near the wedding chapel, and much closer to the open space meadow and Kai Lani. This will place the source of amplified sound within an estimated 300+ yards of the closest residents at Kai Lani, and make the existing amplified sound encroachment problem much worse. The DEIS acknowledges the "spill over" of amplified sound during entertainment events, which may "potentially impact noise sensitive receptors". The DEIS goes on to suggest that amplified noise levels will not be any different than existing conditions, ignoring the critical fact that the relocated amphitheater will now be much closer to numerous residences, and the longer hours and increased number of visitors will collectively increase noise pollution. The DEIS assertion does not acknowledge that current noise levels from Paradise Cove entertainment often exceed the noise control statutes of the city, and disturbs residences after 9 o'clock pm many nights. Choosing to relocate the amphitheater to this location does not take into consideration the noise considerations for Kai Lani, which is unacceptable, given the proximity and impacts of this level of noise. Kai Lani was not consulted during this process, which would have been appropriate considering the significant impacts to its' residents. There are many existing strategies that could help reduce, or mitigate to some extent, such sound encroachment; however, the DEIS does not provide options, which is unacceptable for Kai Lani.
- **INFRASTRUCTURE:** Additional heavy demands on Ko Olina infrastructure are proposed, including roads, sewer, water, storm drainage, and telecom without sufficient clarity as to how these capacity expansion demands will be met, who will pay for them, and how applicants' future needs may become limited as a result. For example, the DEIS estimates "The Cove" project will generate 7 times the wastewater discharge, which is an increase from 10,800 gal. per day, to 72,765 gpd; ref: pp 4-69, without stating how this will be handled and at whose expense. If infrastructure has to be utilized more heavily, there are several questions, such as how will infrastructure capacities be allocated, and how does the developer propose to protect the Ko Olina community and other west side users from having to absorb some or all of these costs. As stated above, like all Ko Olina associations, Kai Lani contributes annually to infrastructure costs. An

increased demand by a third party who will not be contributing to the use of infrastructure could result in the increase being bore by Kai Lani residents, many of whom are older, and are on a fixed income. The uncertainty that remains regarding the unknown increases in monthly fees will have a significant adverse impact on our residents.

- REFUSE/ TRASH: Trash management is already a concern, and it may become an even bigger problem on lands in or around PC. There are times when scattered trash on area grounds coming from PC patrons is not picked up. Several residents, when out swimming near the current Paradise Cove operations, have seen plastic cups, bags, etc. on the environmentally-sensitive ocean reefs. Increased activities will worsen refuse and trash management issues. Increased traffic to these areas will increase the amount of trash, and requirements for additional trash collection, which will contribute to traffic congestion and noise. It is believed the DEIS does not provide ample discussion or contingency management plans for this.
- CULTURAL: New encroachments on the cultural and archeological resources may be likely, but are not studied in the DEIS. Having increased tourist-oriented retail and restaurants competing with our existing Ko Olina stores does not appear to add value to the Ko Olina, or west side community. Additionally, this may compound the congestion, noise, and environmental impacts that are very unfavorable for the Resort. It would appear that the present Paradise Cove entertainment complex has taken much more from the community than it has returned.
- ENVIRONMENTAL: The environmental concerns are extensive. The added density of uses at "The Cove" without meaningful additional protections for marine mammals, sea turtles, and shore birds moves the environmental interests of Ko Olina in the wrong direction and may violate various regulations. Improving our shore environments is a major priority for Oahu; this is a significant aspect missing in the DEIS.
- NEGATIVE COMMUNITY IMPACT: An increase in tourist-oriented retail and restaurants will compete with existing businesses in Ko Olina, adding congestion, noise, and environmental impacts without benefiting the community. The plan does not align with the Ko Olina master plan, and will oversaturate Ko Olina with unnecessary retail and food service businesses. The plan changes the fundamental nature of the property use from a native Hawaiian cultural area, to ordinary retail and food service; an affront and insult to the Hawaiian culture.
- SEA RISE/ FLOODING: Ignoring sea rise and future flooding has been identified as another problem with the plan. The DEIS states that in the next 75 years, approximately 1/3 of the existing Paradise Cove property will be subject to repeated flooding due to global warming and expected sea rise. Based on that

factor alone, it is not practical, or responsible, to allow additional developments in environmentally sensitive areas.

- ADDITIONAL STRAIN ON RESOURCES: The 10.8-acre property is officially an outparcel within the Ko Olina Resort, yet derives almost all of its benefits from the infrastructure and amenities provided by the resort, as well as the City and County. Additionally, Ko Olina provides substantial patron support with customers who come from nearby Ko Olina hotels. The parcel and its owners reportedly do not pay to Ko Olina any funds to help defray the costs they impose on the resort and the disturbances they cause, yet draws heavily on local customer support. This appears to be a proposition serving the interests of the Paradise Cove proponents, who now propose to greatly enlarge the facilities at the community's expense.

The above are just a sampling of issues raised by Kai Lani owners. It is apparent that the "fear of the unknown" is great, but the fear of the known is greater. It cannot be emphasized enough that being the closest neighbors to "The Cove", there are many impacts on Kai Lani which have the potential to have serious long-term and lasting implications for its' residents. We encourage you to seriously consider this letter, as well as all others received during the community consultation process.

I wish to conclude with sincere appreciation and gratitude for the opportunity to provide comments and voice concerns and objections of our owners regarding the DEIS for "The Cove" project. It is my hope that my words will resonate with the Project Development Team and cultivate further dialogue with community leaders before further stage development.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jon Utton".

Jon Utton
President
Kai Lani at Ko Olina AOA
92-1001 Aliinui Drive
Kapolei, HI 96707

July 22, 2024

Tracy Camuso
Group 70
111 S. King Street, Suite 170
Honolulu, HI 96813
Thecove@g70.design

Subject: Opposition to the Second Draft Environmental Impact Statement for The Cove Redevelopment

Dear Ms. Camuso,

I am the Director of the Native Hawaiian Traditional Healing Center at the Waianae Coast Comprehensive Health Center and the President of the Nānākuli Hawaiian Homestead Association. I would like to comment on the proposed plans for the Campbell property which is currently home to the Paradise Cove Lūaū.

As a traditional Native Hawaiian healer and protector of the sites and practices of our culture, I expressed my adamant disapproval of The Cove redevelopment plans presented by James Campbell Company at the Kapolei/Honokai Hale Neighborhood Board Meeting held in May 2024. I am also submitting my disapproval and opposition to the redevelopment in conjunction with the project's Environmental Impact Statement comment period.

I am well acquainted with the Campbell property and its historical and cultural significance to our Native Hawaiian people. There are two sacred burial sites on the property which hold 'iwi of our kupuna; ancestral 'aumakua, the manō, are known to enter the ocean near the banyan tree; and our ancestors share mo'olelo telling us of the path of the nightmarchers through the area.

It is my kuleana to ensure that our sacred spaces are honored and preserved. My hope would be that the Campbell Company recognizes the sensitivity and significance of the site they're looking to build on. This community will raise their voices in further opposition if our concerns are not heard.

Please reconsider plans for restaurants and a shopping mall and instead dedicate the space to one that honors our culture and preserves our history for future generations.

Mahalo nui,



Kamaki A. Kanahele
Director, The Native Hawaiian Traditional Healing Center, Waianae Coast Comprehensive Health Center
President, Nānākuli Hawaiian Homestead Association

Karen L. Messick, MBA
The Coconut Plantation at Ko Olina
Resort and Marina
92-1072 Olani Street Apt 2
Kapolei, Hawaii 96707

To: Who it may concern:

Subject: The Cove Redevelopment Draft Environmental Impact Statement Tax Map Key (TMK):
(1) 9-1-057:027
Ko Olina, Island of O‘ahu, Hawai‘i

Aloha,

Please accept this letter as my analysis and response to the Draft Environmental Impact Statement and supporting documents regarding The Cove Redevelopment in the Ko Olina Resort.

My community, The Coconut Plantation at Ko Olina, is comprised of 270 residents who contribute \$86,000.00 annually to the Ko Olina Community Association for the privilege of living in the Resort. The money collected supports the resorts upkeep for roadway maintenance, pedestrian walkways, streetlights, entry staff greeters, security staff, landscape of common grassy areas, maintenance of public beaches, restroom facilities, care for the many large Monkeypod trees that line the streets and so much more without taxing the resources of the County or City of Honolulu to maintain the beaches or infrastructure.

To think that “The Cove” developer would even consider it fair or right that they dramatically increase the utilization of and profit from the use of our owner paid for infrastructure, literally on the backs of our homeowners is unconscionable. Especially since research indicates the amount of additional traffic and patronage utilizing our infrastructure would increase six-fold. (see the engineering report Vol II 449- 474.) Regardless of the original easement agreement, this project changes the nature of the site substantially and will increase visits to the site sixfold as well as create roadway congestion and parking problems.

The Volumes I and II produced by the Developer contain 354 pages and 561 pages respectively. Most likely the amount of reading material has overwhelmed those that might hold interest in the project. Important assumptions and developer provided analysis has not been read by very many concerned residents or possibly state and local authorities.

However, I did review all the data starting with Volume II the statistical submissions from those the developer reached out to for professional submissions. May I also suggest the office of planning start reading with those analysis pages. Throughout my business education and statistical understanding a phrase kept coming back to me “Garbage in Garbage out.” Having said that not all the supporting documents fit that category but for starters the traffic study and its assumptions do. My observations follow.

Listed below are my concerns with the documents and project development supplied in this “Environmental Study” submission.

These are my opinions based on being an observer and user almost daily of the proposed development area roadways, sidewalks, and beach access. I am an active resident owner of six years in Ko Olina in The Coconut Plantation Community.

TRAFFIC STUDY Volume II pages 363-425

NO where did the traffic study show the increased number of vehicular right hand turns entering the proposed development off Ali’ nui Drive at the entrance to Ko Olina or the number of anticipated right or left hand turns exiting (crossing four lanes with no traffic control devices) out of the proposed parking lot and development. That number would be an indication of additional traffic flow interruption into Ali’ nui Drive. From the hours of very early morning: most likely 4:30am due to food prep for restaurants and truck service deliveries for restaurants and merchants to closing time of restaurants and events at 11:00pm with employees leaving the property even later after closing duties. These are important statistics to project in any redevelopment project, especially one where the hours or operation will be significantly different and the size and scale of the developed space is significantly different. No where were these numbers reported.

In my opinion, the traffic study is flawed both on the observation days, Wednesday and Thursday, time of day and time of year, September, one of the lowest visitor months to the islands and resort. The study was conducted, and extrapolated peak hours (6am-9am and 3pm-6pm) and the assumptions of 80% of visitors to the additional 30,000 square feet of proposed restaurant space would be on foot. (PDF: Volume II page 359 item __ B. 1. a __ Traffic Study) Data and time of day observations is inadequate to accurately predict increased vehicle traffic into the Resort and on the resort paid for roadways. 782 additional trips were projected for the “peak” or “observed” hours. Table 2. Reduces that number (which is what was used to calculate (los) to 212.

(PDF: Volume II page 376 item A. 1. Traffic Study) See charts Table 1.-Table 2 starting on Pg 377.

Projected anticipated peak hour trips were calculated at 537. However, in table 2 it is adjusted down to 145. The conclusions of the study stated no significant impact.

These observations and assumptions underestimate the use of our infrastructure to access the “proposed development” It does not account for the increase in traffic in extended business hours of vehicular traffic when retail shops are open and restaurants are open for breakfast, lunch, dinner, and deliveries are made to vendors for food, merchandise and supplies or peak

visit times such as weekends. (existing use of the subject property is 5-9pm with only service vehicles in daytime.

The type of assumptions used and observations made, incorrectly concludes that **NO** change is needed in any traffic control devices or roadway redesign to accommodate the increased day long additional traffic predicted to access and utilize the proposed “project” through Ko Olina owned and maintained roadways. I believe a review of the developers marketing study would reveal **the actual anticipated number of vehicular visits**. I am quite sure the developer has done that analysis. I have asked for it but have not had any success. No developer would plan such a development without a proposed Return On the Investment, which would include predicted revenues based on visits and visits generated from certain geographic areas, not just within the resort.

Financially a project such as this could not make it with only an additional 145 visits at peak (6-9 and 3-6 hours) Where is the traffic study that indicates the **TOTAL PREDICTED** additional Vehicular traffic through our roadways. In addition, the state in the letter asked the Developer to consider surrounding proposed or in progress development.

The Kapolei, and Ewa region is projected to grow plus 300,000 new residential units in near future. A large percentage future population increase.

Nowhere in the traffic study did the developer consider the additional population in Kapolei, as requested by the state. See page 381 2. B A 1% growth rate was assumed by the traffic study. Farrington Highway is a parking lot daily west bound from 3-6pm and 6-9am eastbound for which the City and County transportation division have no answers to resolve.

Additional anticipated traffic was unaccounted for in the study, traffic into this area further complicates the traffic congestion, with additional employees and service providers at **ALL hours** of the Day and Night both weekdays and weekends.

The study was done on **Wednesdays** and **Thursdays** (see charts 393-399) only with no statistics observed on heavy weekend traffic into the resort from local communities utilizing the beaches in Ko Olina, or the departure arrival of visitors for holidays to the hotels and surrounding communities as most visitors who enjoy the resort for extended periods of time from off island arrive and depart on weekends.

Further, a major portion of the traffic study was done in 2018, in September a low time for visitors as mainlanders are preparing to return to school and is now six years old and outdated. It is my request the developer provide an updated study including weekend and all-day traffic analysis and projected visitors to the “project” under consideration. I could go on about the false assumptions in this traffic study but do not hold those assumptions to the traffic study company as they were given information from the developer. It is my hope that the Office of Planning and development will do a deep dive into these studies.

It would be my recommendation to reject the tenants of the existing traffic study and require the developer to include projections for use based on the proposed development.

ENGINEERING STUDY Volume II page 449-474 Completed by G70

Purpose: Evaluate Infrastructure: Roads: Water: Sewage: Drainage

The introduction to the analysis says the demolished building will result in replacement of **SIMILAR** structures. **This is a falsehood.** There are no independent Retail only shops or restaurants serving patrons daily. The only structures on this property are support buildings (some small tourist driven gift vendors) for the Paradise Cove Luau which operates for guests from the hours of 5:00pm to 9:00pm. **There is NO similarity** of the proposed development to the existing one. The expanded proposed hours of operation range from Breakfast hours? 6:00 am to dinner hours 11:00pm? There is also no proposal for operating and the additional service vehicles needed to support these businesses.

Note: Engineering Study includes Admission of ownership of Ali'nui Drive to be Ko Olina.

Note: Engineering study reports: Most patrons arrive by bus or vehicle. **(not walkers and in direct conflict with assumptions in the Traffic Study.) Therefore, these environmental studies invalidate each other.**

Parking Study Volume II Pg-427- 448

How long will the parking agreement with Lanikuhonua be honored, is it in perpetuity? What happens when it is no longer in effect? Then will there be inadequate parking to support the development? And the roadway will become clogged.

Currently PC Services (the lessee) provides parking directed assistance by attendants when there are Luau events or wedding events.

The reason for this is that guests to the resort try to use the lot for beach access. What will be preventing beach goers from using the parking lot? The Map clearly indicates that there is beach access through the project.

Current attendee at Paradise Cove (assume the lower of 800 attendees) arrive 65% by private vehicle or 520 persons (assume 2 per vehicle equals 260 vehicles) (study assumes 3.2 per vehicle)

(Assume full tour busses at 56 people per bus is equal to 224 persons or 4 large tour busses.) 10% arrive by foot or 80 persons.

Currently there are 15 spaces for Public Beach access.

Parking analysis recap from the Parking Study

Existing for Paradise Cove:

Vehicle (66 employee spaces)

Vehicle (10 Chapel)

Vehicle 203 guest spaces (Figure 4 site plan controlled by Lanikuhonua under parking agreement.)

Total 279 vehicle spaces

Vehicle 18 Bus spaces

Parking Existing: Proposed from Parking study.

Lanikuhonua 203 Conditional Use permit in zone 3

69 vehicles: Proposed 113 vehicle along Aliʻnui (current bus parking)

6 accessible: Proposed 5 accessible.

31 bus stalls: Proposed 90 vehicle plus 8 bus stalls.

Golf Cart Parking: none

(that is how many of the proposed attendees from the surround Ko Olina communities would arrive to patronize restaurants or shops, based on the walking distance to most residential communities of over ½ mile.

Where do employees park? What is the number of spaces needed daily for an all-day long operation of restaurants, retail etc.

The proposed parking does not sufficiently take into consideration delivery trucks with only two 12 x 35 loading spaces back-to-back, logistically difficult to access and two 8.5 x 19 parking spaces identified for trucks in the north parking lot. (the space does not allow for trucks to lower gates and thus unload onto hand trucks.)

Currently supply deliveries occur on site before operation hours through gated lots which pose no issues.

THEREFORE: Request the developer to plan more appropriately. (maybe observe the loading and unloading process for delivery trucks at the Marketplace in Ko Olina to understand the need and current practice for deliveries to restaurants and merchants.

Thus, requiring loading and delivering trucks to load onto pallets and hand deliver through the proposed development to all the proposed new businesses, incurring safety hazards for pedestrians and delivery men alike, moving heavy loads of foods, beverages, and merchandise.

Where is the space for refuse pick up?

Additional use:

30,000 sq feet of restaurant

26,000 sq feet of retail

9,000 sq ft of luau support

A 650-seat venue.

What are the projected daily staff persons needed to run these businesses?

What is the parking need for the additional staff?

Land use:

Need proof! Between parking lots and proposed buildings, the entire lot is developed. Green space is minimal. I suggest the developer submit the total use by percent of land covered by developed space. Currently only structures are identified. There are varying amounts of the structures depending on which map you look at. The maps included in the study vary regarding design and structures. See figure V1.



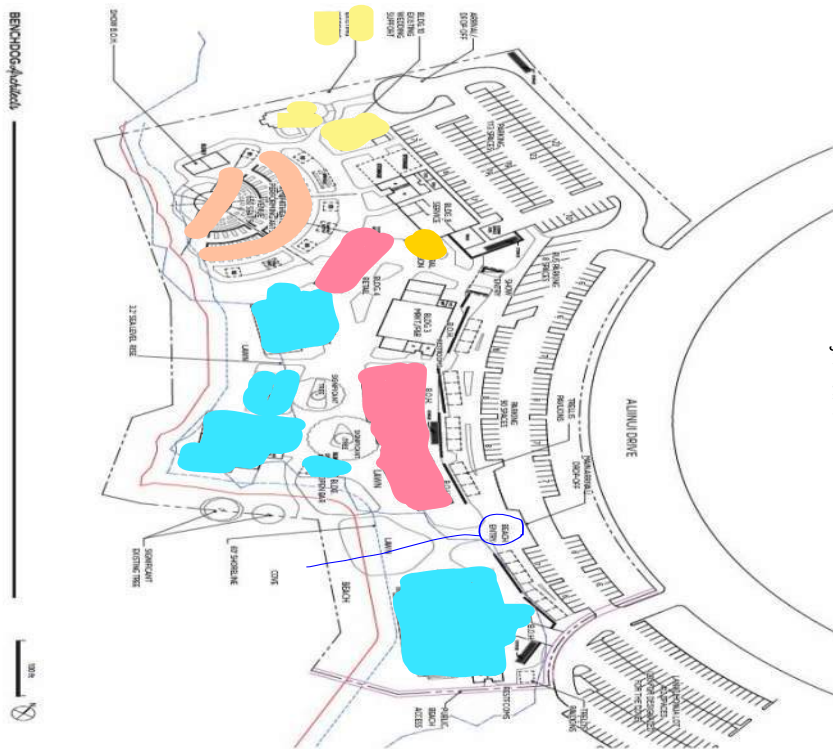


Figure 4 - Site Plan

Special Use Restricted to 30% of lot and 60-foot set back from ocean.

Clearly on the proposed map(s) the lot is completely developed. It indicates removing two large green areas which exist today, and covering what is now the open spaces in Paradis Cove with walking paths, tiki bars, restaurants, and retail.

Who in their infinite wisdom would put an entertainment center of 650 seats next to a Wedding Chapel, removing the grassy open space adjacent to the chapel which is now used by wedding patrons for receptions.

What is the actual square footage of ALL improvements including those buildings that will remain and all surface covered parking and walkway lots?

Request an analysis by green space, developed building space, paved walk spaces, and parking lot space.

Water:

The engineering report indicate a sixfold use in potable water.

How can that be with no impact to traffic? BWS requires based on non-potable water use a new well. Who is supplying that and how will it be tied into the project?

Will it require disruption of the existing Ko Olina owned roadway?

Employment:

Developer states:

678 FTE annually 34. Million in labor annually equals \$653,846.00 weekly.

If generating 653,846.00 in salaries the average weekly salary would be \$1.0 a week.

678 or 52,469.00 individual compensation weekly.

Where do the 678 workers park?

Compared to the 290 employees of the existing business? Double the employees required.

I could go on but by now it is my hope the reviewers have understanding of the many challenges this project presents for our community in The Coconut Plantation, fro traffic control, parking overflow, to sound abatement.

It is my hope that these issues be clearly addressed in the next issuance of the EIS.

Mahalo,
Karen Messick



THE RESORT GROUP

June 21, 2024

Tracy Camuso
Group 70
111 S. King Street, Suite 170
Honolulu, Hawaii, 96813

Via Email: thecove@g70.design

Re: Notice of intent to comment on The Cove at Ko Olina Redevelopment Project 1st Draft EIS and The Cove Redevelopment 2nd Draft EIS concurrently by July 23, 2024

Ms. Camuso,

Based on The Environmental Notice ("**Notice**") dated June 8, 2024, Ko Olina Development, LLC understands that comments regarding The Cove at Ko Olina Redevelopment Project 1st Draft EIS ("**1st Draft EIS**") and The Cove Redevelopment 2nd Draft EIS ("**2nd Draft EIS**") are due by July 23, 2024.

The deadline for the 1st Draft EIS was originally June 24, 2024. However, the Notice dated June 8, 2024, extended the deadline for comments for both the 1st and 2nd Draft EIS to July 23, 2024. Our counsel with Case Lombardi has confirmed that understanding with your counsel Ms. Jennifer Lim.

We are diligently working on our comments and look forward to the opportunity to submit them for both the 1st and 2nd Draft EIS to you by July 23, 2024.

Yours very truly,

Ko Olina Development, LLC, a Delaware
Limited Liability Company

By: Commercial Property Advisors, Inc.

Its Manager

Chynna Stone Showe
Its Vice President

Cc City and County of Honolulu,
Department of Planning and Permitting
(Via Email to: lena.phomsouvanh@honolulu.gov)

Cc Dennis Lombardi, Esq.



July 23, 2024

Tracy Camuso
Group 70
111 S. King Street, Suite 170
Honolulu, Hawaii, 96813

via email@thecove@g70.design

Re: Objection and Comments to Cove at Ko Olina Redevelopment Project

Ms. Camuso,

Ko Olina Development ("KOD") hereby provides its objection and comments to the initial Draft Environmental Impact Statement filed May 8, 2024, for the Cove Redevelopment Project (the "**Project**"). The initial draft Environmental Impact Statement has been updated with a Second Draft Environmental Impact Statement dated June 3, 2024, (collectively, the "**EIS**"). KOD objects to the Project due to the numerous primary, secondary and cumulative negative impacts on Ko Olina Resort and the surrounding community which are not adequately mitigated by the procedures set forth in the EIS. Overall, these impacts far outweigh the purported benefits, most of which will go to the Campbell beneficiaries, be invested in Campbell's vast mainland portfolio, and will not be reinvested in the community.

I. The EIS Is Defective

KOD objects to the continued processing of the Environmental Impact statement for the Project because the applicant, initially James Campbell Company, LLC ("**JCC**") and now Cove Campbell Kobayashi, LLC ("**CCK**") and collectively with JCC, the "**Applicant**", has changed between the filing of the initial Environmental Impact Statement Preparation Notice for the Project ("**EISPN**") and the EIS, which is not permitted by Hawai'i Administrative Rules ("**HAR**") §11-200.1.

HAR §11-200.1 defines the term "Applicant" as "any person that, pursuant to statute, ordinance, or rule, officially requests approval from an agency for a proposed action."

The identity of the applicant is an important feature of the environmental review process, as it permits agencies and the public to assess the reputation, or lack thereof, of the applicant, and the likelihood that the project at issue will be completed as described. Issues as to the identity of the applicant could then be raised at the public scoping meeting and addressed in the draft EIS.

In this instance, the initial Applicant was JCC, in its capacity as the owner of record of the property on which the Proposed Action will occur ("**Property**"), as shown in the EISPN. However, the EIS was submitted by CCK. The EIS does not disclose the reason for the change in the applicant, or what interest CCK has in the property. From the public record, it does not appear that a conveyance of fee simple title has occurred, but whether CCK will hold a lease, license or

other interest, and the duration of such interest, is unknown. Nothing in HAR 11-200.1 permits the change in the applicant once the initial submittal has occurred.

The EIS and EISPN should be withdrawn, and the applicant (once JCC and CCK have determined the correct party) should submit corrected documents that conform with the requirements of Hawaii Revised Statutes ("**HRS**") Chapter 343 and HAR §11-200.1.

In the event processing of the EIS continues, KOD also hereby submit substantive comments to the EIS, which makes clear that the Proposed Action¹, is ill advised, has numerous primary, secondary, and cumulative impacts on the environment that require additional study, and is of a size and scope that is inappropriate for its location.

II. Comments to EIS

A. The Focal Point, Scale and Scope of the Proposed Action is Inappropriate.

The focal point of the Property is and always has been intended to be a commercial lū'au to perpetuate Hawaiian cultural practices by keeping longstanding Hawaiian arts alive. Furthermore, the scale and scope of the Proposed Action is completely inappropriate for a location adjacent to a pristine public beach. The Applicant proposes to deemphasize the commercial lū'au (which is the actual permitted use pursuant to the underlying entitlements) by shrinking the lū'au footprint to approximately only one acre, increase building density by more than 300%, with nearly all of the increase going to the installation of a strip mall of retail shops and restaurants that do not appear to have the required connection to the commercial lū'au, increase wastewater discharge by over 300%, and increase storm water sheet flow discharge into the ocean by 100%. All the increase in construction will be taking place on a property that has enormous cultural importance with a known native Hawaiian burial complex, with a high likelihood of disturbing additional iwi kupuna.

The massive increase in building coverage is not permitted by the Unilateral Agreement (defined below) and irrevocably commits such Property to a shopping center rather than the lū'au it is supposed to be.

B. Failure to coordinate.

As an initial matter, we note that the EIS makes frequent mention of how the Project will provide a benefit to Ko Olina Resort and its residents and guests. Unfortunately, JCC and its development partner CCK have made no effort to coordinate any of the planning for the Project with KOD. The Project will have a significant impact on Ko Olina Resort, including increases in traffic, use of Resort infrastructure, and an increase in the amount of visitors traveling in between the two properties, which will place a strain on Ko Olina Resort's infrastructure, security team, and maintenance crews. JCC appears to believe that it can simply push these costs off on the Resort without any contribution given the fact that the Property is not subject to the payment obligations

¹ Capitalized terms not otherwise defined herein shall have the meanings given in the EIS.

in the underlying declarations that govern the Resort. The Ko Olina Resort Master Plan never contemplated a 50,000 square-foot strip mall at the entrance to the Resort, and none of the Resort facilities were designed to handle facilities of this size at that location. The Master Plan for the Property contemplated a limited use; a commercial lū'au, which could have accessory retail and restaurants directly related to the lū'au, not the gargantuan retail/restaurant complex that is currently contemplated.

The hours of operation change drastically from the current hours with the Project as proposed. The current Paradise Cove Lū'au only operates from 4pm-9pm, while this Project's shops and restaurants will have the property open from 6am-10pm as they plan to serve breakfast through dinner, in addition to the lū'au and wedding operations at the Chapel, and special events. None of this additional traffic was accounted for in the traffic study.

Given this massive change in use, coordination between JCC/CCK is needed in order to manage the proposed operations. Furthermore, given the significant change in use from what is contemplated under the Master Plan, JCC/CCK should pay a fair share contribution of the increased costs for infrastructure and security services.

The EIS takes the opposite approach, claiming that the Project is not part of the Resort "brand" and therefore collaboration with Ko Olina Resort Association ("KORA") is inappropriate. However, the Project clearly wishes to ride along the Resort's coattails for free, repeatedly stating that the Project is part of the "wider Ko Olina Resort" and claiming that the Project will enhance the overall Resort experience. To the extent that the Project wishes to change its fundamental use and be part of the wider Ko Olina Resort, it should accept the obligations that come with the benefits the Resort brings. KORA's marketing efforts add significant value, given the 30+ years of branding of the Resort, and the significant annual marketing spend. KOCA and KORA do engage in ongoing community outreach with a wide variety of partners and have an established stakeholder network. The position advocated by JCC/CCK gives no assurance that there will be brand consistency, notwithstanding the fact that the Project is being positioned as complementary to the Resort and utilizes Resort guests and residents in computing their baseline traffic analysis.

C. Impact on Master Plan.

The stated benefits of the Project do not outweigh the negative impact the Project will have on Ko Olina Resort. It is the Resort, not the Paradise Cove property, that is intended to relieve the tourist impact on Waikīkī. The Resort Master Plan has been established to allow the Resort to absorb the residents and guests in a planned manner, and it has the necessary infrastructure, including water, non-potable water, wastewater, as well as over 200 public parking spaces. The Paradise Cove Property was always intended to be a limited use for the commercial lū'au, acting as a place where visitors and guests could celebrate the native Hawaiian art of hula. The Project seeks to subvert the original intent of the Master Plan by deemphasizing the lū'au and turning the Property into a strip mall and restaurant operation completely out of character with the overall look and feel of the Resort.

The Master Plan accounts for all resort, commercial and residential uses and has been sequenced to maximize success based on economies and need, while assembling a mix of uses

and products that are complementary, not redundant, and synergistically compatible. This approach provides for the greatest chance of success for all stakeholders. The Project will provide minimal to no benefit to the Master Plan for the Resort. The Cove Redevelopment offerings are NOT distinct from Ko Olina's current offerings, and the redundant uses have the potential to negatively impact Ko Olina Resort's ability to fulfill its role as one of Honolulu's Secondary Urban Centers.

D. The Proposed Action Violates the Unilateral Agreement

The Paradise Cove property is subject to that certain Unilateral Agreement (Ordinance No. 89-27), dated February 13, 1989, recorded in the Land Court of the State of Hawaii as Document No. 1613497 ("**Unilateral Agreement**"), which provides that Section 1:

"Declarant will limit the type of commercial activity on the Property to restaurants and retail activity associated with a Hawaiian Theme Park and a commercial lū'au operation."

Section 3 of the Unilateral Agreement provides in pertinent part "Declarant will develop the Property consistent with adopted urban design provisions and considerations for Ko Olina (West Beach)".

With respect to the retail and restaurant operations, there appears to be no connection between the proposed restaurant and retail activities and the commercial lū'au. The EIS claims that one of the objectives of the Proposed Action is to "activate" the Project during hours in which the commercial lū'au is not in operation. Thus, the restaurant and retail is not planned to be operated in connection with the lū'au, but rather as independent operations leased to third parties, which is clearly not the intent of the restrictions contained in the Unilateral Agreement. The EIS makes some vague statements with respect to having the retail operations be run by local owners which "may" sell locally made goods, but as stated, the retail operations could just as easily be chain stores selling goods made elsewhere.

The Proposed Action also includes activities not permitted under the UA, including "nightly entertainment", which is undefined and could include entertainment not associated with the commercial lū'au, and "corporate retreats", which are clearly unrelated to the commercial lū'au. The EIS goes on to state that "activation of the Cove Property with a variety of programs and events will create a new community-oriented recreation experience". The restrictions in the UA do not permit the creation of a "new community-oriented recreation experience", but rather expressly limit the permitted uses to those associated with the commercial lū'au. As drafted, the Proposed Use creates an open-ended opportunity for the Applicant to undertake any type of event at any time during the day or night, regardless of whether such use is consistent with the UA and without reference to Ko Olina Resort and surrounding residential communities. The EIS should be corrected to accurately state the Proposed Action will only undertake those activities specifically permitted by the UA.

With respect to the requirement that the development be consistent with the urban design provisions and considerations for Ko Olina, the Applicant has made no effort to analyze

whether its proposed development is consistent with the Ko Olina Urban Design Plan² ("UDP"), or the adopted Ko Olina Resort Design Guidelines ("**Design Guidelines**"). The Applicant has not consulted with either the New Construction Committee or Modification Construction Committee for Ko Olina Resort, which administer the Design Guidelines. Given the preliminary plans that have been submitted as part of the EIS, the Proposed Action is not consistent with the UDP.

For example, the UDP provides at Section I.A.3:

Building Orientation. Generally, on those land parcels within the major axis perpendicular to the shoreline, **the long dimensions of buildings should be perpendicular to the shoreline to afford view corridors to the ocean**. The narrower dimension of buildings should face the shoreline and setbacks should be varied to avoid a wall effect along the shoreline.

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Additionally, Section I.B of the UDP provides that for buildings within the SMA:

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Applicant states that certain of the buildings will be raised between 8-19 feet. If the buildings are raised 8-19 feet above sea level, the buildings would exceed 25 feet in height from the original surface of the land and would therefore be in violation of this restriction. Additionally, many, if not all, of the buildings would be in violation of the 300-foot setback.

While the Amended and Restated Declaration of Covenants of Ko Olina Community Association is not recorded against the Property, to the extent that compliance with the adopted Design Guidelines is required by the UA (which we believe it is), the Proposed Action violates numerous provisions, including the provisions with respect to view corridors, setbacks, building massing, and building heights.

E. The EIS improperly conflates the Property with Ko Olina Resort

² See Revised Ordinances of Honolulu, Ordinance 86-61.

The EIS continuously refers to the Proposed Action as either taking part within Ko Olina Resort, or as part of the "wider" Ko Olina Resort area. JCC is the successor to Campbell Estate, which was the prior owner of the land upon which Ko Olina Resort is constructed. Campbell Estate made the deliberate decision not to include Lanikūhonua and the Paradise Cove lū'au site within Ko Olina Resort. Ko Olina Resort is subject to a separate Unilateral Agreement, SMA Permit and Shoreline Setback Variance, each which contains requirements different from those affecting the Paradise Cove lū'au property, and it is the Resort, not the Paradise Cove lū'au site, that is intended to be part of the second city which provides relief from congestion in Waikiki. While the Paradise Cove lū'au property has the right to use the entry roadway, JCC does not contribute towards maintenance of the road or other Ko Olina Resort infrastructure. The constant references to the Proposed Action taking place within Ko Olina Resort gives the improper appearance that KOD, KOCA, KORA, and/or the constituent residential communities within Ko Olina Resort, have approved of or are affiliated with the Proposed Action. In fact, the opposite is true. KOCA and KORA object to the Proposed Action as an ill-advised throwback to the overly intensive type of use which has led to over tourism of Hawai'i's precious natural resources and asserts that the Proposed Action should be rethought in its entirety. As such, the EIS should not analyze the benefits and liabilities of the Proposed Action as if it were included within Ko Olina Resort.

F. The Shoreline Setback should be at least 130'

The Applicant incorrectly states the required Shoreline setback for the Property. While there are certain setbacks specified in the UDP and the Design Guidelines (i.e. 300 feet), if permission is granted to vary from such setbacks, then under the new Shoreline Setback Ordinance, City and County of Honolulu Ordinance 23-3, the Shoreline Setback is determined as follows:

the shoreline setback line will be established at the following distances mauka from the certified shoreline:

- (1) Sixty feet plus 70 times the annual coastal erosion rate, up to a maximum setback of 130 feet, on zoning lots within all development plan and sustainable communities plan areas except the Primary Urban Center Development Plan area; provided that any property owner who believes the annual erosion rate applicable to a specific zoning lot does not accurately represent the actual erosion rate for that zoning lot may submit an application to the director requesting approval of an alternative coastal erosion rate methodology and data for the zoning lot in accordance with the procedures and informational requirements set forth in the department's rules implementing this chapter.
- (2) Sixty feet on zoning lots within the Primary Urban Center Development Plan area.
- (3) Sixty feet on zoning lots where historical erosion data has not been collected for the Hawaii shoreline study, or its successor, where the historical erosion data show coastal accretion, or where the historical erosion data show an annual coastal erosion rate of zero.

Here, the Applicant appears to believe that the Shoreline Setback should be set forth pursuant to subsection (3). However, the Property is located within the Ewa Development Plan area, and therefore the Shoreline Setback should be established pursuant to subsection (1). Using the approach required by the Ordinance, the Shoreline Setback should be established at 60 feet +70 times the annual coastal erosion rate. To the extent that the coastal erosion rate has not yet been established for the Property, it clearly should be, and the EIS should be revised to include this information. The Proposed Action should not be permitted to proceed until the Shoreline Setback has been accurately established.

The Applicant proposes to establish the Shoreline setback at the minimum of 60 feet in order to permit the Applicant to make a significantly more intensive use of the property than would otherwise be permitted, and to construct numerous buildings immediately adjacent to the setback line. The EIS indicates that if this is done, even the conservative estimates for sea level rise used by the Applicant will cause several of the proposed structures to be **completely inundated**. See Fig. 4-7. Allowing construction of structures which will certainly be lost to sea level rise is poor planning, as there will be significant primary impacts to the environment as a result, not the least the hazardous materials that will be deposited directly into delicate nearshore ecosystems when the buildings are lost to the sea. Therefore, the Shoreline Setback should be set at the maximum of 130 feet, not at the minimum.

G.F. The Proposed Action Overburdens Resources

The Applicant contemplates that the Proposed Action will require a 300% increase in non-potable water use, while at the same time acknowledging there is currently an insufficient non-potable water allocation for the Property to meet this demand. The Applicant attempts to circumvent this by relying on Ko Olina Resort to develop an additional non-potable water resource. As the Board of Water Supply ("BWS") has disclosed to the Applicant, the non-potable resources for the area are already overburdened, and the Resort is currently working with BWS and its Resort partners to **reduce**, not increase, non-potable water resource use. While additional non-potable resources are anticipated to be developed, it is not known when all of the approvals required will be obtained, or the timeline for completion of construction of such resources. The EIS is defective in this regard, as it analyzes the Proposed Action as if non-potable water is available. The EIS should also include an analysis of the Proposed Action using the actual situation with respect to non-potable water so that all stakeholders have the opportunity to review this information. If the conclusion is that the Proposed Action cannot move forward because of the strain it will place on non-potable water resources, the EIS should so state.

The EIS also discloses that the Proposed Action would increase the Flow Q discharges for sheetwater flow into the ocean and the delicate nearshore ecosystem **by 100%**. See Table 4.7, showing a Q value for the ocean at 22.05cfs, versus the existing Q of 11.15cfs. The EIS claims in Table 1-1 that there will be no adverse impact to surface waters, but there appears to be no analysis of this dramatic increase other than to state that BMPs will be followed. Such a significant increase in discharge into the ocean obviously raises concerns that there will be negative impacts to the pristine waters from additional debris and trash, causing excess turbidity, or harms from fertilizers and/or pesticides used by Applicant. [Note that all other shorefront lots

on Resort have been designed and built to drain toward the roadways and **NOT** into the ocean, unlike the Proposed Action lot.]

Similarly, the Proposed Action also requires a **1000% increase** in potable water demand, going from 13,500 GPD to 119,350 GPD. There is no analysis of the potential harmful effects of such a drastic increase, or the strain on resources that will result from this huge increase.

With respect to wastewater, the EIS projects an increase wastewater discharges from 10,800 GPD to 72,765 GPD, a **700% increase**. This estimate for wastewater discharge appears to be too conservative, as elsewhere the Applicant states that wastewater discharges can be estimated at 80% of water consumption, which, if correct, suggests that the correct figure is closer to 95,480 GPD, a 900% increase over the current use. The EIS also acknowledges that the Applicant does not have sufficient wastewater sewer capacity for the wastewater discharge that the Proposed Action will generate. We understand that West Beach Sewer Pump Station #1 is currently at capacity, and cannot accept additional sewer flows.

Taken together, the Proposed Action overburdens the limited resources that are available, and on this basis alone the Proposed Action should be rejected.

H.G. Cumulative Impacts

Based on the foregoing, the cumulative negative impacts of the Project outweigh the purported benefits. KOD believe that the Project should be revised to maintain the lū`au in its current figuration and renovate the space. The current operator can remain in place, keeping the 250+ families employed, as we understand that it is JCC that has terminated the lease and is requiring the lessee to demolish all structures. The revised plan should limit the uses for the Property to that of a lū`au venue and a Hawaiian cultural resource. The current design for 50,000 ft.² of restaurant and retail space should be removed.

III. **Conclusion**

An Environmental Impact Statement will be upheld as adequate only if:

it has been compiled in good faith and sets forth sufficient information to enable the decision-maker to consider fully the environmental factors involved and to make a reasoned decision after balancing the risks of harm to the environment against the benefits to be derived from the proposed action, as well as to make a reasoned choice between alternatives.

Price v. Obayashi Hawaii Corp., 81 Hawai`i 171, 183, 914 P.2d 1364, 1376 (1996)

In this instance, there are numerous deficiencies to the EIS, and given the lack of actual analysis of the alternatives, the EIS does not comply with the standards set forth above. Additionally, given the procedural deficiencies, it is clear that the Applicant should recommence the process by issuing a new EIS Preparation Notice containing the correct information.

Ms. Camuso,
July 23, 2024
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Yours very truly,

KO OLINA DEVELOPMENT, LLC,
a Delaware limited liability company

By: Commercial Property Advisors, Inc.
Its Manager

By: 
Name: Kendall Kim
Its: Treasurer

2024-511



July 23, 2024

Tracy Camuso
Group 70
111 S. King Street, Suite 170
Honolulu, Hawaii, 96813

via email@ thecove@g70.design

Re: Objection and Comments to The Cove Redevelopment Project

Ms. Camuso,

Ko Olina Community Association, Inc. ("**KOCA**") and the Ko Olina Resort Operators Association, Inc. ("**KORA**") hereby provide our objection and comments to the initial Draft Environmental Impact Statement filed May 8, 2024, for the Cove Redevelopment Project (the "**Project**"). The initial draft Environmental Impact Statement has been updated with a Second Draft Environmental Impact Statement dated June 3, 2024, (collectively, the "**EIS**"). KOCA and KORA object to the Project due to the numerous primary, secondary and cumulative negative impacts on Ko Olina Resort and the surrounding community which are not adequately mitigated by the procedures set forth in the EIS. Overall, these impacts far outweigh the purported benefits, most of which will go to the Campbell beneficiaries, and will not be reinvested in the community.

I. The EIS Is Defective

KOCA and KORA object to the continued processing of the Environmental Impact statement for the Project because the applicant, initially James Campbell Company, LLC ("**JCC**") and now Cove Campbell Kobayashi, LLC ("**CCK**" and collectively with JCC, the "**Applicant**"), has changed between the filing of the initial Environmental Impact Statement Preparation Notice for the Project ("**EISPN**") and the EIS, which is not permitted by Hawai'i Administrative Rules ("**HAR**") §11-200.1.

HAR §11-200.1 defines the term "Applicant" as "any person that, pursuant to statute, ordinance, or rule, officially requests approval from an agency for a proposed action."

The identity of the applicant is an important feature of the environmental review process, as it permits agencies and the public to assess the reputation, or lack thereof, of the applicant, and the likelihood that the project at issue will be completed as described. Issues as to the identity of the applicant could then be raised at the public scoping meeting and addressed in the draft EIS.

In this instance, the initial Applicant was JCC, in its capacity as the owner of record of the property on which the Proposed Action will occur ("**Property**"), as shown in the EISPN. However, the EIS was submitted by CCK. The EIS does not disclose the reason for the change in the applicant, or what interest CCK has in the property. From the public record, it does not appear that a conveyance of fee simple title has occurred, but whether CCK will hold a lease, license or

other interest, and the duration of such interest, is unknown. Nothing in HAR 11-200.1 permits the change in the applicant once the initial submittal has occurred.

The EIS and EISPN should be withdrawn, and the applicant (once JCC and CCK have determined the correct party) should submit corrected documents that conform with the requirements of Hawaii Revised Statutes ("**HRS**") Chapter 343 and HAR §11-200.1.

In the event processing of the EIS continues, KOCA and KORA also hereby submit their substantive comments to the EIS, which makes clear that the Proposed Action¹, is ill advised, has numerous primary, secondary, and cumulative impacts on the environment that require additional study, and is of a size and scope that is inappropriate for its location.

II. Comments to EIS

Assuming the EIS processing continues, KOCA and KORA have the following comments:

A. The Scale and Scope of the Proposed Action is Inappropriate.

The scale and scope of the Proposed Action is completely inappropriate for a location adjacent to a pristine public beach. The Applicant proposes to deemphasize the commercial lū'au (which is the actual permitted use pursuant to the underlying entitlements), increase building density by more than 300%, with nearly all of the increase going to the installation of a strip mall of retail shops and restaurants that do not appear to have the required connection to the commercial lū'au, increase wastewater discharge by over 300%, and increase storm water sheet flow discharge into the ocean by 100%. All of the increase in construction will be taking place on a property that has enormous cultural importance with a known native Hawaiian burial complex, with a high likelihood of disturbing additional iwi kupuna.

The massive increase in building coverage is not permitted by the Unilateral Agreement (defined below) and is completely out of step with the current approach adopted by Ko Olina Resort and other leaders in Hawai'i, which is to move to a "less is more" approach that preserves and protects Hawai'i's precious resources, rather than irrevocably committing such resources to retail and restaurants that no one needs or wants.

B. Failure to coordinate.

As an initial matter, we note that the EIS makes frequent mention of how the Project will provide a benefit to Ko Olina Resort and its residents and guests. We are disappointed that JCC and its development partner CCK have made no effort to coordinate any of the planning for the Project with either of KOCA or KORA. The Project will have a significant impact on Ko Olina Resort, including increases in traffic, use of Resort infrastructure, and an increase in the amount of visitors traveling in between the two properties. The new uses will significantly increase daytime traffic, which is not accounted for in the traffic study, which will place a strain on Ko Olina Resort's infrastructure, security team, and maintenance crews. The traffic impact is one of the most significant issues for residents and guests within Ko Olina Resort, and particular attention should be paid to the impacts that the Proposed Action will have on traffic.

JCC appears to believe that it can simply push these costs off on the Resort without any contribution given the fact that the Property is not subject to the payment obligations in the

¹ Capitalized terms not otherwise defined herein shall have the meanings given in the EIS.

underlying declarations that govern the Resort. The Ko Olina Resort Master Plan never contemplated a 50,000 square-foot strip mall at the entrance to the Resort, and none of the Resort facilities were designed to handle facilities of this size at that location. The Master Plan for the Property contemplated a limited use; a commercial lū'au, which could have accessory retail and restaurants directly related to the lū'au, not the gargantuan retail/restaurant complex that is currently contemplated.

Given this massive change in use, coordination between JCC/CCK is needed in order to manage the proposed operations. Furthermore, given the significant change in use from what is contemplated under the Master Plan, JCC/CCK should pay a fair share contribution of the increased costs for infrastructure and security services. To the extent that JCC/CCK wish to promote themselves as being part of the Ko Olina Resort they should also participate in the marketing programs operated by KORA, and pay their fair share.

The EIS takes the opposite approach, claiming that the Project is not part of the Resort "brand" and therefore collaboration with KORA is inappropriate. However, the Project clearly wishes to ride along the Resort's coattails for free, repeatedly stating that the Project is part of the "wider Ko Olina Resort" and claiming that the Project will enhance the overall Resort experience. To the extent that the Project wishes to change its fundamental use and be part of the wider Ko Olina Resort, it should accept the obligations that come with the benefits the Resort brings. KORA's marketing efforts add significant value, given the 30+ years of branding of the Resort, and the significant annual marketing spend. KOCA and KORA do engage in ongoing community outreach with a wide variety of partners and have an established stakeholder network. The position advocated by JCC/CCK gives no assurance that there will be brand consistency, notwithstanding the fact that the Project is being positioned as complementary to the Resort and utilizes Resort guests and residents in computing their baseline traffic analysis.

KOCA raised the coordination issues in its comments to the EISPN and requested that the EIS address these issues. Unfortunately, the EIS merely shrugs off these issues, and fails to adequately address this topic.

C. Restaurant/Retail Oversaturation.

The EIS claims that the economic benefits outweigh the contemplated impact. However, the EIS does not adequately study the fact that West O'ahu, and Kapolei specifically, is currently undergoing difficult economic conditions due to the oversaturation of the market. There are currently many lū'au options in the area, including two compelling lū'au operations within Ko Olina Resort, Fia Fia, at Marriott's Ko Olina Beach Club, and Ka Wa'a at Aulani, A Disney Resort & Spa. In addition, several other lū'au are operating close by, including Germaine's Lū'au in Kapolei, Chief's Lū'au at Wet & Wild in Kapolei, Mele Lū'au at Coral Crater, and Mauka Warriors Lū'au at the Hawaii Country Club in Kunia.

The Project wishes to operate 41+ thousand square feet of new restaurants, with no acknowledgment that additional restaurant space is needed. Ko Olina Resort contains numerous restaurants, including Eggs N' Things, Farm to Barn, 808 Craft House, Monkeypod Kitchen, Mekiko Cantina, Black Sheep Creamery, Tropic Poke, Starbucks and ABC's Island Country Market. Ko Olina Golf Club also hosts Roy's Restaurant from Chef Roy Yamaguchi and a snack shop. Each of the resorts currently operating within Ko Olina offer a variety of dining and lounge options including Manalo Lounge, Mina's Fish House, La Hiki, Dr. Mai Tai's, Hōkūle'a, Waterman Bar and Noe at the Four Seasons Resort O'ahu at Ko Olina; 'Ama'Ama, Makahiki, Ulu Café, Off the Hook, The 'Ōlelo Room, Wailana Pool Bar, Mama's Snack Shop, Pāpālua Shave Ice, and

Little 'Opihi's at Aulani, A Disney Resort & Spa; Longboard's Bar & Grill, Longhi's Restaurant, Nai'a Pool Bar, and The Marketplace at Marriott's Ko Olina Beach Club; and Makai Hale Beach Bar at the Beach Villas at Ko Olina. In fact, there are currently 140 restaurants in the greater Kapolei area, raising the issue that additional restaurant spaces are not currently needed, and adding such a significant amount of restaurant space may lead to oversaturation. Indeed, there have been many notable restaurant closures, including Outback Steakhouse, Ruby Tuesdays, Plantation Tavern and Ho Ho Chinese Restaurant.

With respect to retail operations, Ko Olina Station and Ko Olina Center already contain numerous retail stores, and each of the resort properties also contain several retail shops. Adding an additional 20,000 square feet of retail will cause additional oversaturation. While the EIS attempts to characterize the retail operations as small vendors, it should be noted that the amount of retail square footage to be added is significantly more than the total amount of retail square footage at Ko Olina Station and Ko Olina Center.

The socioeconomic analysis contained in the EIS does not sufficiently analyze the impact of such a large amount of retail and restaurant space, and the potential for this increase to be the harmful, rather than helpful, to the West O'ahu community. There have been many retail closures in Kapolei in the last few years, and thus the potential negative impacts of the Project should be considered along with the supposed benefits.

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The stated benefits of the Project do not outweigh the negative impact the Project will have on Ko Olina Resort. It is the Resort, not the Paradise Cove property, that is intended to relieve the tourist impact on Waikīkī. The Resort Master Plan has been established to allow the Resort to absorb the residents and guests in a planned manner, and it has the necessary infrastructure, including water, non-potable water, wastewater, as well as over 200 public parking spaces. The Paradise Cove Property was always intended to be a limited use for the commercial lū'au, acting as a place where visitors and guests could celebrate the native Hawaiian art of hula. The Project seeks to subvert the original intent of the Master Plan by deemphasizing the lū'au and turning the Property into a strip mall and restaurant operation completely out of character with the overall look and feel of the Resort.

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G. The Shoreline Setback should be at least 130'

The Applicant incorrectly states the required Shoreline setback for the Property. While there are certain setbacks specified in the UDP and the Design Guidelines (i.e. 300 feet), if permission is granted to vary from such setbacks, then under the new Shoreline Setback Ordinance, City and County of Honolulu Ordinance 23-3, the Shoreline Setback is determined as follows:

the shoreline setback line will be established at the following distances mauka from the certified shoreline:

- (1) Sixty feet plus 70 times the annual coastal erosion rate, up to a maximum setback of 130 feet, on zoning lots within all development plan and sustainable communities plan areas except the Primary Urban Center Development Plan area; provided that any property owner who believes the annual erosion rate applicable to a specific zoning lot does not accurately represent the actual erosion rate for that zoning lot may submit an application to the director requesting approval of an alternative coastal erosion rate methodology and data for the zoning lot in accordance with the procedures and informational requirements set forth in the department's rules implementing this chapter.
- (2) Sixty feet on zoning lots within the Primary Urban Center Development Plan area.
- (3) Sixty feet on zoning lots where historical erosion data has not been collected for the Hawaii shoreline study, or its successor, where the historical erosion data show coastal accretion, or where the historical erosion data show an annual coastal erosion rate of zero.

Here, the Applicant appears to believe that the Shoreline Setback should be set forth pursuant to subsection (3). However, the Property is located within the Ewa Development Plan area, and therefore the Shoreline Setback should be established pursuant to subsection (1). Using the approach required by the Ordinance, the Shoreline Setback should be established at 60 feet +70 times the annual coastal erosion rate. To the extent that the coastal erosion rate has not yet been established for the Property, it clearly should be, and the EIS should be revised to include this information. The Proposed Action should not be permitted to proceed until the Shoreline Setback has been accurately established.

The Applicant proposes to establish the Shoreline setback at the minimum of 60 feet in order to permit the Applicant to make a significantly more intensive use of the property than would otherwise be permitted, and to construct numerous buildings immediately adjacent to the setback line. The EIS indicates that if this is done, even the conservative estimates for sea level rise used by the Applicant will cause several of the proposed structures to be **completely inundated**. See Fig. 4-7. Allowing construction of structures which will certainly be lost to sea level rise is poor planning, as there will be significant primary impacts to the environment as a result, not the least the hazardous materials that will be deposited directly into delicate nearshore ecosystems when the buildings are lost to the sea. Therefore, the Shoreline Setback should be set at the maximum of 130 feet, not at the minimum.

H. The Draft EIS Fails To Rigorously Analyze Alternatives

Pursuant to HAR 200.1-1(c):

Exemption notices, EAs, and EISs are meaningless without the conscientious application of the environmental review process as a whole and **shall not be merely a selfserving recitation of benefits and a rationalization of the proposed action.**

(Emphasis added).

Unfortunately, the EIS at issue does not rigorously analyze the alternatives to the Proposed Action and serves mainly to rationalize the purported benefits. Rather than providing the accepting agency with realistic alternatives, the Applicant merely repeats the same phrase, again and again, that it will be an "authentic Hawaiian meeting place". It is unclear how the 50,000 square-foot retail/restaurant mall complex that Applicant intends to install is authentically Hawaiian, or how it will serve the local community as a meeting place given that there will be no increase in the free parking stalls available to local families.

1. The No Action Alternative is merely a straw man

The No Action alternative presents a fake doomsday scenario, claiming that if no action is taken, the Property will fall into disrepair and become an eyesore. This is clearly a straw man argument. The EIS does not analyze the simple solution that the lease for the existing tenant can be extended, with any needed updates to the existing structures, obviating the need for the Proposed Action. The EIS should be revised to include the impacts of the Cove Redevelopment on the 250+ families currently associated with the Paradise Cove lū'au given that the EIS states that the current operator will be terminated at the expiration of the existing lease, and the anticipated time for construction of the new improvements is at a minimum two years.

Furthermore, since JCC is the landlord, it is under no obligation to require the existing tenant to remove the existing improvements. The Paradise Cove lū'au site is part of the larger Lanikūhonua site, and JCC can easily maintain the Property in the same fashion to ensure that there is no degradation of the Property.

Given the proposed irrevocable commitment of resources for this site, and the fact that the Applicant's own modeling shows that sea level rise is likely to inundate several of the proposed buildings, the no action alternative may in fact be the most prudent course of action, and more rigorous analysis of this alternative using the actual facts of the situation is required.

2. The Alternative Design Assumptions are flawed

The Alternative Design set forth in the EIS states that the design would be characterized by increased density and buildings of up to 40 feet in height, with lot coverage to reach the maximum of 30%. The Applicant fails to state any basis for why the Alternative Design would necessarily include these features. The Alternative Design could just as easily feature a less intensive use, with a lower lot coverage ratio, buildings not higher than the 25-foot maximum, following the setbacks required by the UA and using the appropriate perpendicular building orientation. The Alternative Design proffered in the EIS is again used as a scare tactic to try and convince the public that if the Proposed Action is not permitted, a much worse alternative would be implemented. The EIS should be corrected to include alternative designs that are in keeping with the underlying requirements, not simply reciting, and then dismissing, the worst-case alternative.

3. The Alternative Use Hotel is not a Realistic Alternative

The Alternative Use analyzed under this alternative is a resort hotel constructed on the Property, which the EIS acknowledges is not a permitted use under the Unilateral Agreement. Again, this alternative appears to have been selected as a way of frightening the community into thinking that if the Proposed Action is not approved, a resort hotel would be

constructed. There appears to be zero chance that a resort hotel could actually be constructed on the Property given the fact that the Applicant's own data shows that there is a high likelihood that large portions of the Property will be subject to inundation through sea level rise. Additionally, the same issues would apply with respect to the lack of non-potable water allocations, and the wastewater increases associated with such a use. A hotel would also not be permitted under the UDP, as it would negatively impact the view corridors that have been established and would not comply with the setbacks applicable to shoreline parcels.

While the Unilateral Agreement only permits a commercial lū'au with limited accessory retail and restaurants, even if a zoning change was sought, there are a myriad of less intensive uses that could be proposed and analyzed under this alternative. Actual analysis of realistic alternative uses should have been included in the EIS.

I. The Proposed Action Overburdens Resources

The Applicant contemplates that the Proposed Action will require a 300% increase in non-potable water use, while at the same time acknowledging there is currently an insufficient non-potable water allocation for the Property to meet this demand. The Applicant attempts to circumvent this by relying on Ko Olina Resort to develop an additional non-potable water resource. As the Board of Water Supply ("**BWS**") has disclosed to the Applicant, the non-potable resources for the area are already overburdened, and the Resort is currently working with BWS and its Resort partners to **reduce**, not increase, non-potable water resource use. While additional non-potable resources are anticipated to be developed, it is not known when all of the approvals required will be obtained, or the timeline for completion of construction of such resources. The EIS is defective in this regard, as it analyzes the Proposed Action as if non-potable water is available. The EIS should also include an analysis of the Proposed Action using the actual situation with respect to non-potable water so that all stakeholders have the opportunity to review this information. If the conclusion is that the Proposed Action cannot move forward because of the strain it will place on non-potable water resources, the EIS should so state.

The EIS also discloses that the Proposed Action would increase the Flow Q discharges for sheet water flow into the ocean and the delicate nearshore ecosystem **by 100%**. See Table 4.7, showing a Q value for the ocean at 22.05cfs, versus the existing Q of 11.15cfs. The EIS claims in Table 1-1 that there will be no adverse impact to surface waters, but there appears to be no analysis of this dramatic increase other than to state that BMPs will be followed. Such a significant increase in discharge into the ocean obviously raises concerns that there will be negative impacts to the pristine waters from additional debris and trash, causing excess turbidity, or harms from fertilizers and/or pesticides used by Applicant. [Note that all other shorefront lots on Resort have been designed and built to drain toward the roadways and **NOT** into the ocean, unlike the plan for the Proposed Action.]

Similarly, the Proposed Action also requires a **1000% increase** in potable water demand, going from 13,500 GPD to 119,350 GPD. There is no analysis of the potential harmful effects of such a drastic increase, or the strain on resources that will result from this huge increase.

With respect to wastewater, the EIS projects an increase wastewater discharges from 10,800 GPD to 72,765 GPD, a **700% increase**. This estimate for wastewater discharge appears to be too conservative, as elsewhere the Applicant states that wastewater discharges can be estimated at 80% of water consumption, which, if correct, suggests that the correct figure is closer to 95,480 GPD, a 900% increase over the current use. The EIS also acknowledges that the Applicant does not have sufficient wastewater sewer capacity for the wastewater discharge that

the Proposed Action will generate. We understand that West Beach Sewer Pump Station #1 is currently at capacity, and cannot accept additional sewer flows.

Taken together, the Proposed Action overburdens the limited resources that are available, and on this basis alone the Proposed Action should be rejected.

J. The Acoustic Study is Not Representative

The Acoustic Study was conducted in two parts, once in 2021 and once in 2022. Data from these periods is not representative of actual conditions, as traffic flows were significantly reduced during the pandemic.

The Acoustic Study appears to indicate that relocating and reorienting the amphitheater could cause noise that is in exceedance of the permissible levels for the communities that are nearest to the Property. Residents within Ko Olina already routinely suffer from noise exceedances from the amplified sound system, and moving the sound system even closer will only exacerbate this problem. Given that the Proposed Action as currently drafted would permit use of the Property from early morning until late at night, a revised Acoustic Study using current data from normal conditions (and not the status during the pandemic) is needed, along with more rigorous mitigation measures to ensure that the property is in conformance with the noise regulations.

K Public beach access should be commensurate with use

The Applicant seeks to privatize the benefits from the excessive exploitation of the Property, and attempting to push the burdens of its operations on the public and neighboring properties. This is most clear with respect to the manner in which public beach access is handled. The Applicant routinely states that public beach access will be maintained at existing levels in order to preserve the natural cove and lagoon, attempting to characterize its actions as being protective of the beach and nearshore ecosystems. However, the Proposed Action seeks to "activate" the Property during daytime hours, which essentially means that the Applicant wishes to dramatically increase the use of the public beach by its tourist customers during the day, at the expense of the local families who wish to utilize the beach. If an increase in the number of people using the beach will have a significant negative impact on the beach and nearshore ecosystem, which appears to be the argument Applicant is making as to why it should not be required to increase public beach access, the Proposed Action, which will unquestionably increase beach use, should not be undertaken.

L. Archaeological Impacts

The Property holds great cultural significance to native Hawaiians. The site was used by native Hawaiians for the gathering of resources, including salt and marine resources, and has been used as a place to celebrate the art of hula. There is a known burial complex on the Property, and at least six iwi kupuna have been previously disturbed. In addition, the Banyan tree known as Auntie's tree holds special cultural significance, and native Hawaiian leaders have stated that the Property is associated with native Hawaiian mo'olelo. Given the important cultural significance of the Property, additional consultation from influential native Hawaiian advisors from the Leeward Coast should be sought, especially in light of the fact that several influential native Hawaiian leaders have already stated their opposition to the Project given the negative impact of the Project on cultural resources.

The draft Archaeological Impact Survey ("**AIS**") for the Property has not yet been accepted by the State Historic Preservation Division ("**SHPD**"), and therefore it is unknown whether the AIS will be accepted, or whether it will need to be revised and resubmitted in order to obtain approval. From our initial review of the AIS, we believe that the AIS should be revised to include additional information on how the iwi kupuna will be handled and protected. Special attention should be paid to how any iwi kupuna disturbed during the redevelopment will be handled, and deference on this topic should be given to the Leeward Coast native Hawaiian leaders. This is especially true as the profits from the Cove Redevelopment will go to the Campbell beneficiaries, who we understand no longer invest in Hawai'i, as opposed to being reinvested into the local community. The revised AIS, along with the approval from SHPD, should be included in the final EIS.

M. The Cultural Impact Assessment Should be Revised.

The draft Cultural Impact Assessment ("**CIA**") does not include the analysis required by the Hawaii Supreme Court in its decision in Ka Pa'akai O Ka'Aina v. Land Use Comm'n, State of Hawai'i, 94 Hawai'i 31, 47, 7 P.3d 1068, 1084 (2000), as amended (Jan. 18, 2001).

In *Ka Pa'akai*, the Hawaii Supreme Court held that "[i]n order for the rights of native Hawaiians to be meaningfully preserved and protected, they must be enforceable. In order for native Hawaiian rights to be enforceable, an appropriate analytical framework for enforcement is needed. Such an analytical framework must endeavor to accommodate the competing interests of protecting native Hawaiian culture and rights, on the one hand, and economic development and security, on the other." *Id.* at 1083.

The Property is of great cultural significance to native Hawaiians, being associated with numerous myths and legends, containing a known burial complex, and providing access to the beach to gather marine resources. As such, it is very important that the *Ka Pa'akai* analytical framework be included so that the accepting agency has sufficient information to fully consider the environmental factors in order to be able to make a reasonable decision after balancing the risks of harm to the environment against the purported benefits to be derived.

The analytical framework is required to include specific findings and conclusions as to the following matters:

(1) the identity and scope of "valued cultural, historical, or natural resources" in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area; (2) the extent to which those resources—including traditional and customary native Hawaiian rights—will be affected or impaired by the proposed action; and (3) the feasible action, if any, to be taken by the LUC to reasonably protect native Hawaiian rights if they are found to exist.

Id. at 1084.

As the current draft of the CIA does not include these findings and conclusions, it should be revised.

N. Botanical Resources.

There is an active infestation of coconut rhinoceros beetles on coconut trees on the Paradise Cove property, with a high likelihood of spread due to the Project construction activities. The EIS should analyze what actions the current landowner is taking for remediation and

treatment for the existing trees, and must include an action plan (as opposed to merely stating that vague "best management practices" will be followed) to ensure that the coconut rhinoceros beetle infestation does not spread to Ko Olina Resort and neighboring communities. No construction should be permitted until the coconut rhinoceros beetle infestation has been adequately resolved.

O. Public Services.

The Hawaii Police Department District 8 services the Ko Olina Resort area and the Paradise Cove property. District 8 is already strained due to staffing challenges, and the increase in services required by the Project will strain District 8 even further. There will also be an increase in required services from KOCA, through its Aloha Team security staff, with no commitment from JCC/CCK to pay their fair share of the increase in costs.

P. Parking & Comfort Station.

The current parking plan shows a total of 406 stalls: 113 valet stalls, 90 employees/patron stalls, and 203 overflow stalls on the Lanikūhonua parking lot. The redevelopment plan states that the Project will generate 817 FTE jobs. Therefore, there is clearly insufficient employee parking to meet the projected needs of the Project. This will likely cause a spillover into Ko Olina's lagoon parking and/or the Ko Olina Station/Center parking. The parking plan exacerbates the problem by reducing the amount of bus parking, thus requiring additional personal vehicle use. While the EIS supposes that much of the use of the Property will come from Ko Olina Resort, it is unclear that this will be true given the fact that the Resort currently has two excellent lū'au operations, and significant restaurant and retail operations. Bus parking should not be reduced, and instead the Project should require bus transport as part of the lū'au experience.

Additionally, the Project needs to increase the number of free beach access stalls available to the public and be required to construct a Comfort Station in order to relieve the strain on Ko Olina resources. It should be noted that Ko Olina Resort provides the public with five Comfort Stations across four lagoons. Increased amenities and use will naturally contribute to increased beach use, and the Project should be required to mitigate the increased use on site without spilling over to Ko Olina.

Q. Cumulative Impacts

Based on the foregoing, the cumulative negative impacts of the Project outweigh the purported benefits. KOCA and KORA believe that the Project should be revised to maintain the lū'au in its current figuration and renovate the space. The current operator can remain in place, keeping the 250+ families employed, as we understand that it is JCC that has terminated the lease and is requiring the lessee to demolish all structures. The revised plan should limit the uses for the Property to that of a lū'au venue and a Hawaiian cultural resource. The current design for 50,000 ft.² of restaurant and retail space should be removed.

III. **Conclusion**

An Environmental Impact Statement will be upheld as adequate only if:

it has been compiled in good faith and sets forth sufficient information to enable the decision-maker to consider fully the environmental factors involved and to make a reasoned decision after balancing the risks of harm to the environment

against the benefits to be derived from the proposed action, as well as to make a reasoned choice between alternatives.

Price v. Obayashi Hawaii Corp., 81 Hawai'i 171, 183, 914 P.2d 1364, 1376 (1996)

In this instance, there are numerous deficiencies to the EIS, and given the lack of actual analysis of the alternatives, the EIS does not comply with the standards set forth above. Additionally, given the procedural deficiencies, it is clear that the Applicant should recommence the process by issuing a new EIS Preparation Notice containing the correct information.

Yours very truly,
Ko Olina Community Association, Inc.
Ko Olina Resort Operators Association, Inc.

A handwritten signature in black ink, appearing to read 'Ken Williams', with a stylized flourish at the end.

Ken Williams
General Manager

Copy to: City of County of Honolulu,
Department of Planning and Permitting
(Via Email: lana.phomsouvanh@honolulu.gov)

Lauren Sharkey, Esq., CASE LOMBARDI A Law Corporation



July 22, 2024

Group 70 International, Inc. G70
111 S. King St., Suite 170
Honolulu, HI 96813
Attn: Tracy Camuso, Principal Planner

Re: Draft EIS for Paradise Cove, Ko Olina

I would like to share my concern with the second draft of the Environmental Impact Statement (EIS) for the redevelopment of The Cove, a site which currently hosts the Paradise Cove Lūāʻau show.

We welcome hundreds of golfers weekly, from group and FIT travelers coming from Waikīkī to our on-resort visitors and kamaʻaina. In total, guests of our resort partners, employees, supporting businesses, residents and beach goers, contribute to approximately 4,000-5,000 vehicles entering Ko Olina daily via our main entrance, beginning as early as sunrise.

The expansive retail and restaurant operations proposed for The Cove will greatly impact traffic flow into the resort. I would like to see a more comprehensive plan to address this issue should the project move forward.

Ko Olina is a great place to live, work and play. Currently, all major resort stakeholders share and take pride in maintaining the resort's private roads, walking-paths, beaches, landscaping, gates, security etc. for the benefit of everyone who comes to enjoy our beaches and amenities. I encourage project developers to reach out to Ko Olina's long-term stakeholders to ensure the best interests of all of resort partners continue to be met.

Thank you for your consideration.

Aloha,

Greg Nichols, PGA
General Manager
Ko Olina Golf Club



92-100 Waipahe Place
Kapolei, HI 96707

July 23, 2024

Group 70 International, Inc. G70
111 S. King St., Suite 170
Honolulu, HI 96813
Attn: Tracy Camuso, Principal Planner

Re: EIS for Paradise Cove, Ko Olina

Dear Ms. Camuso,

We would like to provide comment to the second draft of the Environmental Impact Statement (EIS) for the redevelopment of The Cove, currently being operated as the Paradise Cove Lūāū.

The entrance to Ko Olina Marina is located on Waipahe Place adjacent to the resort's popular Ulua Lagoon (4) public parking area. We have eight ocean activity boats who host ocean tours for anywhere between 250 and 350 guests on a daily basis. In addition, we have over 300 slips where tenants moor their boats and numerous other boaters who utilize our public boat ramp to access the ocean. As with all resort partners, residents and employees, these tenants and boaters must enter Ko Olina via the resort's main entry.

We have reviewed the proposed actions in your EIS, particularly with regards to entering and exiting the resort's entrance. What is currently proposed does not adequately address how traffic from the increased and potentially steady flow of vehicles to your shopping mall during the day will be mitigated for Ko Olina's businesses. One anticipated scenario for the Marina is our guests missing their tour departure times.

Please revisit your traffic studies and at a minimum, conduct them during peak traffic hours to account for the thousands of employees, beach goers, residents and guests trying to reach their destination daily. As currently proposed, The Cove redevelopment will surely have a negative impact on our business.

Sincerely,



Leilani Gaspar
Ko Olina Marina Operations

**COUNCIL for
NATIVE HAWAIIAN
ADVANCEMENT**

July 22, 2024

I am writing to express my support for The Cove Redevelopment, a significant project for the 'Ewa region. This endeavor, the first major upgrade in over 25 years, is crucial for creating a modern, authentic Native Hawaiian gathering place for both locals and visitors.

The Cove Redevelopment will transform the area into a vibrant hub by modernizing facilities and expanding dining, retail, and entertainment options. Key features include welcoming food and beverage establishments, family-friendly entertainment, and preserved open spaces, making it a central attraction for the community.

Cultural education and preservation are at the heart of this project. Plans include a cultural pavilion, a "village walk," a canoe/beach hālau, and a hula lawn. Traditional hale built by master hale builder Kaina Makua will provide educational opportunities, honoring the history and traditions of 'Ewa and Honouliuli.

Economically, the project will double current employment, creating approximately 480 full-time jobs and supporting local businesses and "Made in Hawai'i" products. This development will significantly boost the local economy, providing new opportunities for growth and prosperity.

The performing arts venue will present an authentic Native Hawaiian show, enhancing the visitor experience and offering a deeper understanding of Hawaiian culture. Pedestrian pathways and cultural pavilions will improve site connectivity and offer rich cultural interactions for all visitors.

The Cove Redevelopment is committed to maintaining open spaces and preserving ocean views. Structures will be set back from the shoreline, ensuring resilience and respect for the natural environment.

This development will bring substantial benefits to the 'Ewa region by respecting cultural heritage, supporting local businesses, and fostering economic growth. I fully support The Cove Redevelopment and its positive impact on our community.

Mahalo nui.



Kūhiō Lewis
CEO, Council for Native Hawaiian Advancement



94-1480 Aliinui Drive, Unit 1104c, Kapolei, HI, 96707

Ms. Tracy Camuso
Associate Principal
Group 70 International, Inc. dba G70
111 South King Street, Suite 170
Honolulu, Hawai'i 96813

SUBJECT: Environmental Impact Statement Preparation Notice
The Cove at Ko Olina Redevelopment Kapolei, Island of Oahu, Hawaii TMK: (1) 9-1-057:027

Kuleana Coral Restoration (KCR) is a community based 501 (c)(3) non-profit organization that is based in Honouliuli, Oahu. Our mission is the "Restoration, Protection and Monitoring of Hawaiian Coral Reefs, to Foster Resilient Coastal Communities".

Since 2019, KCR has stewarded and monitored the Limu (seaweed) and coral reef ecosystem's fronting the proposed development site "The Cove" and actively conducts coral restoration, in response to damage directly fronting the proposed development. KCR partners with community, State, and Federal agencies in monitoring and coral restoration activities.

As a part of our Federal permits to conduct coral restoration in the area, we are required to consult with National Oceanographic and Atmospheric Administration (NOAA) on Essential Fish Habitat (EFH) and Endangered Species Act (ESA). KCR recommends that a consultation for ESA and EFH for the "The Cove" EIS is conducted before final approval and adoption. The EIS as it stands does not adequately address the potential impacts to all species, especially endangered species and the very fragile coral reef ecosystem that is directly offshore. **The EIS should be revised to study this impact.**

According to the EIS, the project will increase sheet water flow into the ocean by over 100%. Such a huge increase in water flowing directly into the ocean may cause negative impacts to the clarity of the water from suspended solids, and increase the amount of pesticides, herbicides, fertilizers, and trash in the adjacent ocean environment. The EIS states that there will be "no impact" from this increased flow, but no analysis was undertaken with respect to these impacts. The EIS provides no rationale for why a 100% increase in sheet flow to the pristine near shore water should be permitted, as opposed to requiring the property to otherwise mitigate the sheet water flow and maintain it within the boundaries of the property. **The EIS should be revised to study this impact.**

Given the multiple impacts to coastal marine ecosystems, **KCR would request that the development adopt the maximum 130 foot setback.** This would allow for increased public access and minimize negative impacts to the coral reef and seaweed ecosystems that our community depends on and that we have invested so much time and money to protect and restore.

Please feel free to contact me with any questions or to learn more about the work that we do to steward the proposed development area.

Alika Peleholani Garcia
Executive Director
Cell: 808-220-1964
Email: alika@kuleanacoral.com
www.Kuleanacoral.org

Alika Peleholani Garcia

From: Marilyn Harvey <marilyn@mh2.ca>
Sent: Monday, July 22, 2024 2:43 PM
To: The Cove at Ko Olina - 220069-01
Cc: Andy Barnes; Kristin Vasquez; Marilyn Harvey; Don Heinz; Jon Utton
Subject: COVE DEVELOPMENT PROPOSAL
Attachments: COVE PROJECT 2024, 0610 - EIS Comment Letter - William and Sara Barnes.docx

Follow Up Flag: Follow up
Flag Status: Completed

July 22, 2024

Group 70 International, Inc. G70

111 S. King St., Suite 170

Honolulu, HI 96813

Attn: Tracy Camuso, Principal Planner Re. Draft EIS for Paradise Cove, Ko Olina

Re: Comments and Concerns: Paradise Cove Draft EIS

Dear EIS Team:

We are residents at Kai Lani and strongly oppose the Cove Development Plans as per Andy & Sarah Barnes have documented in detail below.

When we purchased at Kai Lani, we were delighted to be in such a beautiful neighborhood with access to all the amenities & experiences that Ko Olina provides as an owner. KOCA did an excellent job in their Master Plan for this development over the last 25 - 30 years.

We can see how this proposed development is seriously going to impact us directly at Kai Lani & negatively impact Ko Olina.

The additional infrastructure required, volume of traffic, additional parking and the fact that the noise level from the expansion of the hours for PC is unacceptable. We are directly in the sight lines and noise footprint of this development.

This project has not been transparent from the beginning and has side stepped the homeowners & partners of this community. KOCA was not directly invited from the onset in the overall vision to ensure the community was not negatively impacted.

Certainly, everything being proposed puts serious pressure on the sensitive environment, the entire community of Ko Olina and the perfectly planned infrastructure in place throughout the property.

We again strongly oppose this development period.

Thank you for the opportunity to express our objections & concerns.

Marilyn Harvey-Heinz & Don Heinz 26A Kai Lani

Please see Andy & Sarah Barnes email below.

Thank you for the opportunity to comment on the Draft EIS Document for Paradise Cove (PC), issued on May 8, 2024. We have been home owners at Ko Olina for nearly 20 years and adjacent neighbors of Paradise Cove.

We are providing a list of areas of strong concern and objection regarding the PC plan proposal. These areas of concern involve major adverse impacts on the Ko Olina resort and its nearby residential communities such as Kai Lani. There are also adverse impacts on the west side communities of Oahu. These are not trivial concerns but threaten the Ko Olina community's core economic and quality of life interests. The EIS mentions potential mitigations and offsets but these are broadly stated and come without significant or convincing data to support their effectiveness or feasibility. There are also a number of incompletions.

We now know that although the study for an updated plan has been underway since 2021, (according to a city official), there has been almost no generally announced communication with the community until May of this year. The EIS effort finally surfaced on May 8th, announcing a new project that will be astonishingly 3 times larger than the present facilities. More recently, a public presentation of the plan was made by development representatives on May 22nd to attendees at Makakilo/Kapolei/Honokai Hale Neighborhood Board. Nine people spoke at the meeting, at length, in strong opposition to the plan. One of the most prepared speakers was the General manager of Ko Olina, who explained how the proposal would adversely affect the whole resort. No one spoke in favor of the proposed plan. All voiced concern that the planning process had not been transparent and raised many concerns for which the EIS did not provide answers. **Meanwhile, the project proponents have not made provision for offering opportunities for interested parties at Ko Olina (of which there are many) to meet with the proponents of the project to ask questions and express concerns. Indeed, even the KOCA office had been excluded as of the May 22nd meeting, notwithstanding the major interests that it represents.**

There are a number of urgent concerns regarding the information provided in the draft EIS pertaining to the future proposed plans for PC.

~ the proposed plan envisions increasing the size of the entertainment

and retail activities at PC by approximately 3 times the current size, while also increasing the hours of operation by 10 hours per day (from 7am to 10pm according to the EIS). Further, it envisions relocating the lu'au amphitheater to the north side of the property, near the wedding chapel and much closer to the open space meadow and Kai Lani residential community of 116 homes. This will place the source of amplified sound coming from PC within an estimated 300+yards of the closest residents at Kai Lani and make the existing amplified sound encroachment problem much, much worse. The EIS acknowledges that there will be "spill over" amplified sound during entertainment events and this will "potentially impact noise sensitive receptors". The EIS goes on to contend that amplified noise levels will be no different than existing conditions, ignoring the critical fact that the relocated amphitheater will now be much, much closer to numerous residences. The EIS assertion also ignores the fact that existing noise levels from PC entertainment often exceeds the noise control statutes of the city, and currently disturbs residences well after 9PM many nights. This is truly unacceptable and there are certainly other locations at the resort and on Oahu where a relocated lu'au facility could be more comfortably located. **So the proposal calls for more amplified noise impacts, 3 times longer operating hours, and three times more buildings and impervious surface coverage.** This is not sustainable.

~ additional heavy demands on Ko Olina infrastructure are proposed including roads, sewer, water, storm drainage, and telecom without sufficient clarity as to how these capacity expansion demands will be met, who will pay for them, and how applicants' future needs may become limited as a result. For example, the EIS estimates the new PC project will generate 7 times the wastewater discharge (an increase from 10,800 gal. per day to 72,765 gpd - Pg. 4-69) without clearly stating how this will be handled and at who's expense. If infrastructure has to be utilized more heavily, how exactly will infrastructure capacities be allocated, and how does the developer propose to protect the entire Ko Olina community and other west side users from having to absorb some or all of these costs?

~ parking overflow problems appear unavoidable and the EIS has no iron clad plan to assure that overage parking won't end up elsewhere at the resort, including potentially Ko Olina's beloved meadow. (The EIS reports the current PC has 354 vehicle spaces on the 10.8 acres and will have no more than 406 spaces in the future to accommodate an increased parking demand that The EIS expects to be 440 spaces or higher (for a project that is 3 times larger!). And that estimate may be wrong and could easily be higher if the EIS broadly stated mitigation ideas do not work or are never implemented. So, the EIS effectively acknowledges the current plan cannot accommodate

all the parking demand likely to occur with the new plan. There are no assurances that offsite parking overflow will not be sought by the developer and its operators. This is a major concern without a clear and workable solution provided by the EIS.

~ **trash management may become a bigger problem than it already is** on lands in or around PC. Currently there are times when scattered trash on area grounds coming from PC patrons is not picked up. Several residents, when out swimming near the current Paradise Cove operations, have seen plastic cups, bags, etc. on the environmentally sensitive ocean reefs.

~ **new encroachments on cultural and archeological resources may be likely but are not studied in the EIS.**

~ **community benefit appears to be negative.** Having increased tourist-oriented retail and restaurants, competing with our existing Ko Olina stores does not seem to be a useful addition for the community or the west side community. Meanwhile, added congestion, noise and environmental impacts seem to be a big negative for the Resort. Indeed, the present Paradise Cove entertainment complex has taken much more from the community than it has returned.

~ **environmental concerns are extensive.** The added density of uses at PC without meaningful additional protections for marine mammals, sea turtles and shore birds moves the environmental interests of Ko Olina in the wrong direction and may well violate various regulations. Improving our shore environments is a major priority for Oahu

~ **Ignoring sea rise and future flooding is yet another problem with the plan.** (The EIS states that in the next 75 years, approximately 1/3 of the PC property will be subject to repeated flooding due to global warming and expected sea rise.) It doesn't appear to be practical or responsible to allow additional development in any of the environmentally sensitive areas.

~ **Campbell LLC is endangering its reputation, given its important role in Kapolei and Oahu and the historical family ownership of the adjacent Lanikuhonua property. And it is endangering the community of which it is a part.** With expanded uses and congestion at PC, many questions arise as to how convenient access will be protected for Lanikuhonua and the adjacent public beach (home to endangered turtles and monk seals). The heightened commercial uses at PC appear to be completely incompatible with adjacent uses. It appears that future visits to Lanikuhonua will be degraded by this major expansion of commercial uses.

~ **The 10.8 acre PC property is officially an outparcel within the Ko Olina Resort, yet derives almost all of its benefits from the infrastructure and amenities provided by the resort as well as the City and County. Additionally, Ko Olina provides substantial patron support with**

customers who come from nearby Ko Olina hotels. The parcel and its owners reportedly do not pay to Ko Olina any funds to help defray the costs they impose on the resort and the disturbances they cause, and yet draw heavily on local customer support. This is a self-serving proposition that the PC proponents now propose to greatly enlarge - **at the community's expense.**

Thank you for the opportunity to provide comments, concerns and objections.

Sincerely,

William and Sara Barnes
92-1001 Aliinui Dr., 24E
Kapolei, HI 96707



July 23, 2024

Tracy Camuso
Group 70
111 S. King Street, Suite 170
Honolulu, HI 96813

Subject: Opposition to the Second Draft Environmental Impact Statement for The Cove Redevelopment

On behalf of Marriott's Ko Olina Beach Club, I appreciate the opportunity to comment on the second draft of the Environmental Impact Statement (EIS) for the redevelopment of The Cove, currently being operated as the Paradise Cove Lūaū.

Marriott's Ko Olina Beach Club is the most successful vacation club product in the company's portfolio, hosting owners who return to Ko Olina year after year. Once The Cove project is launched, we have serious concerns about the traffic and parking plan proposed by the project's developers. Our resort is located furthest east of Ko Olina's entrance, meaning our guests and employees will likely experience the most significant delays when arriving at the resort.

To ensure a positive vacation experience for our guests, I urge the project's development team to revisit and thoroughly analyze the traffic data for Ali'inui Drive during peak hours. The increased number of visitors due to The Cove redevelopment will heighten traffic congestion at Ko Olina's only point of entry, potentially leading to longer delays and frustration for our guests.

A seamless and welcoming arrival experience is crucial for maintaining guest satisfaction and encouraging repeat visits. We suggest collaborating with local traffic management experts to develop an effective traffic and parking plan that mitigates these concerns.

Thank you for considering these comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Edgar Gum'.

Edgar Gum
Regional Vice President
Vacation Ownership- Resort Operations Americas, Hawaii
Marriott Vacations Worldwide

M A R R I O T T ' S K O O L I N A B E A C H C L U B

92-161 Waipahae Place, Kapolei Hawaii 96707, 808-679-4700

July 23, 2024

Tracy Camuso
Group 70
111 S. King Street, Suite 170
Honolulu, HI 96813

Subject: Opposition to the Second Draft Environmental Impact Statement for The Cove Redevelopment

Dear Ms. Camuso,

I am writing to express my firm opposition to the second draft of the Environmental Impact Statement (EIS) for The Cove redevelopment at the entrance to Ko Olina Resort. This project presents several major concerns, including heightened traffic congestion, inadequate parking provisions, and the absence of contributions to the Ko Olina Community Association. As a resident of Ko Olina Fairways, I am concerned that this project will adversely affect our community's quality of life.

Traffic Congestion:

The planned increase in daytime use without corresponding infrastructure upgrades will severely impact traffic within the resort. The anticipated surge in vehicle numbers will exponentially increase congestion on our private roads, causing substantial delays to resident commutes.

Parking:

The EIS fails to adequately address parking concerns. The current plan reduces the number of available parking stalls while simultaneously increasing the usage of the property. Presently, Paradise Cove provides sufficient parking for all its employees and includes bus parking to minimize personal vehicle use. The proposed reduction in parking facilities will not only inconvenience employees but also exacerbate congestion and parking issues within the resort.

Ko Olina Community Association Membership:

The proposed project does not seem to include any plans to contribute to the Ko Olina Community Association despite intending to benefit from our infrastructure. Each community and resort property pays an assessment to the association, which is essential for maintaining and improving the beauty and functionality of our resort. These contributions support the ongoing upkeep and enhancements that benefit all residents and visitors. It is only fair that your project, which will utilize our infrastructure and amenities, also contributes its fair share to ensure the continued quality and appeal of our resort.

In summary, the proposed project presents significant issues that need to be addressed before moving forward. The increase in daytime use without proper infrastructure improvements will lead to severe traffic congestion, while the reduction in available parking will create additional challenges for employees and residents alike. Furthermore, the lack of contribution to the Ko Olina Community Association undermines the collective effort to maintain and enhance our resort's infrastructure and amenities. I urge you to reconsider approving this project and ensure that these critical concerns are adequately resolved to protect the quality of life and sustainability of our community.

Sincerely,

Docusigned by:
CA95C0280469427...

Nicolas Politsch
Ko Olina Fairways Resident



July 22, 2024

Tracy Camuso
Group 70
111 S. King Street, Suite 170
Honolulu, HI 96813

Subject: Opposition to the Second Draft Environmental Impact Statement for The Cove Redevelopment

Dear Ms. Camuso,

I am writing to express my strong opposition to the second draft of the Environmental Impact Statement (EIS) for the redevelopment of The Cove at Ko Olina Resort. As the Resort Manager of the Beach Villas at Ko Olina, which features 247 oceanfront accommodations on Nai'a Lagoon, I have serious concerns about the potential negative impacts on our guests and owners.

Traffic Flow and Congestion

The proposed all-day use of The Cove's beach entertainment and retail areas, which currently operate primarily in the evening, will undoubtedly increase traffic congestion at the resort's only entry point. This will create significant delays for our guests upon arrival, severely impacting their first impression and overall experience at our luxury resort. Our guests expect a seamless and pleasant arrival, not a traffic bottleneck.

Insufficient Public Facilities

The redevelopment plans do not include provisions for additional public beach parking or restroom facilities to accommodate the expected increase in visitors to The Cove's beach area. This will lead to an overflow into our privately owned lagoon parking areas and comfort stations, which are already heavily used. The added strain on these facilities will diminish the quality and convenience that our guests and owners have come to expect.

Lack of Financial Contribution

Cove Campbell Kobayashi LLC has shown an unwillingness to acknowledge the increased burden on our existing facilities or to contribute financially to their maintenance. This places an unfair responsibility on our resort to manage the additional wear and tear, potentially compromising the pristine condition of our amenities.

Need for Stakeholder Collaboration

This redevelopment project must involve all major resort partners, residential communities, and businesses from the outset. Collaboration is essential to maintaining the unique appeal and high standards of Ko Olina Resort. Without it, the redevelopment could undermine the community's shared vision and negatively affect our guests' and owners' experiences.

I urge Cove Campbell Kobayashi LLC to reconsider its plans and consider our community's significant concerns. Mitigative actions must be incorporated to address these issues and ensure a positive outcome for all stakeholders.

Thank you for considering our concerns. I look forward to a resolution that protects the interests of our guests and owners.

Sincerely,

A handwritten signature in blue ink, appearing to read "Peter", with a stylized, cursive script.

Peter Togawa
Resort Manager
Beach Villas at Ko Olina

From: clairevw@aol.com
Sent: Thursday, June 20, 2024 7:19 PM
To: The Cove at Ko Olina - 220069-01
Subject: comments on the draft EIS for the Cove at Ko Olina Development Projectg

June 20, 2024

Group 70 International, Inc. G70

Attn: Tracy Camuso, Senior Planner
Noelle Wright, Associate Senior Planner
Matthew Caires, Campbell Developer Representative

Re: Comments and Concerns: Paradise Cove Draft EIS

Dear EIS Team:

As owners at Kai Lani In Ko Olina for 17 years, we appreciate the opportunity to comment on the Draft Environmental Impact Statement (EIS) for Paradise Cove, which was issued on May 8, 2024. We have read the EIS for The Cove at Ko Olina Development Project and have listened to the discussion of this project in the recording of the Makakilo/Kapolei/Honoka Neighborhood Board Meeting on May 22, 2024. We are concerned that the Cove Project, as described in in the EIS and at the Neighborhood Board Meeting, would have a detrimental impact on the Ko Olina Resort and the surrounding communities should it go forward under the current plan.

Our more general concerns are two-fold: First, several mitigation strategies for parking, traffic, noise, etc., are recommended to be implemented as needed, but nothing is proposed to ensure that they will be implemented if and when they are needed. Without the assurance of mitigation, the potential exists for these to become major problems for the resort. Secondly, Ken Williams, General Manager of the Ko Olina Community Association and the Ko Olina Resort Operations, at the Neighborhood Meeting stated that the Resort has not been consulted on the design and implementation of the Cove Development. Given that the Cove Development is physically embedded within the Ko Olina Resort, this failure to collaborate with Ko Olina presents a missed opportunity for necessary and productive discussion.

Our more specific concerns are as follows:

1. Noise abatement. Currently, the noise from the Luau performance at Paradise Cove is heard with regularity by residents on the west and south sides of the Kai Lani community and is deemed a nuisance by these residents. Although limits on these noise levels for current luau performances have been established, these limits have not been enforced. Furthermore, the Cove Development plan brings the arena for performances, including the luau, closer to Kai Lani than is currently the case and is expected to hold performances during the day and the evening. The EIS states. "Amplified sound from the amphitheater/performing arts venue may well spill over to adjacent areas. However, amplified sound is anticipated to remain comparable to existing conditions." (EIS, p. 4-73) This, in itself, is alarming, since current levels of noise from the luau are *not* acceptable. The EIS further states that sound abatement may be integrated into the new amphitheater/performing arts venue to mitigate potential noise impacts on the

surrounding area.” (EIS, p.4-73) Stating that sound abatement “may be integrated” is no guarantee that mitigation would actually happen.

2. Traffic congestion. According to the EIS, no long -term adverse impact on traffic conditions is expected. However, the EIS did not specifically consider the impact on traffic entering and exiting the Resort at the Ko Olina gate house, which could be a potentially serious traffic problem both within and immediately beyond the resort. Also, when considering multimodal transportation (bicycle, pedestrian, rail), the Transportation Impact Report recommends a number of Best Management Practices and states that a determination on this matter will be made as the project progresses. (Appendix D) This does not give adequate assurance that any of these Best Practices would be implemented.

3. Parking. Again, the EIS statement on the adequacy of parking facilities raises doubt as to whether or not this will be a problem once the Cove project is complete. It is stated that parking strategies *may* be implemented and “will be finalized as the Project progresses and *may* be adjusted during operation, based on need.” (Italics added.) As with noise and traffic concerns, clear commitment to mitigation is lacking.

4. Responsibility for the impact on infrastructure and common areas of Ko Olina Resort. Ko Olina infrastructure is privately owned and communities within the Resort contribute to the maintenance of this infrastructure. According to Ken Williams in the May 22 meeting, no financial support has been extended by the owners of the Cove Development for any increased impact on the infrastructure incurred by the Cove Project. This places an inequitable burden on Ko Olina communities and individual owners.

5. Cultural considerations. Clearly, the EIS has safeguards in place for honoring and protecting land sacred to the Hawaiian people. However, at the Neighborhood Board Meeting. Mr. Kamaki A. Kanahele, Director of Native Hawaiian Traditional Healing at the Waianae Coast Community Health Center, expressed serious concerns about the protection of sacred areas within the Cove project. It is our understanding that Mr. Kanahele is a well-respected, influential member of the Waianae and Nanakuli communities; we urge you to include him in discussions of the cultural impact of the Cove project.

Thank you for considering our comments.

Sincerely,

Pieter and Claire van Wingerden
92-1001 Aliinui Drive, 23D
Kapolei, HI 96707



Sierra Club O'ahu Group

1164 Bishop Street
Honolulu, HI 96813
(808) 538-6616

Sierra Club National Marine Team

2101 Webster Street
Oakland, CA 94612
(650) 380-5482

22nd July 2024

Lena Phomsouvanh, DPP
City and County of Honolulu Department of Planning and Permitting (DPP)
650 South King Street, 7th Floor
Honolulu, Hawai'i, 96813

Tracy Camuso, AICP
Associate Principal
Group 70 International, Inc. dba G70 111 South King Street, Suite 170 Honolulu,
Hawai'i 96813

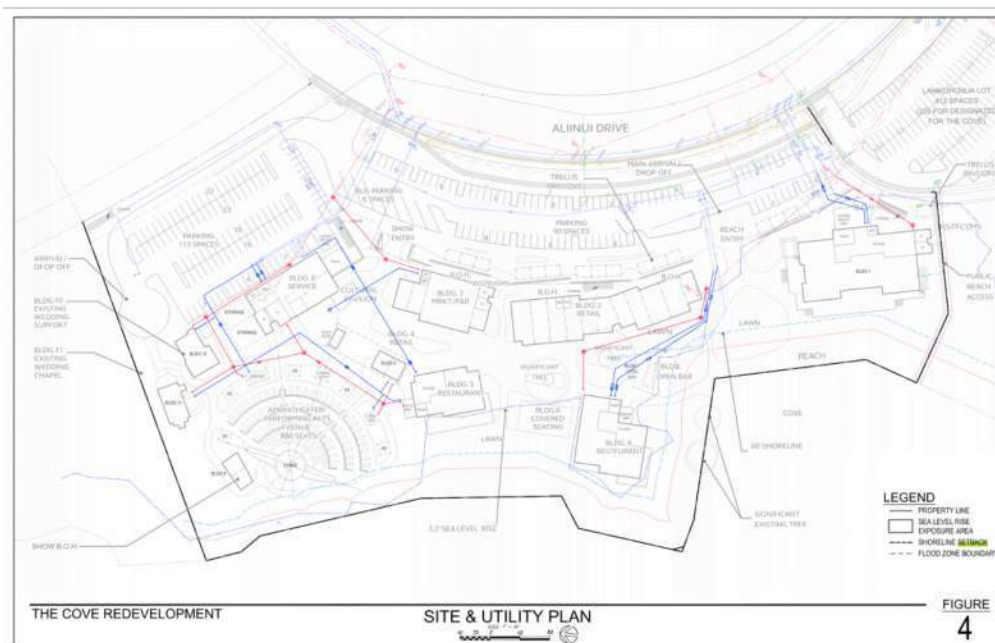
Re: The Cove Redevelopment
Second Draft Environmental Impact Statement, submitted June 2024
Tax Map Key (TMK): (1) 9-1-057:027
Kapolei, Island of O'ahu, Hawai'i

Dear Ms. Phomsouvanh and Ms. Camuso,

Thank you for the opportunity to review and comment on The Cove Redevelopment Project in Kapolei, HI. The Sierra Club has over 3.8 million members and supporters and is the nation's largest and most effective environmental organization. The National Marine Team is led by marine experts from all around the coastal United States including Hawai'i, and advises on national policy, and the O'ahu Group represents a grassroots, volunteer-led advocacy chapter with over 8,000 members and supporters on O'ahu.

We have the following comments on these issues with this development plan:

1. The shoreline setback is severely insufficient and lacks meaningful climate adaptation in their planning. The Cove is proposing a mere 60' setback. Setbacks can range from 60' to 130'. Their proposal assumes a 3.2 ft sea level rise by 2100. Unfortunately the 3.2 ft estimate for Hawai'i is from the 2013 IPCC report, and the updated sea level rise for Hawai'i in the 2022 IPCC is 3.9 ft as the mid-range scenario. A high range scenario predicts up to 8 ft of sea level rise for Hawai'i. These updated sea level rises are also indicated in the 2023 Hawai'i State SEA LEVEL RISE VULNERABILITY AND ADAPTATION REPORT published by the DLNR. If they proceed with their proposal, the base of multiple buildings will be submerged. See the dark blue dotted line indicating 3.2 ft sea level rise, figure taken from the DEIS.



In light of the underestimated value used in their planning, as well as the impacts from king tides, large swells, and storm surges, **the setback should be no less than 130'.**

2. Multiple endangered species will be disturbed by this development. The endangered Hawaiian Monk Seal (*Neomonachus schauinslandi*) and threatened Green Sea Turtle (*Chelonia Mydas*) both frequently haul out on the natural beach at Paradise Cove. On occasion, multiple/several Hawaiian Monk Seals can be found at this beach. In addition to those, the DLNR has identified the area as frequented by the Hawaiian Hoary Bat (*Lasiurus semotus*) as well as the threatened White Tern (*Gygis alba*). In addition, runoff and sedimentation during construction will harm delicate nearshore coral reefs just offshore of

the development site, which include coral species that are endemic to Hawai‘i. Both sedimentation and runoff can kill coral at all life stages. **Keeping construction away from the beach and an increased setback to at least 130’ would be important measures to mitigate some of these impacts.**

3. The Sierra Club is committed to actively promoting and advocating for the rights of Indigenous peoples, supporting their efforts for Free Prior Informed Consent (FPIC), honoring Treaty rights regarding land and water, increasing access on federal lands for cultural practices and gathering, protecting of sacred sites on federal lands, and building power for Tribal partners at the grassroots and all levels of government. The exploitation of lands goes hand in hand with the exploitation of people.

Lanikūhonua and Paradise Cove have always been regarded as the most spiritual and sacred historical lands in this area. They are the undisturbed grounds once home to Chief Kākuhihewa, the 15th ruling chief of ancient O‘ahu and was also a place of rest and rejuvenation for Hawaiian monarchs in the past. The property holds great cultural significance to the Native Hawaiian people. The site was used by Native Hawaiians for gathering of resources, including salt and *limu*, and has been used as a place to celebrate the art of hula. There is a known burial complex on the property, and at least six iwi kupuna have been previously disturbed. In addition, the Banyan tree known as “Auntie’s tree” holds special cultural significance, and native Hawaiian leaders have stated that the property is associated with native Hawaiian *mo‘olelo*. There are also two fishponds in the area as well an altar that likely served as a fishing shrine where offerings were previously made. Given the important cultural significance of the property, additional consultation from influential native Hawaiian advisors from the Leeward Coast should be sought. **The AIS (Archaeological Inventory Survey) should be revised to include how any *iwi kupuna* disturbed during the redevelopment will be handled and protected, and deference on this topic should be given to the Leeward Coast Native Hawaiian leaders. The revised AIS, along with the approval from Hawai‘i State Historic Preservation Division should be included in the final EIS.**

4. Finally, we are concerned about the reduced public beach access to the Paradise Cove beach, which is a natural beach frequented by local families. The beach currently has 15 public parking spots. The Cove

Development will directly contribute to increased beach use, and the availability of current parking spots will be reduced from retail and restaurant parking spillover. To ensure this beach remains available to local families, additional free parking should be added to the development plan.

We thank you for the opportunity to submit these comments and we appreciate your attention to these concerns.

Sincerely,

Dyson Chee, Chair, Sierra Club O'ahu Group
cheedyson@gmail.com

Leilei Joy Shih, Chair, Sierra Club National Marine Team
joy.shih@gmail.com

From: Veronique Jones <veronicasayaj@yahoo.com>
Sent: Wednesday, May 22, 2024 2:40 PM
To: The Cove at Ko Olina - 220069-01
Subject: Comments Re. The. Cove

Follow Up Flag: Follow up
Flag Status: Flagged

Aloha,

My name is Veronique Jones and I am a Ko Olina resident. I am personally in opposition to the Project as presently planned. Please see below some of my concerns and comments. Mahalo.

Traffic and Transportation Study

Ko Olina has only one entrance and exit, which could complicate access and internal circulation as traffic will most likely increase. As a result, accessing the Resort could be more challenging.

Parking is already a challenge at Ko Olina. Will there be sufficient parking to accommodate patrons and deliveries to The Cove? Based on the number of projected employees and potential visitors, it does not appear to be the case. As a result, would the proposed Parking management strategy (such as parking charge, mandatory valet, transportation network company incentives) be sufficient to remedy the potential parking issues and meet demand?

Contrary to what is written in Table 1.1: Summary of Impacts and Mitigation Measures, I believe that traffic and parking will have a long lasting negative impact on the Resort.

Noise

Construction noise levels will undoubtedly be high. What measures does Group 70 plan to implement to minimize construction noise? After construction is complete, how will noise be managed for nearby residents and communities? For instance, would The Cove and its restaurants/venues close not later than 9PM to ensure no noise disturbances will occur after 10:00PM(with employees, restaurants personnel leaving the premises)? Will there be strict guidelines to ensure compliance with all state noise ordinances?

Finally, according to the Draft Environmental Statement, "the Project may result in a minor increase in noise along Ali'inui Drive"; For the reasons stated above (higher volume of traffic, sounds emanating from different venues and activities, etc.) the increase in noise could actually be very significant and have a long-term negative impact on the residents well-being.

"Maintenance Fees"

The construction will span several years, during which private roads (recently replaved) will be heavily used by contractors and builders. The increased traffic and additional personnel working at The Cove will also impact the PRIVATE infrastructure & utilities of the Resort as well as the environment post-completion. Will there be a monetary contribution from The Cove to help maintain Ko Olina?

Non-Potable Water

The Board of Water Supply has requested G70 to coordinate with the Ko Olina Community Association on developing a non-potable well. The well will be developed "by others". "Others" should be identified, While I am sure I am simplifying the issue, I believe that Ko Olina Community Association should not bear the burden to complete the construction of the non-potable well due to the addition of The Cove.

Veronique Jones

Noelle Besa Wright

From: Warren Miles <wemiles47@gmail.com>
Sent: Tuesday, July 23, 2024 9:08 AM
To: The Cove at Ko Olina - 220069-01
Subject: Cove Redevelopment Comment Letter

Follow Up Flag: Follow up
Flag Status: Completed

July 23, 2024

Tracy Camuso

Group 70

111 S. King Street, Suite 170

Honolulu, HI 96813

thecove@g70.design

Subject: Opposition to the Second Draft Environmental Impact Statement for The Cove Redevelopment

Dear Ms. Camuso

I am writing to express my strong opposition to the second draft of the Environmental Impact Statement (EIS) for the redevelopment of The Cove at the entrance of Ko Olina Resort. I have several significant concerns regarding this project, particularly its impact on traffic congestion, parking, and non-existent monetary contribution to the Ko Olina Community Association. As a 14 year resident of The Fairways, I believe this project/plan will negatively affect our community.

Traffic: The proposed development will considerably aggravate traffic congestion in the front of the resort. The EIS does not sufficiently address the impact of increased vehicular traffic on our private roads and the main intersection of Ali'inui Drive. Adding more vehicles without appropriate infrastructure improvements will worsen the situation, making it more challenging for residents to commute, access essential services, and carry out their daily activities.

Noise: The anticipated noise levels from the project are another major concern. The construction activities, and increased traffic volume will lead to higher noise levels, disrupting the peace and tranquility our community values. The EIS does not provide sufficient mitigation measures to address this issue. Continuous exposure to elevated noise levels can have adverse effects on residents' health, including increased stress, sleep disturbances, and reduced overall well-being. While any future construction will also create noise levels, it's imperative that noise levels be minimized to ensure a healthy community environment.

Parking: The EIS fails to adequately address parking concerns. The proposed plans significantly reduce employee and bus parking compared to the existing provisions, where Paradise Cove efficiently accommodated parking for over 200 employees and facilitated bus transportation to minimize personal vehicle usage. The new plans introduce a day-use activation, necessitating additional parking. This insufficiency will inevitably lead to spillover of parking issues to the Ko Olina Resort.

Monetary Contribution to the Ko Olina Community Association: Another significant concern is the proposed project's lack of provisions for contributing to the Ko Olina Community Association. Our community depends on contributions from all resort developments to maintain and enhance SHARED amenities and infrastructure. The absence of a contribution from this project sets a troubling precedent and undermines the cooperative spirit that has allowed our community to thrive. It is crucial that all developments, including this one, CONTRIBUTE THEIR FAIR SHARE to ensure the continued upkeep and improvement of our community facilities.

Thank you for the opportunity to comment. I urge you to reconsider the approval of this project in its current form. The EIS does not adequately address the significant issues of traffic congestion, noise pollution, parking, and non-contribution to the Ko Olina Community Association. These concerns must be thoroughly addressed and mitigated to protect the quality of life for all residents of Ko Olina. I strongly urge you to reject the project until these issues are satisfactorily resolved.

Sincerely,

Warren Miles

Fairways Resident/Board President

June 10, 2024

Group 70 International, Inc. G70

111 S. King St., Suite 170

Honolulu, HI 96813

Attn: Tracy Camuso, Principal Planner Re. Draft EIS for Paradise Cove, Ko Olina

Re: Comments and Concerns: Paradise Cove Draft EIS

Dear EIS Team:

Thank you for the opportunity to comment on the Draft EIS Document for Paradise Cove (PC), issued on May 8, 2024. We have been home owners at Ko Olina for nearly 20 years and adjacent neighbors of Paradise Cove.

We are providing a list of areas of strong concern and objection regarding the PC plan proposal. These areas of concern involve major adverse impacts on the Ko Olina resort and its nearby residential communities such as Kai Lani. There are also adverse impacts on the west side communities of Oahu. These are not trivial concerns but threaten the Ko Olina community's core economic and quality of life interests. The EIS mentions potential mitigations and offsets but these are broadly stated and come without significant or convincing data to support their effectiveness or feasibility. There are also a number of incompletions.

We now know that although the study for an updated plan has been underway since 2021, (according to a city official), there has been almost no generally announced communication with the community until May of this year. The EIS effort finally surfaced on May 8th, announcing a new project that will be astonishingly 3 times larger than the present facilities. More recently, a public presentation of the plan was made by development representatives on May 22nd to attendees at Makakilo/Kapolei/Honokai Hale Neighborhood Board. Nine people spoke at the meeting, at length, in strong opposition to the plan. One of the most prepared speakers was the General manager of Ko Olina, who explained how the proposal would adversely affect the whole resort. No one spoke in favor of the proposed

plan. All voiced concern that the planning process had not been transparent and raised many concerns for which the EIS did not provide answers. **Meanwhile, the project proponents have not made provision for offering opportunities for interested parties at Ko Olina (of which there are many) to meet with the proponents of the project to ask questions and express concerns. Indeed, even the KOCA office had been excluded as of the May 22nd meeting, notwithstanding the major interests that it represents.**

There are a number of urgent concerns regarding the information provided in the draft EIS pertaining to the future proposed plans for PC.

~ **the proposed plan envisions increasing the size of the entertainment and retail activities at PC by approximately 3 times the current size, while also increasing the hours of operation by 10 hours per day (from 7am to 10pm according to the EIS). Further, it envisions relocating the lu'au amphitheater to the north side of the property, near the wedding chapel and much closer to the open space meadow and Kai Lani residential community of 116 homes.** This will place the source of amplified sound coming from PC within an estimated 300+yards of the closest residents at Kai Lani and make the existing amplified sound encroachment problem much, much worse. The EIS acknowledges that there will be "spill over" amplified sound during entertainment events and this will "potentially impact noise sensitive receptors". The EIS goes on to contend that amplified noise levels will be no different than existing conditions, ignoring the critical fact that the relocated amphitheater will now be much, much closer to numerous residences. The EIS assertion also ignores the fact that existing noise levels from PC entertainment often exceeds the noise control statutes of the city, and currently disturbs residences well after 9PM many nights. This is truly unacceptable and there are certainly other locations at the resort and on Oahu where a relocated lu'au facility could be more comfortably located. **So the proposal calls for more amplified noise impacts, 3 times longer operating hours, and three times more buildings and impervious surface coverage.** This is not sustainable.

~ **additional heavy demands on Ko Olina infrastructure are proposed including roads, sewer, water, storm drainage, and telecom without sufficient clarity as to how these capacity expansion demands will be met, who will pay for them, and how applicants' future needs may become limited as a result.** For example, the EIS estimates the new PC project will generate 7 times the wastewater discharge (an increase from

10,800 gal. per day to 72,765 gpd - Pg. 4-69) without clearly stating how this will be handled and at who's expense. If infrastructure has to be utilized more heavily, how exactly will infrastructure capacities be allocated, and how does the developer propose to protect the entire Ko Olina community and other west side users from having to absorb some or all of these costs?

~ **parking overflow problems appear unavoidable and the EIS has no iron clad plan to assure that overage parking won't end up elsewhere at the resort, including potentially Ko Olina's beloved meadow.** (The EIS reports the current PC has 354 vehicle spaces on the 10.8 acres and will have no more than 406 spaces in the future to accommodate an increased parking demand that The EIS expects to be 440 spaces or higher (for a project that is 3 times larger!). And that estimate may be wrong and could easily be higher if the EIS broadly stated mitigation ideas do not work or are never implemented. So, the EIS effectively acknowledges the current plan cannot accommodate all the parking demand likely to occur with the new plan. There are no assurances that offsite parking overflow will not be sought by the developer and its operators. This is a major concern without a clear and workable solution provided by the EIS.

~ **trash management may become a bigger problem than it already is** on lands in or around PC. Currently there are times when scattered trash on area grounds coming from PC patrons is not picked up. Several residents, when out swimming near the current Paradise Cove operations, have seen plastic cups, bags, etc. on the environmentally sensitive ocean reefs.

~ **new encroachments on cultural and archeological resources may be likely but are not studied in the EIS.**

~ **community benefit appears to be negative.** Having increased tourist-oriented retail and restaurants, competing with our existing Ko Olina stores does not seem to be a useful addition for the community or the west side community. Meanwhile, added congestion, noise and environmental impacts seem to be a big negative for the Resort. Indeed, the present Paradise Cove entertainment complex has taken much more from the community than it has returned.

~ **environmental concerns are extensive.** The added density of uses at PC without meaningful additional protections for marine mammals, sea turtles and shore birds moves the environmental interests of Ko Olina in the wrong direction and may well violate various regulations. Improving our shore environments is a major priority for Oahu

~ **Ignoring sea rise and future flooding is yet another problem with the plan.** (The EIS states that in the next 75 years, approximately 1/3 of the PC property will be subject to repeated flooding due to global warming and expected sea rise.) It doesn't appear to be practical or responsible to

allow additional development in any of the environmentally sensitive areas.

~ **Campbell LLC is endangering its reputation, given its important role in Kapolei and Oahu and the historical family ownership of the adjacent Lanikuhonua property. And it is endangering the community of which it is a part.** With expanded uses and congestion at PC, many questions arise as to how convenient access will be protected for Lanikuhonua and the adjacent public beach (home to endangered turtles and monk seals). The heightened commercial uses at PC appear to be completely incompatible with adjacent uses. It appears that future visits to Lanikuhonua will be degraded by this major expansion of commercial uses.

~ **The 10.8 acre PC property is officially an outparcel within the Ko Olina Resort, yet derives almost all of its benefits from the infrastructure and amenities provided by the resort as well as the City and County. Additionally, Ko Olina provides substantial patron support with customers who come from nearby Ko Olina hotels. The parcel and its owners reportedly do not pay to Ko Olina any funds to help defray the costs they impose on the resort and the disturbances they cause, and yet draw heavily on local customer support. This is a self-serving proposition that the PC proponents now propose to greatly enlarge - at the community's expense.**

Thank you for the opportunity to provide comments, concerns and objections.

Sincerely,

William and Sara Barnes
92-1001 Aliinui Dr., 24E
Kapolei, HI 96707

**Draft Archaeological Inventory Survey
Report for The Cove Redevelopment
Project, Honouliuli Ahupua‘a, ‘Ewa
District, O‘ahu**

Draft

**Archaeological Inventory Survey Report for The Cove
Redevelopment Project,
Honouliuli Ahupua‘a, ‘Ewa District, O‘ahu
TMK: [1] 9-1-057:027**

**Prepared for the
Cove Campbell Kobayashi, LLC**

**Prepared by
Brittany Enanoria, B.A.,
Scott A. Belluomini, B.A.,
David W. Shideler, M.A.,
and
Hallett H. Hammatt, Ph.D.**

**Cultural Surveys Hawai‘i, Inc.
Kailua, Hawai‘i
(Job Code: HONOULIULI 181)**

November 2024

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Management Summary

Reference	Archaeological Inventory Survey Report for The Cove Redevelopment Project, Honouliuli Ahupua‘a, ‘Ewa District, O‘ahu, TMK: [1] 9-1-057:027 (Enanoria et al. 2024)
Date	November 2024
Project Number(s)	Cultural Surveys Hawai‘i, Inc. (CSH) Job Code: HONOULIULI 181
Investigation Permit Number	CSH completed the archaeological inventory survey (AIS) fieldwork under archaeological fieldwork permit number 19-07, issued by the Hawai‘i State Historic Preservation Division (SHPD) per Hawai‘i Administrative Rules (HAR) §13-13-282.
Agencies	SHPD
Land Jurisdiction	Campbell HI Investor LLC
Project Proponent	Cove Campbell Kobayashi, LLC
Project Funding	Cove Campbell Kobayashi, LLC
Project Location	The project area is located between Ali‘inui Drive and the shoreline <i>makai</i> (seaward)/west of the entrance to the Ko Olina Resort. The project area is depicted on the 1998 Ewa U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle.
Project Description	<p>The intent of the upcoming property improvement is to create an authentic Hawaiian gathering place with an inclusive, spiritual, genuine, surprising, and welcoming character for <i>kama ‘āina</i> (native born) and visitors. When completed, new amenities will celebrate the traditions, beauty, and spirit of ancient Hawai‘i in an immersive coastal setting unlike any place on O‘ahu. The revitalized property will offer a unique mix of Hawaiian music and entertainment, dining, shopping, and other cultural engagement activities that will stand out to the community for its unique setting and memorable experiences. The history of the place will be recognized.</p> <p>Planned improvements include a new performing arts venue including a commercial kitchen capable of housing a daily entertainment experience focused on Hawaiian culture. To activate the property as a gathering place throughout the day, other planned improvements may include small-scale retail shops, an open-air marketplace showcasing made in Hawai‘i and West O‘ahu goods and services, restaurants showcasing local cuisine and agricultural products, cultural demonstration areas, daytime activities appropriate for the coastal setting, and welcoming and engaging common areas. Potential programming may include commercial activities highlighting the sense of the place, educational and cultural workshops, and coordinated cultural events and programs with the neighboring Lanikūhonua Cultural Institute.</p>

	<p>The property's improvement will abide by its unilateral agreement condition of zoning which requires the redevelopment to comply with a 30 percent lot coverage limit, thereby keeping intact a natural sense of open space and <i>makai</i> view planes. Structures will be set well back from the shoreline considering resiliency needs for rising seas and storm events, the natural and cultural sensitivity of the near shore areas, and to ensure open access shoreline paths.</p> <p>The improvements are planned for completion around 2027 when the property will be opened to the public with a new and authentic sense of place recognizing its special setting and history.</p>
Project Acreage	10.85 acres (4.39 hectares)
Historic Preservation Regulatory Context	<p>This AIS investigation fulfills the requirements of HAR §13-276 and was conducted to identify, document, and assess significance of any historic properties. This document is intended to support the proposed project's historic preservation review under Hawai'i Revised Statutes (HRS) §6E-42 and HAR §13-284. It is also intended to support any project-related historic preservation consultation with stakeholders, such as state and county agencies and interested Native Hawaiian Organizations (NHOs) and community groups.</p> <p>Six previous studies have been conducted within the current project area. Komori and Dye (1979) conducted archaeological testing at West Beach (initial development of Ko Olina Resort area) and documented salt pans (CSH 1, see Appendix C) located outside the current project area. In 1987, Davis and Haun conducted an AIS for West Beach identifying coastal wetlands (State Inventory of Historic Places [SIHP] # 50-80-12-03362) consisting of two features including Feature 1, coastal backwater (in the southern portion of the project area) and Feature 2, a habitation area (outside the current project area). Davis (2000) conducted data recovery for the Davis and Haun (1987) study area, and documented SIHP # -03362. Glidden et al. (1993) conducted data recovery testing in selected areas of Paradise Cove and observed the coastal wetlands (SIHP # -03362) in the southern portion of the current project area. Human skeletal remains (SIHP # -04968) were identified for a gas line excavation in the western portion of the project area at the main stage (Jourdane 1995). Hammatt (1995) documented an additional four human burials (SIHP # -04968) within the remaining gas line excavation.</p>
Fieldwork Effort	<p>Fieldwork was accomplished between 21 October and 12 November 2019 by Scott Belluomini, B.A., Jessica Burden, B.A., Brittany Enanoria, B.A., Thomas Martel III, B.A., and Alison Welser, M.A., under the direction of Project Manager David Shideler, M.A., and the general supervision of Principal Investigator Hallett H. Hammatt, Ph.D. This work required approximately 30 person-days to complete.</p>

Historic Properties Identified and Significance	<p>Two previously documented historic properties are within the project area: SIHP # 50-80-12-03362 (coastal wetlands) and SIHP # 50-80-12-04968 (human skeletal remains).</p> <p>SIHP # 50-80-12-03362, coastal wetlands, and is assessed as significant per HAR §13-284-6 under significance Criteria d (have yielded, or is likely to yield information important for research on prehistory or history).</p> <p>SIHP # 50-80-12-04968, human skeletal remains, assessed as significant per HAR §13-284-6 under significance Criteria d (have yielded, or is likely to yield information important for research on prehistory or history) and e (have an important value to the Native Hawaiian people or to another ethnic group of the state due to its associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts these associations being important to the group's history and cultural identity).</p>
Project Effect	<p>The proposed project will potentially affect historic properties (SIHP #s 50-80-12-03362 and 50-80-12-04968) identified within the project area. The project-specific effect is "Effect, with agreed upon mitigation commitments" pursuant to HAR §13-284-7.</p>
Mitigation Commitments	<p>The agreed up on mitigation commitments outlined below will reduce the project's potential effect on the significant historic properties:</p> <p>Archaeological monitoring (a form of archaeological data recovery) of all ground-disturbing activities is agreed upon for the entire project area. On-site archaeological monitoring will be conducted to identify and appropriately document any additional exposures of SIHP #s 50-80-12-03362 and any historic properties that may be newly identified historic properties that may be encountered during construction. An archaeological monitoring plan meeting the requirements of HAR §13-279-4 will be submitted for SHPD review and acceptance prior to the initiation of any project-related ground disturbing activities.</p> <p>SHPD's records for SIHP # -04968 indicate that consultation with Native Hawaiian Organizations (NHO's), CSH, and representatives from James Campbell Estate regarding preservation and that long-term preservation was agreed upon in a meeting held on 18 January 1995 (see Appendix A). SHPD has no record of a preservation plan for SIHP # -04968. On 5 July 2024, SHPD confirmed that a project-specific burial site component of a preservation plan (BSCPP) is required for SIHP # -04968 in an email (Jordan Calpito and Dr. Susan Lebo [SHPD]).</p> <p>The landowner will record the burial preserve area (CSH 2) for SIHP # -04968 with the Bureau of Conveyances, if not already conducted. The burial preserve area (CSH 2) shall remain in perpetuity to preserve the <i>iwi kūpuna</i> (Native Hawaiian skeletal remains).</p>

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Section 1 Introduction

1.1 Project Background

At the request of Cove Campbell Kobayashi, LLC, Cultural Surveys Hawai‘i, Inc. (CSH) has prepared this archaeological inventory survey report (AISR) for The Cove Redevelopment project, Honouliuli Ahupua‘a, ‘Ewa District, O‘ahu, TMK: [1] 9-1-057:027. The project area is currently leased by Paradise Cove, located between Ali‘i Nui Drive and the shoreline, *makai* (seaward)/west of the entrance to the Ko Olina Resort. The project area is depicted on a portion of the 1998 Ewa U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 1), a tax map plat (Figure 2), and a 2013 aerial photograph (Figure 3).

Cove Campbell Kobayashi, LLC plans to improve the 10.85-acre (4.39-hectare) property located at 92-1089 Ali‘i Nui Drive (The Cove property). This will be the first major improvement of amenities on the property in over 25 years.

Use of the property has been primarily for commercial *lū‘au* (modern term for Hawaiian feast) and entertainment operations since the late 1970s. The on-property facilities that house the current entertainment business date from the property’s last major redevelopment in the early 1990s when the property was zoned and subdivided in recognition of its long-time commercial use. Prior to its commercial use, the property was part of the neighboring Lanikūhonua property which was the residence of Alice Kamokilaikawai Campbell (1884–1971) for over 30 years. Kamokila Campbell was the daughter of James Campbell (1826–1900). The Cove property was acquired by James Campbell in 1877 as a part of his purchase of the *ahupua‘a* (traditional land division) of Honouliuli.

The intent of the upcoming property improvement is to create an authentic Hawaiian gathering place with an inclusive, spiritual, genuine, surprising, and welcoming character for *kama‘āina* (native born) and visitors. When completed, new amenities will celebrate the traditions, beauty, and spirit of ancient Hawai‘i in an immersive coastal setting unlike any place on O‘ahu. The revitalized property will offer a unique mix of Hawaiian music and entertainment, dining, shopping, and other cultural engagement activities that will stand out to the community for its unique setting and memorable experiences. The history of the place will be recognized.

Planned improvements include a new performing arts venue including a commercial kitchen capable of housing a daily entertainment experience focused on Hawaiian culture. To activate the property as a gathering place throughout the day, other planned improvements may include small-scale retail shops, an open-air marketplace showcasing made in Hawai‘i and West O‘ahu goods and services, restaurants showcasing local cuisine and agricultural products, cultural demonstration areas, daytime activities appropriate for the coastal setting, and welcoming and engaging common areas. Potential programming may include commercial activities highlighting the sense of the place, educational and cultural workshops, and coordinated cultural events and programs with the neighboring Lanikūhonua Cultural Institute.

The property’s improvement will abide by its unilateral agreement condition of zoning which requires the redevelopment to comply with a 30 percent lot coverage limit, thereby keeping intact a natural sense of open space and *makai* view planes. Structures will be set well back from the shoreline considering resiliency needs for rising seas and storm events, the natural and cultural

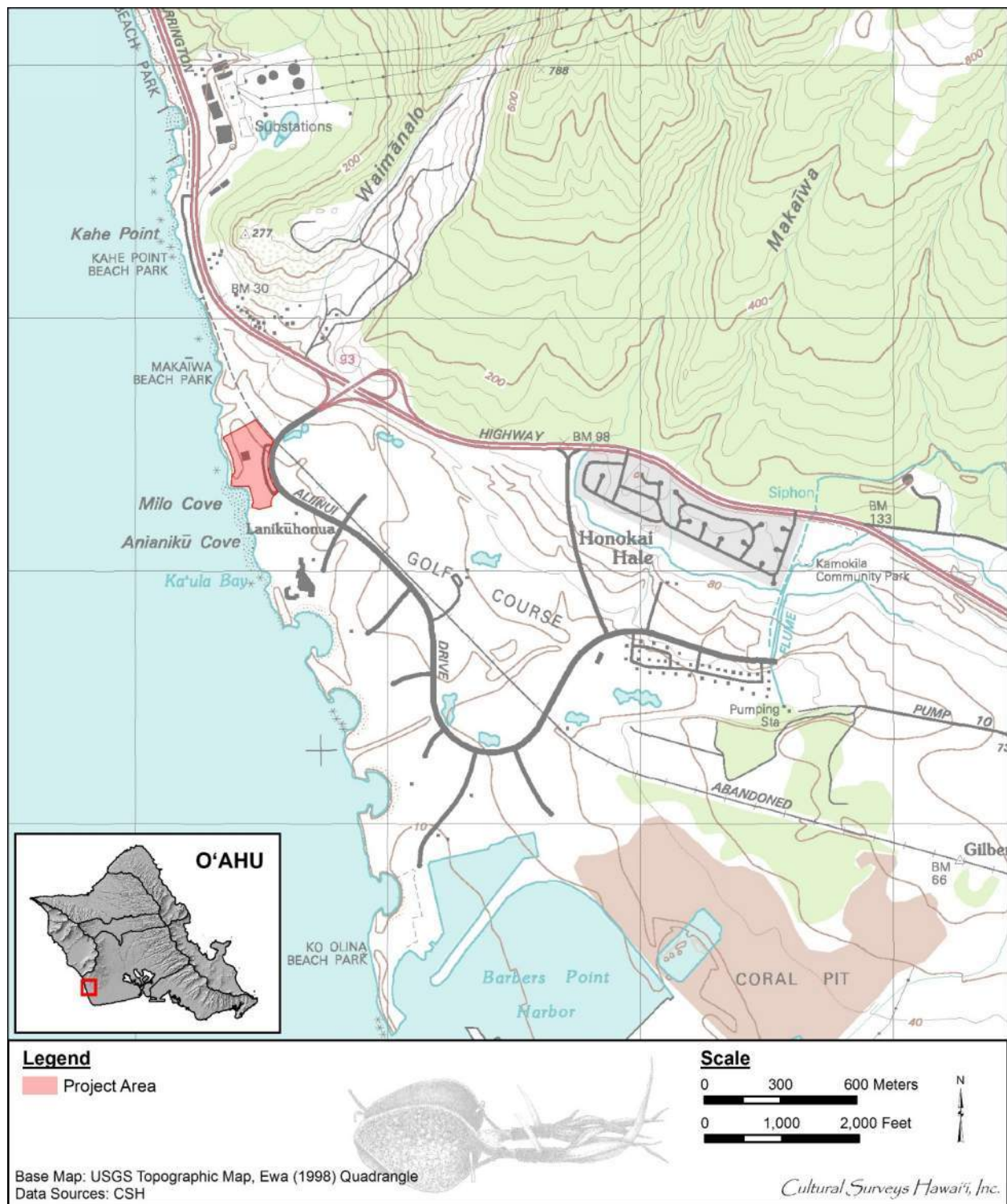


Figure 1. Portion of the 1998 Ewa USGS 7.5-minute topographic quadrangle map showing the location of the project area

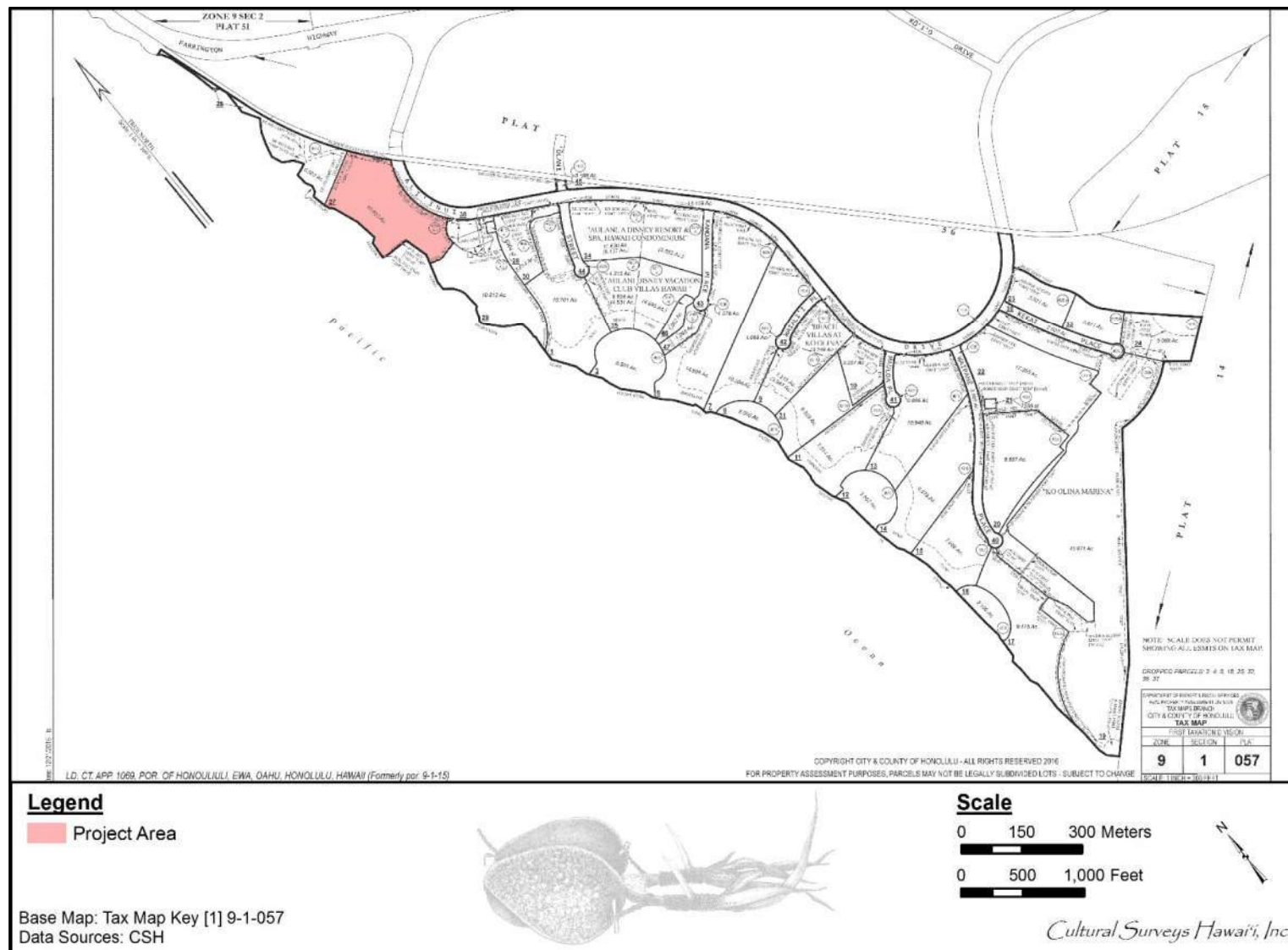


Figure 2. TMK: [1] 9-1-057 showing the location of the project area (Hawai'i TMK Service 2016)



Figure 3. Aerial photograph showing the location of the project area (Google Earth 2013)

sensitivity of the near shore areas, and to ensure open access shoreline paths.

The improvements are planned for completion around 2027 when the property will be opened to the public with a new and authentic sense of place recognizing its special setting and history.

1.2 Historic Preservation Regulatory Context and Document Purpose

This AIS investigation fulfills the requirements of Hawai'i Administrative Rules (HAR) §13-13-276 and was conducted to identify, document, and make significance assessments of any historic properties. This document is intended to support the proposed project's historic preservation review under Hawai'i Revised Statutes (HRS) §6E-42 and HAR §13-275, as well as the project's environmental review under HRS §343. It is also intended to support any project-related historic preservation consultation with stakeholders, such as state and county agencies and interested Native Hawaiian Organizations (NHOs) and community groups.

Six previous studies have been conducted within the current project area. Komori and Dye (1979) conducted archaeological testing at West Beach (initial development of Ko Olina Resort area) and documented salt pans (CSH 1, see Appendix C) located outside the current project area. In 1987, Davis and Haun conducted an AIS for West Beach identifying coastal wetlands (SIHP # 50-80-12-03362) consisting of two features including Feature 1, coastal backwater (in the southern portion of the current project area) and Feature 2, a habitation area (outside the current project area). Davis (2000) conducted data recovery for the Davis and Haun (1987) study area, and documented SIHP # -03362. Glidden et al. (1993) conducted data recovery testing in selected areas of Paradise Cove and observed the coastal wetlands (SIHP # -03362) in the southern portion of the current project area. Human skeletal remains (SIHP # -04968) were identified within a gas line excavation in the western portion of the project area at the main stage (Jourdan 1995). Hammatt (1995) documented an additional four human burials (SIHP # -04968) within the remaining gas line excavation.

1.3 Environmental Setting

1.3.1 Natural Environment

The project area is on the southwest coast of O'ahu, with elevations typically below 5 m above mean sea level. Annual temperature in the project area averages 23.8° C (74.7° F) (Giambelluca et al. 2014). The mean annual rainfall is between 567 mm (22.19 inches) and 569 mm (22.43 inches) (Giambelluca et al. 2013). Surface water in the vicinity is quite limited. Maka'iwa Gulch and Waimānalo Gulch to the northeast host intermittent streams, but these rarely flow except during major storms (see Figure 7).

According to the U.S. Department of Agriculture (USDA) Soil Survey Geographic (SSURGO) database (2001) and soil survey data gathered by Foote et al. (1972), the project area's soils are diverse (Figure 4). The northern portion of the project area extending to a small portion of the shoreline is within Keaau clay, 0 to 2% slopes (KmA). The remainder of the shoreline is within coral outcrop (CR). The southeastern portion of the project area is within Keaau clay, saline, 0 to 2% slopes (KmbA). The southern portion of the project area is adjacent to Jaucas sand, 0 to 15% slopes (JaC).

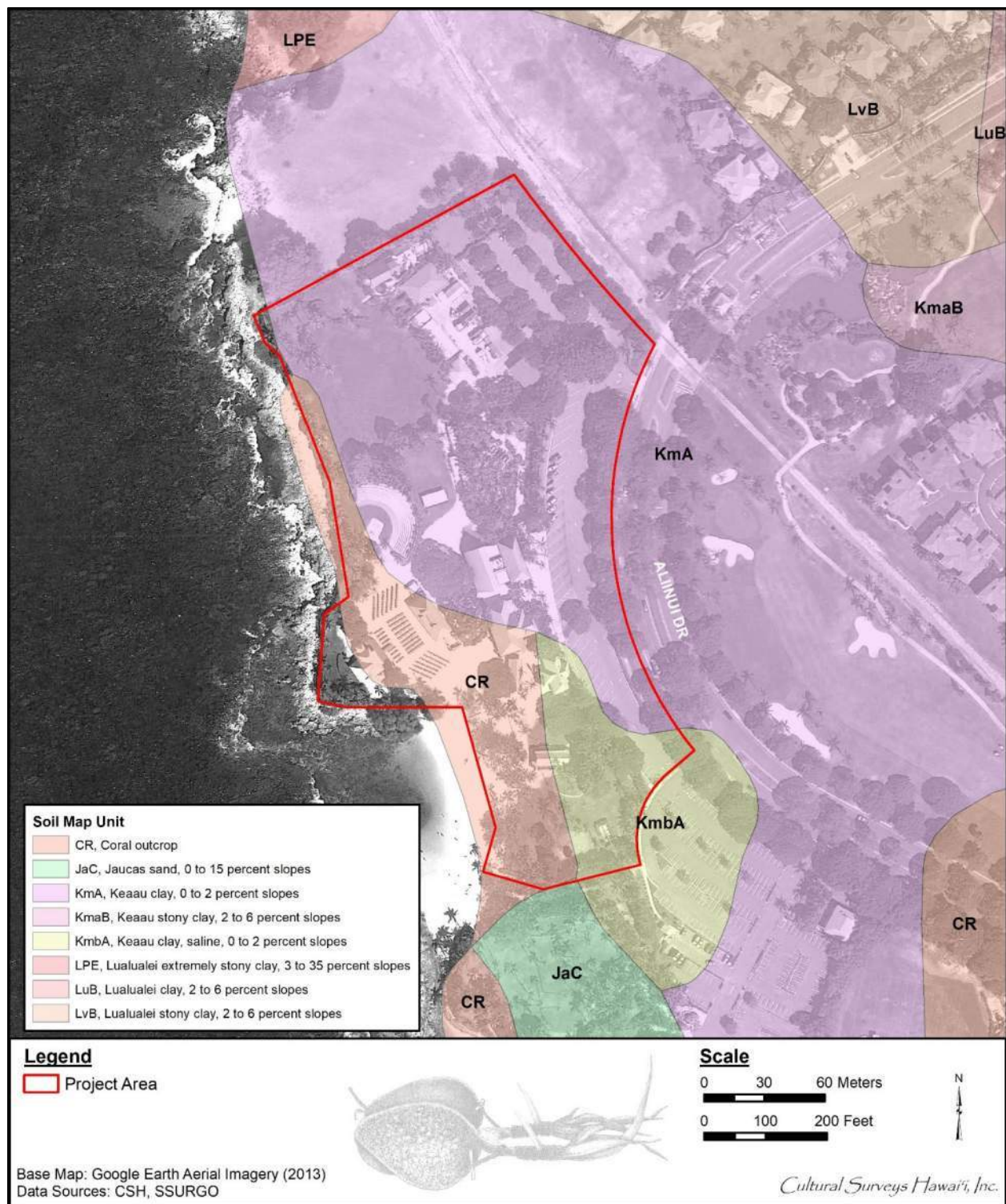


Figure 4. Portion of a 2013 Google Earth aerial imagery with overlay of *Soil Survey of the State of Hawaii* (Foote et al. 1972; USDA SSURGO 2001), indicating soil types within and surrounding the project area

Keaau series are described as follows:

This series consists of poorly drained soils on the coastal plains on the island of Oahu. These soils are developed in alluvium deposited over reef limestone or consolidated coral sand. They are nearly level and gently sloping. Elevations range from 5 to 40 feet. The annual rainfall amounts to 20 to 35 inches. Most of the rainfall occurs between November and April. The mean annual soil temperature is 73° F. Keaau soils are geographically associated with Kaloko, Mokuleia, and Pearl Harbor soils.

These soils are used for sugarcane and pasture. The natural vegetation consists of kiawe, bemudagrass, bristly foxtail, and fingergrass [Foote et al. 1972:64–65]

Coral outcrop soils are described as follows:

Coral outcrop (CR) consists of coral or cemented calcareous sand on the island of Oahu. The coral reefs formed in shallow ocean water during the time the ocean stand was at a higher level. Small areas of coral outcrop are exposed on the ocean shore, on the coastal plains, and at the foot of the uplands. Elevations range from sea level to approximately 100 feet. The annual rainfall amounts to 18 to 40 inches. Coral outcrop is geographically associated with Jaucas, Keaau, and Mokuleia soils.

Coral outcrop makes up about 80 to 90 percent of the acreage. The remaining 10 to 20 percent consists of a thin layer of friable, red soil material in cracks, crevices, and depressions within the coral outcrop. This soil material is similar to that of the Malama series.

This land type is used for military installations quarries, and urban development. Vegetation is sparse. It consists of kiawe, koa haole, and fingergrass. [Foote et al. 1972:29]

The Jaucas soil series is described as follows:

excessively drained, calcareous soils that occur as narrow strips on coastal plains, adjacent to the ocean. These soils occur on all islands of this survey area. They developed in wind- and water deposited sand from coral and seashells. They are nearly level to strongly sloping. Elevations range from sea level to 100 feet. [Foote et al. 1972:48]

1.3.2 Built Environment

Paradise Cove is located adjacent to Lanikūhonua Cultural Institute to the south, Makaiwa Beach Park to the north, Kai Lani at Ko Olina Aoa and a portion of Ko Olina Golf Course to the east, and the Pacific Ocean to the west (see Figure 3). Ali'inui Drive is the major vehicular artery servicing the resorts of Ko Olina and connecting them to the H-1 freeway system. The project area has been extensively modified from sugarcane development and previous construction activities related to Paradise Cove. The eastern portion of the project area consists of a large paved parking lot area. The remainder of the Paradise Cove area consists of large flat grassy areas, portable and intact buildings, and modern *lū'au* huts. The landscaping includes coconut trees (*Cocos nucifera*), *kiawe* (*Prosopis pallid*), *naupaka* (*Scaevola sericea*), mimosa trees (*Albizia julibrissin*), and various exotic shrubs.

Section 2 Methods

2.1 Field Methods

CSH completed the fieldwork component of this AIS under archaeological fieldwork permit number 19-07, issued by the State Historic Preservation Division (SHPD) pursuant to HAR §13-282. Fieldwork was accomplished between 21 October and 12 November 2019 by Scott Belluomini, B.A., Jessica Burden, B.A., Brittany Enanoria, B.A., Thomas Martel III, B.A., and Alison Welser, M.A., under the direction of Project Manager David Shideler, M.A., and the general supervision of Principal Investigator Hallett H. Hammatt, Ph.D. This work required approximately 30 person-days to complete.

In general, fieldwork included 100% pedestrian inspection of the project area, GPS data collection, and subsurface testing.

2.1.1 Pedestrian Survey

Archaeologists undertook a 100%-coverage pedestrian inspection of the project area for the purpose of historic property identification and documentation. The pedestrian survey was accomplished through systematic sweeps spaced 10 m apart (Figure 5). The inventory, documentation, and significance evaluation of potential architectural historic properties are not part of the scope of this AIS. Archaeologists documented the general characteristics of the project area and took general photographs of the project area. The eastern portion of the project area consists of a large paved parking lot area. The remainder of the Paradise Cove area consists of large flat grassy areas, portable and intact buildings, and modern *lū'au* huts.

There are no buildings or structures over 50 years old, therefore, there are no architectural historic properties within the project area.

2.1.2 GPS Data Collection

Archaeologists recorded the locations of each of the exterior test excavations using a Trimble Pro XH mapping grade GPS unit with real-time differential correction. This unit provides sub-meter horizontal accuracy in the field. GPS field data was post-processed, yielding horizontal accuracy between 0.5 and 0.3 m. GPS location information was converted into GIS shape files using Trimble's Pathfinder Office software, version 2.80, and graphically displayed using ESRI's ArcGIS 10.3. CSH utilizes the NAD 83 HARN datum and UTM Zone 4N coordinate system.

2.1.3 Subsurface Testing

The subsurface testing program was backhoe-assisted and involved 16 test excavations (T-1 through T-16) in which two were entirely hand excavated. The testing strategy was based on consultation with the SHPD and cultural descendant Nettie Fernandez Tiffany (Aunty Nettie). In general, linear trenches measuring approximately 6 m (20 feet [ft]) long and 0.6 m (2 ft) wide were excavated within the project area.

The subsurface testing plan originally consisted of 19 subsurface test excavations (T-1 through T-19). The subsurface testing plan was modified per the request of SHPD in a meeting held on 24 May 2018 to exclude three proposed test excavations (T-17 through T-19) (Figure 6). Previous



Figure 5. 2013 Google Earth Aerial Imagery depicting the project area in red and archaeological pedestrian survey track log of one of three archaeologists in yellow



Figure 6. 2013 Google Earth Aerial Imagery depicting the project area, completed test excavations in yellow (T-1 through T-16), initial proposed test excavation locations in blue (T-1 through T-19), Komori and Dye (1979) test pits in purple (TP1 through TP6), and Glidden et al. (1993) excavations in green (1 through 9)

archaeological studies show extensive investigation within the existing parking lot areas in the western portion of the project area consisting entirely of fill material. Due to previously conducted testing and no archaeological findings, only one test excavation was placed in the parking lot area in the northwestern portion of the project area (T-3).

Six previous test excavations from previous studies were conducted near the shoreline and yielded three previously identified historic properties including salt pans (CSH 1 located outside the current project area, see Appendix C), coastal marshlands (SIHP # 50-80-12-03362), and human burials (SIHP # 50-80-12-04968). Current AIS test excavations were placed targeting those areas and within areas not previously investigated. The remainder of the test excavations were placed for representative distribution. Some trenches were reoriented based on known subsurface utilities via the maintenance crew and concerns from Auntie Nettie. The eastern portion of the project area included specific instruction from Auntie Nettie regarding proximity to known human burials in the near vicinity. Two AIS test excavations in this area (T-10 and T-12) were entirely hand excavated to a maximum depth of 3 feet below surface (ftbs) or sterile material to avoid possible known voids in the coral shelf and sterile Jaucas sand.

Two test excavations (T-11 and T-14) were abandoned due to the presence of an active sewer drain line and a fire sprinkler line that both broke during excavation activities. Both the sewer drain line and fire sprinkler lines were repaired.

A stratigraphic profile of each test excavation was drawn and photographed. The observed sediments were described using standard USDA soil description observations/terminology. Sediment descriptions included Munsell color, texture, consistence, structure, plasticity, cementation, origin of sediments, descriptions of any inclusions such as cultural material and/or roots, lower boundary distinctiveness and topography, and other general observations. Where stratigraphic anomalies or potential cultural deposits were exposed, these were carefully represented on test excavation profile maps.

Archaeologists photographed the general study area and in-progress work, recording on-the-job procedures, personnel, work conditions, and the area's natural and/or built environment. Additionally, they photographed all subsurface features, cultural deposits, and profiles. They included a photographic scale and north arrow, as appropriate, in each photograph.

When archaeologists encountered potential historic properties, they documented them as discussed above in addition to illustrating a plan map, if possible. Additional documentation of the potential historic properties included, if possible, size, horizontal extent, descriptions of features, presence and/or absence of surface and subsurface remains, and information that can contribute to the assessments of integrity, function, age, and significance in accordance with HAR §13-276-5.

Bulk samples were collected from probable cultural deposits from trench sidewalls when possible. In some cases, the water table rose quickly, likely due to the close proximity of the shoreline, and bulk samples were taken from the backdirt pile with approximate depths.

CSH osteologist Alison Welser, M.A., examined and identified all faunal remains in the field; faunal remains were collected for further laboratory analysis and curation. When historic artifacts were present within historic fill deposits, CSH archaeologists collected a grab sample artifact assemblage for laboratory analysis and curation. The grab sample artifact assemblage was selected to include examples of types of some of the artifacts including examples of artifacts with

decoration or manufacturing marks. CSH archaeologists recorded provenience for each artifact collected. CSH personnel cleaned, identified, and tabulated these historic artifacts from fill deposits, providing a characterization of the types and ages of historic artifacts within these fill deposits.

2.2 Laboratory Methods

Materials collected during AIS fieldwork were identified and catalogued at CSH's laboratory facilities on O'ahu. Analysis of collected materials was undertaken using standard archaeological laboratory techniques. Materials were washed, sorted, measured, weighed, described, and/or photographed.

2.2.1 Artifact Analysis

In general, artifact analysis focused on establishing, to the greatest extent possible, material type, function, cultural affiliation, and age of manufacture. As applicable, artifacts were washed, sorted, measured, weighed, described, photographed, and catalogued. Diagnostic (dateable or identifiable) attributes of artifacts were researched. Historic artifacts were identified using standard reference materials (e.g., Elliott and Gould 1988; Fike 1987; Godden 1964; Kovel and Kovel 1986; Lehner 1988; Lindsey 2014; Millar 1988; Munsey 1970; Toulouse 1971; Whitten 2009; and Zumwalt 1980), as well as resources available on the internet.

Analyzed materials were tabulated and are presented in Section 5.1 Artifact Analysis.

2.2.2 Faunal Analysis

Faunal analysis focused on species identification and evidence of food consumption. For collected invertebrate remains, shell midden was first separated from non-midden shell. Non-midden shell was then weighed as a bulk total with no additional analysis warranted. Shell midden was identified to the lowest possible taxa, weighed, and analyzed. Common shells were identified and analyzed using an in-house comparative collection and reference texts (e.g., Abbott and Dance 1990; Eisenberg 1981; Kay 1979; Titcomb 1979). Carl Christensen, Ph.D. was consulted for identification of rare and/or extinct invertebrates. Collected non-human vertebrate skeletal material was identified to the lowest possible taxa and analyzed using an in-house comparative collection and reference texts (e.g., Adams and Crabtree 2012; Olsen 1964; Schmid 1972; Sisson 1953). A catalogue of all collected material was prepared and is presented in Section 5.2: Faunal Analysis.

2.2.3 Disposition of Materials

Materials collected during the current AIS will remain temporarily curated at the CSH office in Waimānalo, O'ahu. No human remains or grave goods were collected. CSH will make arrangements with the landowner regarding the disposition of this material. Should the landowner request different archiving of material, an archive location will be determined in consultation with the SHPD. All data generated during the AIS are stored at the CSH offices.

2.2.4 Research Methods

Background research included a review of previous archaeological studies on file at the SHPD; review of documents at Hamilton Library of the University of Hawai'i, the Hawai'i State Archives, the Mission Houses Museum Library, the Hawai'i Public Library, and the Bishop Museum Archives; study of historic photographs at the Hawai'i State Archives and the Bishop Museum

Archives; and study of historic maps at the Survey Office of the Department of Land and Natural Resources. Historic maps and photographs from the CSH library were also consulted. In addition, Māhele records were examined from the Waihona 'Aina database (Waihona 'Aina 2020).

This research provided the environmental, cultural, historic, and archaeological background for the project area. The sources studied were used to formulate a predictive model regarding the expected types and locations of historic properties in the project area.

Section 3 Background Research

3.1 Traditional and Historical Background

3.1.1 Historical Setting

The project area is on the southwestern margin of the traditional Hawaiian land unit (*ahupua'a*) of Honouliuli. Honouliuli *Ahupua'a*, had tremendous and varied resources available for exploitation by early Hawaiians (Figure 7). The “karstic desert” and marginal utility of the limestone plain, which is the most readily visible terrain, does not characterize the *ahupua'a* as a whole. The richness of this land unit is marked by the following available resources:

1. Twelves miles of coastline with continuous shallow fringing reef, which offered rich marine resources
2. Four miles fronting the waters of West Loch that offered extensive fisheries (mullet, *awa* [milkfish], shellfish) as well as frontage suitable for development of fishponds (for example, Laulaunui)
3. The lower portion of Honouliuli Valley in the 'Ewa plain offered rich, level, alluvial soils with plentiful water for irrigation from the stream as well as abundant springs. This irrigable land would have stretched well up the valley.
4. A broad limestone plain which, because of innumerable limestone sinkholes, offered a nesting home for a large population of avifauna; this resource may have been one of the early attractions for human settlement.
5. An extensive upland forest zone extending as much as 12 miles inland from the edge of the coastal plain. As Handy and Handy (1972:469) have pointed out, the forest was much more distant from the lowlands here than on the windward coast, but it was much more extensive. Much of the upper reaches of the *ahupua'a* would have had species-diverse forest with *kukui* (*Aleurites moluccana*), *ōhia* (*Metrosideros* sp.), *īliahi* (sandalwood), *hau* (*Hibiscus tiliaceus*), *kī* (ti leaf), banana, etc.

The political and cultural center of the *ahupua'a* is understood to have been the relatively dense settlement and rich lands for irrigated taro cultivation at the *'ili* (land division smaller than an *ahupua'a*) of Honouliuli, where Honouliuli Stream empties into the north portion of the West Loch of Pearl Harbor (popularly known as the “Honouliuli Taro Lands”). The name of the *ahupua'a*, translated as “dark bay” (Pukui et al. 1974:51), may refer to the nature of the waters of West Loch at the mouth of Honouliuli Stream. Early accounts and maps indicate a large settlement at the *'ili* of Honouliuli, and it may well be that the political power of this village was so great it was able to extend its jurisdiction well to the northwest into an area that might have been anticipated to fall under the dominion of the Wai'anae ruling chiefs of O'ahu's leeward coast.

The main route connecting the Honouliuli taro lands and southeast O'ahu to the Wai'anae Coast passed north/northeast of the project area (Figure 7 through Figure 9), but there would also have been a trail along the coast. Our earliest detailed map of the vicinity, the Malden map of 1825 (see Figure 9) indicates the nearest community just northeast of the project area along the coast.

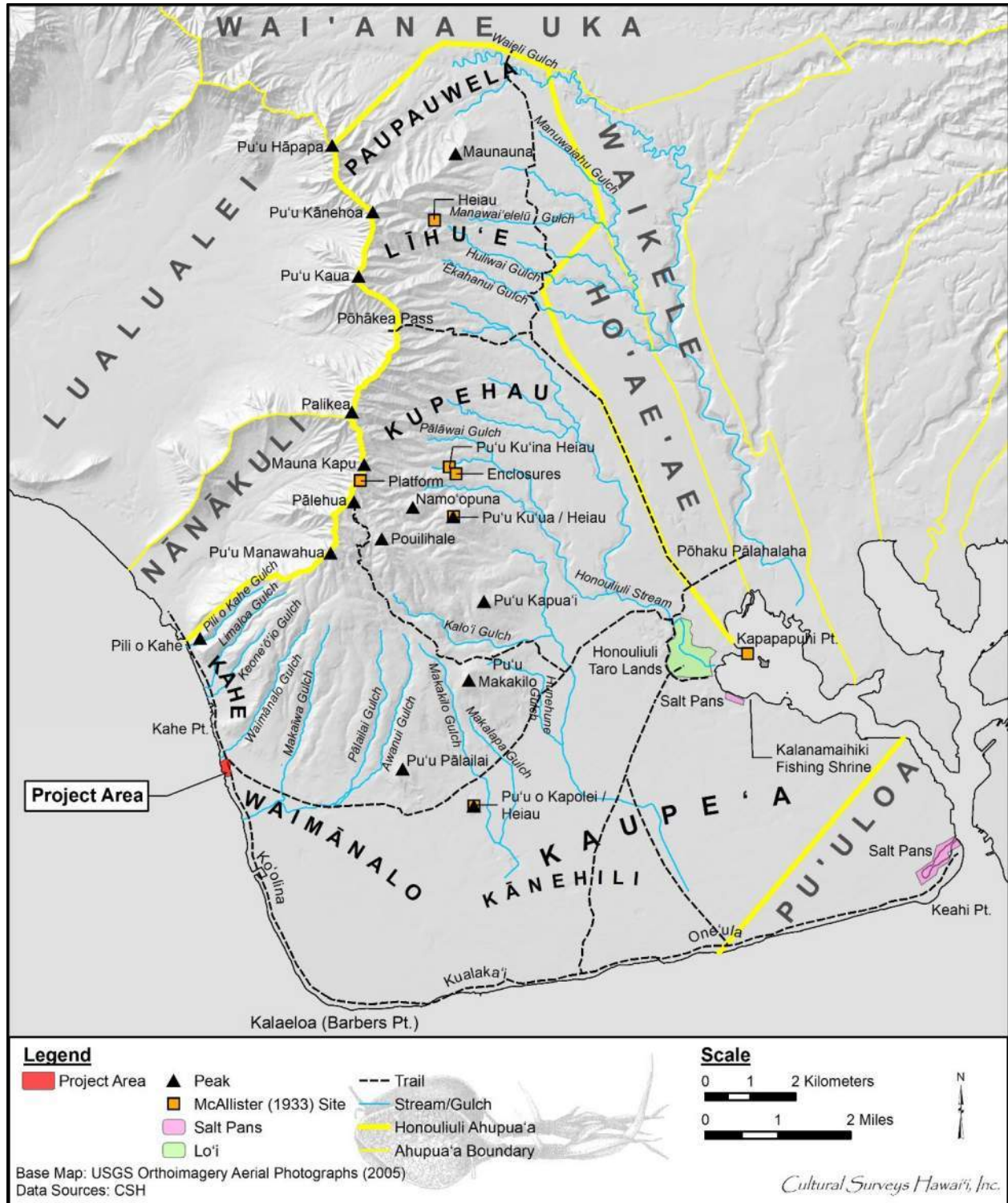


Figure 7. 2005 USGS Orthoimagery Aerial Photograph with overlay of the location of The Cove Redevelopment project area, and the cultural landscape of Honouliuli Ahupua'a in southwest O'ahu



Figure 8. Portion of Rockwood map of trails of Leeward O'ahu ca. 1810 (from 'I'i 1959:96) showing the location of The Cove Redevelopment project area

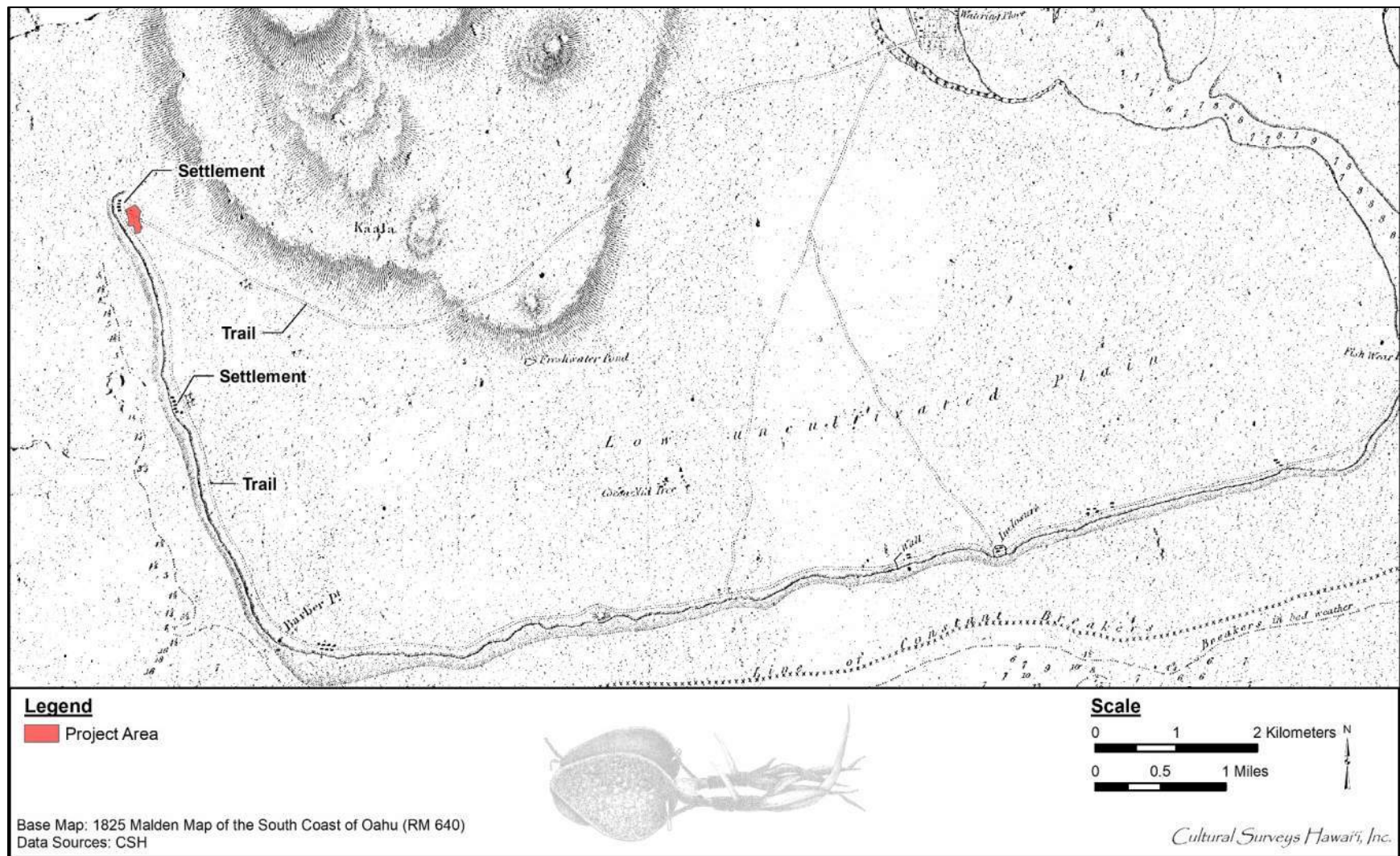


Figure 9. Portion of 1825 Malden map of the South Coast of Oahu (RM 640) showing the location of The Cove Redevelopment project area in relation to former trails and settlements

3.1.2 Mythological and Traditional Accounts

The traditions of Honouliuli Ahupua'a have been compiled and summarized in studies by Sterling and Summers (1978), Hammatt and Folk (1981), Kelly (1991), Charvet-Pond and Davis (1992), Maly (1992), and Tuggle and Tomonari-Tuggle (1997). Themes of these traditions include connections with Kahiki (the traditional homeland of Hawaiians, probably in reference to central Polynesia) and the special character and relationship of the places known as Pu'uokapolei and Kualaka'i.

Connections with Kahiki are found in numerous place names, traditional events, and with the beings associated with Honouliuli. There are several versions of Kaha'i leaving from Kalaeloa for a trip to Kahiki to bring breadfruit back to 'Ewa (e.g., Kamakau 1991:110). There are several stories that associate places in the region with Kamapua'a and the Hina family, as well as with Pele's sisters, all of whom have strong connections with Kahiki (cf. Kamakau 1991:111; Pukui et al. 1974:200).

Pu'uokapolei was one of the most sacred places in Honouliuli (cf. Sterling and Summers 1978:33). Pu'uokapolei's connections with Kahiki are emphasized when it is noted that the hill was the home of Kamapua'a's grandmother, Kamaunuanoho, the Kahiki ancestor to the people of O'ahu (Fornander 1919:5:318; Kahiolo 1978:81, 107). By name, Kapolei is associated with the goddess Kapo, another connection with the Pele and Kamapua'a stories (Kamakau 1976:14).

McAllister (1933:108) records that a *heiau*, or temple, was on Pu'uokapolei but was destroyed before his survey of 1930. The *heiau* may have been associated with the sun (Fornander 1919:3:292). The hill was used as a point of solar reference or as a place where such observations were made. Pu'uokapolei may have been the gate of the setting sun. There is little specific information for Pu'uokapolei, but the place name itself ("hill of beloved Kapo") is hard to ignore. It is mentioned in some cosmologies that Kū was the god of the rising sun, and Hina should be associated with the setting sun (Hina is the mother of Kamapua'a). Fornander (1919:3:292) states that Pu'uokapolei may have been a jumping off place (also connected with the setting sun) and associated with the dead who roamed the adjacent Plain of Kaupe'a.

Pu'uokapolei was also the primary landmark for travelers between Pearl Harbor and the west O'ahu coast, with a main trail running just inland of it ('Ī 1959:27, 29). Pu'uokapolei was probably the most common name used as a reference for the area of the 'Ewa Plain in traditional Hawai'i (cf. Nakuina 1992:54; Fornander 1916-1920:2:318; E.M. Nakuina 1904 in Sterling and Summers 1978:34).

3.1.3 Early Historic Period

Various Hawaiian legends and early historical accounts indicate the *ahupua'a* of Honouliuli was once widely inhabited by pre-Contact Hawaiian populations, including the Hawaiian *ali'i* (chiefly class). This substantial settlement is attributable for the most part to the plentiful marine and estuarine resources available at the coast, as well as lowlands fronting the West Loch of Pearl Harbor (Kaihuopala'ai) suitable for wetland taro cultivation. In addition, forest resources along the slopes of the Wai'anae Range, as suggested by E.S. and E.G. Handy, probably acted as a viable subsistence alternative during times of famine and/or low rainfall:

The length or depth of the valleys and the gradual slope of the ridges made the inhabited lowlands much more distant from the *'wao*, or upland jungle, than was

the case on the windward coast. Yet the *'wao* here was more extensive, giving greater opportunity to forage for wild foods during famine time. [Handy and Handy 1972:469–470]

John Papa 'Ī'i describes a network of leeward O'ahu trails that in later historic times encircled and crossed the Wai'anae Range, allowing passage from West Loch to the Honouliuli lowlands, past Pu'u Kapolei and Waimānalo Gulch to the Wai'anae coast and onward, along the shoreline of O'ahu ('Ī'i 1959:96–98). Following 'Ī'i's description, a portion of this trail network would have passed close to the present Farrington Highway alignment, north of the project area.

The Hawaiian *ali'i* were also attracted to this region. One historical account of particular interest refers to an *ali'i* residing in Ko Olina (as described in Sterling and Summers 1978)—the name associated with the immediate vicinity of the project area:

Koolina is in Waimanalo near the boundary of Ewa and Waianae. This was a vacationing place for chief Kakuhihewa and the priest Napuaikamao was the caretaker of the place. Remember Reader, this Koolina is not situated in the Waimanalo on the Koolau side of the island but the Waimanalo in Ewa. It is a lovely and delightful place and the chief, Kakuhihewa loved this home of his. [*Ke Au Hou* 13 July 1910 in Sterling and Summers 1978:41]

Other early historical accounts of the general region typically refer to the more populated eastern portion of 'Ewa District, where missions and schools were established, and subsistence resources were perceived to be greater. However, the presence of historic properties along the barren coral plains and coast of southwest Honouliuli Ahupua'a indicate pre-Contact and early post-Contact populations also adapted to less inviting areas, despite the environmental hardships.

Subsequent to Western Contact in the area, the landscape of the 'Ewa plains and Wai'anae slopes was adversely affected by the over-harvesting of the sandalwood forest, and particularly by the introduction of domesticated animals and exotic plant species. Domesticated animals including goats, sheep, and cattle were brought to the Hawaiian Islands by Captain George Vancouver in the early 1790s and were allowed to graze freely about the land for some time after. It is unclear when the domesticated animals were brought to O'ahu; however, L.A. Henke reports the existence of a longhorn cattle ranch in Wai'anae by at least 1840 (Frierson 1972:10). At the same time, perhaps as early as 1790, exotic vegetation species were introduced to the area. These typically included vegetation best suited to a terrain disturbed by the logging of sandalwood forest and eroded by animal grazing. Within the project area, the majority of the vegetation is composed of introduced species, mainly grasses.

At Contact, the most populous *ahupua'a* on the island was Honouliuli, with the majority of the population centered around Pearl Harbor. In 1832, a missionary census of Honouliuli recorded the population as 1,026. Within four years the population was down to 870 (Schmitt 1973:19, 22). In 1835, there were eight to ten deaths for every birth (Kelly 1991:157–158). Between 1848 and 1853, there was a series of epidemics of measles, influenza, and whooping cough that often wiped out whole villages. In 1853, the population of 'Ewa and Wai'anae combined was 2,451 people. In 1872, it was 1,671 (Schmitt 1968:71). The inland area of 'Ewa was probably abandoned by the mid-nineteenth century due to population decline and consolidation of the remaining people in the town of Honouliuli.

3.1.4 Mid- to Late 1800s

The Organic Acts of 1845 and 1846 initiated the process of the Māhele—the division of Hawaiian lands—which introduced private property into Hawaiian society. In 1848, the crown and the *ali'i* received their land titles. The common people received their *kuleana* (individual parcels) in 1850. During the Māhele of 1848, 72 individual land claims in the *ahupua'a* of Honouliuli were registered and awarded by King Kamehameha III to commoners (Tuggle and Tomonari-Tuggle 1997:34). The 72 *kuleana* awards were almost all made adjacent to Honouliuli Gulch, which contained fishponds and irrigated taro fields. No commoner awards were within or in the immediate vicinity of the project area, which appears to have been included in the largest *ali'i* award (Royal Patent 6071, LCA 11216, *Āpana* [lot] 8) granted in Honouliuli Ahupua'a to Miriam Ke'ahi-Kuni Kekau'ōnohi on January 1848 (Native Register). Kekau'ōnohi acquired a deed to all unclaimed land within the *ahupua'a*, totaling 43,250 acres.

Kekau'ōnohi was one of Liholiho's (Kamehameha II's) wives, and after his death she lived with her half-brother, Luanu'u Kahalai'a, who was governor of Kaua'i (Kelly 1983:21). Subsequently, Kekau'ōnohi ran away with Queen Ka'ahumanu's stepson, Keli'iahonui and became the wife of Chief Levi Ha'alelea. Upon her death on 2 June 1851, her property passed to her husband and his heirs. In 1863, the owners of the *kuleana* lands deeded their lands back to Ha'alelea to pay off debts owed to him (Frierson 1972:12). In 1864, Ha'alelea died, and his second wife, Anadelia Amoe, transferred ownership of the land to her sister's husband, John Coney (Yoklavich et al. 1995:16).

In 1871, John Coney rented the land to James Dowsett and John Meek, who used the land for cattle grazing. In 1877, James Campbell purchased most of Honouliuli Ahupua'a—including the project area—for a total of \$95,000. He then drove off 32,347 head of cattle belonging to Dowsett, Meek, and James Robinson and constructed a fence around the outer boundary of his property (Bordner and Silva 1983:C-12). He let the land rest for one year and then began to restock the ranch, so that he had 5,500 head after a few years (Dillingham 1885 in Frierson 1972:14).

An 1873 map depicts sparse housing in the vicinity of the project area with surroundings undeveloped and likely utilized for cattle grazing (Figure 10). An oblong-shaped area in the southern portion of the project area extends south into the Lanikūhonua area and northwest into the Pacific Ocean. The area appears to be an area containing a water feature that drains out into the sea.

In 1881, a medical student touring the island to provide smallpox vaccinations to the population viewed Campbell's property, called the Honouliuli Ranch:

I took a ride over the Honouliuli Ranch which is quite romantic. The soil is a deep, reddish loam, up to the highest peaks, and the country is well-grassed. Springs of water abound. The ilima, which grows in endless quantities on the plains of this ranch, is considered excellent for feeding cattle; beside it grows the indigo plant, whose young shoots are also good fodder, of which the cattle are fond. Beneath these grows the manieizie grass, and Spanish clover and native grasses grow in the open; so there is abundant pasturage of various kinds here. As I rode, to the left were towering mountains and gaping gorges; ahead, undulating plains, and to the right, creeks and indentations from the sea. A wide valley of fertile land extends

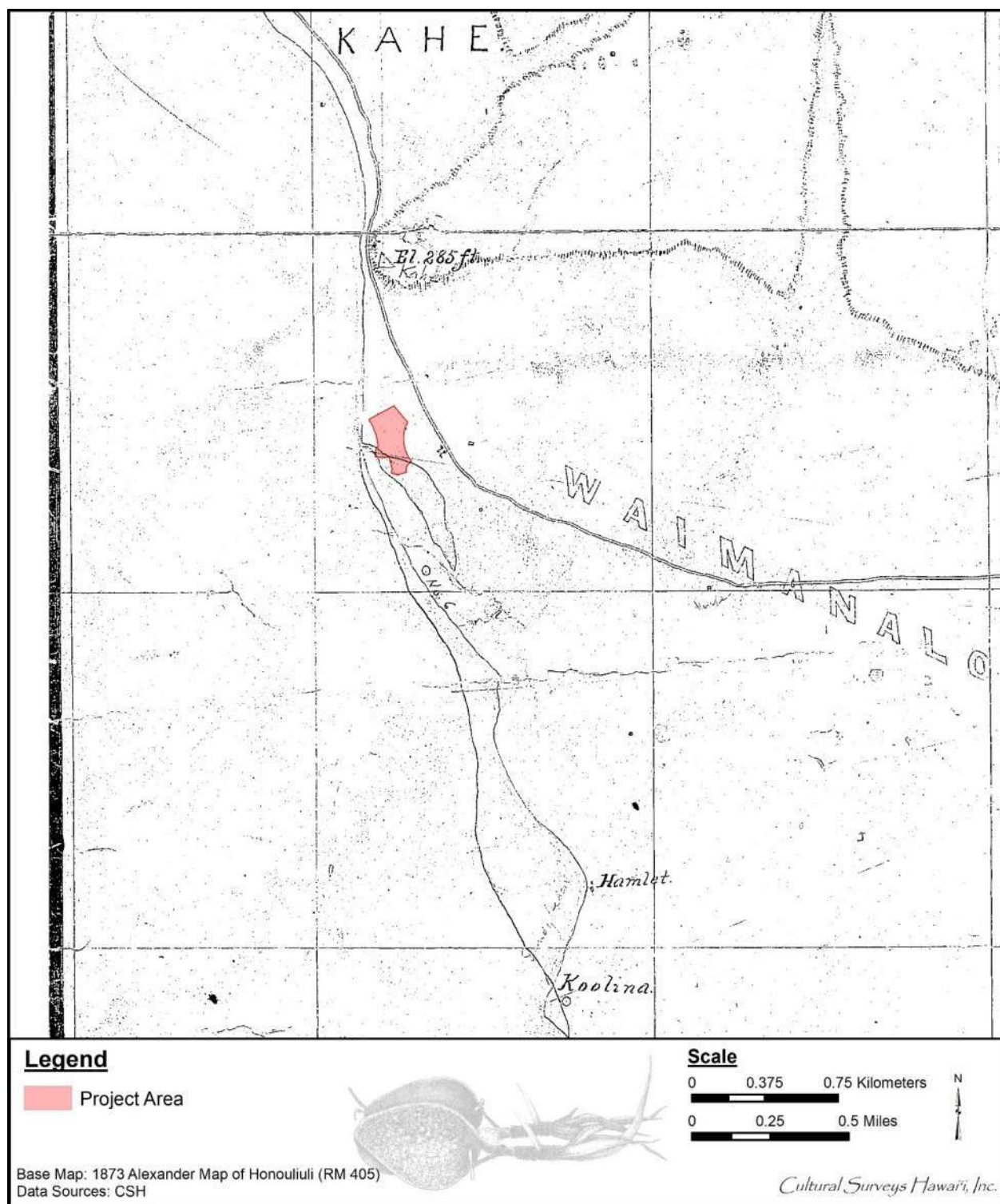


Figure 10. Portion of 1873 Alexander map of Honouliuli (RM 405) showing the southern portion of the project area within a former water feature surrounded by undeveloped lands

between the Nuuanu Range and the Waianae Mountains and thence to the coast of Waialua. There are many wild goats in this valley, which are left more or less because they kill the growth of mimosa bushes, which would otherwise overrun the country and destroy the pasturage for cattle. [Briggs 1926:62–63]

Most of Campbell's lands in Honouliuli were used exclusively for cattle ranching. At that time, one planter remarked that "the country was so dry and full of bottomless cracks and fissures that water would all be lost and irrigation impracticable" (Ewa Plantation Company 1923:6–7). In 1879, Campbell brought in a well-driller from California to search the 'Ewa plains for water. The exploratory well, drilled to a depth of 240 ft near Campbell's home in 'Ewa, resulted in "a sheet of pure water flowing like a dome of glass from all sides of the well casing" ("The Legacy of James Campbell" n.d. in Pagliaro 1987:3). Following this discovery, plantation developers and ranchers drilled numerous wells in search of the valuable resource. A Hawaii Government map from 1881 shows a stone quarry to the southeast of the project area (Figure 11).

In 1886, Campbell and B.F. Dillingham put together the "Great Land Colonization Scheme," which was an attempt to sell Honouliuli land to homesteaders (Thrum 1886:74). This homestead idea failed, but with the water problem solved by the drilling of artesian wells, Dillingham decided the area could be used instead for large-scale cultivation (Pagliaro 1987:4). In 1889, Campbell leased his property to Benjamin Dillingham, who subsequently formed the Oahu Railway and Land Company (OR&L) as the result of a franchise granted by King Kalākaua in 1886. In 1889, Dillingham opened the first 9 miles of narrow-gauge track on the King's birthday. To attract business to his new railroad system, Dillingham subleased all land below 200 ft elevation to William Castle, who in turn sublet the area to the Ewa Plantation Company for sugarcane cultivation. Dillingham's Honouliuli lands above 200 ft elevation, which were suitable for sugarcane cultivation, were sublet to the Oahu Sugar Company. Throughout this time, and into modern times, cattle ranching continued in the area and Honouliuli Ranch—established by Dillingham—was the "fattening" area for the other ranches (Frierson 1972:15).

3.1.5 1900s to Present

Historic maps and aerial photographs depict little change from the early 1900s to the development of the Ko Olina Resort area and harbor (Figure 12 through Figure 21). During the early 1900s, the Ewa Plantation Company grew quickly. When the rainy season began, they plowed ground perpendicular to the slope so that soil would be carried down the drainage ditches into the lower coral plain. After a few years, about 373 acres of coral wasteland were reclaimed in this manner (Immisch 1964). By the 1920s, the Ewa Plantation Company was generating large profits and was the "richest sugar plantation in the world" (*Paradise of the Pacific* December 1902:19–22). The 1919 U.S. Army War Department map (see Figure 13) shows plantation infrastructure including a railway, large wall, and unimproved road near the project area. A 1939 map of the Ewa Plantation indicates Field No. 1 is within the project area (see Figure 16).

By 1920, the lands of Honouliuli were used primarily for sugarcane cultivation and ranching (Frierson 1972:18). Much of the lands in western Honouliuli unsuitable for commercial sugar cultivation remained pasture land for grazing livestock. In the late 1920s, the main residential communities were at the northeast edge of the 'Ewa Plain. The largest community was still at Honouliuli village. 'Ewa was primarily a plantation town, focused around the sugar mill, with a

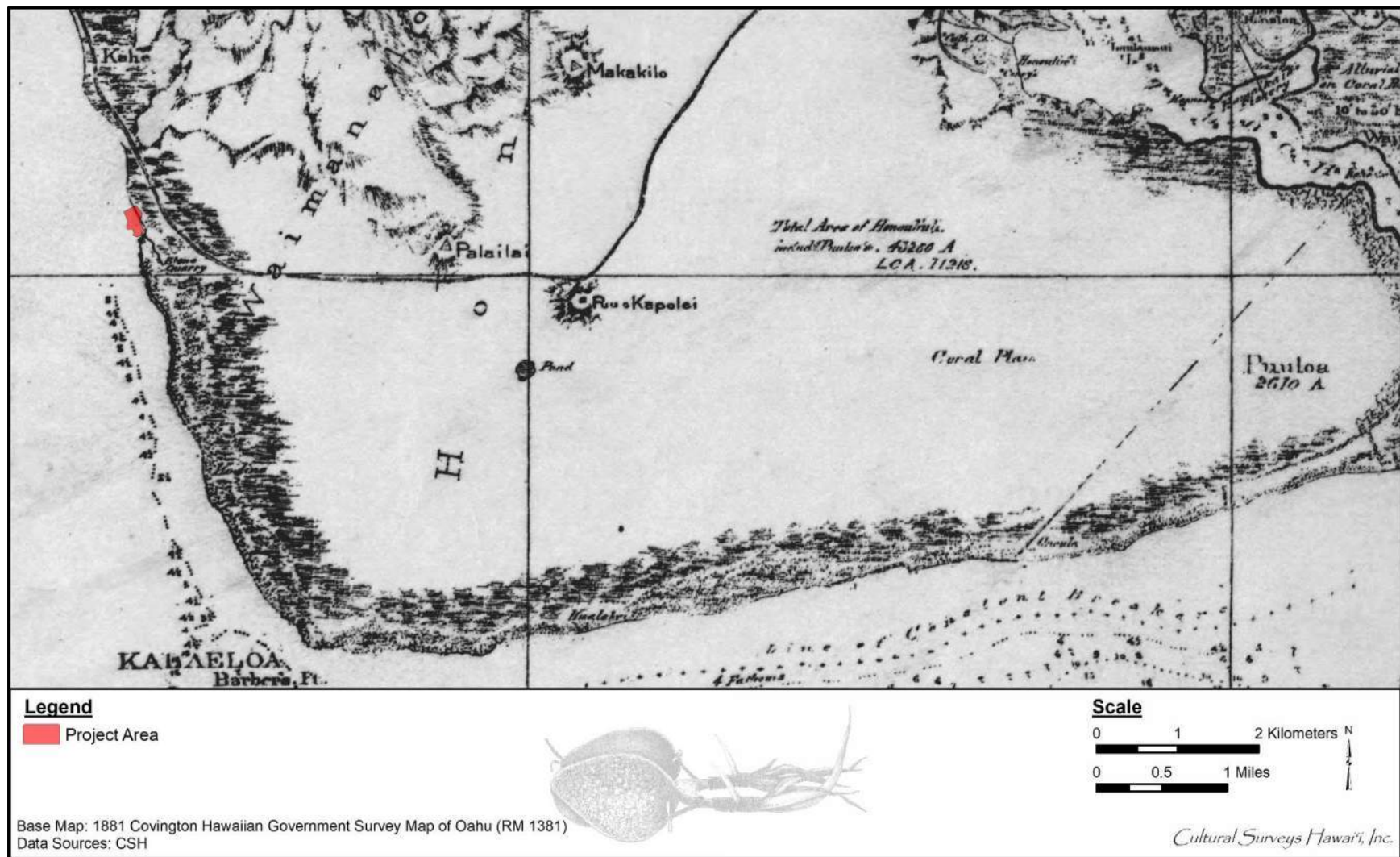


Figure 11. Portion of 1881 Covington Hawaiian Government Survey map of Oahu (RM 1381) showing the location of The Cove Redevelopment project area with a stone quarry to the southeast

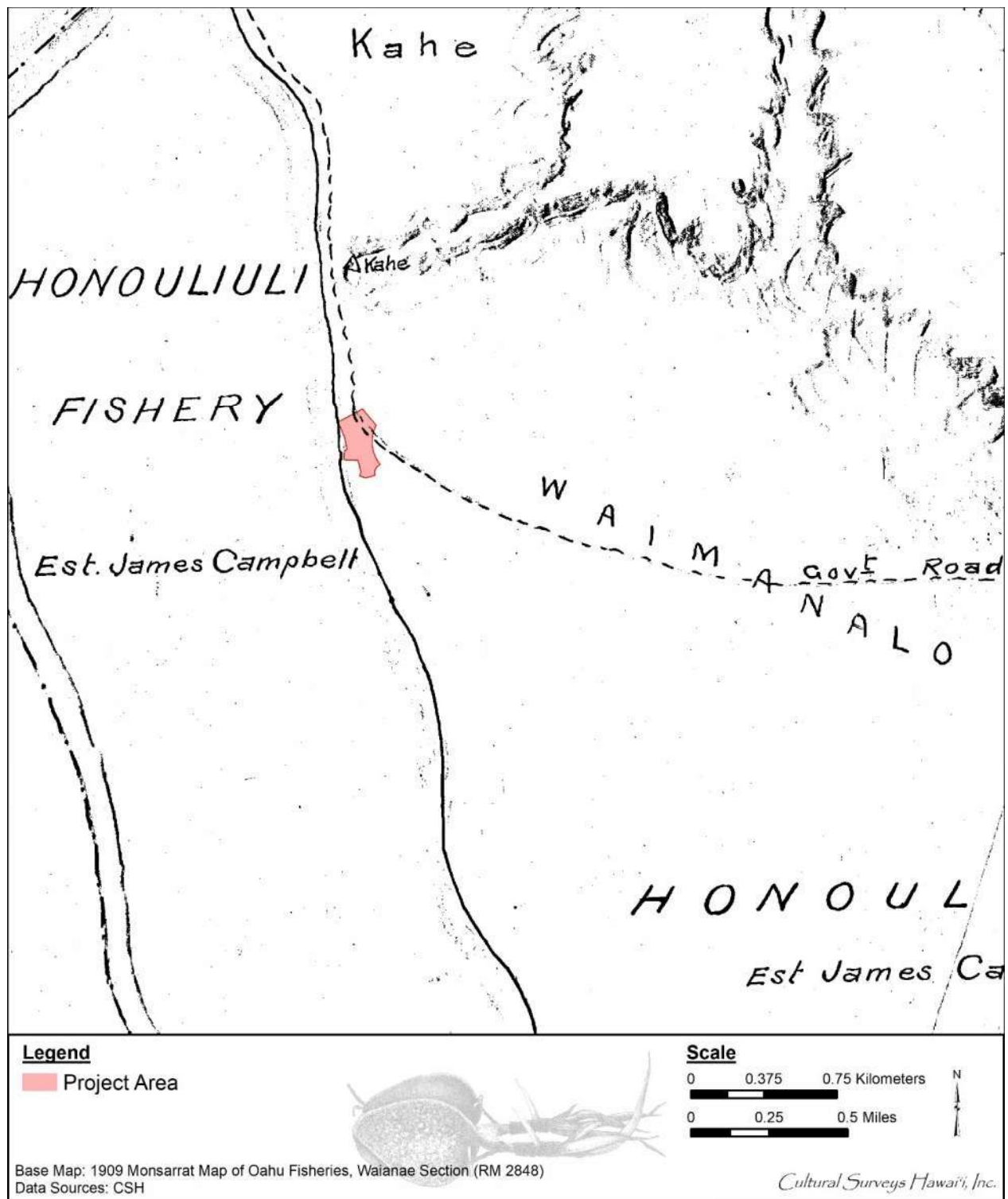


Figure 12. Portion of a 1909 Monsarrat map of Oahu Fisheries, Waianae Section (RM 2848) showing the location of The Cove Redevelopment project area

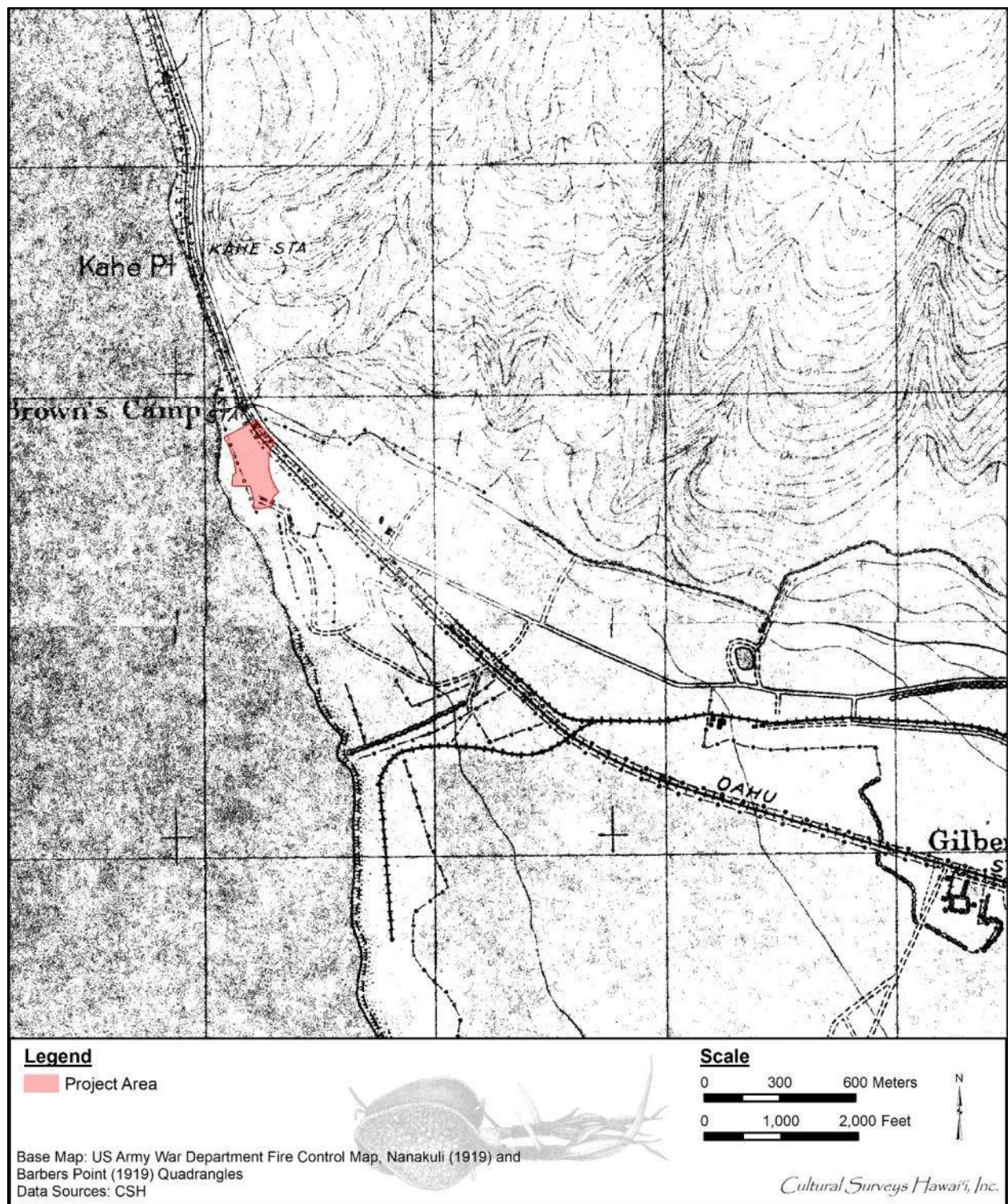


Figure 13. Portion of 1919 U.S. Army War Department fire control map, Nanakuli and Barbers Point quadrangles, showing the location of The Cove Redevelopment project area showing the OR&L Railroad to the northeast

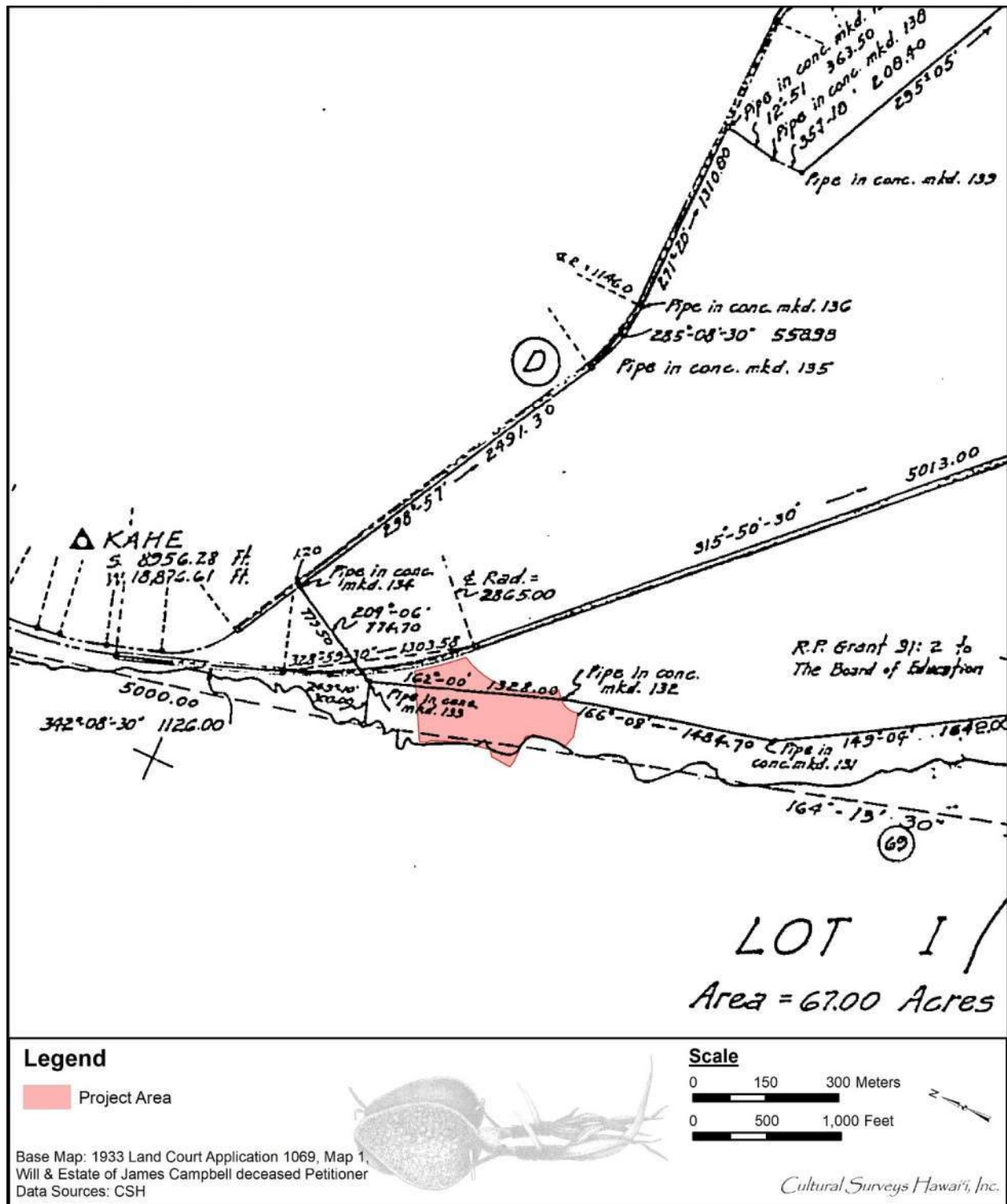


Figure 14. Portion of a 1933 Land Court Application 1069, Map 1, Will and Estate of James Campbell deceased Petitioner, showing the location of The Cove Redevelopment project area



Figure 15. Portion of the 1936 U.S. Army War Department terrain map, Waianae and Barbers Point quadrangles showing the location of The Cove Redevelopment project area (the white area east of the project area is likely sugarcane lands)

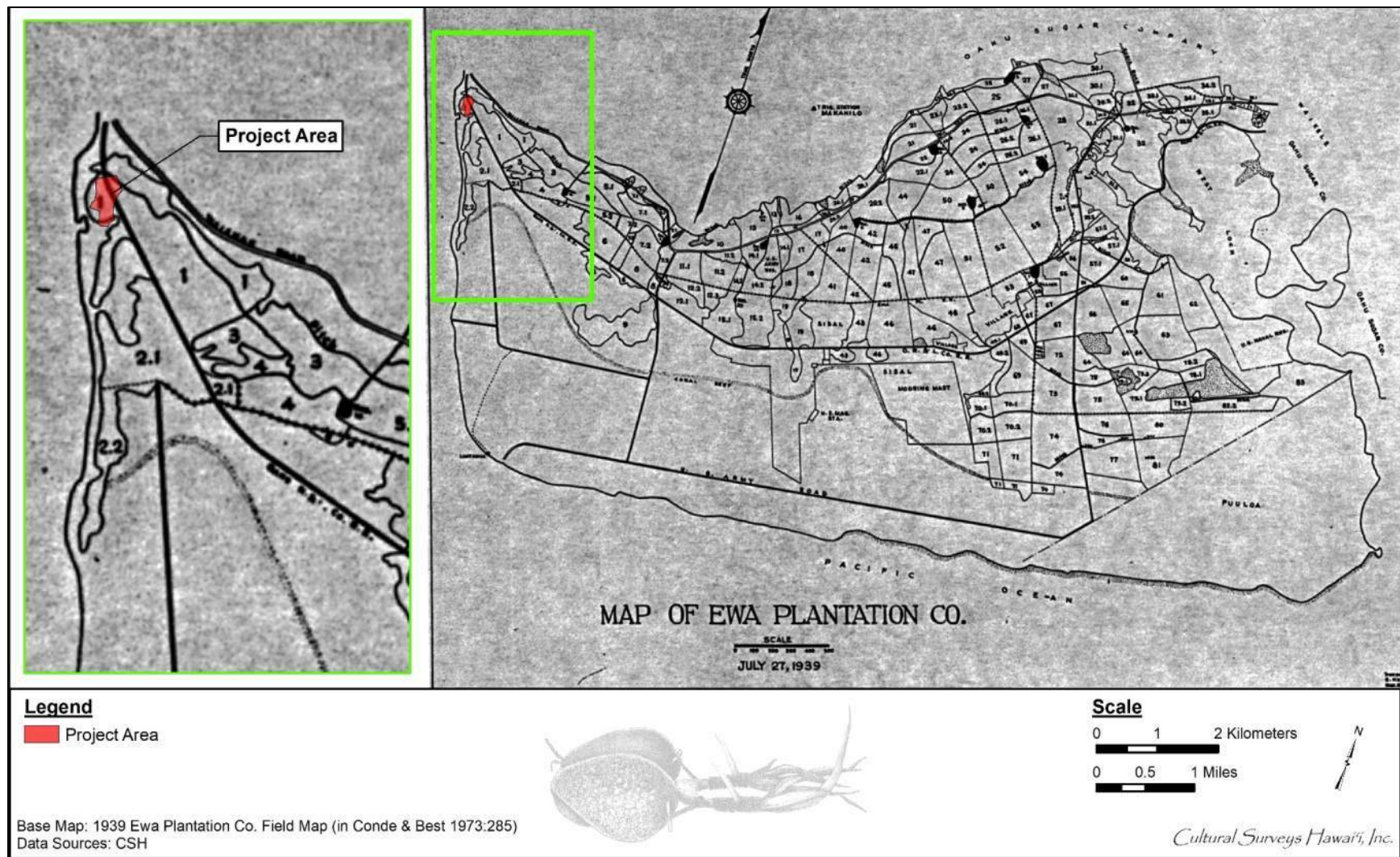


Figure 16. 1939 field map of Ewa Plantation Company, showing the location of The Cove Redevelopment project area as mostly within sugarcane cultivation Field 1 (Condé and Best 1973:285)

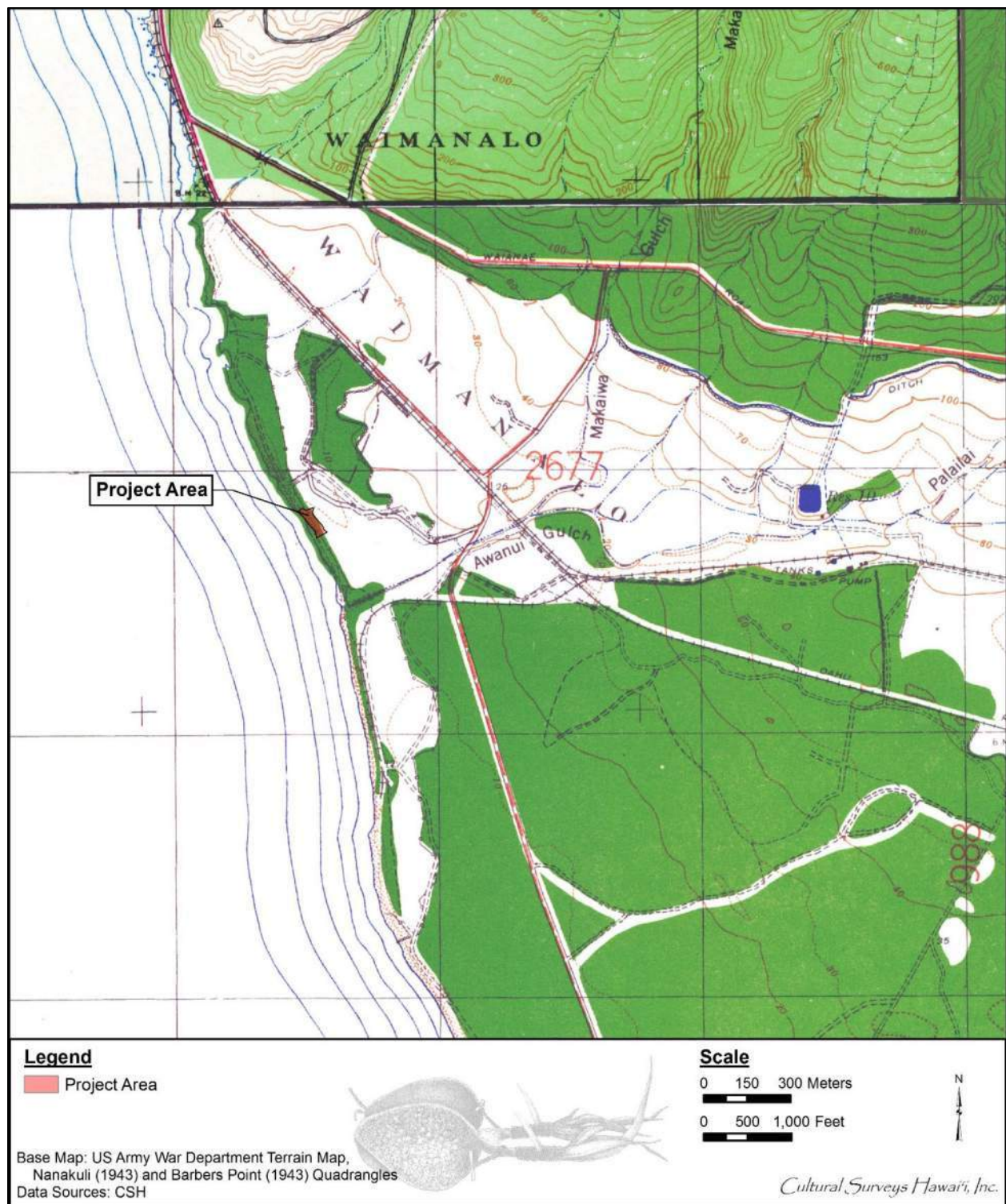


Figure 17. Portion of 1943 U.S. Army War Department terrain map, Nanakuli and Barbers Point quadrangles, showing the location of the project area (the white area east of the project area is likely sugarcane lands)

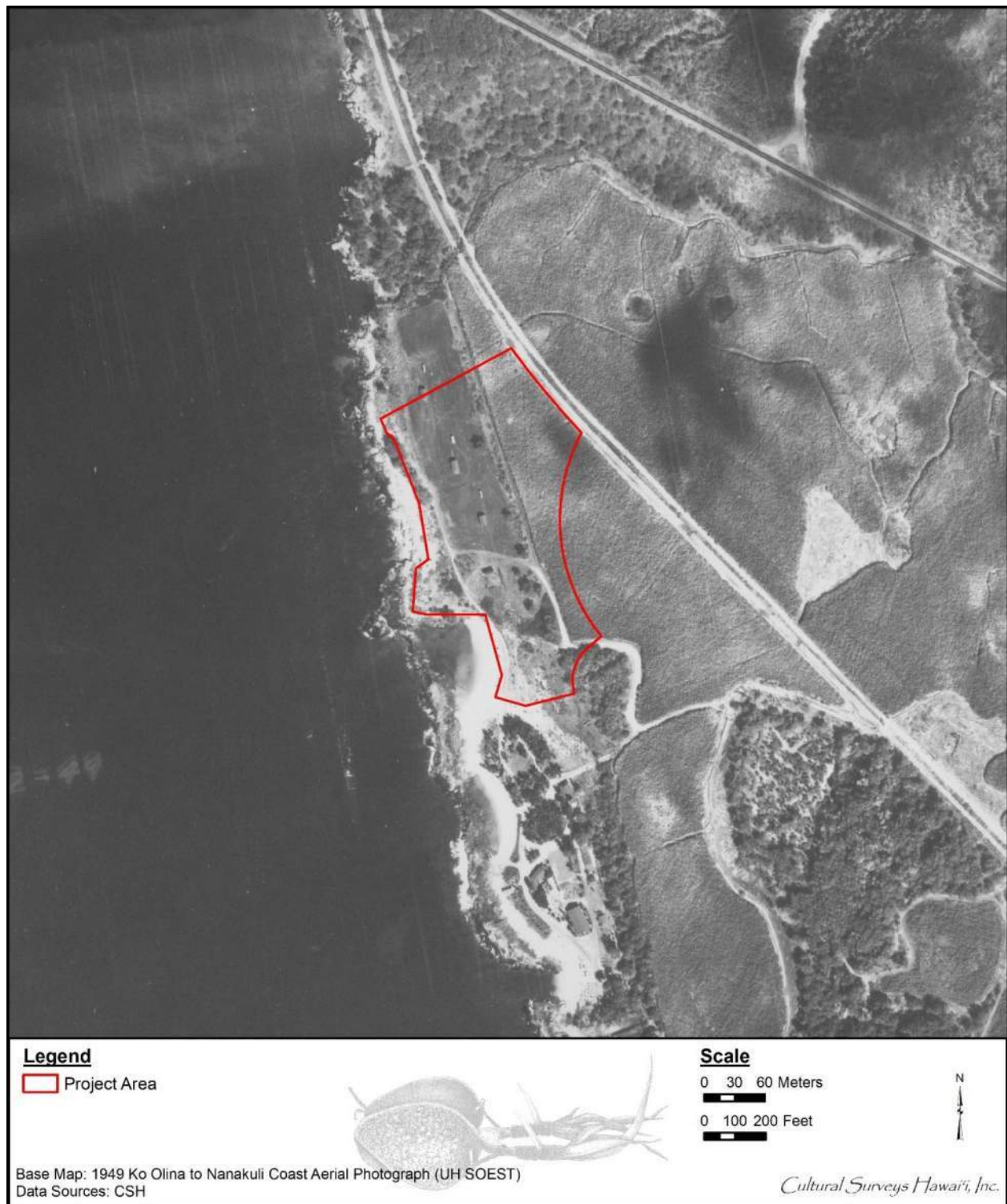


Figure 18. 1949 Ko Olina to Nanakuli Coast Aerial Photograph (UH SOEST), showing development of a few dwellings in the project area

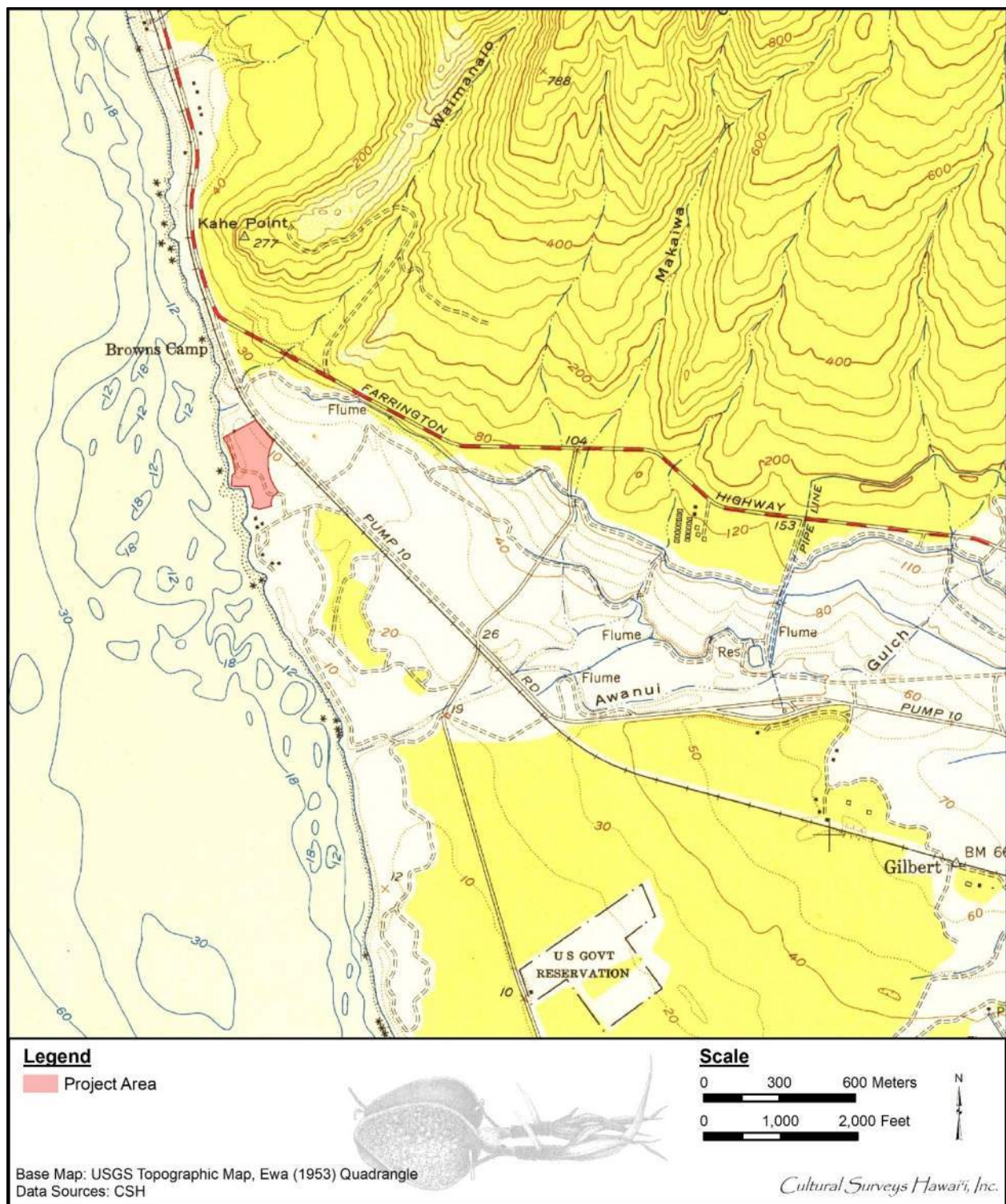


Figure 19. Portion of the 1953 Ewa USGS topographic quadrangle map showing the location of The Cove Redevelopment project area

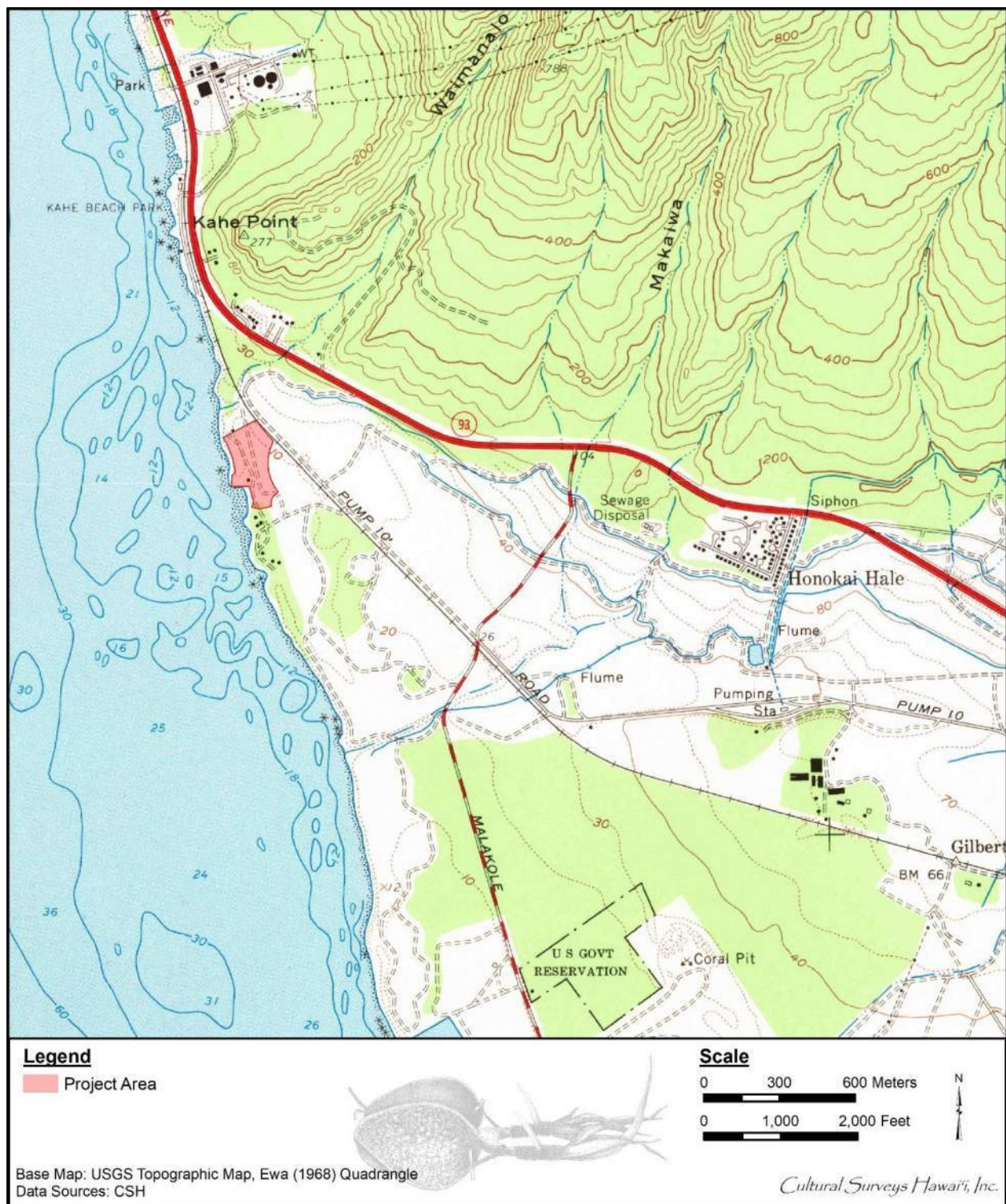


Figure 20. Portion of the 1968 Ewa USGS topographic quadrangle map showing the location of The Cove Redevelopment project area

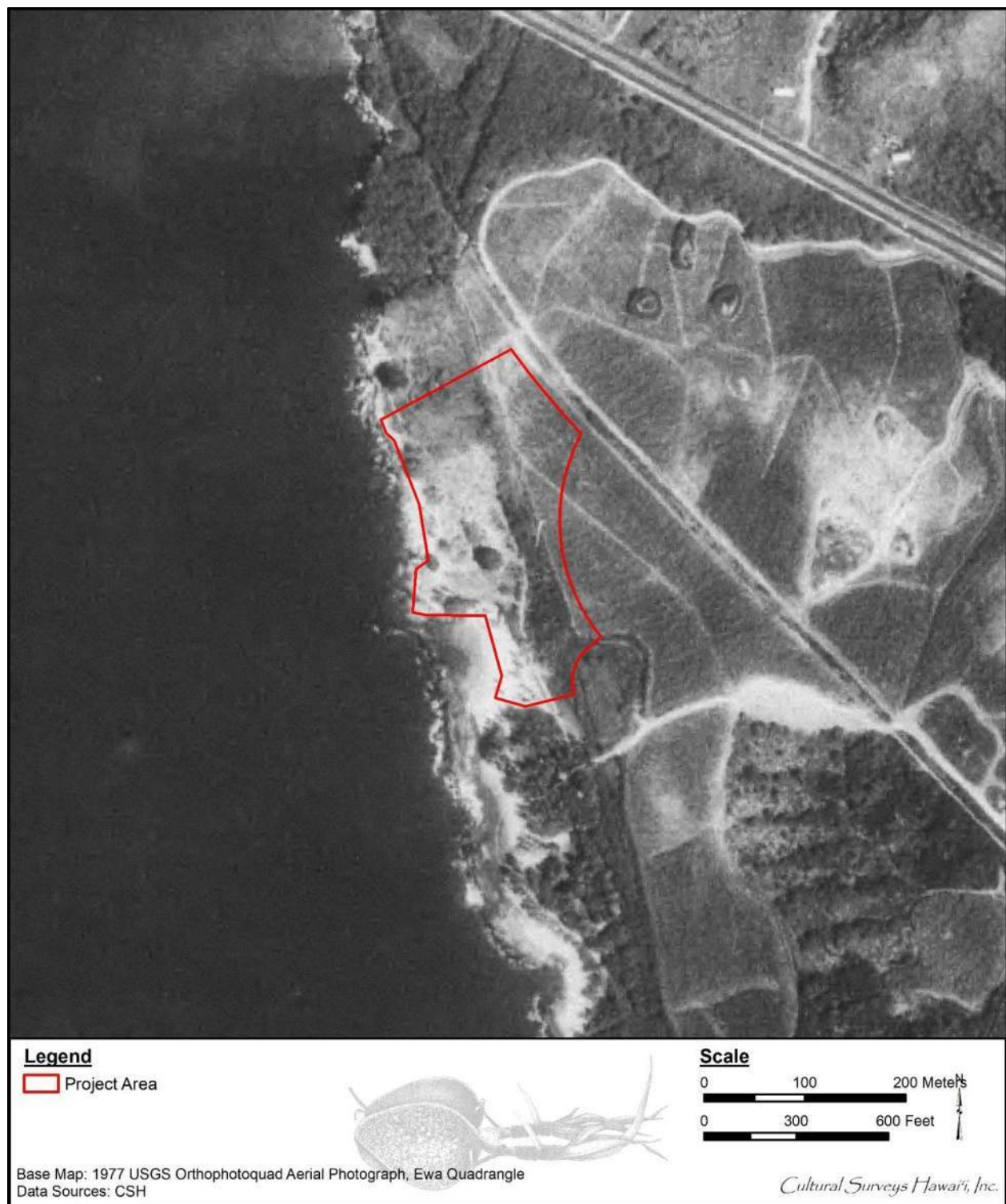


Figure 21. 1977 USGS Orthophotoquad aerial photograph, Ewa quadrangle, depicting no dwellings or development in the project area

public school as well as a Japanese School. Additional settlement was in Waipahu, centered around the Waipahu sugar mill, operated by the Oahu Sugar Company.

In 1939, Alice Kamokilaikawai Campbell, daughter of James and Abigail Kuaihelani Maipinepine Campbell, resided in Lanikūhonua, adjacent to the project area for nearly 30 years. Mrs. Campbell named the area Lanikūhonua which means “where the heavens meet the earth” (Lanikūhonua Cultural Institute 2019). Cultural descendant Nettie Fernandez Tiffany, current caretaker of the Lanikūhonua Institute, stated that her mother, Leilani Fernandez, was a close friend of Alice Campbell (personal communication October 2019). Mrs. Fernandez owned a beach home within the current project area and was the previous caretaker of the Campbell Estate property (see Figure 21).

Major land use changes came to western Honouliuli when the U.S. military began development in the area. Military installations were constructed both near the coast and in the foothills and upland areas (Figure 22). Barbers Point Military Reservation (a.k.a. Battery Barbers Point from 1937–1944) at Barbers Point Beach was used beginning in 1921 as a training area for firing 155 mm guns (Payette 2003). Also in the vicinity were Camp Malakole Military Reservation (a.k.a. Honouliuli Military Reservation), used from 1939, and Gilbert Military Reservation, used from 1922–1944. The 1919 U.S. Army war map (see Figure 13) indicates the Gilbert Station, understood as the site of a very small Gilbert Camp associated with the railway and Ewa Plantation, and Waimanalo Camp in the vicinity but well outside the current project area.

Barbers Point Naval Air Station, in operation from 1942 to the 1990s, was the largest and most significant base in the area. It housed numerous naval and defense organizations, including maritime surveillance and anti-submarine warfare aircraft squadrons, a U.S. Coast Guard Air Station, and components of the U.S. Pacific Fleet. Fort Barrette (a.k.a. Kapolei Military Reservation and Battery Hatch) atop Pu‘u Kapolei was in use from 1931–1948 for housing four 3-inch anti-aircraft batteries (Payette 2003). In the 1950s, the site was used as a Nike missile base. Palailai Military Reservation was built in 1921 atop Pu‘u Palailai in Makakilo and housed Battery Palailai and Fire Control Station B (Payette 2003).

The OR&L railroad alignment is northeast/northwest of the current project area (see Figure 16). Passenger totals on the OR&L railroad line increased throughout the first half of the twentieth century. In 1908, 446,318 people rode on the line. This total rose to approximately 1,200,000 by 1922 and hit an all-time high of 2,642,516 passengers in 1943. Throughout World War II, the railway served a critical function in transporting military personnel and equipment. However, the development of an improved road system and increasing numbers of cars on the island began to cut into passenger totals on the OR&L. According to the National Register of Historic Places (NRHP) inventory forms on file at SHPD, on 12 December 1947, all operations outside Honolulu ceased.

In 1950, the U.S. Navy purchased the track and right-of-way from Pearl Harbor to the Naval Ammunition Depot (NAD) access road in Nānākuli for \$1.00 in the name of “National Defense.” The NAD maintained this 25.5-mile stretch of track until the early 1950s, when a 6.5-mile stretch from Pearl Harbor to Waipahu was ceded to the Territory of Hawaii. A further 6 miles was ceded to the Territory in 1954 after a heavy flood. The final 13-mile stretch was in use until 1968, when it too was ceded to the state. In 1970, the Hawaiian Railway Society was formed to preserve and restore remaining portions of the OR&L. The Society restored 6.5 miles of track from ‘Ewa to

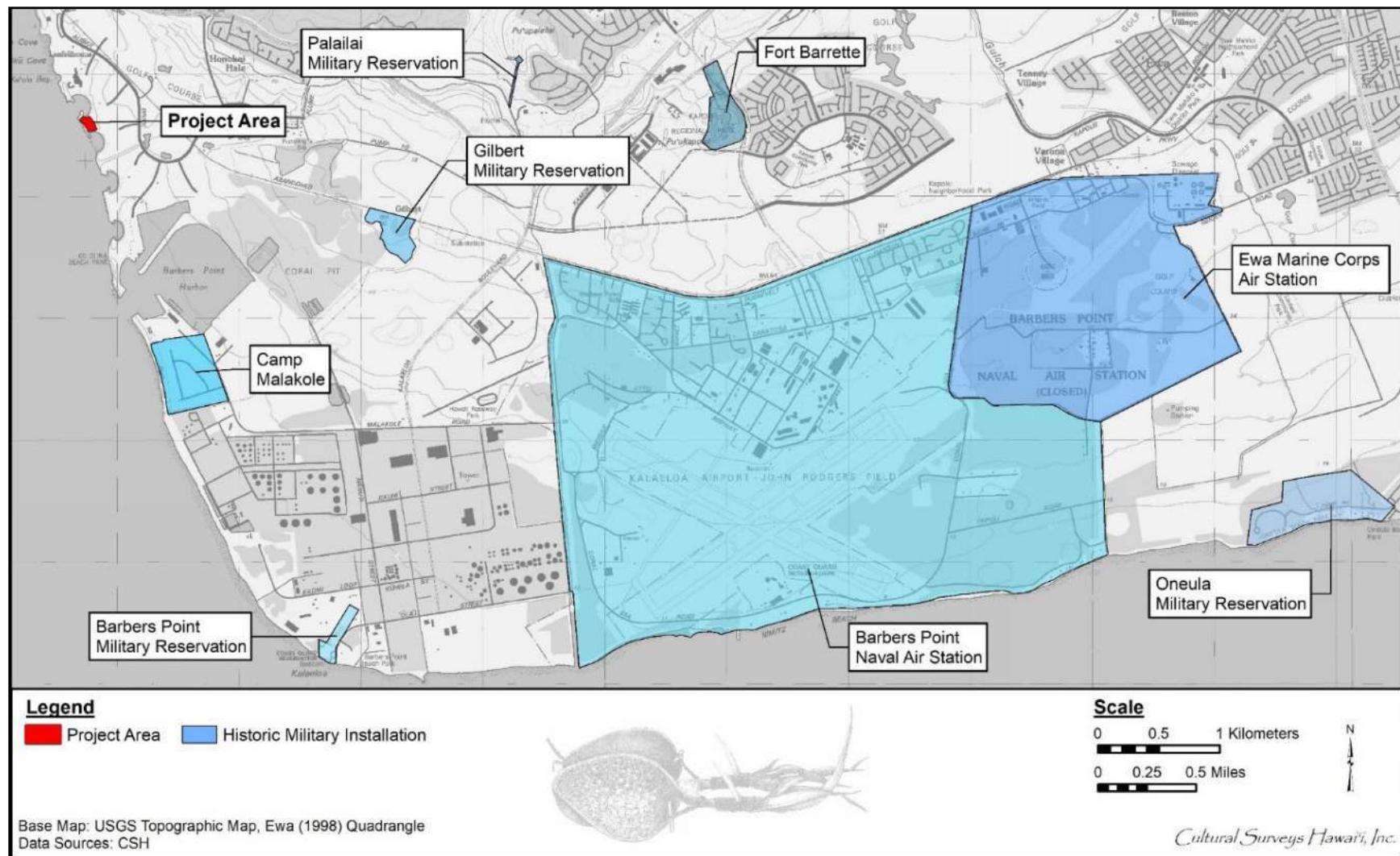


Figure 22. Portion of the 1998 Ewa USGS topographic quadrangle, showing the project area with an overlay of the locations of historic military installations

Nānākuli, including the portion adjacent to the current project area, and continues to use and maintain the railroad for historical tours.

The 1980s saw a joint venture between Japanese construction giant Kumagai Gumi and Hawai‘i developers Horita Corporation and TSA International for the development of a \$6 billion resort (*The Age*, 3 December 1986:34). The development was originally called “West Beach,” and construction began on the lagoon and harbor in November 1986 (Figure 23 and Figure 24). Four man-made lagoons were constructed, as well as an 18-hole golf course, luxury condominiums, and a hotel (*Honolulu Star-Bulletin*, 20 August 1998). The Ko Olina Resort project stalled as a result of the Japanese investment bubble bursting in the early 1990s (*Honolulu Star-Advertiser*, 24 December 2010). In November 1991, the developers of West Beach, West Beach Estates, purchased Paradise Cove Luau operation from Cove Enterprises, Inc. The property was not a part of the sale (*Honolulu Advertiser*, 16 November 1991). The area is now known officially as the Ko Olina Resort area and has recently seen a reinvigoration of development.

3.2 Previous Archaeological Research

The project area and its vicinity has been the subject of many archaeological and paleo-ecological studies, which are summarized below. Previously conducted modern archaeological studies within a 0.5 to 1.2 km radius are depicted in Figure 25 and are listed in Table 1. These studies identified numerous historic properties, which are depicted in Figure 26 and listed in Table 2.

The first effort to record historic properties in Honouliuli was made by Thrum (1906:46), who references “a *heiau* on Kapolei hill, ‘Ewa—size and class unknown. Its walls thrown down for fencing.” The former *heiau* was on Pu‘u Kapolei, approximately 5.5 km southeast of the current project area.

In his 1930 surface survey of the island of O‘ahu, archaeologist J. Gilbert McAllister recorded the specific locations of important archaeological and cultural sites, and the general locations of some sites of lesser importance. McAllister (1933:107–108) recorded seven sites at Honouliuli (McAllister Site #s 133 through 139/ SIHP #s 50-80-08-00133 through -00138 and 50-80-13-00139), and these became the first seven sites in the Bishop Museum’s Site Numbering System (50-Oa-B6-1 through 50-Oa-B6-7). The nearest of these specific sites to the current project area is McAllister Site 138, which includes the Pu‘u Kapolei Heiau and an adjacent rock shelter located far east of the current project area. Additionally, McAllister (1933:109) designated Site 146/SIHP # 50-80-08-00146, which comprises archaeological features covering a large but poorly defined area along the coast. His impressions of Site 146 are recorded as follows:

‘Ewa coral plains, throughout which are remains of many sites. The great extent of old stone walls, particularly near the Pu‘uloa Salt Works belongs to the ranching period of about 75 years ago [ca. 1850s]. It is probable that the Hawaiians formerly used the holes and pits in the coral. Frequently the soil on the floor of larger pits was used for cultivation, and even today one comes upon bananas and Hawaiian sugar cane still growing in them. They afford shelter and protection, but I doubt if previous to the time of Cook there was ever a large population here. [McAllister 1933:109]



Figure 23. Aerial photo of early Ko Olina Resort development with project area in upper left, view to the northwest (Ko Olina Development, LLC, n.d.)



Figure 24. Aerial photo of early Ko Olina Resort development with the project area in the upper left, view to the northwest (Ko Olina Development, LLC, n.d.)

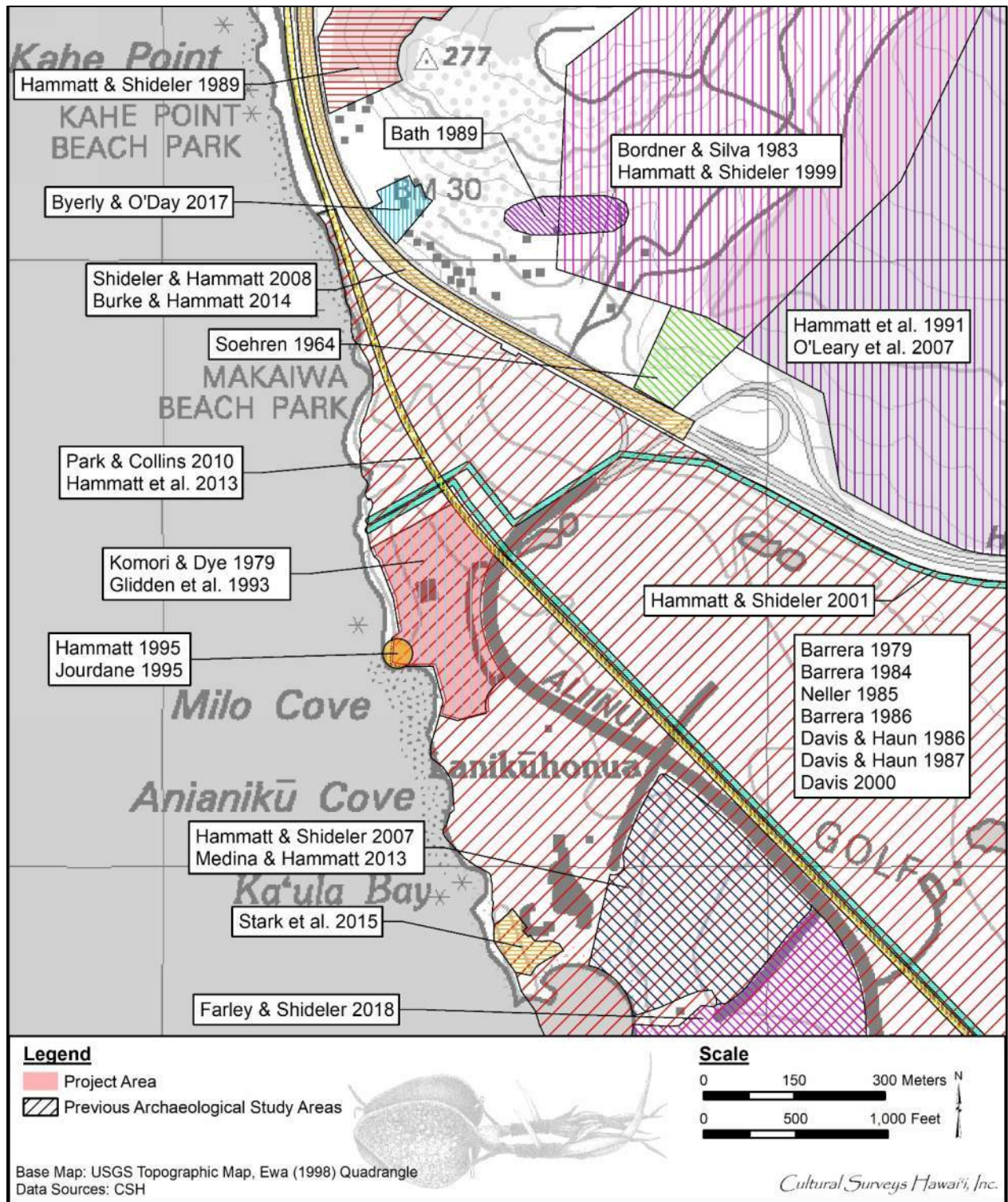


Figure 25. Portion of a 1998 Ewa USGS 7.5-minute topographic quadrangle depicting previous archaeological studies in the vicinity of the project area

Table 1. Previous archaeological studies in the vicinity of the project area

Reference	Type of Study	Location	Results (SIHP # 50-80-12****-Fea. #)
Soehren 1964	Archaeological field investigation	Waimānalo Gulch	Documented one house site (SIHP # -02317)
Barrera 1979	Archaeological survey	West Beach	Recorded ten historic properties SIHP #s -01430 through -01438 and -02721), none in project area per se; properties documented included walls, enclosures, midden scatters, and a fishing shrine
Komori and Dye 1979	Archaeological testing	West Beach	Excavated six small (0.5 sq m) test pits in two transect lines; substantial historic disturbance already in much of area; no historic properties identified
Bordner and Silva 1983	Archaeological reconnaissance and historical documentation	Proposed Waimānalo Gulch landfill site	One possible WWII-era encampment identified (no SHIP # assigned)
Barrera 1984	Archaeological status report	West Beach	Reviewed and summarized work back to 1979 and second phase of work completed in July 1984 for a midden deposit (SIHP # -01438); Barrera's report also includes a brief study by architect Glenn Mason (1984) on a lime kiln (SIHP # -01436)
Neller 1985	Review and evaluation	West Beach	Neller, finding fault in previous archaeological work, called for more work to address "inadequacies of the historic preservation measures being taken and proposed for the West Beach project." Neller's (1985) sites are given as temporary site numbers prefixed with an "N" for "Neller Number" shown on Figure 28.

Reference	Type of Study	Location	Results (SIHP # 50-80-12****-Fea. #)
Barrera 1986	Archaeological investigations	West Beach	Summary of archaeological investigations spanning six years clearly trying to respond to Neller's (1985) critiques; identified historic properties include SIHP # -01430 (shelter and limestone sink), SIHP # -01431 (two walls), SIHP # -01432 (wall), SIHP # -01433 (fishing shrine), SIHP # -01435 (wall), SIHP # -01436 (kiln), SIHP # -01437, -01438, and -02721 (midden deposits), SIHP # -02717 and -02718 (wall and limestone sinkholes), SIHP # -02719 (enclosure and mound), SIHP # -02720 (enclosure and shelter) (not all are depicted on Figure 26)
Davis and Haun 1986	Archaeological status report	West Beach	Reviewed and summarized archaeological field work completed in 1986; these include four spatially separate activity areas recorded as component features of SIHP # -01438, numbered 1 through 4 from south to north. In 1987, Davis and Haun followed up their preliminary report on survey and test excavations at SIHP #s -01438 and -03362 (within the current project area) (see Davis 2000 for final report results)
Davis and Haun 1987	Intensive survey and test excavations	West Beach	Detailed historic property descriptions in vicinity and a radiocarbon date from a hearth feature at SIHP # -3352-2 with a range of AD 1235-1420
Bath 1989	Site visit report	Waimānalo Gulch	Three petroglyphs (SIHP # -4110) documented
Hammatt and Shideler 1989	Archaeological reconnaissance	TMK: [1] 9-2-003:027	One pre-Contact agricultural terrace observed (SIHP # -04221)
Hammatt et al. 1991	Archaeological inventory survey	Makaīwa Hills project site, TMKs: [1] 9-1-015:005 and 017; 9-2-003:002, 005, and 084	Identified 34 sites, including prehistoric habitation and agricultural features, rock shelters, petroglyphs, <i>ahu</i> (altar), and various sugarcane cultivation infrastructure (SIHP #s -04310 through -04342)

Reference	Type of Study	Location	Results (SIHP # 50-80-12****-Fea. #)
Glidden et al. 1993	Data recovery excavations	Paradise Cove	Bernice Pauahi Bishop Museum (BPBM) Applied Research Group conducted subsurface backhoe testing at Paradise Cove, excavating nine backhoe trenches; Trenches 1–6 lacked a cultural component and were basically sterile; Trenches 7–9 showed post-Contact cultural activity; Trench 7 indicated traditional Hawaiian activity (SIHP #s not assigned)
Hammatt 1995	Response to inadvertent discovery of human remains	Paradise Cove	Following initial burial find by Jourdane (1995), an additional four burials were documented within a gas line excavation (SIHP # -04968)
Jourdane 1995	Burial documentation	Paradise Cove	Documents discovery of human remains (minimum # of individuals [MNI] 1) disturbed during excavation for gas lines at Paradise Cove; little specific information could be determined; assigned SIHP # -04968
Hammatt and Shideler 1999	Archaeological inventory survey	Waimānalo Gulch Sanitary Landfill	No historic properties identified, however, two sites in the Waimānalo Gulch Sanitary Landfill property, but not Hammatt and Shideler (1999) project area, were observed including a WWII and Civil Defense complex known as “Battery Arizona” and a contemporary Hawaiian shrine incorporating “sacred stones” (No SIHP #s were assigned)

Reference	Type of Study	Location	Results (SIHP # 50-80-12****-Fea. #)
Davis 2000	Data recovery	West Beach	<p>Four-volume data recovery study completes data recovery work carried out in 1980s; Davis (2000) is a culmination of the previous studies for West Beach, which cumulatively recorded 157 historic properties within six eco-zones. Ecozone I contained beach deposits, a burial, and coastal marshlands (SIHP #s -02721, -01437, -01438, -01455, -03362). Ecozone II contained five site complexes with multiple features, a cave, a WWII revetment, and a WWII complex (SIHP #s -02720, -02719, -01453, -01454, -01463, -03351, -03352, -03353, and -03354). Ecozone III contained six site complexes with multiple features, a remnant animal pen, a cave, an enclosure, a water source, two mounds, and a track bed (SIHP #s -01447, -01452, -01458, -01459, -01451, -01449, -01450, -01456, -01457, -01460, -01461, -03350, and -02718). Ecozone IV contained one site complex with multiple features including two burials (SIHP #s -02717). Ecozone V contained inland marsh deposits, a floor, rockshelter, and two site complexes with features (SIHP #s -03357, -01446, -03355, and -03356). Ecozone VI contained wall remnants, a platform/shrine, two site complexes, a petroglyph complex, and a cairn (SIHP #s -01431, -01433, -01434, -01435, -01464, -02893, -03358, -03359, -03360, and -03361).</p>

Reference	Type of Study	Location	Results (SIHP # 50-80-12****-Fea. #)
Hammatt and Shideler 2001	Archaeological inventory survey	North of Barbers Point	Two historic properties confirmed: SIHP # -01433, a <i>ko'a</i> or traditional Hawaiian fishing shrine, and SIHP # -01434, related to a complex of walls and an enclosure (Barrera 1979; Davis and Haun 1987:D-6); six other previously reported properties in vicinity include SIHP #s -01435, a historic retaining wall; -01464, a remnant historic wall (ranching or sugar); -03358, a shell midden deposit; -03359, an agricultural cairn; -03360, a habitation (midden) deposit; and -03361, another habitation (midden) deposit searched for but not confirmed
Hammatt and Shideler 2007	Archaeological literature review and field inspection	Ko Olina Resorts	Four historic properties (two traditional Hawaiian habitation deposits [SIHP #s -03352 and -03353] and two WWII sites [SIHP #s -01454 and -01463]) were previously identified within the Hammatt and Shideler (2007) project area, but has been either obliterated or buried
O'Leary et al. 2007	Archaeological inventory survey	Makaīwa Hills	Identified two historic properties: SIHP # -06870, a terrace, three springs, and a small rock shelter; and SIHP # -06871, a paved area situated on a ridge top
Shideler and Hammatt 2008	Letter report	Farrington Hwy and Haleakalā Rd to Ali'i Nui Dr	Letter addressing architectural concerns including historic bridges post-dating 1940 needing assessment for historical significance; includes a culvert north of Nānāikapono School, Piliokoe Bridge, and bridge crossing Keone'ō'io Gulch at Tracks Beack Park
Park and Collins 2010	Archaeological monitoring	Kahe Water Pipeline project, TMKs: [1] 9-1-015:002 and 9-2-003:011	Although trenching took place within OR&L railway right-of-way (ROW), no portion of railway structure (tracks) impacted; no subsurface human remains or cultural deposits observed during archaeological monitoring, although modern garbage and several historic-period bottle fragments and ceramic fragments observed within fill materials

Reference	Type of Study	Location	Results (SIHP # 50-80-12****-Fea. #)
Hammatt et al. 2013	Archaeological inventory survey	Tracks Beach Park, TMK: [1] 9-2-003:011	Addressed 13.4-km (8.3-mile), 12.2 m (40-ft wide) corridor (40.4 acres total) project area, but subsurface testing limited to six test excavations in Tracks Beach area; no new significant historic properties; discusses OR&L, SIHP # -09714, previously placed on NRHP
Medina and Hammatt 2013	Archaeological monitoring	Aulani Walt Disney Resort at Ko Olina	No historic properties identified
Burke and Hammatt 2014	Archaeological monitoring	Farrington Hwy between Haleakalā Rd and Ali'i Nui Dr	No historic properties identified
Stark et al. 2015	Archaeological assessment (no finds AIS)	Four Seasons Resort at Ko Olina	No historic properties identified
Byerly and O'Day 2017	Archaeological inventory survey	1.83-acre area on <i>mauka</i> (inland) side of Farrington Hwy where it meets the sea (Hawaiki Submarine Cable Landing project), TMKs: [1] 9-2-049:001, 002, and 005; 9-2-051:001 por., 010, and 011; and Farrington Hwy	No historic properties identified on surface of terrestrial parcels; however, one NRHP listed historic property identified intersecting route of subterranean horizontal directional drilling (HDD) bore: OR&L ROW (SIHP # -09714); because HDD bore will run 45 to 50 m below surface, reasonably concluded project would have no effect on the OR&L ROW

Reference	Type of Study	Location	Results (SIHP # 50-80-12****-Fea. #)
Farley and Shideler 2018	Archaeological literature review and field inspection	Atlantis Resort and Residence at Ko Olina	Background research indicates five previously identified historic properties including SIHP # -01436, a lime kiln; SIHP # -01438, a four-component beach midden deposit in which SIHP # -01438 Feature 3 was in the Farley and Shideler (2018) project area along the <i>makai</i> boundary comprising of a subsurface cultural layer within a coastal sand dune containing shell midden, faunal remains, traditional Hawaiian artifacts, pit features (fire pits and refuse pits), and a human burial; SIHP # -01453, a cave/unmodified sinkhole with a midden deposit; SIHP # -03351, habitation complex comprising seven relatively distinct surface deposits and a shelter cave; and SIHP # -03362, which comprises entirety of low ground behind coastal sand dunes including a former coastal marsh; evidence of only SIHP # -01436 observed during field inspection; preservation plan for SIHP # -01436 recommended along with archaeological monitoring at locations of SIHP #s -01438 and -03351

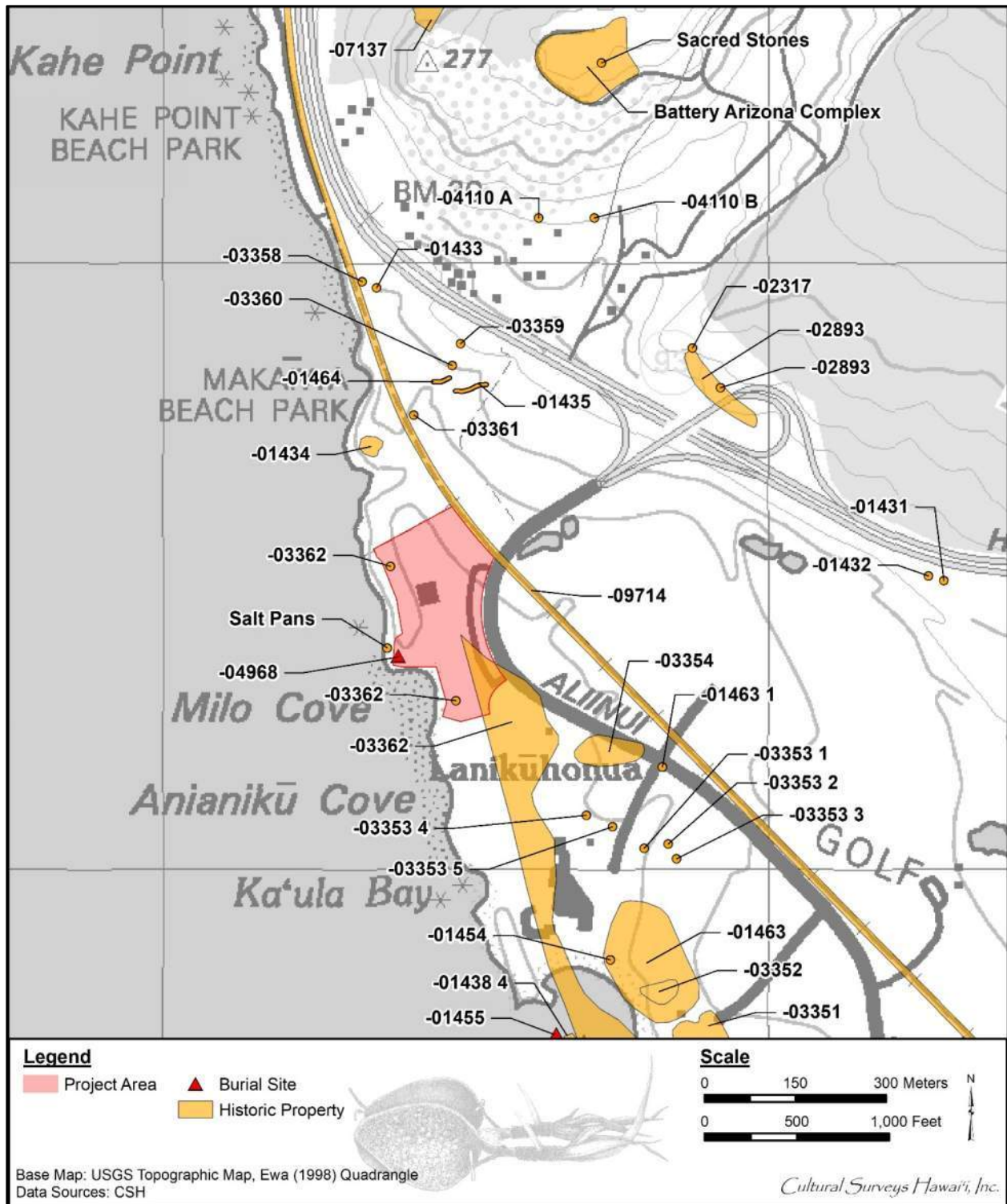


Figure 26. Portion of a 1998 Ewa USGS 7.5-minute topographic quadrangle map depicting previously identified historic properties within and in the vicinity of the project area (SIHP # 50-80-12-**** Fea. #)

Table 2. Previously identified historic properties in the vicinity of the project area

SIHP # 50-80-12-****-Fea. #-	Type	Source	Comments
01431	Wall	Davis 2000	Indeterminate age; dry masonry
01432	Wall	Davis 2000	Indeterminate age; likely related to animal control functions
01433	<i>Koa</i> (shrine)	Hammatt et al. 2013	Pre-Contact
01434	Habitation complex	Davis 2000	Both pre- and post-Contact; includes two enclosure/platforms and a wall
01435	Retaining wall	Davis 2000	Post-Contact, possible erosion control wall
01438-4	Subsurface cultural deposit	Barrera 1979, Davis and Haun 1987, Davis 2000	Four-component midden; Feature 3 comprises charcoal-stained sand on back slope of dune without any visibly associated architectural features; testing revealed numerous fire pits, trash pits, midden, and traditional Hawaiian artifacts
01454	Military revetment (wall)	Davis 2000	Associated with twentieth century military activity (WWII); described by Davis (2000:132) as “an open emergency bunker”
01455	Burial (human)	Neller 1985, Barrera 1986, Davis and Haun 1987, Davis 2000	Davis (2000: III:60) regarded this as Neller Site N-20; human bones exposed by fishermen (antiquity uncertain)
01463	Military coastal defense complex	Neller 1985, Barrera 1986, Davis and Haun 1987, Davis 2000	Davis (2000) associates this with Neller Site N-17; concrete slabs and cast boxes; inferred function: fire control and support center for coastal defense batteries; 15 features (numbered SIHP #s -1463:1 through -1463:15)
01463-1	Military defense structure	Davis and Haun, 1987, Davis 2000	Post-Contact, fire-control/ammunition storage and auxiliary support facility possibly associated with armament at Coastal Gun Battery 3363
01464	Remnant wall	Davis and Haun, 1987, Davis 2000	Post-Contact; probable erosion control
02317	Habitation site	Soehren 1964	Waimanalo Gulch house site, age indeterminate

SIHP # 50-80-12-****-Fea. #-	Type	Source	Comments
02893	Overhang shelter and petroglyphs	Davis and Haun 1987, Davis 2000	Pre-Contact, eight sub-features including two rock shelters, two platforms, a thin surface midden scatter, and three sets of petroglyphs
03351	Habitation complex	Davis and Haun 1987, Davis 2000	Cluster of eight relatively distinct surface deposits and a shelter cave in one of more than a dozen sinkholes and shallow depressions scattered over an area of moderately sloping terrain; habitation deposits numbered SIHP #s -3351:1 through 5, 7, and 8; a structurally unmodified sinkhole/cave identified as -3351:6
03352	Habitation complex	Davis and Haun 1987, Davis 2000	Area of exposed cultural deposits scattered over moderately sloping terrain with an estimated area of 2,100 sq m; identified 21 hearths
03353-1	Open floor habitation	Davis and Haun 1987, Davis 2000	Pre-Contact, estimated site age AD 1593-1793, subsurface cultural deposit with a thin scattering of shell midden and a few artifacts including a bone fishhook-shank fragment, a coral abrader, and eight pieces of volcanic glass (Davis and Haun 1987: B-613)
03353-2	Open floor habitation	Davis and Haun 1987, Davis 2000	Pre-Contact, estimated site age AD 1640-1794, subsurface cultural deposit with a thin scattering of shell midden and volcanic glass (Davis and Haun 1987: B-164)
03353-3	Open floor habitation	Davis and Haun 1987, Davis 2000	Pre-Contact modified sinkhole
03353-4	Open floor habitation	Davis and Haun 1987, Davis 2000	Pre- and post-Contact, subsurface deposit described by Davis (2000:75) as "extremely disturbed"; consists of four relic deposits and possible habitation cave, up to 100 m apart from one another
03353-5	Open floor habitation	Davis and Haun 1987, Davis 2000	Pre- and post-Contact, subsurface deposit disturbed (Davis and Haun 1987:50)
03354	Open floor habitation	Davis and Haun 1987, Davis 2000	Indeterminate age, open area composed of exposed coral bedrock scattered with cultural material (Davis and Haun 1987: B-168)
03358	Open floor habitation	Davis and Haun 1987, Davis 2000	Indeterminate age, subsurface deposit containing shell midden, fire-cracked rock, and broken bowl of clay smoking pipe (Davis and Haun 1987: D-21).

SIHP # 50-80-12-****-Fea. #-	Type	Source	Comments
03359	Cairn	Davis and Haun 1987, Davis 2000	Indeterminate age, roughly piled basalt cobble and boulder structure
03360	Open floor habitation	Davis and Haun 1987, Davis 2000	Indeterminate age; disturbed subsurface cultural layer containing shell midden, coral and fire-cracked rock, bird and rat bone, volcanic glass, a basalt flake, and piece of possibly worked stone (Davis and Haun 1987: D-24)
03361	Open floor habitation	Davis and Haun 1987, Davis 2000	Indeterminate age; subsurface deposit containing shell midden, fire-cracked rock, charcoal, corroded metal, bottle glass, various fragments of corroded metal, and two brass cartridge casings (Davis and Haun 1987: D-25)
03362	Coastal marshland (subsurface wetland deposit)	Davis and Haun 1987, Davis 2000	Feature 1, within current project area, described as coastal backwater marshland with no apparent cultural function prior to nineteenth century cultivation; Feature 2, outside current project area, is cultural deposit indicative of habitation
04110-A	Petroglyph	Bath 1989	Pre-Contact
04110-B	Petroglyph	Bath 1989	Pre-Contact
04968	Burial (human)	Jourdane 1995, Hammatt 1995	Five burials (designated SIHP # -04968: Burials 1 through 5); at least two burials post-Contact based on associated artifacts (button associated with Burial 2 and two gold earrings associated with Burial 3)
07137	Military complex	Yucha and Hammatt 2012	Post-Contact, defensive position/observation post complex consisting of 15 features
09714	OR&L ROW	NRHP Form (1975)	Narrow-gauge steel rails (36 inches) on raised roadbed of mixed materials for length of 15 miles; passes on northeast edge of current project area
CSH 1	Salt pans	Komori and Dye 1979	Pre-Contact
No SIHP assigned	Sacred stones	Hammatt and Shideler 1999	Indeterminate age

SIHP # 50-80-12-****-Fea. #-	Type	Source	Comments
No SHIP assigned	Battery Arizona Complex	Hammatt and Shideler 1999	Post-Contact

These archaeological sites of the 'Ewa coral plains would be the subject of some 50 or so archaeological studies conducted in the 1970s and 1980s and another score by the end of the century

From the period between McAllister's 1930 study and the flurry of work that began in 1969, there are only a few sporadic pieces of poorly documented research.

"In 1933, Dr. Kenneth P. Emory examined a well-preserved house site and a possible *heiau* in the western part of the coral plain; these sites were later destroyed by sugar-cane planting" (Sinoto 1976:1). In 1959, William Kikuchi removed several burials from a burial cave (SIHP # 50-80-12-02317) at the Standard Oil Refinery; the cave was subsequently destroyed (Barrera 1975:1). Kikuchi recovered 12-16 incomplete primary and/or secondary burials cached in a sinkhole or crevice exposed during construction activities near the big bend of Malakole Street, southeast of the current project area (Kikuchi 1959; Davis 1990:146–147). In 1960, Yosi Sinoto and Elspeth Sterling made note of a house site (SIHP # 50-80-08-01176). Davis (1990:147) stated that "In 1962, Lloyd Soehren recorded another secondary human burial in a sinkhole at the Barbers Point Naval Air Station." In 1966, Lloyd Soehren "carried out salvage excavations at a possible fishing shrine (SIHP # 50-80-08-09645)." The site was reported as destroyed by construction (Barrera 1975:1), but Davis (1990:148) confirmed the shrine and performed additional excavations in 1982. In 1969, artifacts were recovered by Roger Green from a beach midden site (SIHP # 50-80-12-02722) south of the barge harbor.

3.2.1 West Beach Studies

Studies conducted for the West Beach development include field surveys to extensive data recovery projects. In the West Beach Study Area (see Figure 25), numerous identified historic properties include paleoecological sites (e.g., sinkholes), traditional Hawaiian sites including burials and habitation complexes, plantation-era infrastructure (e.g., the OR&L ROW), and military infrastructure. Of particular concern to developers in Hawai'i, as well as the community, is the prospect of finding human remains in the course of development. Documented finds of human remains are summarized in Table 3, and the approximate geographic locations of burial finds are depicted in Figure 27. In general, there appears to be a pattern of burial interment immediately adjacent (within 100 m) to the (former, natural) coast. However, scattered burials have been reported from more inland locations. Approximately 26 burials are known to have been encountered in the greater West Beach/Ko Olina Resort project area. One burial, SIHP # -04968, is within the southeastern portion of the current project area (see Figure 26).

Studies conducted for the West Beach development are described below.

Table 3. West Beach burials

SIHP # 50-80-12-xxxx-Fea.	Burial #	Source
01437-1b	Davis #5	Davis 2000:4:6.1
01438-1A	Davis #6	Davis 2000:4:6.2
01438-1B	Davis #8	Davis 2000:4:6.2
01438-3A	Davis #7	Davis 2000:4:6.2
01438-4A	Davis #9	Davis 2000:4:6.2
01438-4B	Davis #10	Davis 2000:4:6.2
01438-4C	Davis #11	Davis 2000:4:6.2
01446-1D	Davis #16	Davis 2000:4:6.3
01446-2	Davis #2	Davis 2000:4:6.1
01446-2	Davis #14	Davis 2000:4:6.2
01446-2	Davis #15	Davis 2000:4:6.3
01450-1	Davis #21	Davis 2000:4:6.3
01455-1	Davis #12	Davis 2000:4:6.2
01458-7	Davis #17	Davis 2000:4:6.3
02717-31	Davis #3	Davis 2000:4:6.1
02718-23	Davis #18	Davis 2000:4:6.3
02718-23	Davis #19	Davis 2000:4:6.3
02719-4	Davis #4	Davis 2000:4:6.1
02721-2	Davis #13	Davis 2000:4:6.2
02721-3	Davis #20	Davis 2000:4:6.2
03355-2	Davis #1	Davis 2000:4:6.1
04968	—	Jourdane 1995; Hammatt 1995

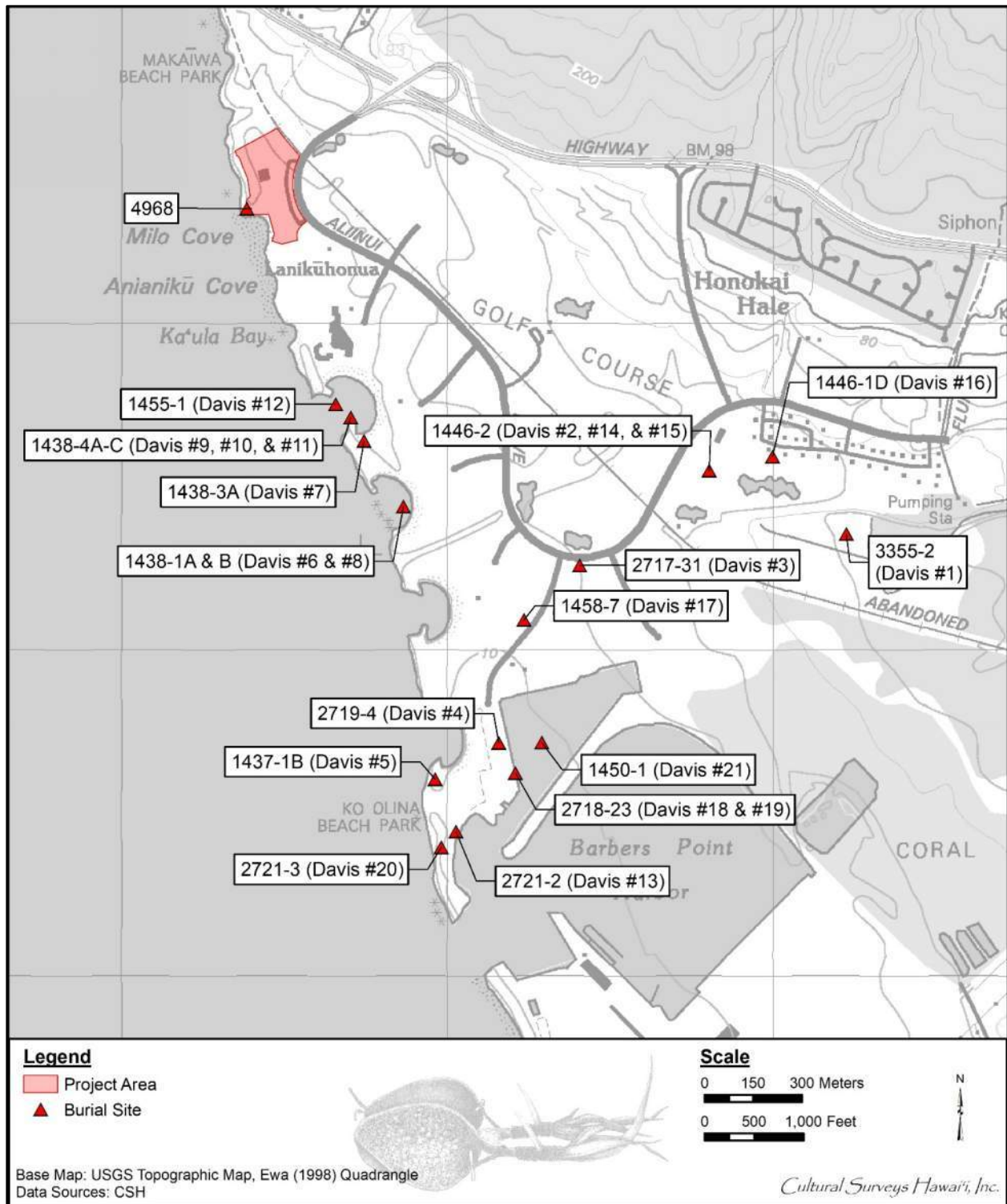


Figure 27. Portion of the 1998 Ewa USGS topographic quadrangle showing the approximate locations of previously identified human burials within and near the project area

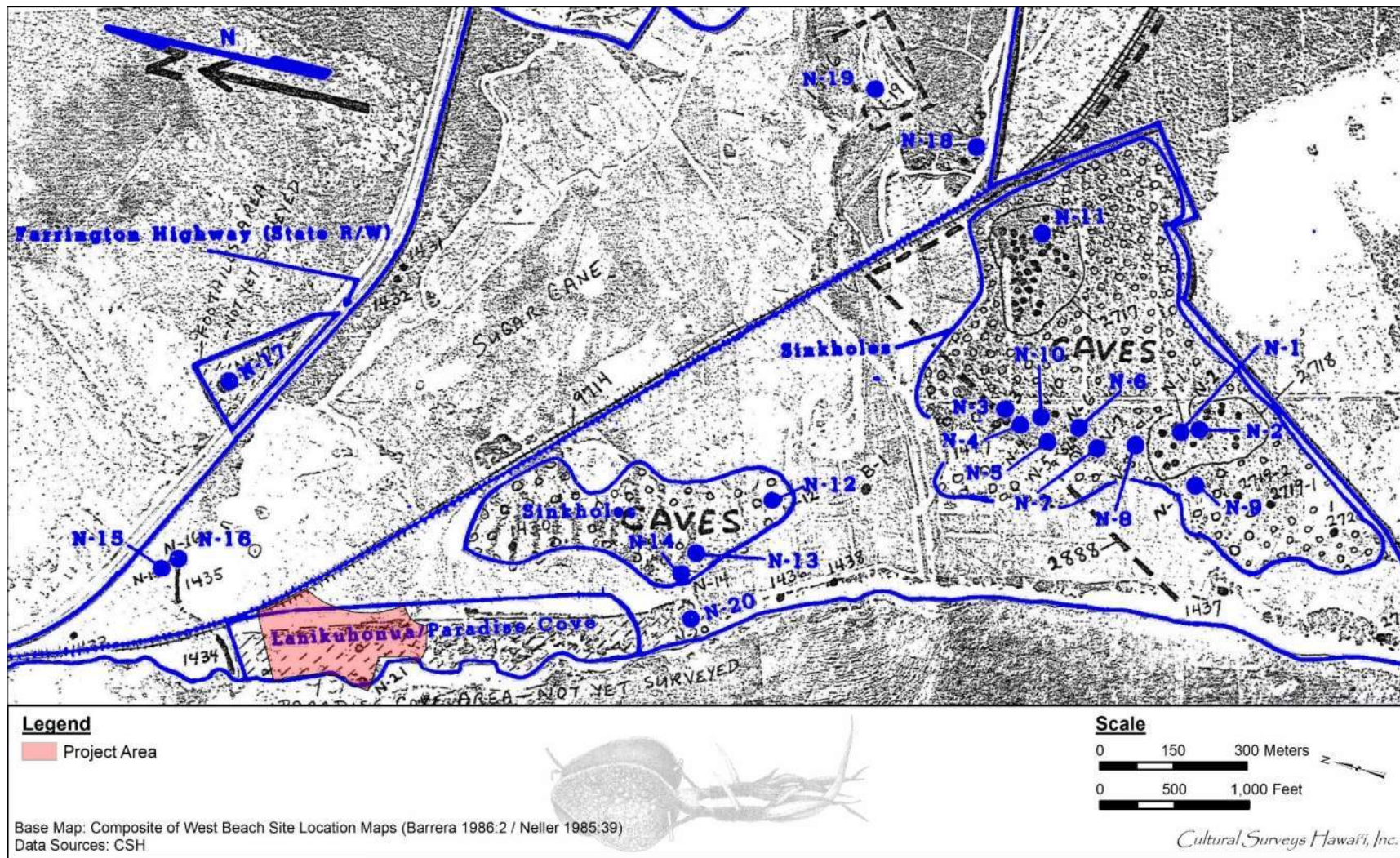


Figure 28. Composite of West Beach site location maps (Neller 1985 and Barrera 1986) in relation to the project area

3.2.1.1 Barrera 1979

William Barrera, Jr. (1979) carried out the first archaeological survey of what would eventually become the Ko Olina Resort area, but which was known at the time as “West Beach.” His introductory remarks under his “Conclusion and Recommendations” merit relating:

When compared with the archaeological remains discovered during the various surveys of the deep draft harbor site on the south side of the project area, the West Beach remains are rather sparse and, to the untrained eye, unimpressive. This is not an indication of lack of interest on the part of the aboriginal population, but is more a function of the extensive clearing of large areas for sugarcane production [...] The remains reported in this volume, then, represent only a small fraction of what once existed at West Beach, and therefore assume added significance. [Barrera 1979:14]

Barrera recorded ten historic properties (SIHP #s 50-80-12-01430 through -01438 and -02721) in his study. These included walls, enclosures, midden scatters, and a fishing shrine (the shrine is still preserved well north of the current project area). None of the historic properties are within the current project area.

3.2.1.2 Komori and Dye 1979

Eric Komori and Thomas Dye (1979) carried out archaeological testing at Lanikūhonua (the present location of Paradise Cove Luau) within the current project area. Six small (0.5 sq m) test pits were excavated in two transect lines. Komori and Dye (1979) noted substantial historic disturbance had already disturbed much of the area and noted no traditional Hawaiian features. However, they did note the presence of charcoal flecks indicated early human activity and therefore recommended archaeological monitoring.

3.2.1.3 Barrera 1984

William Barrera, Jr. produced an archaeological status report (1984) that reviewed and summarized work going back to 1979, as well as a second phase of work completed in July 1984. Much of the work reported on was south of the present project area, but the results of further study of the SIHP # 50-80-12-01438 midden deposit are presented (Barrera Jr. 1984:25–29). Barrera’s report also includes a brief study by architect Glenn Mason (1984) on the SIHP # 50-80-12-01436 lime kiln.

3.2.1.4 Neller 1985

Earl Neller, then of SHPD, produced a preliminary review and evaluation of archaeological studies and recommendations (Neller 1985). Neller found much to fault in the status of archaeological work up to that time and called for more archaeological work to address “the inadequacies of the historic preservation measures being taken and proposed for the West Beach project” (Neller 1985:6). Neller also produced a sketch of historic properties and cave concentrations (see Figure 28) that indicates the caves are east and southeast of the current project area. However, it should be noted that Neller’s fieldwork in the West Beach area was quite brief, comprising only a day or two, and that his location of historic properties and caves was probably not intended to be highly accurate. Neller’s (1985) sites are given as temporary site numbers prefixed with an “N” for “Neller Number.”

3.2.1.5 Barrera 1986

William Barrera, Jr. (1986) produced a summary of his archaeological investigations spanning six years, clearly in response to the critiques of Neller's (1985) review. Barrera also gave formal SIHP number designations for the Neller-numbered sites.

3.2.1.6 Davis and Haun 1986

Bertell Davis and Alan Haun (1986) produced a *Preliminary Report Upon Completion of Field Work* summarizing Phase 2 intensive survey and test excavation work at West Beach. They include no maps but relate, largely in tabular form, data regarding historic properties and the work accomplished. During Phase 2 excavations, four spatially separate activity areas were recorded as component features of SIHP # 50-80-12-01438, numbered 1 through 4 from south to north. Excavation at SIHP # -01438:3, which is south of the current project area, included three test units. In 1987, Davis and Haun followed up their preliminary report on survey and test excavations with an "Interim Report." The interim report includes information on all three historic properties east of the current project area, including the results of test excavation at SIHP #s -03362 (within the current project area). The interim report would not be followed by a final report for more than 13 years (see Davis 2000 discussion below).

3.2.1.7 Glidden et al. 1993

Subsurface backhoe testing consisting of nine trenches at Paradise Cove was conducted by Glidden et al. (1993). Trenches 1 through 6 lacked a cultural component and were determined to be sterile. Trenches 7 through 9 indicated post-Contact cultural activity, and Trench 7 indicated traditional Hawaiian activity. No historic property numbers were designed. This study is within the current project area.

3.2.1.8 Jourdane 1995 and Hammatt 1995

Jourdane (1995) documented the discovery of human remains disturbed during excavation for gas lines at Paradise Cove within the current project area. Little specific information could be determined, and the remains were designated as SIHP # 50-80-12-04968. Jourdane suggested a private CRM firm should investigate the findings, and this was completed by CSH in 1995 (Hammatt 1995). CSH documented an excavation associated with a gas line wrapping around the main stage at Paradise Cove that included five burials (designated SIHP # -04968: Burials 1 through 5). It was documented that at least two of the burials were post-Contact based on associated artifacts (a button associated with Burial 2 and two gold earrings associated with Burial 3). SIHP # -04968 is in the southwest portion of the current project area.

3.2.1.9 Davis 2000

The data recovery work at West Beach was largely carried out in the 1980s but was not completed until Davis' four-volume data recovery study came out in 2000. Davis (2000) is a culmination of the previous studies for West Beach, which cumulatively recorded 157 historic properties within six eco-zones. Ecozone I contained beach deposits, a burial, and coastal marshlands (SIHP #s 50-80-12-02721, -01437, -01438, -01455, -03362). Ecozone II contained five site complexes with multiple features, a cave, a WWII revetment, and a WWII complex (SIHP #s -02720, -02719, -01453, -01454, -01463, -03351, -03352, -03353, and -03354). Ecozone III contained six site complexes with multiple features, a remnant animal pen, a cave, an enclosure, a

water source, two mounds, and a track bed (SIHP #s -01447, -01452, -01458, -01459, -01451, -01449, -01450, -01456, -01457, -01460, -01461, -03350, and -02718). Ecozone IV contained one site complex with multiple features including two burials (SIHP #s -02717). Ecozone V contained inland marsh deposits, a floor, rockshelter, and two site complexes with features (SIHP #s -03357, -01446, -03355, and -03356). Ecozone VI contained wall remnants, a platform/shrine, two site complexes, a petroglyph complex, and a cairn (SIHP #s -01431, -01433, -01434, -01435, -01464, -02893, -03358, -03359, -03360, and -03361). These properties were distributed throughout the West Beach Study Area, and their type and function vary greatly within both traditional Hawaiian and post-Contact contexts. Based on the results of the Phase 2 survey and test excavations reported by Davis and Haun (1987), Phase 4 data recovery excavations were recommended for two sites (SIHP #s 50-80-12-01438 and -03362). During these excavations, a new feature component of SIHP # -03362 was identified and designated as SIHP # -03362 Feature 2. The results of Phase 2 intensive survey and test excavations, initially reported by Davis and Haun (1986, 1987; see discussion above), as well as subsequent Phase 4 data recovery investigations, are presented by Davis (2000).

3.2.2 Other Archaeological Studies

3.2.2.1 Bordner and Silva 1983

An archaeological reconnaissance of Waimānalo Gulch was conducted by Bordner and Silva in 1983. One possible World War II-era encampment was identified “at roughly the 175-foot mark” within the study area (Bordner and Silva 1983:C-3). No further work was recommended.

3.2.2.2 Bath 1989

In 1989, the SHPD was notified of petroglyphs located in the lower elevations at the mouth of Waimānalo Gulch. Three petroglyphs were observed “pecked into black lava rock” (Bath 1989). Two of the petroglyphs were anthropomorphic, while one petroglyph consisted of abstract symbols. The site was briefly documented and designated SIHP # 50-80-12-04110.

3.2.2.3 Hammatt and Shideler 1989

In 1989, CSH conducted an archaeological reconnaissance for a proposed Hawaiian Electric Company (HECO) training facility located on the Kahe Power Plant property (Hammatt and Shideler 1989). One small rock terrace was documented and designated SIHP # 50-80-12-04221. The terrace was thought to be associated with pre-Contact agricultural activities.

3.2.2.4 Hammatt et al. 1991

In 1991, CSH conducted an AIS of the Makaīwa Hills development project (Hammatt et al. 1991). The Hammatt et al. (1991) project area included a 1,915-acre parcel in Honouliuli Ahupua‘a, located between the town of Makakilo and Waimānalo Gulch, and bounded to the south by Farrington Highway and to the north by Pālehua Road. A total of 34 historic properties were identified, including prehistoric habitation structures (temporary and permanent), agricultural features (terraces and mounds), rock shelters, petroglyphs, *ahu* (altar), and various sugarcane cultivation infrastructure (SIHP #s -04310 through -04342). Within the Makaīwa Hills project area, habitation sites were found to be clustered in higher elevations above 1,000 ft and in lower elevations below 500 ft (Hammatt et al. 1991). The higher elevations would have contained ample forest subsistence resources for gathering on both a continual basis, as well as during times of

famine and drought. The lower elevations would be close to the shoreline and bountiful coastal resources.

3.2.2.5 Hammatt and Shideler 1999

In 1999, CSH conducted an AIS for the approximately 200-acre Waimānalo Gulch Sanitary Landfill property (Hammatt and Shideler 1999). No historic properties were observed within the proposed Hammatt and Shideler (1999) project area, however, two sites were in the Waimānalo Gulch property, including a World War II and Civil Defense complex known as “Battery Arizona” and a contemporary Hawaiian shrine incorporating “sacred stones.” An additional petroglyph site was also reported on the property. No SIHP #s were assigned.

3.2.2.6 Hammatt and Shideler 2001

The field investigation conducted by Hammatt and Shideler (2001) indicated cable corridors going through areas intensively disturbed by prior sugarcane cultivation, modern construction activity associated with transportation infrastructure, and by recent Ko Olina Resort development. Based on background research and fieldwork results, no further archaeological research was recommended. Only two historic properties were identified within 50 m (164 ft) of a proposed fiber optic cable alignment: the OR&L railroad (SIHP # -09714) and Ewa Plantation Sugar Company irrigation infrastructure (SIHP # -04341).

3.2.2.7 O’Leary et al. 2007

In 2006 CSH conducted an addendum AIS for the Makaīwa Hills project (O’Leary et al. 2007). The project’s original AIS was completed by CSH in 1991 (Hammatt et al. 1991). The original AIS documented 17 historic properties, five of which were recommended for preservation. Due to the time gap, CSH conducted a reconnaissance to relocate the 17 historic properties and found two additional historic properties. The two historic properties include SIHP # 50-80-12-06870, a terrace, three springs, and a small rock shelter; and SIHP # -06871, a paved area situated on a ridge top.

3.2.2.8 Park and Collins 2010

Pacific Consulting Services, Inc. (Park and Collins 2010) reported on archaeological monitoring in support of a Kahe Reverse Osmosis Water Pipeline project (TMKs: [1] 9-1-015:002 and 9-2-003:011) along a 4-mile portion of the OR&L’s ROW. A variety of stratigraphic sequences were observed and documented in 13 profile locations along the pipeline corridor, but no new subsurface archaeological features or deposits were encountered.

3.2.2.9 Hammatt et al. 2013

CSH (Hammatt et al. 2013) reported on AIS testing at Tracks Beach Park for a proposed Leeward Bikeway project (TMK: [1] 9-2-003:011). A 13.4-km (8.3-mile) long, 12.2- (40 ft) wide corridor (total area of 40.4 acres) project area was addressed but subsurface testing was limited to six test excavations in the beach park area. No new significant historic properties were identified; however, the OR&L (SIHP # 50-80-12-09714), previously listed on the NRHP, is discussed.

3.2.2.10 Medina and Hammatt 2013

The report produced by Medina and Hammatt (2013) regarding archaeological monitoring for the Aulani Disney Resort and Spa at Ko Olina indicates no cultural materials were identified.

Stratigraphic profiles included a series of mixed fills over coral shelf. Interestingly, a dark brown clay loam was observed resting on the coral shelf. This was interpreted as natural alluvial sediments by Medina and Hammatt (2013:58).

3.2.2.11 Burke and Hammatt 2014

CSH produced an archaeological monitoring report for the Farrington Highway Part 1, Phases A and B, 12-inch and 24-inch Water Main Installation project (Burke and Hammatt 2014). No historic properties were identified.

3.2.2.12 Byerly and O'Day 2017

Garcia & Associates (Byerly and O'Day 2017) produced an AIS report for a 1.83-acre area on the *mauka* side of Farrington Highway where it meets the sea for a Hawaiiki Submarine Cable Landing project, TMKs: [1] 9-2-049:001, 002, and 005; 9-2-051:001 por., 010, and 011; and Farrington Highway. No historic properties were identified on the surface of the terrestrial parcels. However, one National and Hawaii Register of Historic Places-listed historic property was identified intersecting the route of the subterranean horizontal directional drilling (HDD) bore: the OR&L ROW (SIHP # -09714). Because the HDD bore will run 45 to 50 m below surface, however, it was reasonably concluded that the project would have no effect on the OR&L ROW.

3.3 Background Summary and Predictive Model

Documentary evidence suggests the present project area is located in a region that was populated by Hawaiians inhabiting the western coast of O'ahu before the nineteenth century. Maps and historic documentation indicate the Honouliuli area was utilized by Hawaiians for fisheries, marine resources, rich alluvial soils, sinkholes with large populations of avifauna, and an extensive upland forest.

The Ko Olina Resort area was also a popular vacation destination for *ali'i* such as Chief Kakūhihewa and the priest Napuaikamao, who was also the caretaker of the area.

Archaeological studies have recorded the presence of subsurface historic properties of both pre- and/or early post-Contact traditional Hawaiian and post-Contact western-related cultural deposits and human burials. Some of these historic properties appear relatively intact despite the years of plantation activity that have altered portions of these areas.

3.3.1 Human Burials

Previous archaeological investigations have documented both pre-Contact and post-Contact human burials throughout the greater Honouliuli area along the shoreline. In general, there appears to be a pattern of burial interment immediately adjacent (within 100 m) to the (former, natural) coast. However, scattered burials have been reported from more inland locations. Isolated burials and burial clusters have been found just above the water table and below historic-era fill materials, primarily within sand deposits.

Human burial discoveries were reported by at least three previous studies (Jourdane 1995, Hammatt 1995, and Davis 2000). Approximately 26 burials are known to have been encountered in the greater West Beach/Ko Olina Resort project area (SIHP #s 50-80-12-01737, -01438, -01446, -01450, -01455, -01458, -02717, -02718, -02719, -02721, and -03355). Five burials, SIHP # 50-80-12-04968, are within the southeastern portion of the current project area consisting of at least

two post-Contact burials based on associated artifacts. The burials were found in association with a Jaucas sand environment, sinkholes, cists, pits, and caches.

The prospect for human burials within the project area is generally regarded as low in *mauka* areas, and high for *makai* shoreline areas. Other than the finds in the immediate vicinity of the West Beach burials and current project area, there have been relatively few burial finds in *mauka* areas. The majority of the current project area was subject to grading and agricultural activities related to the Ewa Plantation Company.

3.3.2 Pre-Contact and Early Post-Contact Agricultural and Habitation Deposits

The southeastern portion of the current project area appears to be in what was once a marshy wetland plain of Honouliuli. This area likely provided ancient Hawaiians with the environment needed for the cultivation of taro. The features expected from these cultural activities include berms, saltpans, *lo 'i* (taro ponds), pond banks, and *'auwai* (ditch) levee remnants. Following the initial years of European Contact, westerners engaged in new massive agricultural ventures. Cattle grazing was popular in the area and later the Ewa Plantation Company used the area for sugarcane cultivation.

3.3.3 Potential for Other Finds

The fact that the Ko Olina Resort area was a very substantial vacation destination for *ali 'i* raises the prospect of subsurface finds such as cultural deposits, trash deposits, or privies. However, much of the land has been moderately altered by cattle grazing and plantation activities.

There is a moderate probability there will be subsurface finds such as a remnant wetland deposits and remnant plantation and historic era land use as well as pre-Contact burials and cultural deposits.

Section 4 Results of Fieldwork

Fieldwork was conducted between 21 October and 12 November 2019 by CSH archaeologists under the general supervision of Principal Investigator Hallett H. Hammatt, Ph.D. Fieldwork consisted of a 100% pedestrian inspection of the 10.85-acre AIS project area. Following the pedestrian survey, the historic property identification effort focused on a subsurface testing program where 16 test excavations were excavated, documented, and sampled.

The subsurface testing plan was based on the combination of three previous studies' test locations, the documentation of known historic properties within the project area (Komori and Dye 1979, Davis and Haun 1987, and Glidden et al. 1993), and consultation from SHPD and cultural descendant Nettie Fernandez Tiffany (Aunty Nettie). Previous archaeological studies show extensive investigation within the existing parking lot areas in the western portion of the project area consisting entirely of fill material. Due to previously conducted extensive testing and no archaeological findings, only one test excavation was placed in the parking lot area in the northwestern portion of the project area (T-3). Six previous test excavations from previous studies were conducted near the shoreline and yielded three previously identified historic properties including salt pans (CSH 1, located outside the current project area), coastal marshlands (SIHP # 50-80-12-03362), and human burials (SIHP # 50-80-12-04968). Current AIS test excavations were placed based on targeting the previously identified historic properties within areas not previously investigated. The remainder of the test excavations were placed for representative distribution. Some trenches were reoriented based on known subsurface utilities via the maintenance crew and concerns from Aunty Nettie.

The subsurface testing plan originally consisted of 19 subsurface test excavations (T-1 through T-19) (Figure 29). The subsurface testing plan was modified per the request of SHPD in a meeting held on 24 May 2018 excluding three proposed test excavations (T-17 through T-19). Subsurface testing within existing structures was not viable. Two test excavations, T-11 and T-13, were abandoned due to the presence of an active sewer drain line and a fire sprinkler line that both broke during excavation activities. Both the sewer drain line and fire sprinkler lines were repaired.

All but two test excavations were excavated by a backhoe excavator to sterile material between 0.52 and 2.14 mbs, or the coral shelf observed between 0.75 and 1.75 mbs. Two test excavations (T-10 and T-12) were hand excavated to 3 feet below surface (ftbs) or sterile material as requested by Aunty Nettie in avoidance of any possible voids in the coral shelf and proximity to known human burials. The following paragraphs provide an overview and summary of the subsurface testing results. For detailed information regarding each of the test excavations, please refer to the profiles, stratigraphic descriptions, and photographs that follow this more general summary discussion.

The general observed stratigraphy from open trenching primarily consists of imported and locally procured fill deposits (Stratum I) overlying the coral shelf. The imported fill deposits ranged throughout test excavations and include landscaped topsoil fill, crushed coral fill, and in one test excavation basalt gravel base course fill. The locally procured fill deposits consist of a series of sand fills observed primarily near the shoreline and silty clay loam deposits observed in most test excavations. The southern portion of the project area contained a silty clay wetland deposit (Stratum II). These observations are consistent with the USDA soil data for the project



Figure 29. 2013 Google Earth Aerial Imagery depicting project area and locations of test excavations (T-1 through T-16)

area and its vicinity (Foote et al. 1972). All excavations were backfilled after completion of documentation.

The silty clay loam alluvial fill observed in the majority of test excavations likely represents the soil runoff from plantation drainage activities during the operation of Ewa Plantation Company, from the early 1900s through the 1920s. According to Immish (1964) approximately 373 acres of coral wasteland was reclaimed by plantation draining. These fill deposits typically overlay the undulating coral shelf and range in depths between 0.11 and 2.14 mbs.

In coastal/western areas, locally procured sand fills were typically observed overlying the silty clay loam alluvial fills ranging between 0.10 and 0.95 mbs. Most of the test excavations containing sand fills were used during utility installation and landscaping activities.

The *mauka*/eastern areas contained crushed coral fill ranging between 0 and 0.45 mbs. The imported crushed coral fill was likely utilized to prepare and maintain the surface following the development of Paradise Cove in the late 1970s.

One previously identified historic property was identified consisting of coastal wetlands (SIHP # -03362). SIHP # -03362 was identified in three excavations (T-14 through T-16) located in the southern portion of the project area and designated as Stratum II. Sub-strata designations occurred in one test excavation (T-14) as here were separate deposits. According to previous documentation, field results, and the lack of evidence on historic maps, the silty clay material is related to coastal wetland deposits with no apparent evidence of land use prior to agriculture in the nineteenth century. According to an 1873 Alexander map, the wetlands were possibly present in the southern portion of the project area extending south into Lanikūhonua Institute, and *makai*/west to an outlet into the Pacific Ocean (see Figure 10). The wetlands appear to be filled in by the early 1900s as it was no longer depicted on historic maps. Additionally, the Glidden et al. (1993) report stated that Nettie Fernandez Tiffany and Walter Kamana noted the presence of a “riverbed” in the southern portion of the project area (Glidden et al. 1993:10–12). Stratum II is considered a component of SIHP # -03362.

Based on testing, the majority of the project area appears to be moderately disturbed from multiple phases of land altering activities including the plantation, ranching, and the development of Paradise Cove. The northern portion of the project area is significantly shallower in comparison to the central and southern portions of the project area.

4.1.1 Test Excavation 1 (T-1)

T-1 is in the northwest portion of the project area, west of the wedding chapel in a landscaped lawn area (see Figure 29). According to historic maps, the area was within a low-lying area near the shoreline. An 1825 Malden map depicts T-1 just east of a settlement and within two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as an undeveloped flat sandy area until its present use as a landscaped area (see Figure 21). T-1 is oriented northwest-southeast and measures 6.0 m long and 0.75 m wide. The base of excavation was determined by the presence of the coral shelf at 1.15 mbs.

The stratigraphy observed within T-1 consists of a sandy clay loam fill (Stratum Ia), a very gravelly sandy clay loam fill (Stratum Ib), sand fill (Stratum Ic), overlying a silty clay loam fill (Stratum Id) and the coral shelf (Figure 30, Figure 31, and Table 4).

Strata Ia and Ib are imported fill deposits related to landscaping activities for Paradise Cove. Stratum Ic is composed of a locally procured sand fill intermixed with the underlying silty clay loam, likely utilized to raise the surface during the development of Paradise Cove in the late 1970s. Stratum Id is an alluvial fill that likely represents the soil runoff from plantation drainage activities of the Ewa Plantation Company that operated from the early 1900s through the 1920s.

No historic properties or cultural materials were identified.

4.1.2 Test Excavation 2 (T-2)

T-2 is in the northwest portion of the project area, *makai*/west of the wedding chapel in a landscaped lawn area (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-2 just east of a settlement and north of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s the area was left as an undeveloped flat area, west of the boundary of land utilized for sugar cane cultivation until its present use as a landscaped area (Figure 21). T-2 is oriented northeast-southwest and measures 6.0 m long and 0.6 m wide. The base of excavation was determined by the presence of the coral shelf at 0.58 mbs.

The stratigraphy observed within T-2 consists of a gravelly silt loam fill (Stratum Ia), an extremely gravelly sandy loam fill (Stratum Ib), overlying a silty clay loam fill (Stratum Ic) and the coral shelf (Figure 32, Figure 33, and Table 5).

Strata Ia and Ib are imported fill deposits. Stratum Ia is related to landscaping activities for the existing grassy lawn area. Stratum Ib is a crushed coral fill observed in most *mauka* test excavations, likely utilized to raise the surface during the development of Paradise Cove in the late 1970s. A possible inactive irrigation PVC pipe was observed at the southeast end of T-2 running west-southeast at the interface of Strata Ia and Ib between 0.25 to 0.30 mbs. A 1.0-m portion of the trench was hand unexcavated due to safety concerns and to avoid further damage. Stratum Ic is an alluvial fill that likely represents the soil runoff from plantation drainage activities of the Ewa Plantation Company that operated from the early 1900s through the 1920s.

No historic properties or cultural materials were identified.



Figure 30. Photograph of T-1 southwest sidewall, view to west

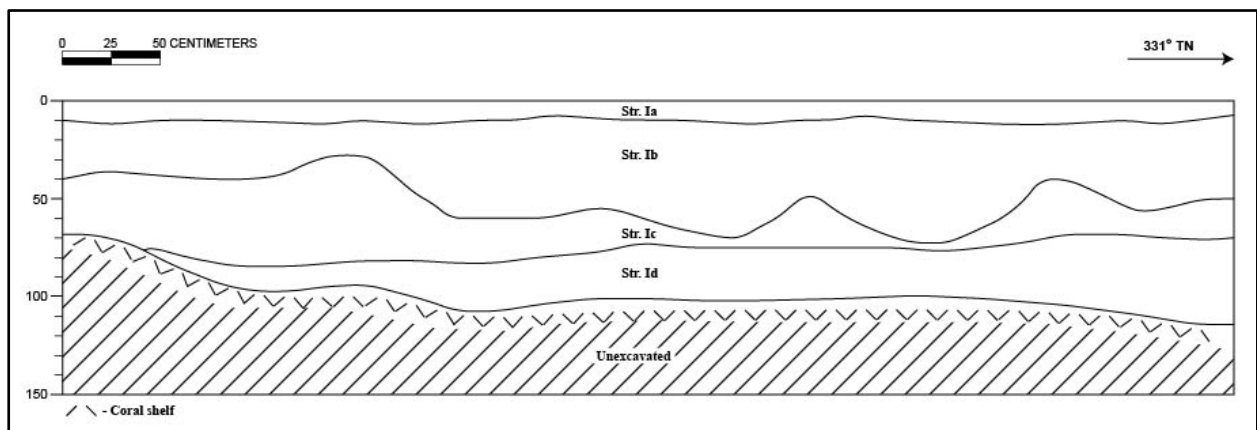


Figure 31. Profile of T-1 southwest sidewall

Table 4. T-1 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–10	Fill; 7.5YR 3/3, dark brown; sandy clay loam; weak, fine, granular structure; moist, friable consistence; no cementation; slightly plastic; mixed origin; clear, smooth lower boundary; fine to medium roots common; landscaped top soil
Ib	10–75	Fill; 10YR 3/2, very dark grayish brown; gravelly sandy clay loam; weak, fine, granular structure; moist, friable consistence; no cementation; slightly plastic; mixed origin; abrupt, wavy lower boundary; fine to medium roots common; coral gravel and several sand inclusions; fill utilized to raise the surface
Ic	28–83	Fill; 10YR 7/4, very pale brown; sand; single-grain (structureless); moist, loose consistence; no cementation; non-plastic; marine origin; abrupt, discontinuous lower boundary; no roots observed; fill utilized to raise the surface
Id	70–115 (BOE)	Fill; 10YR 2/2, very dark brown; silty clay loam; moderate, fine, granular structure; moist, friable consistence; no cementation; plastic; terrigenous origin; lower boundary not visible; no roots observed; fill likely accumulated from plantation activities



Figure 32. Photograph of T-2 west sidewall, view to southwest

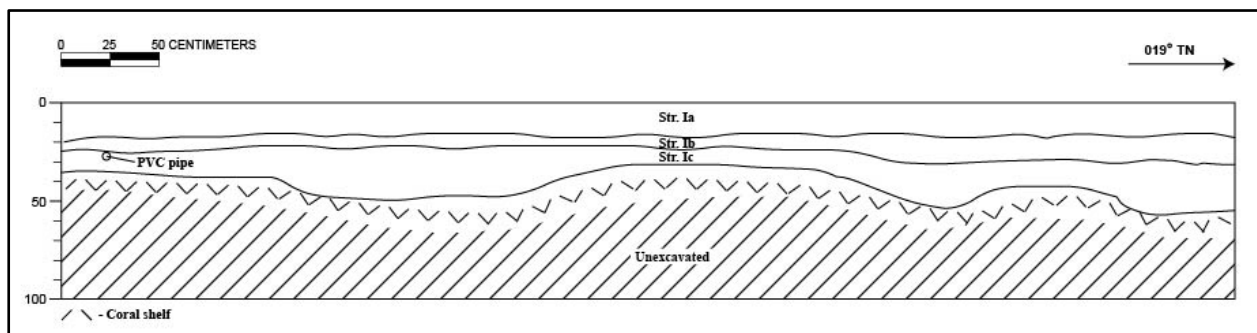


Figure 33. Profile of T-2 west sidewall

Table 5. T-2 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–18	Fill; 10YR 3/3, dark brown; gravelly silt loam; weak, fine, granular structure; moist, friable consistence; no cementation; slightly plastic; terrigenous origin; clear, smooth lower boundary; fine roots common; landscape top soil
Ib	15–30	Fill; 10YR 7/4, very pale brown; extremely gravelly sandy loam; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; clear, smooth lower boundary; few medium roots; crushed coral fill
Ic	32–58 (BOE)	Fill; 10YR 2/2, very dark brown; silty clay loam; moderate, fine, granular structure; moist, friable consistence; no cementation; plastic; terrigenous origin; lower boundary not visible; no roots observed; fill likely accumulated from plantation activities

4.1.3 Test Excavation 3 (T-3)

T-3 is in the northeast portion of the project area, east of the wedding chapel in an asphalt-paved parking lot (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-3 east of a settlement and north of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s the area was left as an undeveloped flat area, within the western boundary of land utilized for sugarcane cultivation until its present use as a parking lot (Figure 21). T-3 is oriented northeast-southwest and measures 6.0 m long and 0.75 m wide. The base of excavation was determined by the presence of the coral shelf at 0.73 mbs.

The stratigraphy observed within T-3 consists of asphalt (Stratum Ia), an extremely gravelly sandy loam fill (Stratum Ib), overlying a silty clay loam fill (Stratum Ic) and the coral shelf (Stratum II) (Figure 34, Figure 35, and Table 6).

Strata Ia and Ib are imported fill deposits related to the construction of the existing parking lot near the chapel in the late 1970s. Stratum Ic is an alluvial fill that likely represents the soil runoff from plantation drainage activities of the Ewa Plantation Company that operated from the early 1900s through the 1920s.

No historic properties or cultural materials were identified.

4.1.4 Test Excavation 4 (T-4)

T-4 is located at the northeast portion of the project area, south of the wedding chapel in an open grassy area near the shoreline (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-4 south of a settlement and south of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as an undeveloped flat area, west of the boundary utilized for sugarcane cultivation and west of a former house until its present use as a landscaped area (see Figure 18 and Figure 21). T-4 is oriented east-west and measures 6.0 m long and 0.60 m wide. The base of excavation was determined by the presence of the coral shelf at 1.20 mbs.

The stratigraphy observed within T-4 consists of a sandy clay loam fill (Stratum Ia), overlying a silty clay loam fill (Stratum Ib) and the coral shelf (Figure 36, Figure 37, Figure 38, and Table 7).

Stratum Ia is related to landscaping activities for the existing grassy lawn area for Paradise Cove likely established in the late 1970s. Stratum Ib is an alluvial fill that likely represents the soil runoff from plantation drainage activities of the Ewa Plantation Company that operated from the early 1900s through the 1920s. A PVC irrigation line was encountered in the western end of T-4 at approximately 20 cmbs within Stratum Ib. The pipe was broken during excavation. A 3.0-m portion was left unexcavated due to safety issues and to avoid further damage.

Two glass bottles (Acc. #s 1 and 2) were identified within Stratum Ib between 100 to 120 cmbs.



Figure 34. Photograph of T-3 northeast sidewall, view to east

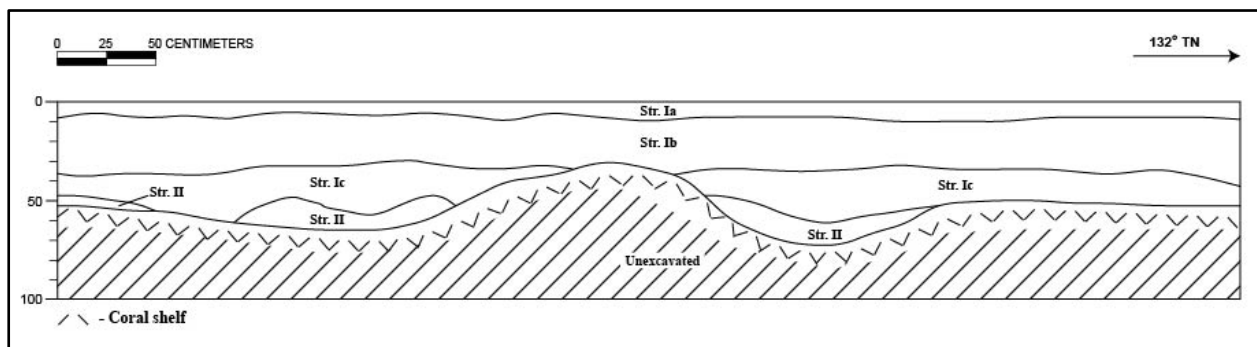


Figure 35. Profile of T-3 northeast sidewall

Table 6. T-3 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–6	Asphaltic concrete
Ib	6–42	Fill; 10YR 6/1, gray; extremely gravelly sandy loam; weak, fine, granular structure; moist, friable consistence; terrigenous origin; abrupt, smooth lower boundary; imported basalt gravel base course, contains two glass bottles (Acc. #s 1 and 2)
Ic	35–60	Fill; 10YR 2/2, very dark brown; silty clay loam; moderate, fine, granular structure; moist, friable consistence; no cementation; plastic; terrigenous origin; lower boundary not visible; no roots observed; fill likely accumulated from plantation activities
II	47–73 (BOE)	Coral shelf



Figure 36. Photograph of T-4 north sidewall, view to north

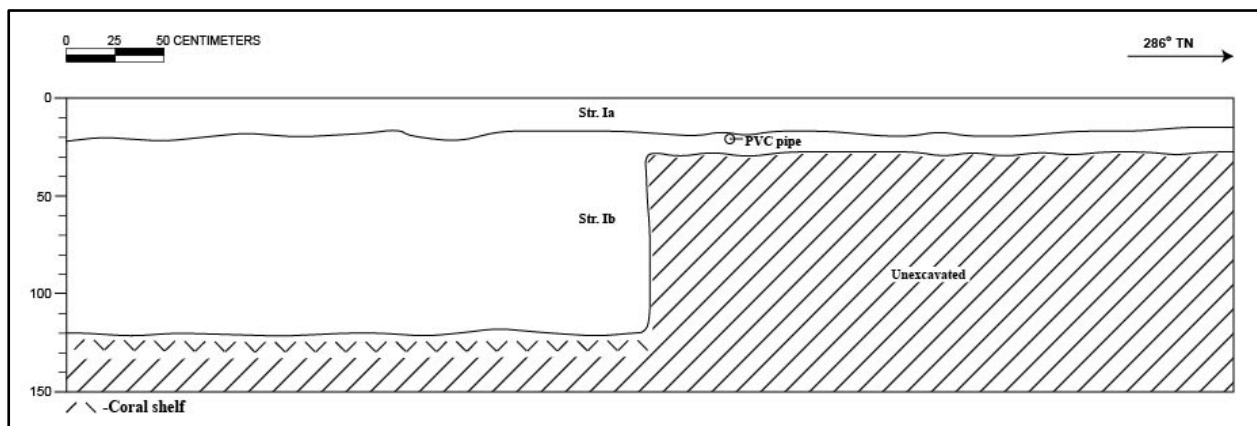


Figure 37. Profile of T-4 north sidewall



Figure 38. Profile of T-4 overview at BOE depicting water line and unexcavated area; view to east

Table 7. T-4 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–20	Fill; 10YR 3/2, very dark grayish brown; sandy clay loam; moderate, medium, granular structure; moist, firm consistence; no cementation; plastic; mixed origin; many, fine roots; diffuse, smooth lower boundary
Ib	20–120 (BOE)	Fill; 10YR 2/2, very dark brown; silty clay loam; moderate, fine, granular structure; moist, friable consistence; no cementation; plastic; terrigenous origin; lower boundary not visible; no roots observed; fill likely accumulated from plantation activities

4.1.5 Test Excavation 5 (T-5)

T-5 is in the central northern portion of the project area, in a sandy pathway (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-4 southeast of a settlement and near one of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as an undeveloped flat area, within the boundary utilized for sugarcane cultivation and east of a former house until its present use as a landscaped area (see Figure 18 and Figure 21). T-5 is oriented northwest-southeast and measures 6.0 m long and 0.75 m wide. The base of excavation was determined by the presence of the coral shelf at 1.90 mbs.

The stratigraphy observed within T-5 consists of a very gravelly sand fill (Stratum Ia), overlying a silty clay loam fill (Stratum Ib) and the coral shelf (Figure 39, Figure 40, and Table 8).

Stratum Ia is composed of a thin compacted sandy surface overlying imported crushed coral fill. The sandy surface is currently utilized as a pathway near restrooms in the northeastern portion of the project area. The crushed coral fill is observed in most *mauka* test excavations, likely utilized to raise the surface during the development of Paradise Cove in the late 1970s. Stratum Ib is an alluvial fill that likely represents the soil runoff from plantation drainage activities of the Ewa Plantation Company that operated from the early 1900s through the 1920s. An inactive copper utility pipe was encountered within the upper portion of Stratum Ib at 0.34 mbs with no discernable utility pit. A large coral cobble was encountered at 1.14 mbs measuring 0.60 m long and extending 0.3 m out of the northwest sidewall. No discernable pit was noted surrounding the coral cobble. The coral cobble is likely a result from the soil runoff.

No cultural materials or historic properties were identified.



Figure 39. Photograph of T-5 southeast sidewall, view to south

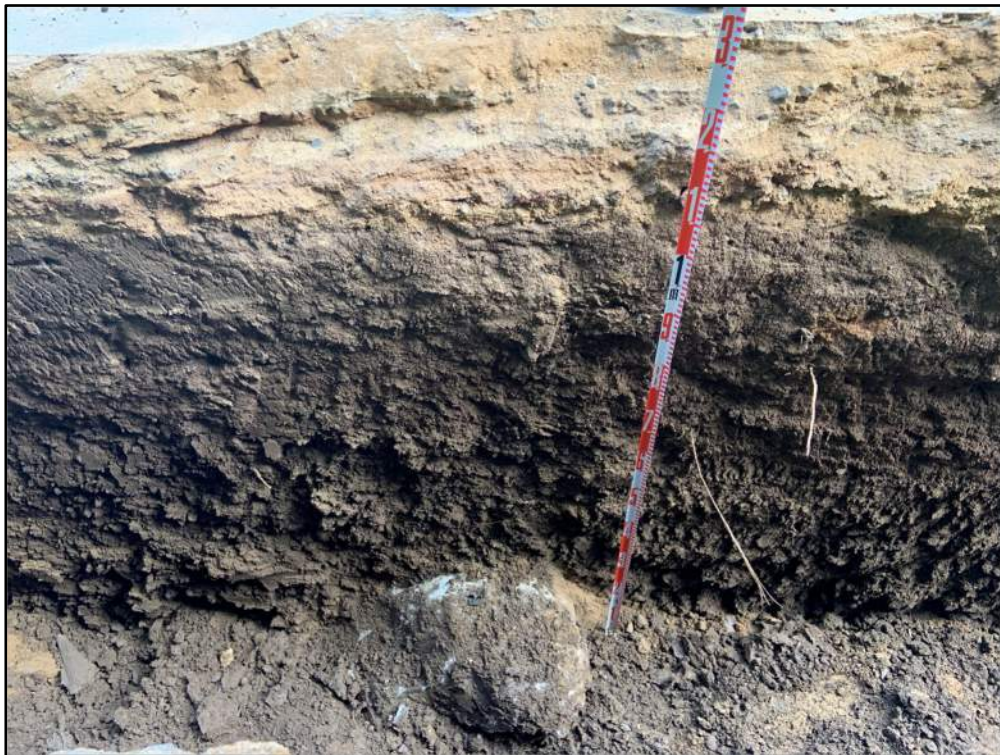


Figure 40. Photograph of T-5 northwest wall showing large coral cobble; view to northwest

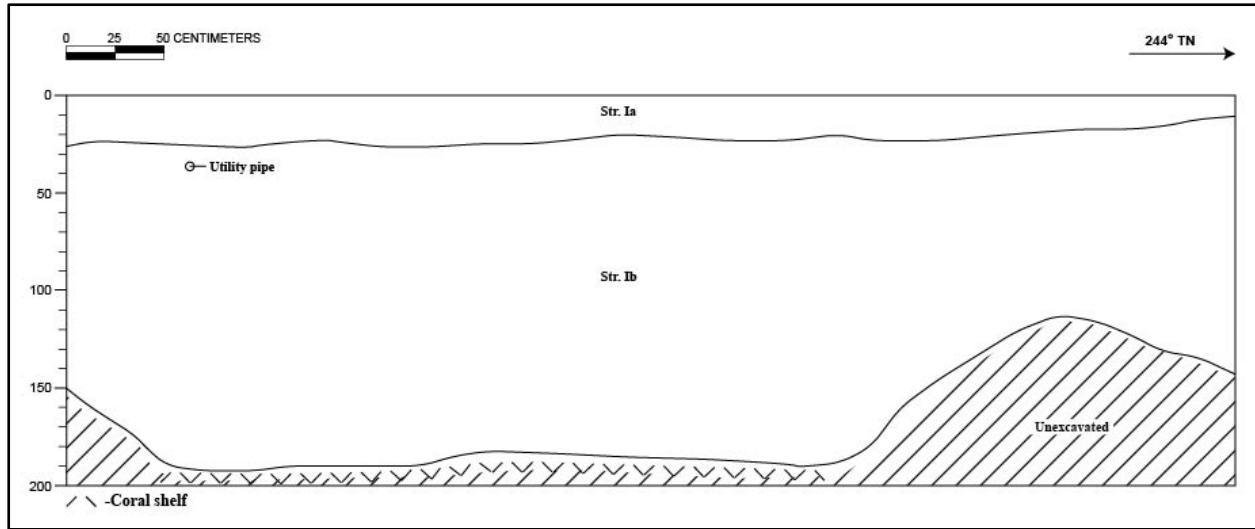


Figure 41. Profile of T-5 southeast sidewall

Table 8. T-5 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–25	Fill; 10YR 6/6, brownish yellow; very gravelly sand; structureless (single-grain); moist, loose consistence; weak cementation; non-plastic; mixed origin; no roots observed; very abrupt, smooth lower boundary
Ib	11–190 (BOE)	Fill; 10YR 2/2, very dark brown; silty clay loam; moderate, fine, granular structure; moist, friable consistence; no cementation; plastic; terrigenous origin; lower boundary not visible; no roots observed; fill likely accumulated from plantation activities

4.1.6 Test Excavation 6 (T-6)

T-6 is in the northwestern portion of the project area, in a grassy area just east of the *imu* (earth oven) area (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-6 southeast of a settlement and south of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as an undeveloped flat area, west of the boundary utilized for sugarcane cultivation and east of a former house until its present use as a landscaped area (see Figure 18 and Figure 21). T-6 is oriented north-south and measures 6.1 m long and 0.80 m wide. The base of excavation was determined by the presence of sterile material at 1.44 mbs.

The stratigraphy observed within T-6 consists of a very gravelly sandy clay loam fill (Stratum Ia), a crushed coral extremely gravelly sandy loam fill (Stratum Ib), a cobbly silty clay loam (Stratum Ic), overlying a silty clay loam fill (Stratum II) (Figure 42, Figure 43, and Table 9).

Strata Ia and Ib are imported fill deposits. Stratum Ia is related to landscaping activities for the existing grassy lawn area. Stratum Ib is a crushed coral fill observed in most *mauka* test excavations. Stratum Ib was likely utilized to raise the surface during the development of Paradise Cove in the late 1970s. Stratum Ic is an alluvial fill that likely represents the soil runoff from plantation drainage activities of the Ewa Plantation Company that operated from the early 1900s through the 1920s. The upper portion of Stratum Ic showed evidence of modern disturbance from the development of Paradise Cove containing small glass fragments, asphalt pieces, coral cobbles, PVC pipe fragments, ceramic fragments, a playing card, plastic knife, and aluminum can remnant. None of these artifacts were diagnostic and were considered modern material, and thus were not collected (Figure 44).

No historic properties or cultural materials were identified.



Figure 42. Photograph of T-6 west sidewall, view to southwest

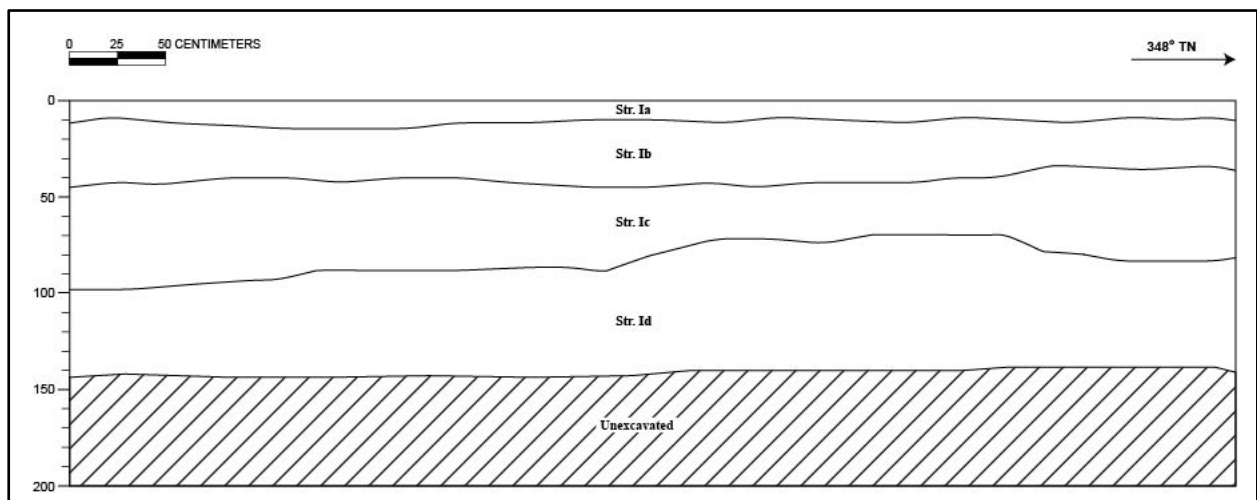


Figure 43. Profile of T-6 west sidewall

Table 9. T-6 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–14	Fill; 7.5YR 3/4, dark brown; very gravelly sandy loam; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; terrigenous origin; many, fine roots; clear, smooth lower boundary
Ib	10–45	Fill; 10YR 5/4, yellowish brown; extremely gravelly sandy loam; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; no roots observed; clear, smooth lower boundary; imported crushed coral
Ic	35–98	Fill; 10YR 3/2, very dark grayish brown; cobbly silty clay loam; moderate, medium, granular structure; moist, friable consistence; no cementation; slightly plastic; mixed origin; few, fine roots; clear, smooth lower boundary
Id	70–144 (BOE)	Fill; 10YR 3/2, very dark grayish brown; silty clay loam; weak, medium, blocky structure; moist, friable consistence; no cementation; plastic; terrigenous origin; no roots observed; lower boundary not visible; fill likely accumulated from plantation activities



Figure 44. Artifacts observed but not collected from Stratum Ic

4.1.7 Test Excavation 7 (T-7)

T-7 is in the central portion of the project area, in a sandy pathway at a portable building area for Paradise Cove personnel (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-7 southeast of a settlement and south of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as an undeveloped flat area, just west of the boundary utilized for sugarcane cultivation and east of a former house until its present use as a landscaped and pathway area (see Figure 18 and Figure 21). T-7 is oriented north-south and measures 6.0 m long and 0.60 m wide. The base of excavation was determined by the presence of sterile material at 2.04 mbs.

The stratigraphy observed within T-7 consists of a sandy loam fill (Stratum Ia), very gravelly sandy loam crushed coral fill (Stratum Ib), overlying a cobbly silty clay loam fill (Stratum Ic) (Figure 45, Figure 46, and Table 10).

Stratum Ia is composed of a thin compacted sandy surface overlying imported crushed coral fill (Stratum Ib). Stratum Ia is currently utilized as a pathway near portable buildings in the north central portion of the project area. Stratum Ib is observed in most *mauka* test excavations, likely utilized to raise the surface during the development of Paradise Cove in the late 1970s. A metal wire was observed in the eastern portion of T-7 within Stratum Ib at 0.55 mbs. Stratum Ic is an alluvial fill that likely represents the soil runoff from plantation drainage activities of the Ewa Plantation Company that operated from the early 1900s through the 1920s. The upper portion of Stratum Ic appears to have been reworked or disturbed as it contains coral gravel, a small amount of concrete debris, and a wire extending out of the east wall. A sand lens was observed at the base of this disturbed portion in the center of the trench in both sidewalls, but not continuous.

No historic properties or cultural materials were identified.



Figure 45. Photograph of T-7 east sidewall, view to east

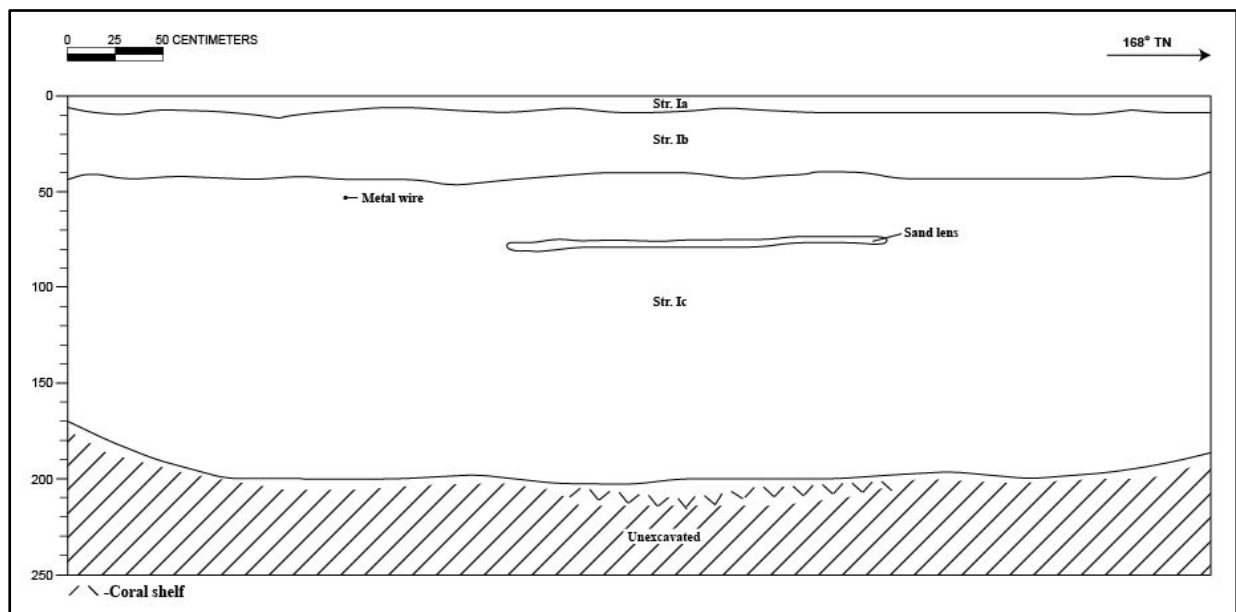


Figure 46. Profile of T-7 southwest sidewall

Table 10. T-7 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–9	Fill; 10YR 7/4, very pale brown; sandy loam; weak, fine, granular structure; moist, friable consistence; weak cementation; non-plastic; mixed origin; no roots observed; clear, smooth lower boundary
Ib	5–44	Fill; 10YR 4/4, dark yellowish brown; very gravelly sandy loam; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; terrigenous origin; no roots observed; clear, smooth lower boundary; imported crushed coral
Ic	37–204 (BOE)	Fill; 10YR 3/2, very dark grayish brown; cobbly silty clay loam; moderate, medium, granular structure; moist, friable consistence; no cementation; slightly plastic; mixed origin; few, fine roots; lower boundary not visible; fill likely accumulated from plantation activities

4.1.8 Test Excavation 8 (T-8)

T-8 is in the west central portion of the project area, between the *imu* area and main *lū'au* seating area (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-8 southeast of a settlement and south and southeast of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as an undeveloped flat area, west of the boundary utilized for sugarcane cultivation and west of a former dwelling until its present use as the *imu* and pathway area (see Figure 18 and Figure 21). T-8 is oriented east-west and measures 6.0 m long and 0.75 m wide. The base of excavation was determined by the presence of the coral shelf at 2.14 mbs.

The stratigraphy observed within T-8 consists of a sand fill (Stratum Ia), extremely gravelly sandy loam fill (Stratum Ib), sand fill (Stratum Ic), overlying a silty clay loam fill (Stratum Id) (Figure 47, Figure 48, and Table 11).

Stratum Ia is composed of a thin compacted sandy surface overlying imported crushed coral fill (Stratum Ib). Stratum Ia is currently utilized as a pathway between the *imu* and *lū'au* areas in the west central portion of the project area. Stratum Ib is observed in most *mauka* test excavations and was likely utilized to raise the surface during the development of Paradise Cove in the late 1970s. A PVC pipe containing four wires from an inactive speaker was observed within Stratum Ib at 0.25 mbs. Due to safety concerns and to avoid further damage, approximately 1.4 m of the west portion of T-8 was unexcavated below 0.4 mbs. Stratum Ic is an alluvial fill that likely represents the soil runoff from plantation drainage activities of the Ewa Plantation Company that operated from the early 1900s through the 1920s.

No historic properties or cultural materials were identified.



Figure 47. Photograph of T-8 west sidewall, view to southwest

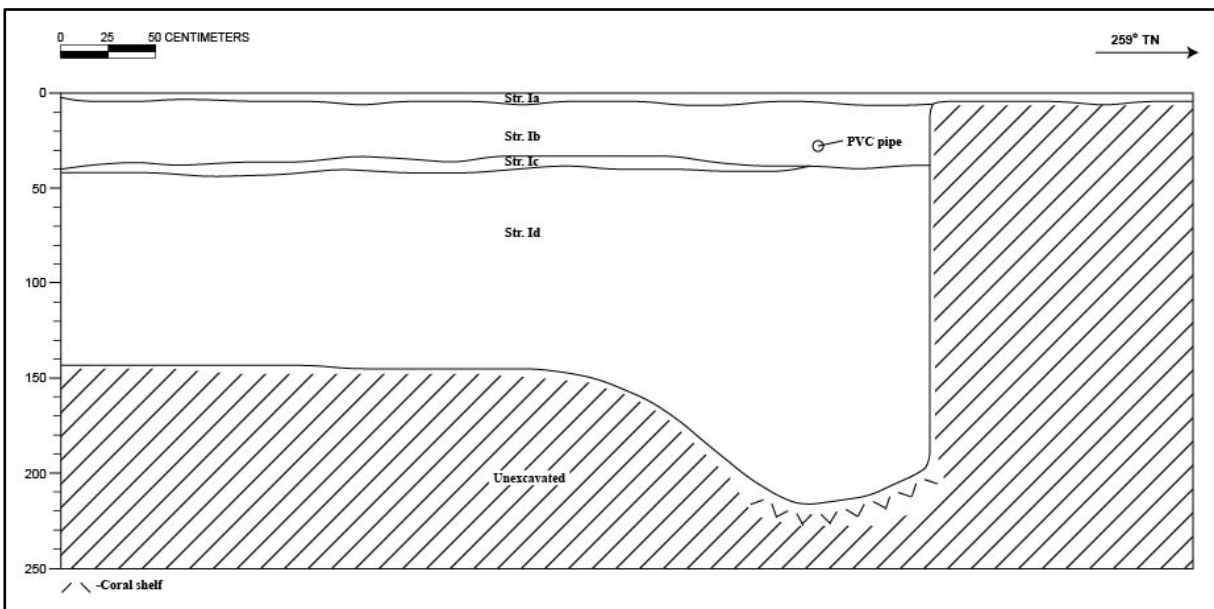


Figure 48. Profile of T-8 southwest sidewall

Table 11. T-8 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–4	Fill; 10YR 7/4, very pale brown; sand; structureless (single-grain); moist, friable consistence; no cementation; non-plastic; marine origin; no roots observed; clear, smooth lower boundary
Ib	4–38	Fill; 10YR 7/4, very pale brown; extremely gravelly sandy loam; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; no roots observed; clear, smooth lower boundary; imported crushed coral
Ic	33–41	Fill; 10YR 7/4, very pale brown; sand; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; no roots observed; clear, smooth lower boundary
Id	38–214 (BOE)	Fill; 10YR 3/4, dark yellowish brown; silty clay loam; weak, fine, blocky structure; moist, friable consistence; no cementation; plastic; terrigenous origin; no roots observed; lower boundary not visible; fill likely accumulated from plantation activities

4.1.9 Test Excavation 9 (T-9)

T-9 is in the east central portion of the project area, at the main ticket entrance (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-9 southeast of a settlement and south and east of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as an undeveloped flat area, within the boundary utilized for sugarcane cultivation and east of two dwellings until its present use as a landscaped area (see Figure 18 and Figure 21). T-9 is oriented east-west and measures 3.0 m long and 0.70 m wide. The base of excavation was determined by the presence of the coral shelf at 1.70 mbs.

The stratigraphy observed within T-9 consists of a silty clay loam fill (Stratum Ia), gravelly sandy clay loam crushed coral fill (Stratum Ib), overlying a silty clay loam fill (Stratum Id) (Figure 49, Figure 50, Table 12).

Strata Ia and Ib are imported fill deposits. Stratum Ia is related to landscaping activities for the existing grassy lawn area. Stratum Ib is a crushed coral fill observed in most *mauka* test excavations. Stratum Ib is likely utilized to raise the surface during the development of Paradise Cove in the late 1970s. Stratum Ic is an alluvial fill that likely represents the soil runoff from plantation drainage activities of the Ewa Plantation Company that operated from the early 1900s through the 1920s. A metal pipe was observed within the upper portion of Stratum Ic at 1.10 mbs in the southwest portion of the trench and was abandoned at this depth. Additionally, a concrete square block measuring 0.40 m long, 0.40 m wide, and 0.05 m thick was observed within Stratum Ic from the backdirt pile.

No historic properties or cultural materials were identified.



Figure 49. Photograph of T-9 west sidewall, view to northwest

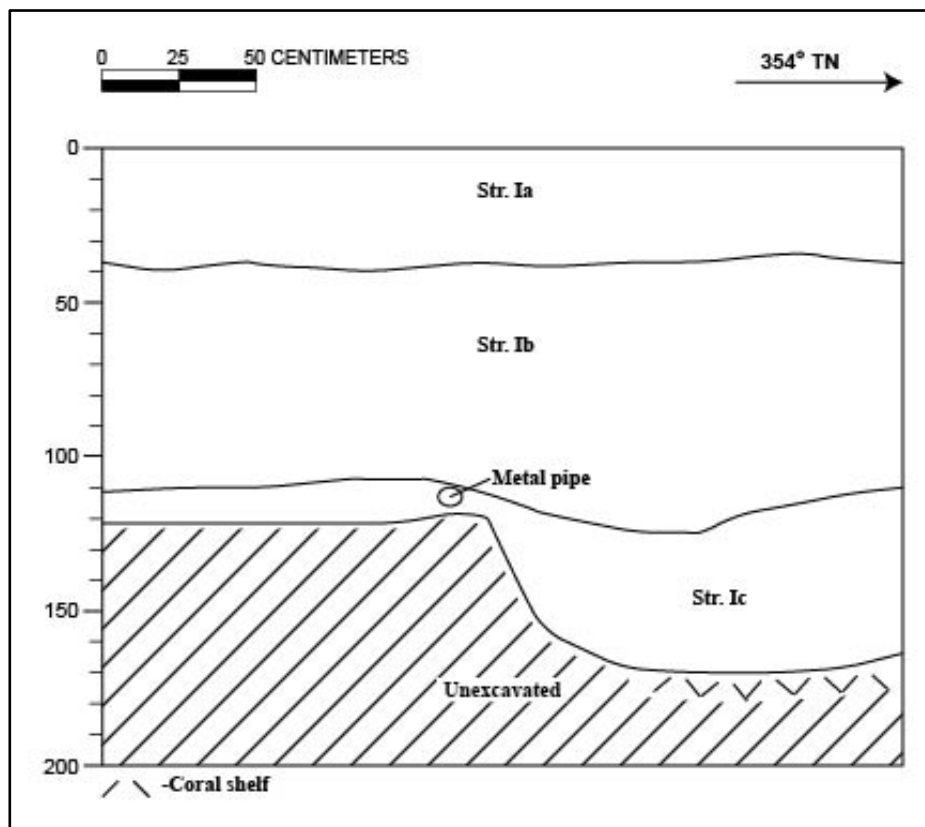


Figure 50. Profile of T-9 west sidewall

Table 12. T-9 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–37	Fill; 10YR 3/2, very dark grayish brown; silty clay loam; moderate, coarse, granular structure; moist, firm consistence; no cementation; very plastic; terrigenous origin; many, medium roots; clear, smooth lower boundary; top soil
Ib	37–120	Fill; 10YR 5/4, yellowish brown; gravelly sandy clay loam; moderate, medium, granular structure; moist, firm consistence; no cementation; very plastic; mixed origin; no roots observed; clear, smooth lower boundary; imported crushed coral
Ic	108–170 (BOE)	Fill; 10YR 3/2, very dark grayish brown; silty clay loam; moderate, coarse, granular structure; moist, firm consistence; no cementation; plastic; terrigenous origin; few, medium roots; lower boundary not visible; fill likely accumulated from plantation activities

4.1.10 Test Excavation 10 (T-10)

T-10 is in the southeast portion of the project area, at the northern portion of the main *lū'au* stage and dining area (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-10 southeast of a settlement and south and southeast of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as an undeveloped flat area, west of the boundary utilized for sugarcane cultivation and west of a former dwelling until its present use as the *lū'au* dining area (see Figure 18 and Figure 21). T-10 is oriented northwest-southeast and measures 6.0 m long and 0.60 m wide. The base of excavation was determined by safety concerns (i.e., void) at 0.85 mbs.

Due to high cultural sensitivity in this area, and at the request of cultural descendant Aunty Nettie, the entirety of T-10 was hand excavated. Due to safety issues, the northwest end of T-10 was excavated to 0.40 mbs, as the softness of the area suggested that further excavation may cause a void.

The stratigraphy observed within T-10 consists of gravelly loamy sand fills (Strata Ia and Ib), two utility pits (Utility Pits A and B), and a crushed coral pit, overlying a disturbed sandy loam A horizon (Stratum II) (Figure 51, Figure 52, and Table 13).

Strata Ia and Ib consist of locally procured sand deposits related to construction activities for utility installation for Paradise Cove. One PVC irrigation line was observed within the northern portion of T-10 at 0.12 mbs within Stratum Ia. Three inactive gas lines and two metal wires were observed within Stratum Ib and two utility pits (Utility Pits A and B). Two gas lines were observed in Utility pit A between 0.38 and 0.50 mbs originating from the base of Stratum Ia and extending within Stratum Ib. One gas line was observed in Utility Pit B between 0.45 to 0.50 mbs originating from the base of Stratum Ia and extending within Stratum Ib. Metal wires were observed in the northern portion of T-10 at 0.20 mbs and 0.40 mbs within the lower portion of Stratum Ib. A crushed coral pit was observed within the northern portion of T-10. Stratum Ic is a disturbed A horizon observed in the southern portion of T-10 between 0.50 and 0.85 mbs. The disturbance likely occurred during utility installation and construction activities related to Paradise Cove.

Hand excavations yielded field-collected basalt and marine shell observed throughout Strata Ib and Ic. Stratum Ib contained sparse charcoal, fire-affected rock (FAR) and water-rounded basalt cobbles (Acc. #s 11–15), glass fragments (Acc. #s 6 and 7), and marine shell (Acc. #s 8–10). Artifacts collected from Stratum Ic included FAR and water-rounded basalt cobbles (Acc. #s 25–30) and marine shell (Acc. #s 16–24).



Figure 51. Photograph of T-10 west sidewall, view to northwest



Figure 52. Photograph of T-10 west wall, view to southwest

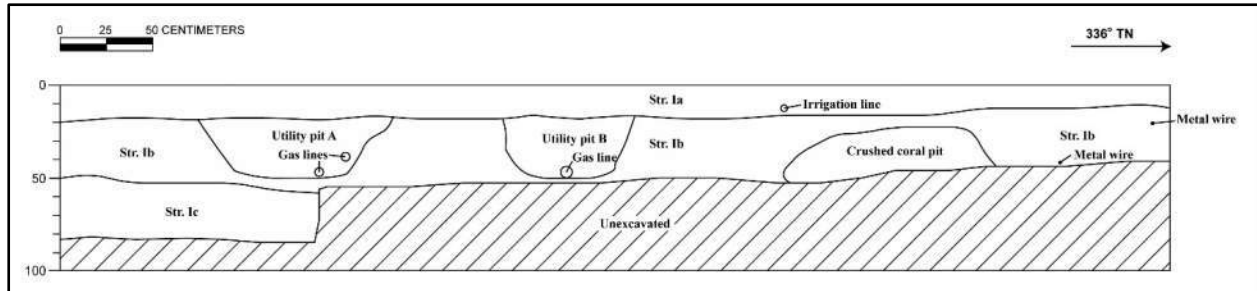


Figure 53. Profile of T-10 southwest sidewall

Table 13. T-10 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–19	Fill; 10YR 5/2, grayish brown; gravelly loamy sand; structureless (single-grain); moist, firm consistence; weak cementation; non-plastic; mixed; no roots observed; abrupt, smooth lower boundary
Utility pit A	16–50	Fill; 10YR 5/3, brown; gravelly sandy loam; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; mixed origin; few, fine roots; abrupt, discontinuous lower boundary
Utility pit B	16–52	Fill; 10YR 5/3, brown; gravelly sandy loam; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; mixed origin; few, fine roots; abrupt, discontinuous lower boundary
Ib	10–58	Fill; 10YR 5/3, brown; gravelly loamy sand; structureless (single-grain); moist, loose consistence; no cementation; non-plastic; mixed origin; few, medium roots; abrupt, smooth lower boundary; contained sparse charcoal, fire-affected rock (FAR) and water-rounded basalt cobbles (Acc. #s 11–15), glass fragments (Acc. #s 6 and 7), and marine shell (Acc. #s 8–10)
Crushed coral pit	20–52	Fill; 10YR 5/4, yellowish brown; extremely gravelly sandy loam; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; few, medium roots observed; abrupt, discontinuous lower boundary; crushed coral fill
Ic	50–85 (BOE)	Fill; 10YR 3/2, very dark grayish brown; sandy loam; weak, very fine, granular structure; moist, friable consistence; no cementation; non-plastic; terrigenous origin; few, medium roots; lower boundary not visible; disturbed A horizon, contains FAR and water-rounded basalt cobbles (Acc. #s 25–30) and marine shell (Acc. #s 16–24)

4.1.11 Test Excavation 11 (T-11)

T-11 is in the southeast portion of the project area, at the northern portion of the main *lū'au* stage and dining area (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-11 southeast of a settlement and south and southeast of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s the area was left as a semi-undeveloped flat area, west of the boundary utilized for sugarcane cultivation and west of a former dwelling and roadway until its present use as the dining area (see Figure 18 and Figure 21). T-11 is oriented east-west and measures 6.0 m long and 0.70 m wide. The base of excavation was determined by a broken sewer drain line at 0.78 mbs.

The stratigraphy observed within T-11 consists of a loamy sand fill (Stratum Ia), gravelly sandy clay loam fill (Stratum Ib), and a sand fill (Stratum Ic) (Figure 54, Figure 56, and Table 14).

Strata Ia through Ic consist of locally procured sand fills. Locally procured sand deposits were typically observed in coastal/western areas of the project area. These fills were likely used during the utility installation for Paradise Cove. A PVC irrigation pipe was encountered within Stratum Ib at 0.25 mbs in the south wall and east end of T-11. Additionally, a PVC sewer drain line was encountered and cracked in the eastern half of T-11 within Stratum Ic at 0.49 mbs, extending to the center of T-11. Due to safety concerns (i.e., biohazard) the trench was abandoned at this depth. The sewer drain line was repaired.

No historic properties or cultural materials were identified.



Figure 54. Photograph of T-11 south sidewall, view to south



Figure 55. Plan view of T-11 showing broken PVC sewer drain line; view to south

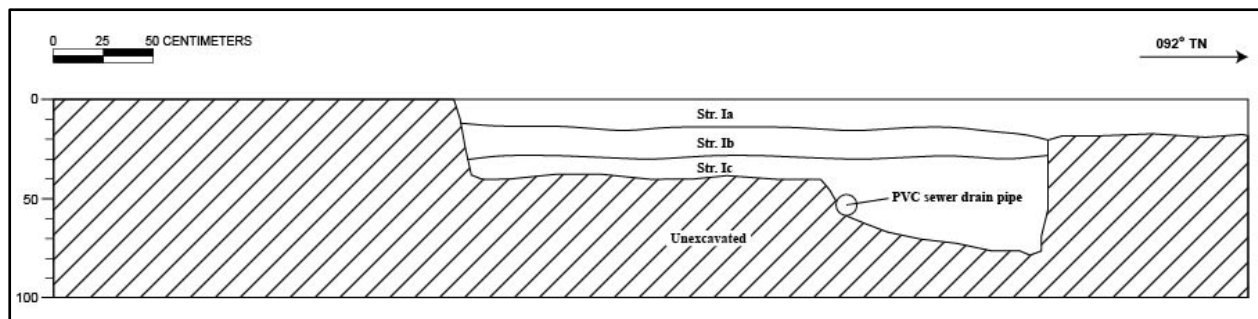


Figure 56. Profile of T-11 north sidewall

Table 14. T-11 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–20	Fill; 10YR 7/3, very pale brown; loamy sand; strong, medium, granular structure; moist, extremely firm consistence; strong cementation; non-plastic; marine origin; no roots observed; clear, smooth lower boundary
Ib	15–30	Fill; 10YR 3/2, very dark grayish brown; gravelly sandy clay loam; moderate, medium, granular structure; moist, firm consistence; no cementation; plastic; mixed origin; no roots observed; clear, smooth lower boundary
Ic	30–78 (BOE)	Fill; 10YR 5/6, strong brown; sand; structureless (single-grain); moist, loose consistence; no cementation; non-plastic; marine origin; no roots observed; lower boundary not visible

4.1.12 Test Excavation 12 (T-12)

T-12 is in the southwest portion of the project area, at the southern portion of the main *lū'au* seating area (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-12 southeast of a settlement and south and east of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as an undeveloped flat area, west of the boundary utilized for sugarcane cultivation and within the vicinity of a former dwelling (likely the former caretaker's home) until its present use as the *lū'au* dining area (see Figure 18 and Figure 21). T-12 is oriented northwest-southeast and measures 6.0 m long and 0.60 m wide. The base of excavation was determined by the presence of sterile material at 0.75 mbs.

Due to high cultural sensitivity in this area, and at the request of cultural descendant Auntie Nettie, the entirety to T-12 was hand excavated in an effort to avoid possible burial finds.

The stratigraphy observed within T-12 consists of very gravelly loamy sand crushed coral fill (Stratum I), overlying a cobbly sandy clay loam fill (Stratum Ic) (Figure 51, Figure 52, and Table 13).

Stratum Ia is an imported fill deposit consisting of crushed coral fill observed in most *mauka* test excavations. Stratum Ia was likely utilized to raise the surface during the development of Paradise Cove in the late 1970s. Stratum Ia contained glass and ceramic fragments and one corroded metal nail. These items were not diagnostic and were not collected (Figure 59). Stratum Ib is a locally procured fill deposit. The upper portion of Stratum Ib contained a small amount of charcoal flecking and one faunal medium mammal bone fragment (Acc. # 31).

No other cultural materials or historic properties were identified.



Figure 57. Photograph of T-12 northwest sidewall, view to north

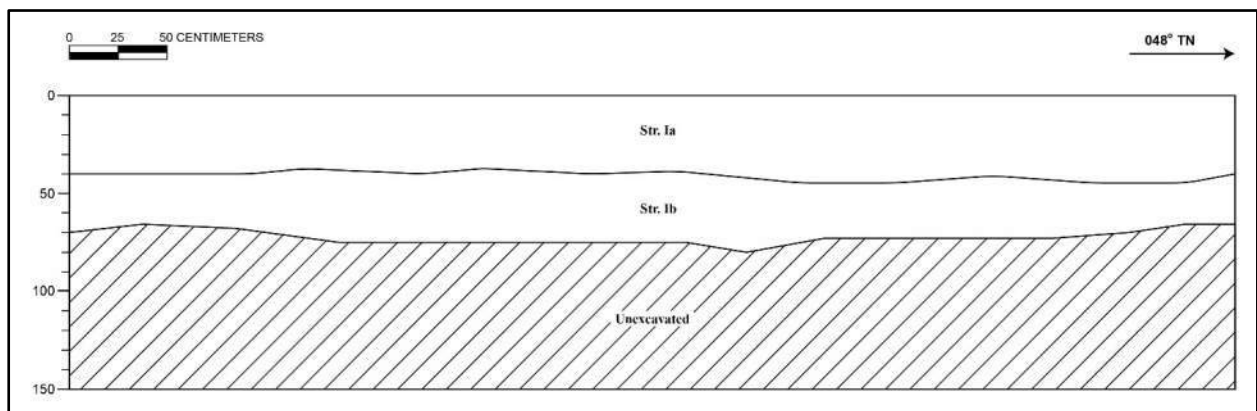


Figure 58. Profile of T-12 northwest sidewall

Table 15. T-12 stratigraphic description

Stratum	Depth (cmbs)	Description
I	0–40	Fill; 10YR 6/3, pale brown; very gravelly loamy sand; structureless (single-grain); moist, loose consistence; no cementation; non-plastic; marine origin; no roots observed; abrupt, smooth lower boundary
Ib	37–75 (BOE)	Fill; 10YR 3/2, very dark grayish brown; cobbly sandy clay loam; moderate, very fine, granular structure; moist, firm consistence; no cementation; slightly plastic; mixed origin; no roots observed; lower boundary not visible; contains a small amount of charcoal flecking and one faunal medium mammal bone fragment (Acc. # 31)



Figure 59. Artifacts observed not collected from T-12 Stratum Ia

4.1.13 Test Excavation 13 (T-13)

T-13 is in the south-central portion of the project area, in an open sandy walkway area (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-13 southeast of a settlement and south and east of two former trails in which a portion was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as a semi-undeveloped flat area, west of the boundary utilized for sugarcane cultivation and south of a former dwelling and roadway until its present use as a walkway near a current bar area (see Figure 18 and Figure 21). T-13 is oriented northeast-southwest and measures 5.1 m long and 0.80 m wide. The base of excavation was determined by the breakage of an active PVC fire sprinkler line at 1.60 mbs.

The stratigraphy observed within T-13 consists of loamy sand fill (Stratum Ia), sandy clay loam fill (Stratum Ib), extremely gravelly loamy sand fill (Stratum Ic), silty clay loam fill (Stratum Id), sandy clay loam fill (Stratum Ie), a silty clay loam fill (Stratum If), a gravelly sandy clay loam utility pit (Stratum Ig), and a fine sand utility pit (Stratum Ih) (Figure 60, Figure 62, and Table 16).

Stratum Ia is composed of a locally procured thin compacted sandy surface utilized for the existing sandy walkway area. Stratum Ib through If consists of imported fill deposits. These fill deposits were likely utilized to raise the surface for construction purposes including utility installation for Paradise Cove from the late 1970s. Stratum If is an alluvial fill that likely represents the soil runoff from plantation drainage activities of the Ewa Plantation Company that operated from the early 1900s through the 1920s. Several glass bottle fragments (Acc. #s 3–5) were collected from the spoils pile from Stratum If. Strata Ig and Ih are utility pits. Stratum Ig extends from the truncated interface of Strata Ia/Ib and is intrusive through Strata Ib through If. Stratum Ig contained an abandoned metal utility pipe observed in the southeast wall at 0.44 mbs. Stratum Ih extends from the truncated interface of Strata If and Ig and extends to the BOE. A PVC fire sprinkler line was encountered within Stratum Ih in the southwest end of T-13 at 1.13 mbs. The excavation was abandoned as water filled the trench before the fire sprinkler line was able to be shut off. Following the water shut off, water was removed via the excavator bucket for repair of the fire sprinkler line. The fire sprinkler line was repaired. The sidewall was exposed and was documented.

No other historic properties or cultural materials were identified.



Figure 60. T-13 northwest sidewall, view to north



Figure 61. Southwest end of T-13 showing broken PVC fire sprinkler line at 1.13 mbs

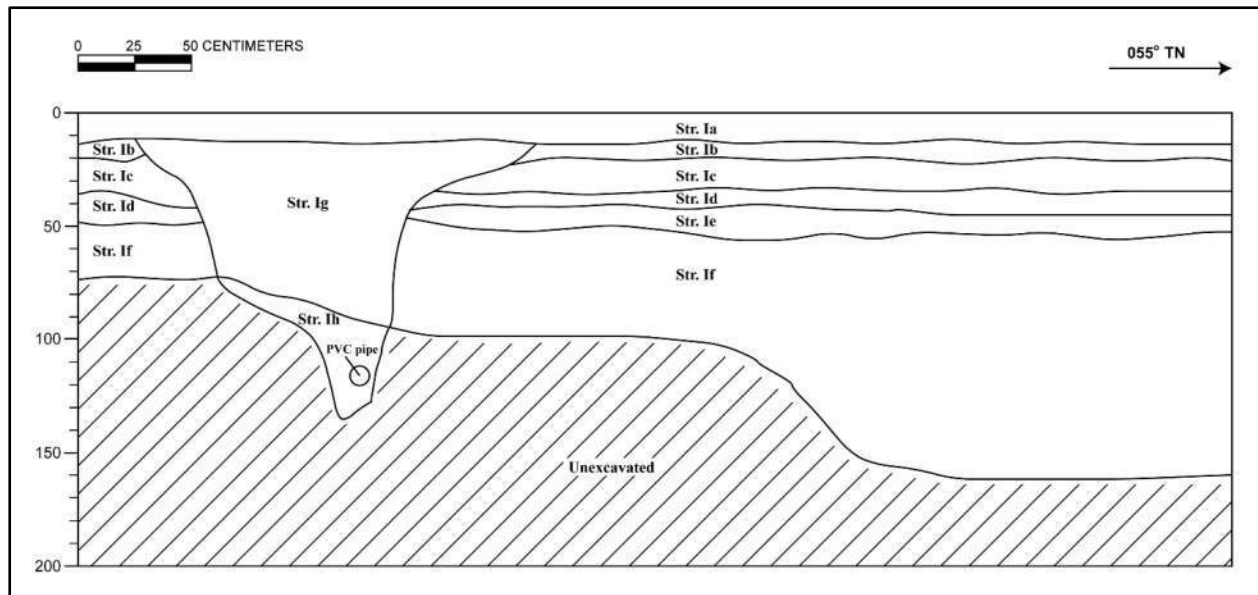


Figure 62. Profile of T-13 northwest sidewall

Table 16. T-13 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–12	Fill; 10YR 5/6, yellowish brown; loamy sand; moderate, medium, granular structure; moist, firm consistence; weak cementation; non-plastic; marine origin; no roots observed; clear, smooth lower boundary
Ib	12–20	Fill; 10YR 2/2, very dark brown; sandy clay loam; moderate, medium, granular structure; moist, firm consistence; no cementation; plastic; terrigenous origin; no roots observed; clear, smooth lower boundary
Ic	20–42	Fill; 10YR 6/3, pale brown; extremely gravelly loamy sand; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; marine origin; no roots observed; clear, smooth lower boundary; imported crushed coral
Id	33–48	Fill; 5YR 3/3, dark reddish brown; silty clay loam; moderate, medium, granular structure; moist, friable consistence; no cementation; plastic; terrigenous origin; no roots observed; clear, smooth lower boundary
Ie	40–55	Fill; 10YR 4/2, dark grayish brown; sandy clay loam; moderate, medium, granular structure; moist, firm consistence; no cementation; plastic; mixed origin; no roots observed; clear, smooth lower boundary
If	48–160 (BOE)	Fill; 10YR 2/2, very dark brown; silty clay loam; moderate, medium, blocky structure; moist, firm consistence; no cementation; very plastic; terrigenous origin; few, coarse roots; lower boundary not visible; fill likely accumulated from plantation activities, contains glass bottle fragments (Acc. #s 3–5)
Ig	12–95	Fill; 10YR 2/2, very dark brown; gravelly sandy clay loam; moderate, medium, granular structure; moist, firm consistence; no cementation; plastic; mixed origin; no roots observed; discontinuous lower boundary; utility pit for abandoned metal pipe
Ih	73–135	Fill; 10YR 5/8, yellowish brown; fine sand; structureless (single-grain); moist, loose consistence; no cementation; non-plastic; marine origin; no roots observed; lower boundary not visible, utility pit for active fire sprinkler line

4.1.14 Test Excavation 14 (T-14)

T-14 is in the southwest portion of the project area, in an open sandy walkway area (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-14 southeast of a settlement and south and east of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as a undeveloped flat area, west of the boundary utilized for sugarcane cultivation and south of a former dwelling and west of a roadway until its present use as a walkway near a current bar area (see Figure 18 and Figure 21). T-14 is oriented north-south and measures 6.0 m long and 0.60 m wide. The base of excavation was a 1.56 mbs and was determined upon reaching the water table at 1.51 mbs.

The stratigraphy observed within T-14 consists of loamy sand fill (Stratum Ia), a silty clay fill (Stratum Ib), sandy clay loam fill (Stratum Ic), silty clay fill (Stratum Id), overlying silty clay coastal wetland deposits (Strata IIa and IIb), and natural sandy clay loam (Stratum III) (Figure 63, Figure 65, and Table 17).

Stratum Ia is composed of a locally procured thin compacted sandy surface utilized for the existing sandy walkway area. Strata Ib and Ic are imported fill deposits. Strata Ib and Ic were likely utilized to raise the surface during the development of Paradise Cove in the late 1970s. Stratum Ib contains basalt and coral gravel, and discontinuous sand lenses at the base of the layer.

Strata IIa and IIb are coastal wetland deposits evidenced by gleyed silty clay material containing organic rootlets. Stratum IIa was observed between 1.22 and 1.35 mbs. Stratum IIb was observed between 1.30 and 1.35 mbs. Three bulk sediment samples were collected from Strata II. One bulk sample was collected from Strata IIa/IIb from the east wall between 1.26 to 1.37 mbs, one bulk sample was collected from Strata IIa/IIb from the backdirt pile, and one bulk sample was collected from Stratum IIb from the backdirt pile. The Strata IIa/IIb bulk samples were collected to show the interface between the two separate strata in the laboratory. These were not submitted for any further analysis as they did not originate from a single stratum. Some bulk samples were collected from the backdirt pile as the water table quickly rose, inundating Strata IIa and IIb, likely from being close to the shoreline. One sample from the Stratum IIb backdirt pile was sent for pollen analysis. Based on previous documentation, field results, and the lack of evidence on historic maps, Stratum II is related to coastal wetland deposits with no apparent evidence of land or agricultural use prior to the nineteenth century, designated as SIHP # -03362 (see Figure 10). For additional information please refer to Section 7 Historic Property Descriptions.

Stratum III consists of a naturally occurring marine deposit.



Figure 63. Photograph of T-14 east sidewall, view to southeast



Figure 64. T-14 close-up of east sidewall showing Strata IIa through III

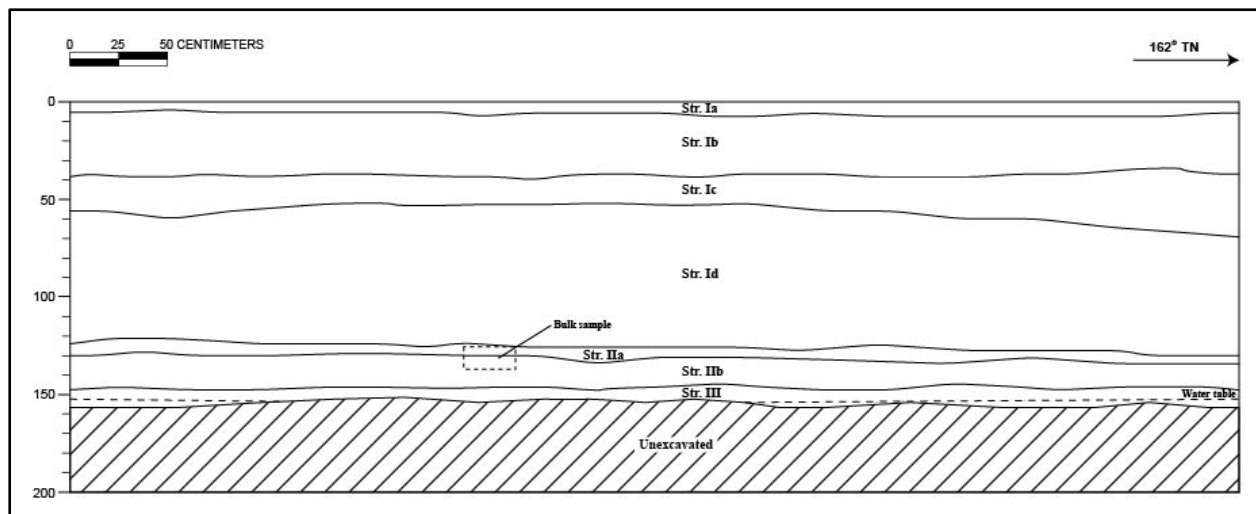


Figure 65. Profile of T-14 east sidewall

Table 17. T-14 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–7	Fill; 10YR 7/4, very pale brown; loamy sand; weak, very fine, granular structure; moist, loose consistence; weak cementation; non-plastic; marine origin; no roots observed; clear, smooth lower boundary
Ib	5–38	Fill; 5YR 3/3, dark reddish brown; silty clay; strong, coarse, blocky structure; moist, extremely firm consistence; no cementation; very plastic; terrigenous origin; no roots observed; clear, smooth lower boundary
Ic	53–67	Fill; 10YR 3/2, very dark grayish brown; sandy clay loam; moderate, medium, granular structure; moist, friable consistence; no cementation; plastic; mixed origin; no roots observed; diffuse, smooth lower boundary
Id	52–130	Fill; 10YR 4/2, dark grayish brown; silty clay; moderate, medium, blocky structure; moist, friable consistence; no cementation; very plastic; terrigenous origin; few, fine roots; diffuse, smooth lower boundary; fill likely accumulated from plantation activities
IIa/SIHP # -03362	122–135	SIHP # -03362; 10YR 3/1, very dark gray; silty clay; structureless (massive); wet, sticky consistence; no cementation; very plastic; terrigenous origin; no roots observed; diffuse, smooth lower boundary; coastal wetland deposit
IIb/SIHP # -03362	130–135	SIHP # -03362; 10YR 2/1, black; silty clay; structureless (massive); wet, sticky consistence; no cementation; very plastic; terrigenous origin; no roots observed; diffuse, smooth lower boundary; coastal wetland deposit
III	145–156 (BOE)	Natural; N 3/, very dark gray; sandy clay loam; weak, fine, granular structure; wet, slightly sticky consistence; no cementation; slightly plastic; mixed origin; no roots observed; lower boundary not visible; lagoonal deposit

4.1.15 Test Excavation 15 (T-15)

T-15 is in the southwest portion of the project area, in an open grassy area immediately north of Lanikūhonua Institute (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-15 southeast of a settlement and south and east of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as a undeveloped flat area, far west of the boundary utilized for sugarcane cultivation, and south of a former dwelling until its present use as an open grassy area adjacent to the Paradise Cove beach (see Figure 18 and Figure 21). T-15 is oriented north-south and measures 6.20 m long and 0.60 m wide. The base of excavation was a 1.75 mbs and was determined upon reaching the water table at 1.60 mbs. The coral shelf was not observed.

The stratigraphy observed within T-15 consists of a silty clay loam fill (Stratum Ia), a sand fill (Stratum Ib), gravelly sandy clay loam fill (Stratum Ic), overlying a sandy clay loam coastal wetland deposit (Stratum II) (Figure 66, Figure 67, and Table 18).

Stratum Ia is related to landscaping activities for the existing grassy lawn area for Paradise Cove likely established in the late 1970s. Stratum Ib is composed of a locally procured sand fill intermixed with the underlying silty clay loam. Locally procured sand deposits were typically observed in coastal/western areas of the project area. These fills were likely used during the utility installation for Paradise Cove. Stratum Ib contained two PVC pipes and one metal pipe in the northern portion of T-15 between 0.20 and 0.75 mbs. Fish and cut cow bone were also observed within Stratum Ib and collected at approximately 0.80 to 0.90 mbs (Acc. #s 32 and 33). Stratum Ic is an alluvial fill that likely represents the soil runoff from plantation drainage activities of the Ewa Plantation Company that operated from the early 1900s through the 1920s. The upper portion of Stratum Ic contained metal debris, brown and clear glass sherds, and rubber that was observed, but not collected as they were not diagnostic (Figure 68).

Stratum II is a coastal wetland deposit evidenced by a reddish-brown sandy clay loam containing sparse aquatic snails and charcoal observed between 1.55 and 1.75 mbs. Stratum II differs in color and is closer to the shoreline than other test excavations (T-14 and T-16) containing SIHP # -03362, suggesting it represents an edge for the coastal wetlands. The color difference likely represents partial obliteration and disturbance from soil runoff from former plantation drainage activities in the preceding stratum (Stratum Ic). Coral boulders were observed at the north end of T-15. One bulk sediment sample was collected from Stratum II in the backdirt pile at approximately 1.50 and 1.70 mbs. The bulk sample was collected from the backdirt pile as the water table quickly rose, inundating Stratum II, likely from being close to the shoreline. A portion of the bulk sample from Stratum II was sent for pollen analysis. Based on previous documentation, field results, and the lack of evidence on historic maps, Stratum II is related to coastal wetland deposits with no apparent evidence of land or agricultural use prior to the nineteenth century, designated as SIHP # 50-80-12-03362 (see Figure 10). For additional information please refer to Section 6 Historic Property Descriptions.



Figure 66. Photograph of T-15 east sidewall, view to southeast

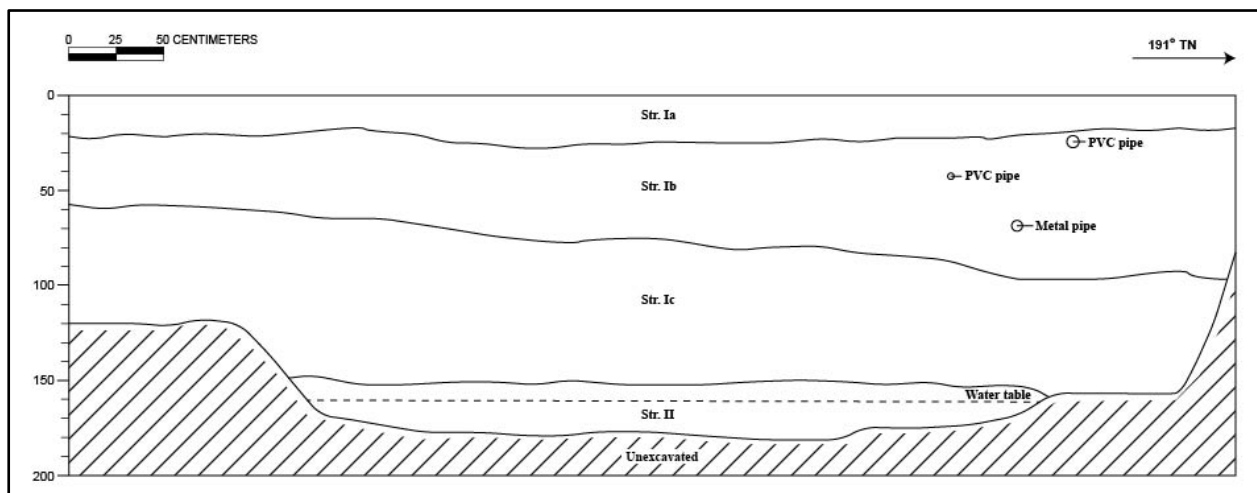


Figure 67. Profile of T-15 east sidewall

Table 18. T-15 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–25	Fill; 10YR 3/3, dark brown; silty clay loam; moderate, fine, granular structure; moist, friable consistence; no cementation; non-plastic; terrigenous origin; many, medium roots; clear, smooth lower boundary
Ib	22–95	Fill; 10YR 7/4, very pale brown; sand; structureless (single-grain); moist, loose consistence; no cementation; non-plastic; marine origin; few, medium roots; abrupt, smooth lower boundary; contains fish and cut cow bone (Acc. #s 32 and 33)
Ic	57–155	Fill; 10YR 3/2, very dark grayish brown; gravelly sandy clay loam; moderate, fine, granular structure; moist, friable consistence; no cementation; non-plastic; mixed origin; medium roots common; lower boundary not visible; fill likely accumulated from plantation activities
II/SIHP # -03362	155–175 (BOE)	SIHP # -03362; 5YR 3/2, dark reddish brown; sandy clay loam; moderate, fine, blocky structure; moist, firm consistence; no cementation; plastic; mixed origin; no roots observed; lower boundary not visible, coastal wetland deposit

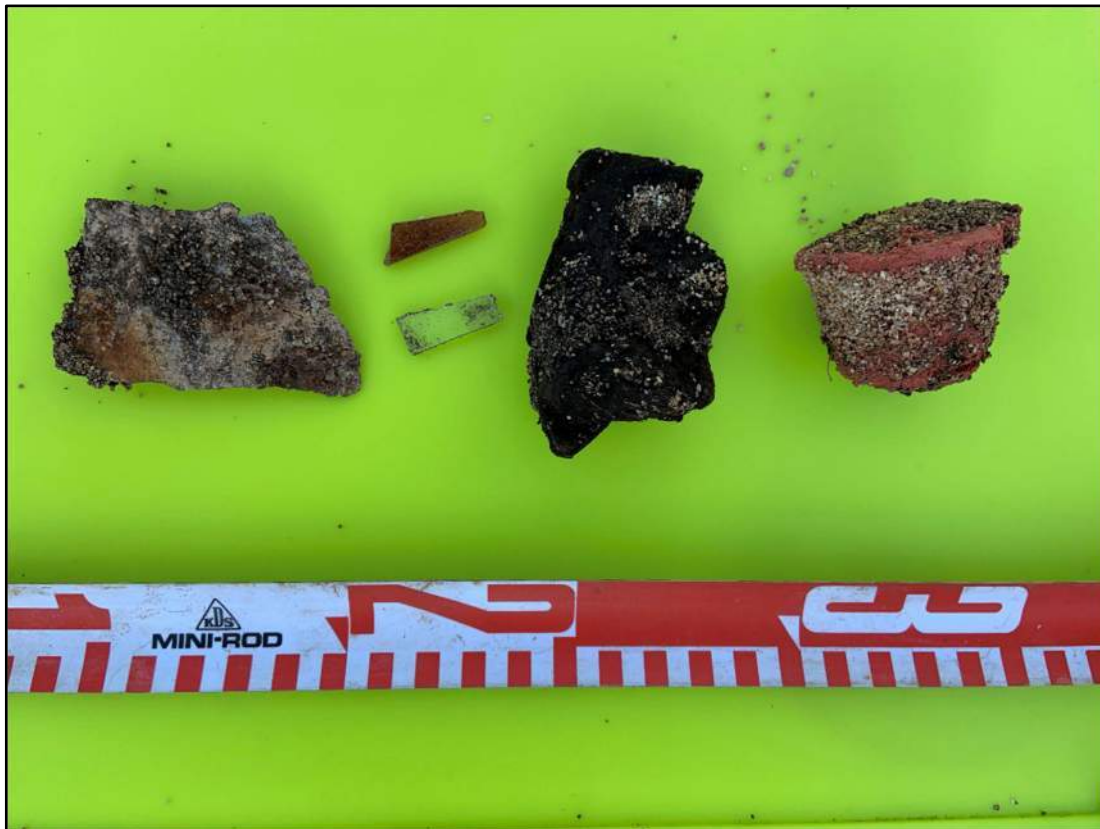


Figure 68. Non-diagnostic and modern artifacts from T-15 Stratum Ic

4.1.16 Test Excavation 16 (T-16)

T-16 is in the southeast portion of the project area, in an open grassy area adjacent to Lanikūhonua Institute (see Figure 29). According to historic maps the area was in a low-lying area near the shoreline. An 1825 Malden map depicts T-14 southeast of a settlement and east and west of two former trails, a portion of which was utilized until the 1950s (see Figure 9 and Figure 18). By the 1970s, the area was left as a undeveloped moderately vegetated area, west of the boundary utilized for sugarcane cultivation, south of a former dwelling, and west of a road until its present use as an open grassy area west of a mini putting green (see Figure 18 and Figure 21). T-16 is oriented north-south and measures 6.0 m long and 0.60 m wide. The base of excavation was determined upon reaching the coral shelf at 1.85 mbs in the northern portion of T-16.

The stratigraphy observed within T-16 consists of a gravelly silt loam fill (Stratum Ia), an extremely gravelly sandy loam crushed coral fill (Stratum Ib), a gravelly silty clay loam fill (Stratum Ic), overlying a silty clay coastal wetland deposit (Stratum II), and a natural extremely gravelly sandy loam marine sand (Stratum III) (Figure 69, Figure 70, and Table 19).

Strata Ia and Ib are imported fill deposits. Stratum Ia is related to landscaping activities for the existing grassy lawn area. Stratum Ib is a crushed coral fill observed in most *mauka* test excavations. Stratum Ib was likely utilized to raise the surface during the development of Paradise Cove in the late 1970s. Stratum Ic is an alluvial fill that likely represents the soil runoff from plantation drainage activities of the Ewa Plantation Company that operated from the early 1900s through the 1920s.

Stratum II is a coastal wetland deposit evidenced by the presence of a gleyed silty clay material containing sparse aquatic snails observed between 1.10 and 1.62 mbs. Stratum II is a component of SIHP # -03362, coastal wetlands. One bulk sediment sample was collected from the east wall between 1.25 and 1.40 mbs. A portion of the bulk sample from Stratum II was sent for pollen analysis. Based on previous documentation, field results, and the lack of evidence on historic maps, Stratum II is related to coastal wetland deposits with no apparent evidence of land or agricultural use prior to the nineteenth century, designated as SIHP # -03362 (see Figure 10). For additional information please refer to Section 6 Historic Property Descriptions.

Stratum III consists of a naturally occurring marine deposit overlying the coral shelf.



Figure 69. Photograph of T-16 east sidewall, view to northeast

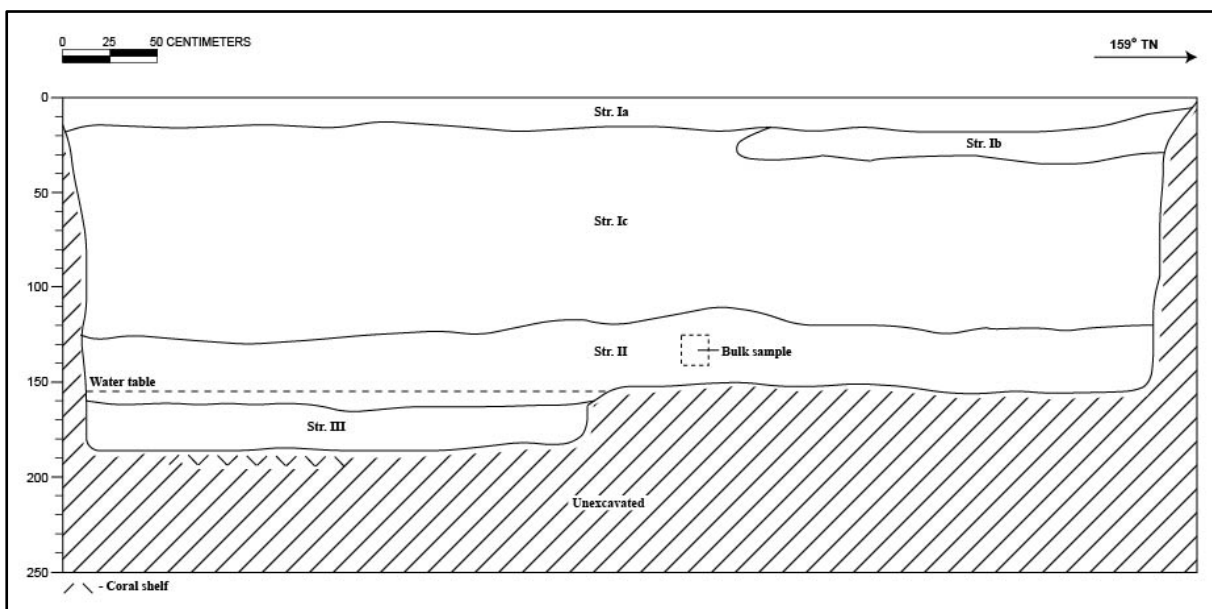


Figure 70. Profile of T-16 east sidewall

Table 19. T-16 stratigraphic description

Stratum	Depth (cmbs)	Description
Ia	0–17	Fill; 10YR 3/3, dark brown; gravelly silt loam; weak, fine, granular structure; moist, friable consistence; weak cementation; slightly plastic; terrigenous origin; medium roots common; clear, smooth lower boundary; top soil
Ib	5–37	Fill; 10YR 7/4, very pale brown; extremely gravelly sandy loam; weak, fine, granular structure; moist, friable consistence; no cementation; non-plastic; terrigenous origin; no roots observed; clear, discontinuous lower boundary; imported crushed coral
Ic	15–128	Fill; 7.5YR 3/3, dark brown; gravelly silty clay loam; moderate, medium, blocky structure; moist, friable consistence; weak cementation; slightly plastic; terrigenous origin; few, fine roots; clear, wavy lower boundary; fill likely accumulated from plantation activities
II/SIHP # -03362	110–162	SIHP #-03362; 10Y 3/1, very dark greenish gray; silty clay; moderate, medium, blocky structure; moist, firm consistence; weak cementation; non-plastic; terrigenous origin; few, fine roots; clear, smooth lower boundary; coastal wetland deposit
III	160–187 (BOE)	Natural; 10YR 8/2, very pale brown; extremely gravelly sandy loam; weak, fine, granular structure; wet, slightly sticky consistence; no cementation; slightly plastic; marine origin; no roots observed; lower boundary not visible

Section 5 Results of Laboratory Analysis

Materials collected in the field were curated and analyzed by CSH personnel as described in Section 2.2. Laboratory analyses include historic artifact analysis conducted by Allison Hummel M.Sc., and faunal analysis conducted by Alison Welser, M.A.

5.1 Artifact Analysis

5.1.1 Historic Artifacts

Seven artifacts or artifact fragments consisting of seven glass bottles or bottle fragments (Acc. #s 1–7) were collected during the project (Table 20).

Artifacts were assessed for type, material, origin, and date. Origin was only identified more specifically than by country in the case of artifacts that could be positively identified as having originated or been made specifically for use in Hawai'i.

For dating purposes, artifacts were assessed to determine date of manufacture first and foremost. Date ranges may be very wide due to lack of diagnostic characteristics needed to narrow the range. Additionally, it is not expected that artifacts were always consumed and discarded immediately; many types of artifacts would have had long periods of use between manufacture and deposition. The artifact summary includes a discussion of *terminus ante quem* and *terminus post quem* limits for dates of deposition of artifacts, features, historic properties, and stratigraphic layers based on a combination of artifact manufacture/import dates and available land use information. Photographs of select artifacts are presented in Figure 71 through Figure 77.

All terminology used to describe bottle traits and all bottle dating information in this report section is based on information from the U.S. Department of Interior, Bureau of Land Management (BLM)/ Society of Historic Archaeology (SHA) “Historic Glass Bottle Identification and Information Website” (BLM/SHA 2019), unless otherwise noted. Research on historic bottles focused on the function and manufacturing dates of the items, using reference texts and online resources to identify glass manufacturers’ marks on bottles and company histories of the content brands.

There are three stages in the evolution of glass bottle manufacture: free blowing, mold blowing, and machine manufacture. Since antiquity, bottles have been free blown with a blow-pipe. These types of bottles are usually asymmetrical, crudely made, and often have a pontil mark where a rod was used to hold the bottle during the last stages of manufacture. The lip of the bottle was finished by hand. In the United States, these types of bottle usually pre-date ca. 1865 (BLM/SHA 2019).

Around ca. 1800, glassworkers began to blow bottles into some type of mold, usually a metal mold. One of the first types of molds was the one-piece dip mold (1800–1870). Bottles made with this type of mold do not have seams and only rarely have embossing. Beginning in 1830, the one-piece dip mold was gradually replaced by the three-piece dip mold (1830–1870). A bottom mold was used to form the body of the bottle and a hinged top mold was used to form the shoulder, neck, and finish of the bottle. This resulted in a seam wrapping horizontally around the shoulder and two vertical side seams extending from the shoulder seam up the neck. There are no vertical side seams on the lower body. Turn mold bottles (1870–1920) became popular after 1870. They were made by turning the bottles inside the mold, which left the body of the bottles seamless and shiny. Unlike

Table 20. Glass bottle artifact assemblage

Acc. #	Provenience	Material	Type	Description	Origin	Age
1	T-4; Str. Ib; 100-120 cmbs	Glass	Bottle	Aqua glass bottle, base to heel fragments [2], round shape, flat base, unknown method of manufacture; embossing: "SUNRISE SODA [WATER WORKS] LTD" in arch on base	Hawai'i	Post-1907
2		Glass	Bottle	Amber glass beer bottle (likely "Packie" bottle), base to heel fragment, stippled base and body, machine-made	United States	1939-ca. 1949
3	T-13; Str. If; spoils	Glass	Bottle	Colorless glass Bierley's Orange Drink bottle, body to shoulder fragment, round shape, fluted shoulder and lower body, stippled body, machine-made; embossing: "TRADE[MARK] // [...] . OZ." horizontally below shoulder, "Birele[y's] (script)" diagonally on body	United States	1950s-1960s
4		Glass	Bottle	Aqua glass bottle, body fragment, round shape, unknown method of manufacture	—	—
5		Glass	Bottle	Colorless glass bottle, body fragment, round shape, unknown method of manufacture	—	—
6	T-10; Str. Ib; 10-58 cmbs	Glass	Bottle	Colorless glass bottle, heel fragment, round shape, unknown method of manufacture	—	—
7		Glass	Bottle	Amber glass "Packie" beer bottle, body fragments [2] and body to shoulder fragment [1], round shape, stippled body, machine-made; embossing: "[NO DE]POSIT NO R[ETURN]"	United States	1939-ca. 1949



Figure 71. Acc. # 1, aqua glass Sunrise Soda Water Works bottle, unknown method of manufacture



Figure 72. Acc. # 3, colorless glass Bierley's Orange Drink bottle, fluted and stippled body, machine-made



Figure 73. Acc. # 7, amber glass “Packie” beer bottle fragments, stippled body, machine-made

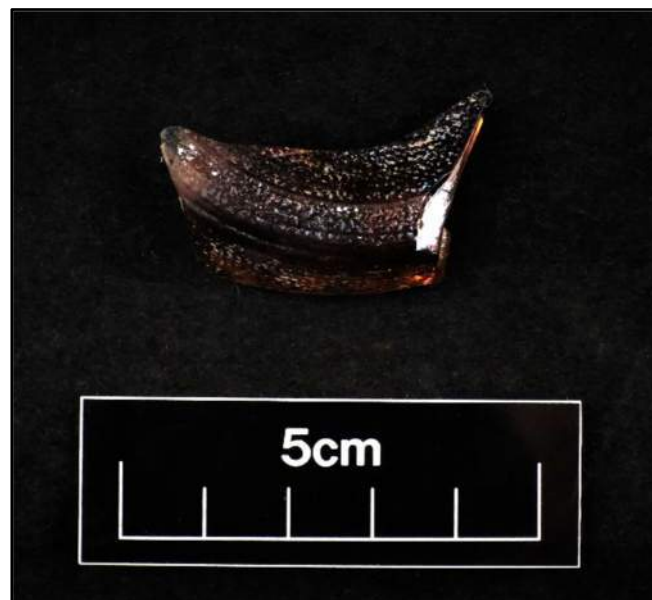


Figure 74. Acc. # 2, amber glass beer bottle (likely a “Packie” bottle), with stippled base and body, machine-made

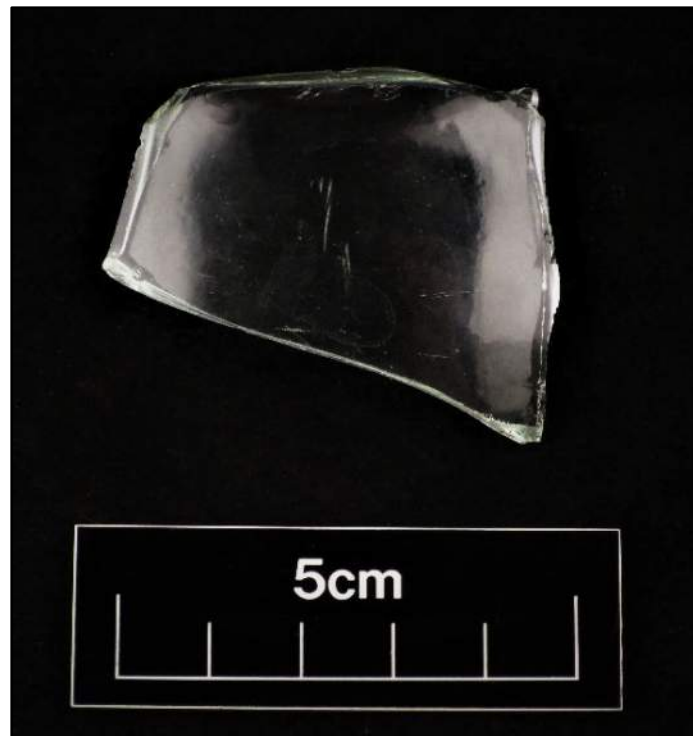


Figure 75. Acc. # 4, aqua glass bottle body fragment, unknown method of manufacture

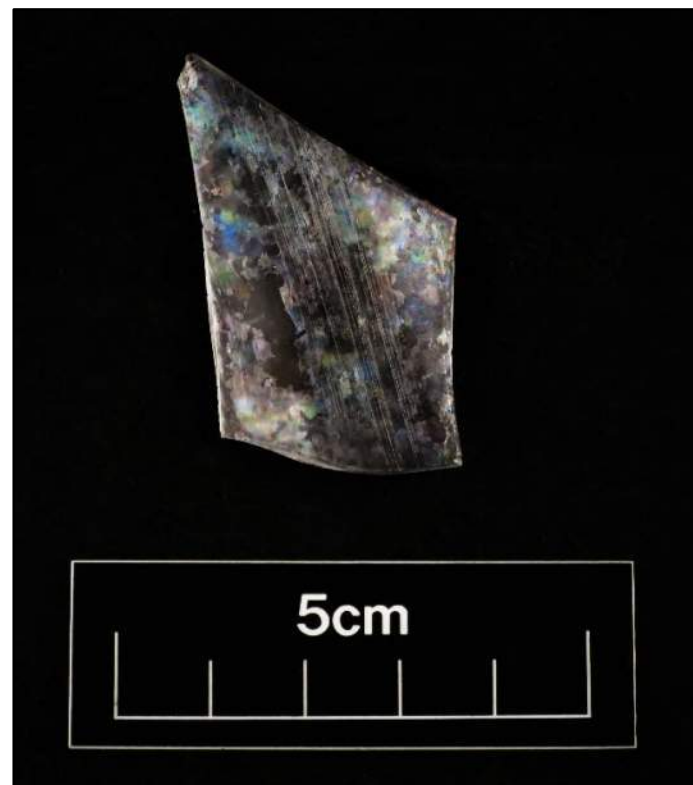


Figure 76. Acc. # 5, colorless glass bottle body fragment, unknown method of manufacture



Figure 77. Acc. # 6, colorless glass bottle heel fragment, unknown method of manufacture

free blown bottles, turn mold bottles are symmetrical and evenly proportioned. They can be identified by faint concentric rings around the heel and body of the bottle. Most do not have marking or embossing because it required the use of a secondary mold plate before the bottle had cooled and solidified. The bases are round and usually have a slightly indented or deeply indented “push-up” or “kick-up.” A common feature on turn-mold bottles is a mamelon or “dot” in the center of the base, possibly from an air venting hole. The most common mold from the mid-nineteenth century into the twentieth century (1850–1920) was a two-piece mold with a separate bottom plate. These types of bottles have a mold seam around the base of the bottle, and two side seams that run vertically up the sides of the bottle. The side mold seams usually end on the neck, as the lip on mold-blown bottles was still finished by hand. Two-piece molds were the dominant form used in the post-1880 period.

Semi-automatic machines were introduced in the 1890s and were mainly used to make wide-mouth bottles/jars; glass still had to be manually fed into the machines by the glass workers. In 1903, Michael Owens invented a machine that did away with most of the skilled glass workers. The machine was used to blow wide-mouth bottles as early as 1905 and narrow-necked bottles (such as beverage bottles) as early as 1908. This Automatic Bottle Machine (ABM) blew a bottle from base to lip, usually using a two-piece cup-bottom mold. The two side seams extend to and over the lip of the bottle, or to a horizontal seam at the bottom of the bottle finish. The base of a bottle made by early Owens ABM machines often had a round scar with feathered edges on the base. There are few ways, other than the presence of the Owens suction scar on the base, to distinguish a bottle made by a semi- versus a fully automatic machine, so both types of bottles are described in this report section simply as “machine-made.”

Of the seven bottles in the collection, three are machine-made (Acc. #s 2, 3, and 7), and the method of manufacture could not be determined for four of the bottles (Acc. #s 1, 4, 5, and 6). None of the bottles were identified as free blown or mold blown.

Acc. # 1 (see Figure 71) is an aqua glass soda bottle, bottled by Sunrise Soda Water Works. The company opened on North King Street, Honolulu, in 1907, where it operated until it moved to Robello Lane in 1926 (Elliott 1971:31). It is unclear when the company ceased operations.

Acc. # 3 (Figure 72) is a colorless glass Bireley's Orange Drink bottle. The non-carbonated beverage was made in California and bottled around the country in bottles manufactured by Owens-Illinois Glass Company (Collector's Weekly 2018). The product was short-lived in the United States, sold only from the 1950s into the 1960s (Collector's Weekly 2018). In 1951, Asahi Bakushu acquired the rights to sell the product in Japan, where it is still sold today.

Acc. # 7 (see Figure 73) is an amber glass "Packie" beer bottle. A "Packie," also occasionally referred to as a "Brownie," is a type of non-returnable beer bottle with a stippled surface and a "no deposit, no return" notice (Schulz et al. 2019:12). The thin glass and body stippling made the bottle more difficult to clean and reuse (Schulz et al. 2019:12). The bottle was introduced by the Glass Container Association in 1939 and was used through ca. 1949 (Schulz et al. 2019:12). Acc. # 2 (see Figure 74) is an amber glass beer bottle fragment with body stippling and is likely also a "Packie" beer bottle.

Acc. #s 4, 5, and 6 (see Figure 75, Figure 76, and Figure 77) are unmarked glass bottle body fragments with no diagnostic dating characteristics.

5.1.2 Basalt

Ten basalt fragments and cobbles were collected during the project, all from T-10. The basalt fragments and cobbles were collected from hand excavations within Stratum Ib, a locally procured sand fill layer, and Stratum Ic, a disturbed A horizon layer. Eight of the fragments are fire-affected vesicular basalt, and three are water-rounded cobbles, one of smooth basalt and two of vesicular basalt. These may indicate cooking activities were taking place in the area, as vesicular basalt was often used in cooking (Nojima 2008: 238).

Table 21. Basalt artifact assemblage

Acc. #	Provenience	Type	Description	Dimensions (cm)	Weight (g)
11	T-10; Str. Ib; 10–58 cmbs	FAR	Fire-affected vesicular basalt	5.2 x 4.3 x 4.2	119.4
12		FAR	Fire-affected vesicular basalt	5.1 x 4.8 x 3.7	74.6
13		FAR	Fire-affected vesicular basalt	7.2 x 4.4 x 4.2	111.0
14		FAR	Fire-affected vesicular basalt	5.5 x 4.4 x 2.5	71.5
15		Cobble	Water-rounded basalt cobble	4.2 x 3.6 x 2.4	57.0

Acc. #	Provenience	Type	Description	Dimensions (cm)	Weight (g)
25	T-10; Str. Ic; 50–85 cmbs	FAR	Fire-affected vesicular basalt	6 x 4.9 x 3.5	116.3
26		FAR	Fire-affected vesicular basalt	6.4 x 4.2 x 4	61.7
27		FAR	Fire-affected vesicular basalt	4.3 x 3.9 x 3.1	48.1
28		FAR	Fire-affected vesicular basalt	5.7 x 3.3 x 3	51.5
29		Cobble	Water-rounded vesicular basalt cobble	6.8 x 3.2 x 3	93.1
30		Cobble	Water-rounded vesicular basalt cobble	6.6 x 6.4 x 4	243.1

5.1.3 Artifact Summary

Artifacts were recovered from T-4, T-10, and T-13. The majority of the artifacts were recovered from fill deposits. These include a locally procured sand fill layer associated with the late twentieth century construction of Paradise Cove (T-10, Stratum Ib) and an alluvial fill layer associated with runoff from plantation activities from the early 1900s into the 1920s (T-4, Stratum Ib; T-13, Stratum Ih). One artifact from the sand fill layer (T-10, Stratum Ib) dates to 1939-ca. 1949 (Acc. # 7), and one artifact from the alluvial plantation runoff fill dates to the 1950s to 1960s (Acc. # 3). These dates are inconsistent with the estimated deposition dates of the layers, indicating a high degree of disturbance.

5.2 Faunal Analysis

Archaeologists encountered a small amount of faunal osseous remains and marine shell during subsurface testing. The identified faunal remains (see Figure 21) include cow (*Bos Taurus*), fish (*Osteichthyes*), and one fragment belonging to a medium-sized mammal (inconsistent with human morphology; likely pig) (Table 22). The observed faunal remains were identified in the southwest and southern portions of the project area; no clustering is apparent.

All of the faunal materials appear consistent with food refuse. The fragment classified as medium mammal was identified in an A horizon deposit. This medium mammal rib fragment displays small cut marks on one edge of the bone, indicative of a sharp, precise instrument. The remaining osseous fragments were identified in a sand fill layer. All of the cow remains display evidence of butchering, identified by the uniform saw mark striations left behind on the cortical bone.

Twelve marine shells were collected during the project, all from T-10. The marine shells were hand collected from hand excavations within Stratum Ib, a locally procured natural sand layer, and Stratum Ic, a disturbed A horizon layer. Five different marine species were identified in the collection, all of which are known to have been consumed by humans in Hawai'i (Table 23). The density of the shells within both stratigraphic layers is low and is therefore insufficient to identify the shells as part of a midden. The marine shell is possibly related to traditional food preparation activities.

Table 22. Results of faunal analysis

Acc. #	Provenience	Species; Mass	Description
31	T-12 Str. II, 54 cmbs	Medium mammal; 1.5 g	Rib fragment, small cut marks on one edge indicative of a sharp, precise instrument
32	T-15 Str. Ib, 80–90 cmbs	Cow (<i>Bos Taurus</i>); 9.4 g	Saw-cut rib and long bone fragments
33		Fish (Osteichthyes); 0.5 g	Vertebra

Table 23. Marine Shells Assemblage

Acc. #	Provenience	Type	Description
8	T-10; Str. Ib, 10–58 cmbs	<i>Nerita picea</i>	<i>Pipipi</i> shell
9		<i>Nerita picea</i>	<i>Pipipi</i> shell
10		<i>Cypraea caputophidii</i>	Small snakehead cowrie fragment
16	T-10; Str. Ic; 50–85 cmbs	<i>Nerita picea</i>	<i>Pipipi</i> shell
17		<i>Nerita picea</i>	<i>Pipipi</i> shell
18		<i>Nerita picea</i>	<i>Pipipi</i> shell
19		<i>Nerita picea</i>	<i>Pipipi</i> shell
20		<i>Cypraea caputophidii</i>	Small snakehead cowrie fragment
21	T-10; Str. Ic; 50–85 cmbs	<i>Cellana</i> sp.	White limpet shell
22		<i>Ctena bella</i>	Reticulate saucer shell half
23		<i>Pinctada</i> sp.	Mother of pearl interior fragment with partial hinge
24		Unknown	Unidentified white marine shell fragment

5.3 Pollen Analysis

Three pollen samples (Samples 1 through 3) extracted from three bulk sediment samples thought to be buried wetland soils (SIHP # -03362) were collected during the AIS investigation (Table 24). These samples were submitted for pollen analysis to Bruce G. Phillips, M.S., of EcoPlan Associates, Inc. on 17 February 2020 (see Appendix B for full report). Due to safety concerns upon entering the trench, two of the three pollen samples were extracted from bulk sediment samples via the backdirt pile. Analysis of Samples 1 through 3 involved the identification of pollen and charcoal content and the identification of a transitional sediment that might coincide with the cultural modifications associated with the creation of SIHP # -03362.

Sample 1 was collected from T-14 located in the southern portion of the project area from Stratum IIb from the backdirt pile. Sample 2 was collected from T-15 in the southern portion of

the project area from Stratum II from the backdirt pile at approximately 150 to 170 cmbs. Sample 3 was collected from the east sidewall in Stratum II between 125 to 140 cmbs.

Table 24. Summary of pollen samples

Sample	Description
Sample 1	HONOULIULI 181, T-14, Str. IIb, backdirt (bulk sample 3)
Sample 2	HONOULIULI 181, T-15, Str. II, ~150-170 cmbs, backdirt pile
Sample 3	HONOULIULI 181, T-16, east sidewall, Str. II, 125-140 cmbs

All three samples contained enough material suitable for analysis. Ten types of pollen and spores were identified (Table 26 and Table 27). Dominant types included Cheno-Am and grass pollen. All three samples contained high proportions of degraded grains indicating poor preservation. Samples 1 and 2 were collected from the wetland deposits closer to the shoreline and had comparable concentrations suggesting a dry shrubland characterized by *aweoweo* and various grasses. Sample 3 was collected from inland wetland deposits and contained more pollen than degraded grains in comparison to Samples 1 and 2. Still lacking good preservation, the identified pollen reflected a marshland environment surrounded by dry landscape. Due to poor preservation, it is possible the degraded pollens from Samples 1 and 2 once resembled the similar marshland environment as reflected in the Sample 3 results.

Degraded pollen assemblages are not uncommon and are caused by several factors including but not limited to mechanical factors and chemical agents (Phillips 2020). Two possible factors for the poor preservation in these samples may be attributed to proximity to the ocean and soil chemistry as described below:

It is possible that pollen in sediments at or near the water table have suffered deterioration due to fluctuations in groundwater level, caused by climatic (e.g., rainfall) and/or oceanic (e.g., sea levels) factors, or possibly even tides [...] Soil chemistry can also cause pollen to degrade. For example, ancient soils in the American Southwest are highly basic, causing deterioration. It is possible that the calcareous limestone parent material of Stratum II contributed to pollen deterioration. [Phillips 2020:2]

The combination of degraded pollens, no observed cultural materials, previous archaeological studies, and land altering events from the time the area was a wetland environment suggests the area has been altered and holds little to no valuable information for further investigations for SIHP # -03362.

Table 25. Pollen data (adapted from Phillips 2000)

Sample	1	2	3
Trench	T-14	T-15	T-16
Stratum	IIb	II	II
Depth (cm)	130-135	~150-170	125-140
Concentration (grains per gram)	7,435	7,160	12,888
Types per sample	6	7	6
Sum	100	100	100
Count/%			
Degraded	34	31	25
Unknown		1	
Herbs and Shrubs			
Asteraceae, high-spine		1	
Asteraceae, low-spine	3	2	1
Cheno-Am	36	24	20
cf. Cyperaceae	1		16
Euphorbiaceae	1		
Fabaceae	2		
Poaceae	23	39	36
Ferns and Fern Allies			
Monolete spore, rough		1	1
Trilete spore, rough			1
Trilete spore, smooth		1	

Table 26. Pollen and spore types (adapted from Phillips 2020)

Type	Common Name	Plant Community
Herbs and Shrubs		
Asteraceae, high spine	Sunflower family, <i>Dubautia</i> -type	Disturbed habitats
Asteraceae, low spine	Sunflower family, <i>Ambrosia</i> -type	Disturbed habitats
Cheno-Am	<i>Aweoweo</i>	Coastal Dry Shrublands
cf. Cyperaceae	Sedge family	Coastal Dry Sedgeland
Euphorbiaceae	Spurge family	Lowland Dry Shrublands
Fabaceae	Pea family	Coastal Dry Grasslands and Shrublands
Poaceae	<i>Aki aki</i> ; Grass family	Coastal Dry Grasslands, Sedgeland, and Mixed Communities
Ferns and Fern Allies		
Monolete spore, rough	Ferns	Coastal to Lowland Mesic Forests
Trilete spore, rough	Ferns and fern allies	Coastal to Lowland Mesic Forests
Trilete spore, smooth	Ferns and fern allies	Coastal to Lowland Mesic Forests

Section 6 Historic Property Descriptions

Two previously documented historic properties are within the project area: SIHP # 50-80-12-03362 (coastal wetlands) and SIHP # 50-80-12-04968 (human skeletal remains). The burial preserve for SIHP # -04968 was designated CSH 2 during the course of the AIS. SIHP #s -03362, -04968 and CSH 2 are depicted on Figure 78.

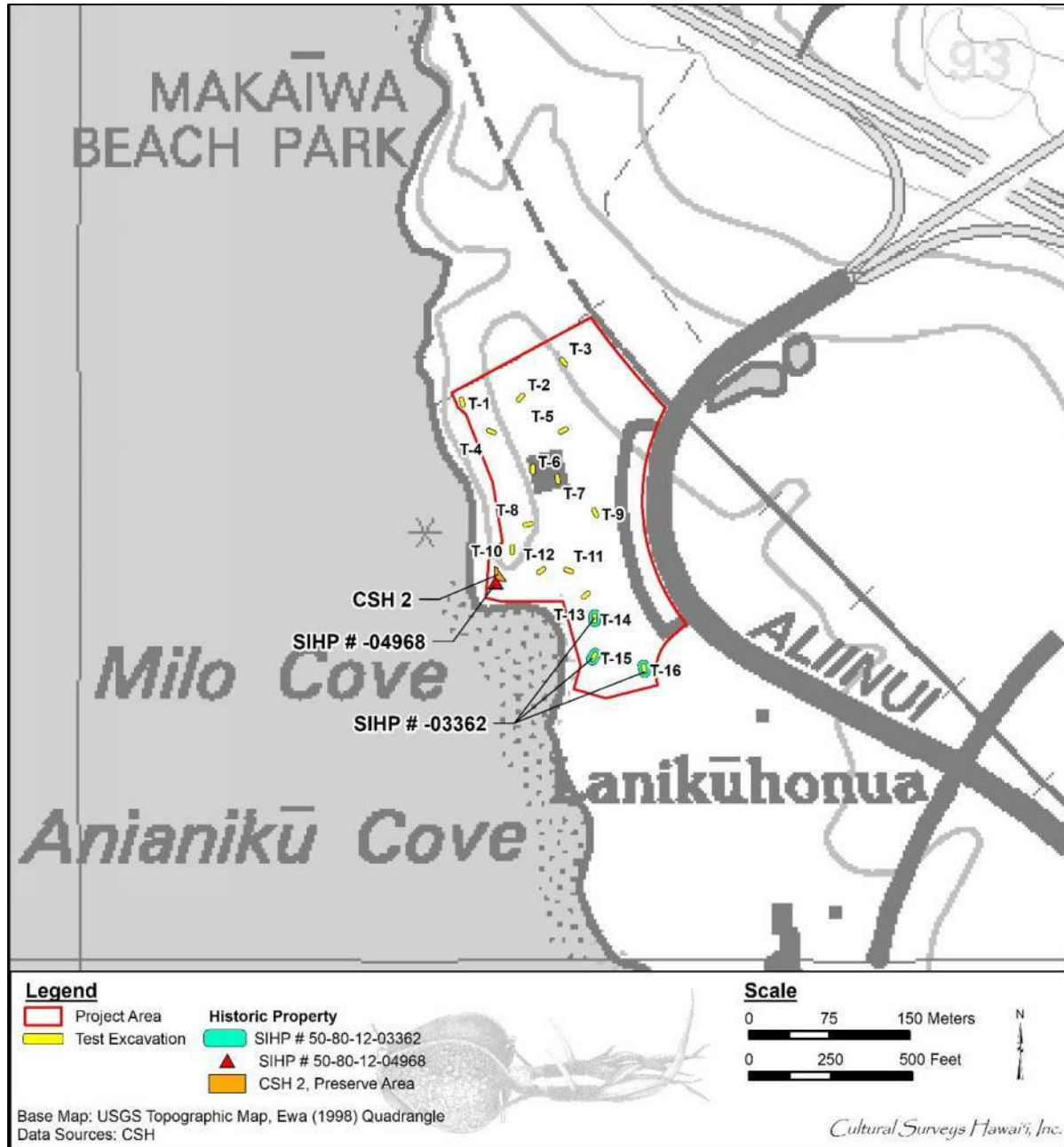


Figure 78. Portion of a 1998 Ewa USGS topographic quadrangle map depicting the project area, test excavations, and historic properties SIHP #s -03362 and -04968, and CSH 2 identified during the current AIS

6.1 SIHP # 50-80-12-03362

FORMAL TYPE:	Coastal wetlands
FUNCTION:	Unknown
FEATURE TYPES:	Feature 1: within the current project area, described as coastal backwater marshland with no apparent cultural function prior to nineteenth century cultivation (Davis and Haun 1986 and Davis 2000); Feature 2: outside current project area, is a cultural deposit indicative of habitation (Davis 2000)
AGE:	Pre- to post-Contact (late nineteenth century)
DISTRIBUTION:	Observed in three test excavations (T-14 through T-16) within the southern portion of the current project area, and a total interpolated area of approximately 26.649 acres
DIMENSIONS:	0.009 acres (0.003 hectares) in project area
LOCATION:	Interpolated boundaries extend within the southern portion of the current project area and approximately 26.64 acres within Lanikūhonua Cultural Institute extending into two of the northern Ko Olina Lagoons (Ko Olina Lagoon 1/Kohola Lagoon and Ko Olina Lagoon 2).
TAX MAP KEY:	[1] 9-1-057:001, 003, 006–010, 027–031, and 047
LAND JURISDICTION:	Alfred S. Harding, Campbell Hawaii Investor, LLC, City and County of Honolulu, Cove Campbell Kobayashi, LLC, Ko Olina Development, LLC, Ko Olina Parcel 11, LLC, Olani Partners, LLC, Oceanwide Resort Paradise Hawaii, LLC
PREVIOUS DOCUMENTATION:	Davis and Haun 1986, Glidden et al. 1993, and Davis 2000

SIHP # 50-80-12-03362 is a previously identified historic property consisting of coastal wetlands with two associated features. SIHP # -03362 dates from pre-Contact to post-Contact. Interpolated boundaries extend within the southern portion of the current project area and 26.64 acres within Lanikūhonua Cultural Institute and extending into two of the northern Ko Olina lagoons (Ko Olina Lagoon 1/Kohola Lagoon and Ko Olina Lagoon 2). The distribution of SIHP # -03362 within these studies is depicted on a 1998 Ewa USGS topographic quadrangle and an 1873 Alexander map of Honouliuli (Figure 79 and Figure 80). A summary of previous findings are presented below.

6.1.1 Previous Documentation

The coastal wetlands were initially studied by Davis and Haun (1986). Davis and Haun (1986) produced a *Preliminary Report Upon Completion of Field Work* summarizing Phase 2 intensive survey and test excavation work at West Beach. They include no maps but relate, largely in tabular form, data regarding historic properties and the work accomplished. In 1987, Davis and Haun followed up their preliminary report on survey and test excavations with an “Interim Report.” The interim report includes information on all three historic properties east of the project area,

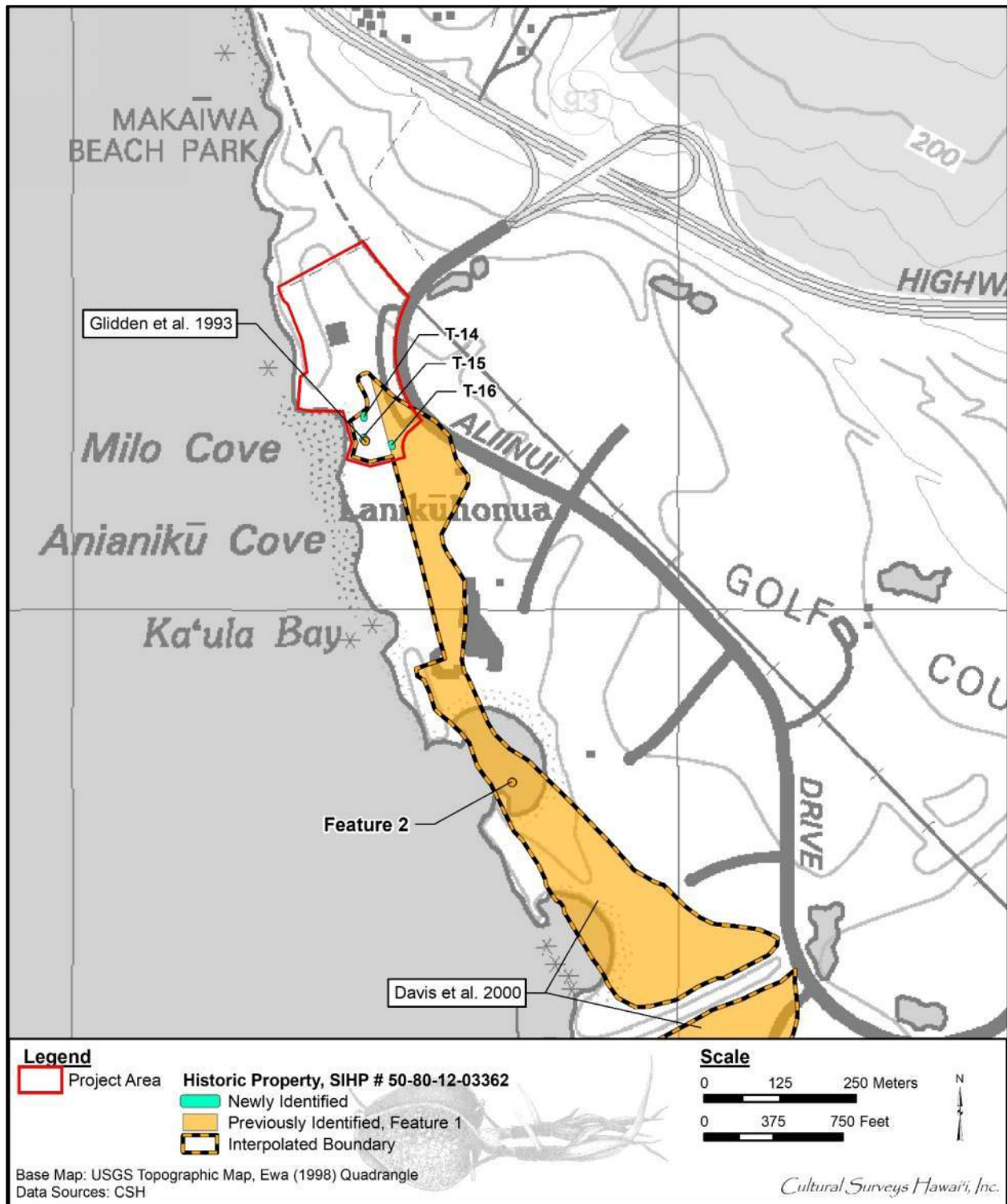


Figure 79. Portion of a 1998 Ewa USGS topographic quadrangle map depicting project area in relation to newly identified and previously identified portions of SIHP # 50-80-12-03362 and its interpolated boundary

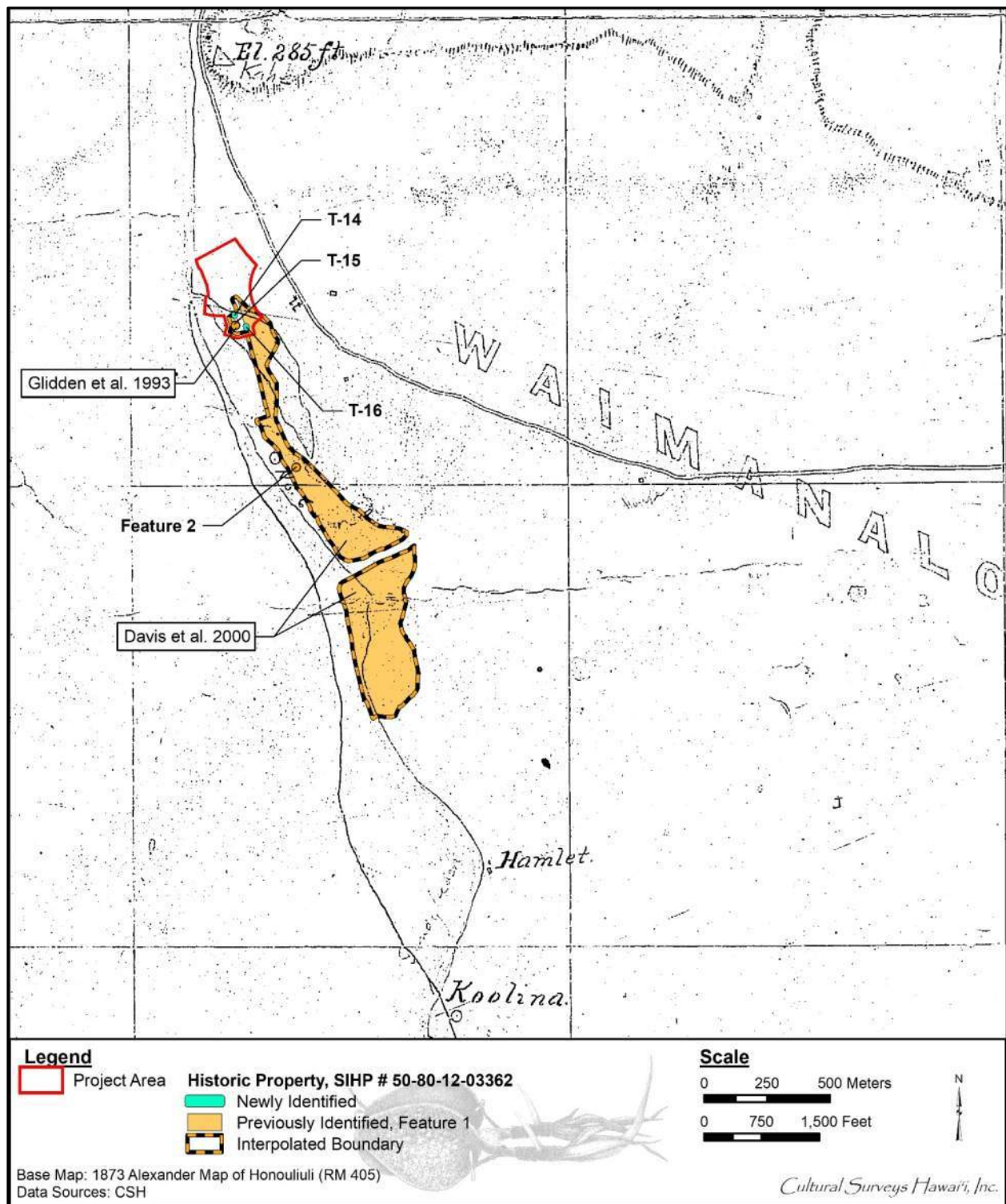


Figure 80. Portion of an 1873 Alexander map of Honouliuli (RM 405) depicting the project area in relation to newly identified and previously identified portions of SIHP # 50-80-12-03362 and its interpolated boundary within a former wetland area

including the results of test excavation at SIHP # -03362. The interim report would not be followed by a final report for more than 13 years. Davis' four-volume data recovery study came out in 2000 and is a culmination of the previous studies for West Beach (Davis 2000). Testing included pollen analysis and radiocarbon dating of the upper layer preceding the coastal wetlands. Davis and Haun (1986) describe SIHP # 50-80-12-03362 as follows:

An area of low-lying terrain paralleling the inland side of the coastal sand dunes, extending from Site 1438-1 northward c 1,250 m, ending behind Lanikuhonua. The landward area of the marsh varies from 60 to 150 m wide. Cultivation of sugar cane has altered most of this area, especially the higher southern ground. Areas of standing water, fresh to slightly brackish, are found in the lower northern end of the marsh, particularly during the rainy season. Expect for feral sugar cane, there is no surface evidence of past cultural use. [Davis and Haun 1986:A-25]

According to the Davis (2000) report, SIHP # 50-80-12-03362 was originally identified as a single component site, but a second feature was identified within the Phase 4 data recovery results. As a result, two features were designated SIHP # -03362. The northern extent of SIHP # -03362 Feature 1 is located within the southern portion of the current project area and described as coastal backwater marshland with no apparent cultural function prior to nineteenth century cultivation. SIHP # -03362 Feature 2 is located outside the current project area and is a cultural deposit indicative of habitation.

Davis (2000) describes SIHP # 50-80-12-03362 Feature 1 as follows:

And Marsh 03362-1 was situated immediately inland of the coastal dunes and was conterminous with Ecozone Ib, where it covered an estimated area of 5.3 ha between 0.5 m and 1.5+ m amsl. This extended along the inland side of the sand dunes, from Beach Midden 1438-1 north 1,200 m to where it ends inland of Lanikuhonua, which was the former beach estate of Alice Kamokila Campbell. A somewhat smaller segment was also located inland of Beach Sites 1437-1 and 2721-1. It had no apparent cultural function prior to 19th century cultivation. Its status as a one-time marshland is indicated by standing water found in lower elevations at the northern end of the site. The south end was slightly higher in elevation where feral sugar cane was still most evident during the project. The cane-haul roads shown on the site map approximate the boundary of the former marsh with the coastal dunes seaward, Ecozone Ia, and the rocky high ground inland, variably identified as Ecozones II and III. Nine Backhoe trenches were excavated in three inland seaward transects during the Phase 2 survey. Fifteen backhoe trenches were excavated during the Phase-4 data recovery to collect stratigraphically sequenced soil samples from the coastal marsh and the marsh/dune interface to develop a more comprehensive sedimentary and palynological record of this environmental feature. [Davis 2000:1:112]

Davis (2000) describes SIHP # 50-80-12-03362 Feature 2 as follows:

Floor 03362-2 was only a small remnant of what might have been a tamped floor surface containing only one subsurface feature—a rather large hearth, and an unspecified amount of midden-but it contained a total of 35 indigenous artifacts from an estimated 0.36 m of recovered cultural matrix. This is a rather high density,

100/m³, for only some 2 m² of excavated surface, suggesting Floor 03362-2 very likely was an extension of contemporaneous activities on the dune. The predominant marine-orientation reflected in the artifact assemblage reinforces this posited association; only chronological confirmation is lacking. [Davis 2000:1:131]

Three trenches were sampled for pollen analysis (TR1 through TR3) in which TR2 yielded the best preserved sequence for analysis (Davis 2000). Pollen analysis for TR2 is described as follows:

A continuous column of 14 samples collected at 10-cm intervals provided enough material for analysis. These samples were characterized by a relatively high diversity, with 33 pollen types including indeterminants: 16 in Layer I, 14 in Layer II, 13 in Layer III, 12 in Layer IV, and 27 in Layer V. For her tabular summary of the pollen, Cummings broadly categorizes the pollen as trees, small trees/shrubs, shrubs, herbs/lilies, grass, indeterminants, and spores. Shrubs are typically the largest group, of which Chenopods again dominate the assemblage. As already noted, Chenopods constitute a rather amorphous group, but they tend to be a relatively good bell-weather of the amount of pollen moving in the environment. In TR2, they account for about 55-65 percent of the assemblage (through the nine samples representing Layers V-III). They then decline to only about 22-33 percent of the assemblage (through three samples representing Layer II); with the beginning of Layer I they resurge to about 90% and then decline again in the near-surface sample to approximately 70% of the assemblage. [Davis 2000:1:120]

Based on pollen analysis and radiocarbon dates preceding SIHP # 50-80-12-03362, Davis (2000) concluded SIHP # 03362 likely originated within a ponded environment that eventually over time transformed into a wetland environment as follows:

The transition from an open pond to a shallow, seasonal wetland probably occurred in the last 300-400 years: sometime about AD 1600. This is a slightly later than a date of AD 1385-1500 from charcoal that was collected from Layer IV in TE2. [Davis 2000:1:123]

Glidden et al. (1993) observed a gleyed deposit designated as Layer V in the south portion of the current project area within Glidden et al. (1993) Trench 9. Glidden et al. (1993) referred to the gleyed deposit as a stratigraphic anomaly and described two possible explanations for its presence:

First, given the location of Trench 9, just inland from the cove (see Figure 4), it is possible that the area immediately inland from the cove once encompassed a marsh, separate from the previously recorded marsh deposits (Site 50-80-12-03362). The possible second explanation is that Layer V represents part of the Site 50-80-12-03362, the buried marsh deposits extending parallel to the shore (see Figure 3), suggesting that this site extends into the Paradise Cove project area. In either case, the absence of any such deposits in Trenches 1 through 6 indicates that the probable buried marsh deposits do not extend north of the cove.

Difficulties encountered during the excavation of the trench prevented further documentation. The unconsolidated nature of most of the deposit, when combined

with the depth of the trench and the fact that it had reached the water table, caused collapse. [Glidden et al. 1993:22]

Due to the safety concerns upon entering the trench, no soil samples were collected. Additionally, due to trench collapse, the gleyed deposit was intermixed with other deposits, thus a clean sample was not retrieved.

6.1.2 Current study

The dimensions of SIHP # 50-80-12-03362 were expanded during AIS testing for the current project (see Figure 79). Within the current project area, coastal wetland remnants associated with SIHP # -03362 were identified in three of 16 test excavations including T-14 through T-16. SIHP # -03362 was observed between 1.22 and 1.75 mbs, above natural marine deposits and the coral shelf. Within T-14 through T-16, SIHP # -03362 was capped by fill deposits associated with a combination of the Ewa Plantation Company and the construction of Paradise Cove.

SIHP # -03362 consists of two separate strata, Strata IIa and IIb in T-14. Stratum IIa consists of a dark gray silty clay ranging from 1.22 to 1.35 mbs. Stratum IIb consists of a black silty clay ranging from 1.30 to 1.35 mbs. Both strata contained many fine roots, sparse charcoal, and a few freshwater snails.

SIHP # -03362 consists of Stratum II in T-15. Stratum II consists of a dark reddish-brown sandy clay loam ranging from 1.55 to 1.75 mbs. Stratum II is a fill layer that likely represents an edge for the former coastal marshlands. Coral boulders were observed in the northern end of T-15. Many fine roots and a few freshwater snails were observed throughout.

SIHP # -03362 consists of Stratum II in T-16. Stratum II consists of a very dark greenish gray silty clay ranging from 1.10 to 1.62 mbs. Stratum II contained many fine roots and a few freshwater snails.

According to previous documentation, field results, and the lack of evidence on historic maps, the silty clay material is related to coastal wetland deposits with no apparent evidence of land use prior to agriculture in the nineteenth century. According to an 1873 Alexander map, the wetlands were possibly present in the southern portion of the project area extending south into Lanikūhonua Institute, and *makai*/west to an outlet into the Pacific Ocean (see Figure 10 and Figure 80). The wetlands appear to be filled in by the early 1900s as it was no longer depicted on historic maps. Additionally, the Glidden et al. (1993) report stated that Nettie Fernandez Tiffany and Walter Kamana noted the presence of a “riverbed” in the southern portion of the project area (Glidden et al. 1993:10–12).

6.1.3 Summary

SIHP # -03362 has been previously documented in the southern portion of the current project area. This summary compiles certain aspects of the analyses to provide a clear understanding of the coastal wetlands in the Ko Olina Resort area. SIHP # -03362 consists of coastal wetlands present at or very near the water table. The coastal wetlands were naturally deposited and formed on top of marine, primarily lagoonal, deposits and/or the coral shelf. In many studies, animal grazing lands and plantation activities were the first depositional events atop the wetlands. The soil described in previous studies as SIHP # 50-80-12-03362 is similar in texture, color, and content, although some variation does occur. The color of SIHP # -03362 deposits includes dark

reddish brown, dark gray, greenish gray, and black with textures including silty clay, sandy clay loam, and clay loam. Analyses such as palynology and radiocarbon dating on preceding strata of SIHP # -03362 have been conducted in previous studies. SIHP # -03362 contains two features and no associated artifacts.

SIHP # 50-80-12-03362, coastal wetlands, is assessed as significant per HAR §13-284-6 under Criterion d (have yielded, or is likely to yield information important for research on prehistory or history). This was based on the potential to further understand the types of agricultural and aquacultural practices utilized and determine the boundaries of the coastal wetlands in the Ko Olina Resort area. The historic property retains integrity of location and materials.

6.2 SIHP # 50-80-12-04968

FORMAL TYPE:	Human skeletal remains
FUNCTION:	Human interment
NUMBER OF FEATURES:	5
AGE:	Post-Contact
DIMENSIONS:	Unknown
LOCATION:	Preserve area located in the western portion of the project area behind the main <i>lū'au</i> stage
TAX MAP KEY:	[1] 9-1-057:027
LAND JURISDICTION:	Cove Campbell Kobayashi, LLC
PREVIOUS DOCUMENTATION:	Jourdane 1995, Hammatt 1995

SIHP # 50-80-12-04968 was identified on 10 January 1995 during the excavation of a trench for the installation of gas lines at Paradise Cove *lū'au* located in the western portion of the project area at the north, east, and west sides of the Paradise Cove stage facility (see Figure 78). SHPD was notified and identified the remains as human with a minimum number of one individual (MNI). SHPD recommended that a private archaeological firm be contracted for burial recovery work to determine number and type of burials represented. CSH identified an additional four sets of human skeletal remains in the vicinity.

Jourdane (1995) describes Burial Find 1, now designated as SIHP # -04968 Feature 1 as follows:

Human remains were disturbed and scattered along c. 20 feet of the makai trench by the backhoe during excavation for the gas lines. Although excavation stopped when remains were first noted, several bones were spread on the surface of the trench. A femur fragment, part of a sacrum, and arm bone were noted on the trench floor. Numerous other skeletal remains were also noticed in the “backdirt” piles along side the trench. Part of a what appeared to be a cranium was noted in the north face near the mid section of the trench. No burial pits or other features were apparent, however the trench walls were not cleared or faced to look for more burial remains. No remains appeared to be found in the trench that was dug along the W (Lanikuhonua) side of the facility. The burial is contained within a Jaucus sand matrix. [Jourdane 1995]

Hammatt (1995) is a field report in the form of field notes reporting on five separate burial finds within the same Jourdane (1995) gas line excavation at Paradise Cove *lū'au* located in the western portion of the project area on the western portion of the main *lū'au* stage from 11 through 13 January 1995. The burial finds were numbered Burial Finds 1 through 5. Based on Hammatt (1995) field notes and an SHPD letter in 1995 (see Appendix A), the original Jourdane (1995) burial is included within the Hammatt (1995) field notes as Burial 1. The five burials are designated as SIHP # -04968 Features 1 through 5 summarized below.

SIHP # -04968 Feature 1 is a mostly in situ, semi-flexed burial located in proximity to the southwest corner of the main Paradise Cove *lū'au* stage. The lower leg area appears to have been previously disturbed by the installation of a 2-inch irrigation line. According to a sketch drawing, SIHP # -04968 Feature 1 is between approximately 25 and 45 cmbs within a defined burial pit between an A horizon (Stratum I) and natural beach sand (Stratum II). SIHP # -04968 Feature 1 is on its side with the head facing west. Two bone buttons were observed in the neck area. SIHP # -04968 Feature 1 was disinterred on 12 January 1995.

SIHP # -04968 Feature 2 is an in situ burial located in proximity to the southwest corner of the main Paradise Cove *lū'au* stage, north of SIHP # -04968 Feature 1. According to a sketch profile and a sketch plan map drawing, SIHP # -04968 Feature 2 is between approximately 30 and 50 cmbs within a defined burial pit between an A horizon (Stratum II) and natural beach sand (Stratum III). Ten metal buttons were observed in situ at approximately 60 cmbs, and one metal button was recovered from screening of the backdirt material. A portion (foot bones) of SIHP # -04968 Feature 2 was disinterred on 11 January 1995, and all other remaining elements were disinterred on 12 January 1995.

SIHP # -04968 Feature 3 is an in situ extended burial located in proximity to the southwest corner of the main Paradise Cove *lū'au* stage, north of SIHP # -04968 Feature 2. The skull and lower thoracic region appeared to be disturbed from construction activities for the gas line. According to field notes, SIHP # -04968 Feature 3 was observed between 20 and 35 cmbs in a possible coffin. Fragments of a possible glass viewing hole were observed. Two crescent-shaped gold earrings were observed associated with the skull. One four-hole shell button was collected from screening of the backdirt material. SIHP # -04968 Feature 3 was disinterred on 12 January 1995.

SIHP # -04968 Feature 4 was exposed on 12 January 1995 west of the Paradise Cove main *lū'au* stage and contains no other documentation.

SIHP # -04968 Feature 5 was observed from archaeological monitoring activities for the gas line near a "luau pit" west of the Paradise Cove main *lū'au* stage on 13 January 1995. SIHP # -04968 Feature 5 is an extended burial with disturbance on its right side. No other provenience information was recorded.

Temporary curation measures and reinternment activities for SIHP # -04968 Features 1 through 5 are unknown, however, *kahu* Nettie Fernandez Tiffany has acknowledged that all burials were reinterred in the same area, west of the Paradise Cove main *lū'au* stage.

In summary, SIHP # -04968, human skeletal remains, is assessed as significant under Criterion d (have yielded or is likely to yield, information important for research on prehistory of history) for its archaeological information and Criterion e (have an important value to the Native Hawaiian people or to another ethnic group of the state due to its associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts these associations being important to the group's history and cultural identity) because of its cultural value as human skeletal remains, pursuant to HAR §13-284-6. The historic property retains integrity of location, design, and materials (represents integrity at time exposed).

6.3 CSH 2: Burial Preserve Area for SIHP # -04968

SITE TYPE:	Preservation and reinterment site
FORMAL TYPE:	Human skeletal remains
FUNCTION:	Human interment
DIMENSIONS:	752.85 sq ft.
NUMBER OF FEATURES:	N/A
LOCATION:	Western portion of the project area behind the main <i>lū'au</i> stage
TAX MAP KEY:	TMK: (1) 9-1-057:027 por.
LAND JURISDICTION:	Cove Campbell Kobayashi, LLC
PREVIOUS DOCUMENTATION:	Jourdane (1995) and Hammatt (1995)

CSH 2 is the burial preserve and relocation area for five separate inadvertent discoveries of human skeletal remains including Burials 1 through 5 designated as SIHP # 50-80-14-04968. SIHP # -04968 was identified on 10 January 1995 during the excavation of a trench for the installation of gas lines at Paradise Cove *lū'au* located in the western portion of the project area at the north, east, and west sides of the Paradise Cove stage facility. The burials were documented in Jourdane (1995) and Hammatt (1995).

In consultation with the landowner and recognized cultural descendants, SHPD determinations included both preservation (SIHP # -04968 Feature 4 and 5) in place and reinterment at the original site of respective discovery (SIHP # -04968 Feature 1 through 3) within the existing burial preserve area on The Cove project's property.

Temporary curation measures and reinternment activities for SIHP # -04968 Features 1 through 5 are unknown, however, *kahu* Nettie Fernandez Tiffany has acknowledged that all burials were reinterred in the same area, west of the Paradise Cove main *lū'au* stage.

The existing burial preserve area is currently covered with landscaped *naupaka* brush (Figure 81). The area *makai* of the burial preserve area is a maintained flat, grassy landscaped area that extends to the shoreline adorned with coconut trees and manicured *naupaka*. Entrance to the burial preserve area on either side (north-south) *makai* of the main Paradise Cove *lū'au* stage is sanctioned off with rope and wooden poles to deter pedestrian access.



Figure 81. Existing SIHP # -04968 burial preserve area covered with landscaped *naupaka* and existing buffer area, view to southwest

Section 7 Consultation

7.1 Results of Cultural Consultations

Consultation efforts were conducted in preparation for the AIS and for the preparation of the project's burial site component of a preservation plan (BSCPP), prepared pursuant to HAR §13-300-33. This consultation included consultation with cultural descendant Nettie Fernandez Tiffany (Aunty Nettie), SHPD, as well as consultation required under HAR §13-284(6)(c) and HAR §13-276-5(g).

7.1.1 AIS Consultations

The AIS testing strategy was based on consultation with the SHPD and cultural descendant Aunty Nettie. The AIS test excavations were placed targeting those areas and within areas not previously investigated. The remainder of the test excavations were placed for representative distribution. Some trenches were reoriented based on known subsurface utilities via the maintenance crew and concerns from Aunty Nettie. The eastern portion of the project area included specific instruction from Aunty Nettie regarding proximity to known human burials in the near vicinity.

7.1.2 Consultations for Protection Measures for Existing SIHP # -04968 Preserve Area

Cove Campbell Kobayashi, LLC and CSH conducted a site visit with Aunty Nettie on 14 February 2023 to discuss the existing burial preserve area (CSH 2) for SIHP # -04968 and potential interim and permanent buffer zones. Aunty Nettie expressed her preference of no excavations to occur in the existing buffer and preserve area, as well as to keep an existing *hau* tree(s) near the preserve area and a nearby *kiawe* tree in their current location. She also mentioned that the burials in the preserve area (SIHP # -04968) were preserved in place under her advisory. When asked about future landscaping, her preference is to leave the area "as is" w/the *naupaka*, discrete w/no signage, and cordoned off to avoid foot traffic.

On 3 July 2024, CSH and Cove Campbell Kobayashi, LLC met with SHPD history and culture branch burial sites specialist Regina Hilo to discuss SIHP # -04968. On 5 July 2024, CSH and Cove Campbell Kobayashi, LLC met with SHPD archaeology branch chief Dr. Susan Lebo and O'ahu archaeologist Samantha Hemenway to discuss SHPD's comment regarding an appropriate buffer zone and path forward for the SIHP # -04968 burials. SHPD's records for SIHP # -04968 indicate that consultation with Native Hawaiian Organizations (NHO's), CSH, and representatives from James Campbell Estate regarding preservation and that long-term preservation was agreed upon in a meeting held on 18 January 1995 (see Appendix A). SHPD has no record of a preservation plan for SIHP # -04968. On 5 July 2024, SHPD confirmed that a burial site component of a preservation plan (BSCPP) is required for SIHP # -04968 in an email (Jordan Calpito and Dr. Susan Lebo [SHPD]).

A letter to the Office of Hawaiian Affairs (OHA) was sent on 19 June 2024 in compliance with HAR §13-284-6(c) requiring consultation for historic properties that may be significant. Kamakana Ferreira responded via email (OHA [Kamakana Ferreira] to CSH [Brittany Enanoria] on 8 July 2024 with the following comments:

OHA offers the following comments:

- OHA supports the Criterion E designation of SIHP# -04968 as Native Hawaiian burials are important to Native Hawaiians.
- OHA supports the decision to craft a preservation plan. We assume the preservation plan will be done in accordance with Hawaii Administrative Rules (HAR) 13-277. As part of continuing Criterion E consultation, OHA requests the opportunity to review and comment on the draft preservation plan.
- OHA supports the decision to record SIHP# -04968 with the Bureau of Conveyances. As a reminder, the recently passed Act 119 now imposes a fine upon private landowners that do not disclose known burials with the Bureau of Conveyances.
- OHA recommends that the Oahu Island Burial Council (OIBC) be consulted as part of the crafting of the preservation plan.
- OHA supports no work in the preserve and respective buffer area.
- OHA supports proposed archaeological monitoring for the project. As part of the archaeological monitoring, we expect temporary plastic orange fencing or flagging to be in place around the buffer boundaries to safeguard the preserve area from construction activities. Construction personnel should also be briefed by the archaeological monitor about previously identified sites in the area and the presence of the burial preserve.
- OHA recommends that annual visual inspections of the preserve area occur as part of the maintenance protocols in the preservation plan. The inspecting individual (which could be a descendant or other designated party) should take notes on general condition and provide photos for a photolog. This will aid in any possible damage assessments in the future and also general maintenance (if any is needed).

On 15 July 2024, OHA was informed of SHPD's guidance regarding a BSCPP pursuant to HAR §13-300 for SIHP # -04968 instead of a preservation plan per HAR §13-277 that was originally stated in the 31 May 2024 letter to OHA. OHA will have the opportunity to review and provide comments to the BSCPP.

Consultation with the signatories of the 1995 burial agreement as well as known cultural and lineal descendants of the area has been initiated and is ongoing. This consultation is regarding the specifics for the interim and long-term protection measures and will be outlined in the BSCPP document following the results of consultation. As requested by SHPD, a larger buffer zone than the existing buffer zone is being considered and will be presented to recognized lineal and cultural descendants of the area. The results of all consultation efforts will be incorporated into the BSCPP.

Section 8 Summary and Interpretation

At the request of the Cove Campbell Kobayashi, LLC, CSH has prepared this AISR for The Cove Redevelopment project, Honouliuli Ahupua'a, 'Ewa District, O'ahu, TMKs: [1] 9-1-057:027. Cove Campbell Kobayashi, LLC plans to improve the 10.85-acre property known as Paradise Cove. This will be the first major improvement of amenities on the property in over 25 years.

The subsurface testing plan was based on the combination of three previous studies' test locations and documentation of known historic properties within the project area (Komori and Dye 1979, Davis and Haun 1987, and Glidden et al. 1993), and consultation with SHPD and cultural *kahu* Nettie Fernandez Tiffany (Auntie Nettie). Current AIS test excavations were placed based on targeting the known historic properties within areas not previously investigated and placed for representative distribution. Some trenches were reoriented based on known subsurface utilities via the maintenance crew and concerns from Auntie Nettie.

The subsurface testing plan originally consisted of 19 subsurface test excavations (T-1 through T-19). The subsurface testing plan was modified per the request of SHPD, excluding three proposed test excavations (T-1 through T-16). Two test excavations, T-11 and T-14, were abandoned due to the presence of an active sewer drain line and a fire sprinkler line that both broke during excavation activities. Both the sewer drain line and fire sprinkler lines were repaired. All but two test excavations were excavated by a backhoe excavator to sterile material between 0.52 and 2.14 mbs, or the coral shelf observed between 0.75 and 1.75 mbs. Two test excavations (T-10 and T-12) were hand excavated to 3 ftbs or sterile material as requested by Auntie Nettie in avoidance of any possible voids in the coral shelf and proximity to known human burials.

The general observed stratigraphy from open trenching primarily consists of imported and locally procured fill deposits (Stratum I) overlying the coral shelf. The southern portion of the project area contained a wetland deposit (Stratum II/SIHP # 50-80-12-03362). These observations are consistent with the USDA soil data for the project area and its vicinity (Foote et al. 1972). All excavations were backfilled after completion of documentation.

A silty clay loam alluvial fill observed in a majority of test excavations likely represents the deliberate soil runoff from plantation drainage activities of the Ewa Plantation Company conducted from the early 1900s through the 1920s. These fill deposits typically overlay the undulating coral shelf. In coastal/western areas, locally procured sand fills were typically observed overlying the silty clay loam alluvial fills. Most of the test excavations containing sand fills were used during utility installation and landscaping activities. The *mauka*/eastern areas contained crushed coral fill. The imported crushed coral fill was likely utilized to raise the surface during the development of Paradise Cove in the late 1970s.

Two previously identified historic properties were documented consisting of coastal wetlands (SIHP # 50-80-12-03362) and human skeletal remains (SHIP # 50-80-12-04968). SIHP # -03362 was identified in the southern portion of the project area within three excavations (T-14 through T-16). SIHP # -04968 is a previously identified historic property consisting of approximately five sets of human skeletal remains located in the western portion of the project area *makai*/west of the main Paradise Cove *lū'au* stage.

Historic artifacts consisting of glass bottle and bottle fragments were recovered from fill deposits including locally procured sand fill associated with the late twentieth century construction of Paradise Cove and an alluvial fill layer associated with plantation activities from the early 1900s into the 1920s. One artifact from a sand fill layer dates to 1939-ca. 1949, and one artifact from the alluvial plantation runoff fill dates to the 1950s to 1960s. These dates are inconsistent with the estimated deposition dates of the layers, indicating a high degree of disturbance.

Marine shell and basalt fragments possibly related to traditional food preparation were observed in a disturbed A horizon within T-10. Although utility remnants within the trench indicate this layer was likely disturbed during construction activities for Paradise Cove along with the other strata, no historic artifacts were found mixed into this layer. A small amount of faunal osseous remains was identified in the southwest and southern portions of the project area. The identified faunal remains include cow (*Bos Taurus*), fish (*Osteichthyes*), and one fragment belonging to a medium-sized mammal (inconsistent with human morphology; likely pig). All of these faunal materials appear consistent with food refuse.

Three pollen samples (Samples 1 through 3) extracted from three bulk sediment samples thought to be buried wetland soils (SIHP # -03362) were submitted for pollen analysis. Sample 1 was collected from T-14 located in the southern portion of the project area from Stratum IIb from the backdirt pile. Sample 2 was collected from T-15 in the southern portion of the project area from Stratum II from the backdirt pile at approximately 150 to 170 cmbs. Sample 3 was collected from the east sidewall in Stratum II between 125 to 140 cmbs.

Ten types of pollen and spores were identified with the dominant types including Cheno-Am and grass pollen. All three samples contained high proportions of degraded grains indicating poor preservation. Samples 1 and 2 were collected from the wetland deposits closer to the shoreline and had comparable concentrations suggesting a dry shrubland characterized by *aweoweo* and various grasses. Sample 3 was collected from inland wetland deposits and contained more pollen than degraded grains in comparison to Samples 1 and 2. Still lacking good preservation, the identified pollen reflected a marshland environment surrounded by dry landscape. Due to poor preservation, it is possible that the degraded pollens from Samples 1 and 2 once resembled the similar marshland environment as reflected in the Sample 3 results.

In summary, The Cove Redevelopment project AIS documented aspects of the former land surface throughout the excavated portions of the project area. Previous archaeological studies have also documented human interment in the area. Based on AIS testing, the majority of the project area appears to be moderately disturbed from multiple phases of land altering activities including the plantation, ranching, and the development of Paradise Cove. The northern portion of the project area is significantly shallower in comparison to the central and southern portions of the project area revealing the undulating coral shelf in these areas. Due to the undulating coral shelf and proximity to the ocean, it is possible that multiple underground caverns exist throughout the *makai*/western portion of the project area. The southeastern portion of the project area is evidenced by pre- to post-Contact activity associated with coastal wetlands (SIHP # -03362) utilized as a subsequent habitation, agriculture, and water control area. Based on locally procured sand fills near the western shoreline portion of the current project area and known human burials (SIHP # 50-80-12-04968) in these areas, it is likely these areas may contain cultural deposits including human skeletal remains.

Section 9 Significance Assessments

Two previously identified historic properties have been identified within the current project area: SIHP # 50-80-12-03363 and 50-80-12-04968. Table 27 lists the historic properties along with their significance/eligibility assessments and mitigation recommendations. These significance recommendations are included in this AISR for the review and concurrence of the SHPD. At the request of SHPD, a SIHP number was assigned for CSH 1 located outside of the current project area. The significance assessment for CSH 1 is included in Appendix C.

Historic property significance is evaluated and assessed based on the five State of Hawai'i historic property significance criteria. To be considered significant, a historic property must possess integrity of location, design, setting, materials, workmanship, feeling, and/or association and meet one or more of the following broad cultural/historic significance criteria (in accordance with HAR §13-284-6):

- a. Be associated with events that have made an important contribution to the broad patterns of our history;
- b. Be associated with the lives of persons important in our past;
- c. Embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, or possess high artistic value;
- d. Have yielded, or is likely to yield, information important for research on prehistory or history; or
- e. Have an important value to the 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 or oral accounts—these associations being important to the group's history and cultural identity.

SIHP # 50-80-12-03363, coastal wetlands, is assessed as significant per HAR §13-284-6 under Criteria d (have yielded, or is likely to yield information important for research on prehistory or history). This was based on the potential to further understand the types of agricultural and aquacultural practices utilized and determine the boundaries of the coastal wetlands. The historic property retains integrity of location and materials.

SIHP # 50-80-12-04968, human skeletal remains, is assessed as significant per HAR §13-284-6 under Criterion d (have yielded or is likely to yield, information important for research on prehistory or history) for its archaeological information and Criterion e (have an important value to the Native Hawaiian people or to another ethnic group of the state due to its associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts these associations being important to the group's history and cultural identity) because of its cultural value as human skeletal remains. The historic property retains integrity of location, design, and materials.

Table 27. Archaeological historic property integrity, significance, and mitigation recommendations

SIHP # 50-80-12	Test Excavation	Formal Type/ Description	Integrity (at time exposed)							Significance	Mitigation Recommendation
			Location	Design	Setting	Materials	Workmanship	Feeling	Association		
-03362	T-14 through T-16	Coastal wetlands	Y	N	N	Y	N	N	N	d	Archaeological monitoring
-04968	N/A	Human skeletal remains	Y	Y	N	Y	N	N	N	d and e	Preservation

Section 10 Project Effect and Mitigation Commitments

10.1 Project Effect

Two historic properties have been identified within the project area: SIHP # 50-80-12-03362 (coastal wetlands) and SIHP # 50-80-12-04968 (human skeletal remains). The proposed project has the potential to affect these historic properties identified within the project area. This is due to the potential for encountering additional exposures and/or features of these historic properties that may be present. The project-specific effect is “Effect, with agreed upon mitigation commitments” pursuant to HAR §13-284-7. The recommended mitigation measures will reduce the project’s potential effect on significant historic properties.

10.2 Mitigation Commitments

The agreed upon mitigation commitments for The Cove Redevelopment project consists of archaeological monitoring (a form of data recovery) and preservation through avoidance.

Archaeological monitoring of all ground-disturbing activities is agreed upon for the entire project area. On-site archaeological monitoring will be conducted to identify and appropriately document any additional exposures of SIHP # 50-80-12-03362 and any newly identified historic properties that may be encountered during construction. An archaeological monitoring plan meeting the requirements of HAR §13-279-4 will be submitted for SHPD review and acceptance prior to the initiation of any project-related ground disturbing activities.

SHPD’s records for SIHP # -04968 indicate that consultation with Native Hawaiian Organizations (NHO’s), CSH, and representatives from James Campbell Estate regarding preservation and that long-term preservation was agreed upon in a meeting held on 18 January 1995. This was formalized in a signed agreement (see Appendix A). SHPD has no record of a preservation plan for SIHP # -04968. On 5 July 2024, SHPD confirmed that a burial site component of a preservation plan (BSCPP) is required for SIHP # -04968 in an email (Jordan Calpito and Dr. Susan Lebo [SHPD]).

Consultation is ongoing regarding the specifics for interim and long-term protection measures and will be outlined in the BSCPP document following the results of consultation. As requested by SHPD, a larger buffer zone than the existing buffer zone is being considered and will be presented to recognized lineal and cultural descendants of the area. The BSCPP meeting the requirements of HAR §13-300-34 will be completed for SIHP # -04968 and submitted to SHPD for their review and acceptance.

The landowner will record the burial preserve area (CSH 2) for SIHP # -04968 with the Bureau of Conveyances, if not already conducted. The burial preserve area (CSH 2) shall remain in perpetuity to preserve the *iwi kūpuna*.

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Appendix A SHPD Correspondence

BENJAMIN J. CAYETANO GOVERNOR OF HAWAII	 STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES STATE HISTORIC PRESERVATION DIVISION 33 SOUTH KING STREET, 6TH FLOOR HONOLULU, HAWAII 96813	MICHAEL D. WILSON, CHAIRPERSON BOARD OF LAND AND NATURAL RESOURCES DEPUTY GILBERT COLOMA-AGARAN AQUACULTURE DEVELOPMENT PROGRAM AQUATIC RESOURCES CONSERVATION AND ENVIRONMENTAL AFFAIRS CONSERVATION AND RESOURCES ENFORCEMENT CONVEYANCES FORESTRY AND WILDLIFE HISTORIC PRESERVATION DIVISION LAND MANAGEMENT STATE PARKS WATER AND LAND DEVELOPMENT
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January 18, 1995

DOC NO: 9501KM05 ✓
LOG NO: 13707

Mr. Bill Blaisdell
General Manager
Paradise Cove
West Beach Estates
91-100 Kamoana Place
Ewa Beach, Hawai'i 96707

Re: **Inadvertent Discovery of Human Skeletal Remains Discovered at Paradise Cove, Campbell Estate Lands, Honouliuli, 'Ewa, O'ahu**

Dear Mr. Blaisdell:

Pursuant to a January 18, 1995 meeting between interested parties held on site at Paradise Cove, a general understanding of agreement appears to have been reached concerning proposed burial treatment for the five sets of human skeletal remains discovered at the aforementioned site.

In attendance at the meeting were Chuck Erhorn and Howard Schwiebert representing the Estate of James Campbell, Bob G. Wright, Jr. and Ben Cabansag representing Paradise Cove Luau, Nettie Tiffany, representing Lanikuhonua, Dr. Hal Hammatt, representing Cultural Surveys of Hawai'i, Alike Silva and Cynthia Rezentes, representing Koa Mana, Rona Kaaekuahiwi, representing Na Keiki Ka Mo'i Canoe Club, Burt Ogasawara, representing Nordic Construction Co., Edward Halealoha Ayau, Esq. and Ka'iana Markell, Esq. representing the State of Hawai'i Department of Land and Natural Resources (department).

JAN 20 1995

Mr. Bill Blaisdell
01/18/95

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It is our understanding at this time, based upon discussions held during this meeting that the following course of action is agreeable to all parties present at the meeting:

1. That the four burials found together will remain in the immediate area where they were discovered;
2. That Burial No. 4, which remains for the most part, in situ, shall be preserved in place and any collected fragments and/or associated burial goods shall be interred with the in situ remains;
3. That Burials No. 1, 2 and 3 will be wrapped in kapa and placed in pu'olo to be transferred to the site and reinterred at the original site of their respective discovery including any associated burial goods;
4. That Burial No. 5 will, which remains in situ, with associated fragments, shall be preserved in place;
5. That culturally appropriate landscaping consisting of native plantings and pohaku shall adorn the burial sites to honor and protect them, consistent with the look and feel of landscaping design for Paradise Cove Luau, subject to State and/or County setback regulations;
6. That no further subsurface ground disturbing activities will take place until an adequate assessment of possible burial sites located on the property is made and/or a sufficient mitigation plan comprised of archaeological testing of areas scheduled for subsurface disturbance is developed to address possible future discoveries of human skeletal remains;
7. That the proposed liquid propane gas tank may be repositioned on the property to take advantage of existing gas lines and tiki torches;
8. That persons possessing knowledge of cultural and/or burial sites in the vicinity will present oral and/or written testimony for consideration by the landowner, lessee and department;
9. That based upon information received concerning possible cultural and/or burial sites located on the subject property, long term preservation plans may be worked out with the landowner and lessee.

If you have any questions, concerns, additions or modifications concerning the above proposed course of treatment concerning Paradise Cove Luau, please contact Edward Halealoha Ayau, Esq. at 587-0010 or Ka'iana Markell, Esq. at 587-0017.

Thank you for your patience and cooperation in this matter.

Mr. Bill Blaisdell
01/18/95

Page 3

Sincerely,



DON HIBBARD, Administrator
State Historic Preservation Division

KM:jk

- c. Coochie Cayan, Chair, O'ahu Island Burial Council
Gary Omori, West Beach Estates
Alika Silva, Koa Mana
Theola Silva, Kupa Kuaina 'O Wai'anae
Nettie Tiffany, Lanikuhonua
Maxine Hee, Wai'anae Hawaiian Civic Club
Rona Kaaekuahiwi, Na Keiki Ka Mo'i Canoe Club
A. Frenchy DeSoto, Wai'anae Coast Archaeological and Preservation Council
Agnes Cope, Wai'anae Coast Culture and Arts, Inc.
Glen M. Kila, Koa Mana
Chuck Erhorn, James Campbell Estate
Howard Schweibert, James Campbell Estate
Bob G. Wright, Jr., Paradise Cove Luau
Ben Cabansag, Paradise Cove Luau
Burt Ogasawara, Nordic Construction
Hal Hammatt, Cultural Surveys of Hawai'i

Appendix B Pollen Analysis

Pollen Analysis

By Bruce G. Phillips, MS
BGP Consulting LLC

In advance of development at Paradise Cove, Honouliuli Ahupua'a, Island of O'ahu, Cultural Surveys Hawai'i (CSH) investigated a portion of SIHP # -3362, a former coastal marshland. Subsequent to these efforts, three soil samples from three separate trenches (T-14 through 16) were selected for pollen analysis; all samples were from Stratum II, the suspected wetland deposit. The goal was to characterize vegetation communities at the time of deposition.

Methods

Sediment samples were sent to the Paleoecology, Palynology, and Climate Change Laboratory, University of Colorado-Denver for pollen extractions. Sample bag contents were mixed thoroughly, and 10-gram subsamples were taken. Approximately 19,332 grains of *Lycopodium* tracers were added to estimate pollen concentration. Hydrochloric acid was added to each sample to dissolve *Lycopodium* tablets and carbonates. After rinsing with deionized water, potassium hydroxide was added and samples were heated in a hot water bath for 10 minutes to deflocculate consolidated clay and organics and to remove humic acids. To reduce the heavier matrix fraction, the material was then sieved through a 180 µm-mesh screen. Smaller sands and large silts were removed using a suspension and decant method. Samples were then treated with hydrofluoric acid to remove remaining silicates. An acetolysis mixture of acetic anhydride and sulfuric acid was added to each sample and placed in a hot water bath for eight minutes. The samples were then washed with glacial acetic acid. The remaining residues were washed with water and alcohol, stained with safranin, and suspended in glycerol.

At BGP Consulting facilities, extracts were mounted and examined at a viewing power of 400X on an Olympus BHTU compound microscope. Typically, standard counts of 100 to 200 pollen grains and spores are conducted. In the current analysis, however, pollen deterioration allowed only 100-grain counts for all samples, as described below. Identifications were aided by BGP Consulting reference material and by keys (Selling 1946, 1947; Moore, et al. 1991). Each fossil pollen grain was identified to the generic level when possible. If a grain could not be differentiated from similar genera, it was identified to the family level. Pollen grains that were broken, corroded, or degraded beyond recognition were assigned to the "degraded" category. As all counts are 100 grains, the numbers of grains counted and percentages are the same (i.e., count=%). Pollen concentrations were calculated with the following formula:

$$\text{Concentration (grains/gram)} = \frac{\text{pollen grains counted}}{\text{tracers counted}} \times \frac{\text{tracer concentration}}{\text{sample weight}}$$

Results

Ten types of pollen and spores were identified (Table 1). High proportions of degraded grains (25 to 34%) indicated poor preservation in all samples and that the data likely were not an accurate reflection of the original assemblage (Table 2). Chenopodium and grass pollen dominated all the samples. The assemblage was nearly homogenous, consisting almost entirely of the two dominant types and degraded grains. The exception was Sample 3 (T-16), in which 16 possible sedge grains were identified. No Polynesian or historic introductions were found. Nor was there any evidence of farming.

Samples 1 (T-14) and Sample 2 (T-15) had comparable concentrations (7,435 and 7,160 grains per gram, respectively); Sample 2 had slightly more identifiable types. Both samples had the highest proportions of degraded grains. If taken at face value, the data suggested a dry shrub and grassland, characterized by *aweoweo* and various grasses.

In contrast, Sample 3 (T-16) contained more pollen (12,888 grains per gram) and the lowest proportion of degraded grains (25%), suggesting better (albeit not good) preservation. The few clearly identifiable sedge grains had a ghost-like appearance, lacking any surface texture but with the apparent equatorial pores and size characteristics of Cyperaceae pollen (Selling 1947:350). Though a tentative identification (hence the cf. or "resembles" designation), other potential sedge grains were counted which would otherwise have been classified as "degraded". If the data for Sample 3 were accurate, then Stratum II reflects a marshland surrounded by a dry landscape. Further, if the identification was correct, sedge grains in Samples 1 and 2 might have been relegated to the "degraded" category, masking any indication of marsh deposits.

Degraded pollen assemblages are not uncommon (Moore, et al. 1991). Many factors cause pollen deterioration, and the process is not well understood (Holloway 1981, 1989). Mechanical factors can cause grains to be crushed or torn apart, whereas chemical agents can affect their structural integrity. Chief among chemical agents is the cycle of wetting and drying. It is possible that pollen in sediments at or near the water table have suffered deterioration due to fluctuations in groundwater level, caused by climatic (e.g., rainfall) and/or oceanic (e.g., sea levels) factors, or possibly even tides. Also affecting the number and distribution of pollen types is the amount of sporopollenin in grains of different plants. Sporopollenin is a highly resistant organic compound that allows pollen to be preserved in sediments and other settings. Because Chenopodiums, Poaceae, and Asteraceae have large amounts of the compound and hence preserve well, they are often over-represented in the pollen record. Unfortunately, the sporopollenin content of Cyperaceae has not been well studied (Moore et al. 1991). Soil chemistry can also cause pollen to degrade. For example, ancient soils in the American Southwest are highly basic, causing deterioration. It is possible that the calcareous limestone parent material of Stratum II contributed to pollen deterioration.

In summary, all three samples had poorly preserved pollen assemblages, sufficient only for 100-grain counts. If the data are considered even somewhat accurate, then high Chenopodium and grass proportions in Samples 1 and 2 suggested the area was shrub and grassland. If Sample 3 is more

accurate, then Stratum II represents a marsh surround by dryland flora, again reflected by high Cheno-Am and grass proportions.

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Table 2. Pollen data.

Sample	1	2	3
Trench	T-14	T-15	T-16
Stratum	IIb	II	II
Depth (cm)	130-135	~150-170	125-140
Concentration (grains per gram)	7,435	7,160	12,888
Types per sample	6	7	6
Sum	100	100	100
Count/%			
Degraded	34	31	25
Unknown		1	
Herbs and Shrubs			
Asteraceae, high-spine		1	
Asteraceae, low-spine	3	2	1
Cheno-Am	36	24	20
cf. Cyperaceae	1		16
Euphorbiaceae	1		
Fabaceae	2		
Poaceae	23	39	36
Ferns and Fern Allies			
Monolete spore, rough		1	1
Trilete spore, rough			1
Trilete spore, smooth		1	

Table 1. Pollen and spore types

Type	Common Name	Plant Community
Herbs and Shrubs		
Asteraceae, high spine	Sunflower family, <i>Dubautia</i> -type	Disturbed habitats
Asteraceae, low spine	Sunflower family, <i>Ambrosia</i> -type	Disturbed habitats
Cheno-Am	<i>Aweoweo</i>	Coastal Dry Shrublands
cf. Cyperaceae	Sedge family	Coastal Dry Sedgeland
Euphorbiaceae	Spurge family	Lowland Dry Shrublands
Fabaceae	Pea family	Coastal Dry Grasslands and Shrublands
Poaceae	<i>Aki aki</i> ; Grass family	Coastal Dry Grasslands, Sedgeland, and Mixed Communities
Ferns and Fern Allies		
Monolete spore, rough	Ferns	Coastal to Lowland Mesic Forests
Trilete spore, rough	Ferns and fern allies	Coastal to Lowland Mesic Forests
Trilete spore, smooth	Ferns and fern allies	Coastal to Lowland Mesic Forests

Appendix C CSH 1 Salt Pans

SITE TYPE:	Salt pans
FORMAL TYPE:	Agricultural
FUNCTION:	Salt production
AGE:	Likely pre to post-Contact
DIMENSIONS:	Approximately 9 m long by 4.5 m wide
NUMBER OF FEATURES:	N/A
LOCATION:	Western portion just outside of the project area
TAX MAP KEY:	TMK: (1) 9-1-057:027 por.
LAND JURISDICTION:	Cove Campbell Kobayashi, LLC
PREVIOUS DOCUMENTATION:	Komori and Dye 1979

SIHP No. 50-80-12-XXXXX are salt pans previously documented by Komori and Dye (1979). Komori and Dye (1979) describes them as “[...] previous modifications left no cultural surface features, except for a number of salt pans located on the sandstone reef (Komori and Dye 1979:2).

The salt pans are located outside of the western portion of The Cove project area within the coral outcrop along the shoreline area. The salt pans are comprised of several natural depressions within the coral outcrop that appear to occasionally trap ocean water and may have been once used for salt production in pre- to post-Contact times. The coral outcrop area measures approximately 9.0 m long by 4.5 m wide. A portion of the salt pans were photographed during The Cove AIS (Figure 82 and Figure 83).

It does not appear that there is any previous significance assessments conducted for CSH 1. Based off the information provided by Komori and Dye (1979), CSH 1 is significant pursuant to HAR §13-384-6 Criterion a (be associated with events that have made an important contribution to the broad patterns of our history), and Criterion d (have yielded, or is likely to yield, information important for research on prehistory or history). The site has integrity of location, design, materials, workmanship, and feeling, but does not retain integrity of setting due to the development of the area.



Figure 82. CSH 1: Salt pans within the coral outcrop along the shoreline outside of the western portion of The Cove project area, view to southwest



Figure 83. CSH 1: Salt pans within the coral outcrop along the shoreline outside of the western portion of The Cove project area, view to northwest

**Cultural Impact Assessment for The
Cove Redevelopment Project, Honouliuli
Ahupua'a, 'Ewa District, O'ahu**

**Cultural Impact Assessment for the
The Cove Redevelopment Project,
Honouliuli Ahupua‘a, ‘Ewa District, O‘ahu
TMK: [1] 9-1-057:027**

**Prepared for
Cove Campbell Kobayashi, LLC**

**Prepared by
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**Cultural Surveys Hawai‘i, Inc.
Kailua, Hawai‘i
(Job Code: HONOULIULI 182)**

November 2024

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Management Summary

Reference	Cultural Impact Assessment for The Cove Redevelopment Project, Honouliuli Ahupua‘a, ‘Ewa District, O‘ahu, TMK: [1] 9-1-057:027 (Kaapana et al. 2022)
Date	November 2024
Project Number(s)	Cultural Surveys Hawai‘i, Inc. (CSH) Job Code: HONOULIULI 182
Agencies	State of Hawai‘i, Department of Health, Office of Environmental Quality Control (DOH/OEQC)
Land Jurisdiction	Campbell HI Investor LLC
Project Proponent	Cove Campbell Kobayashi, LLC
Project Location	The project area is located between Ali‘inui Drive and the shoreline <i>makai</i> (seaward)/west of the entrance to the Ko Olina Resort. The project area is depicted on the 1998 Ewa U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle.
Project Description	<p>Cove Campbell Kobayashi, LLC plans to improve the 10.85-acre (4.39-hectare) property located at 92-1089 Ali‘i Nui Drive. This will be the first major improvement of amenities on the property in over 25 years.</p> <p>Use of the property has been primarily for commercial <i>lū‘au</i> (modern term for Hawaiian feast) and entertainment operations since the late 1970s. The on-property facilities that house the current entertainment business date from the property’s last major redevelopment in the early 1990s when the property was zoned and subdivided in recognition of its long-time commercial use. Prior to its commercial use, the property was part of the neighboring Lanikūhonua property which was the residence of Alice Kamokilaikawai Campbell (1884–1971) for over 30 years. Kamokila Campbell was the daughter of James Campbell (1826–1900). The Cove property was acquired by James Campbell in 1877 as a part of his purchase of the <i>ahupua‘a</i> (traditional land division usually extending from the mountains to the sea) of Honouliuli.</p> <p>The intent of the upcoming property improvement is to create an authentic Hawaiian gathering place with an inclusive, spiritual, genuine, surprising, and welcoming character for <i>kama‘āina</i> (native born) and visitors. When completed, new amenities will celebrate the traditions, beauty, and spirit of ancient Hawai‘i in an immersive coastal setting unlike any place on O‘ahu. The revitalized property will be comprised of a unique mix of Hawaiian music and entertainment, dining, shopping, and other activities that will stand out to the community for its unique setting and memorable experiences. The history of the place will be recognized.</p> <p>Planned improvements include a new performing arts venue capable of housing a daily entertainment experience focused on Hawaiian culture.</p>

	<p>To activate the property as a gathering place throughout the day, other planned improvements may include small-scale retail shops, an open-air marketplace showcasing made in Hawai‘i and West O‘ahu goods and services, restaurants showcasing local cuisine and agricultural products, daytime activities appropriate for the coastal setting, and welcoming and engaging common areas. Potential programming may include commercial activities highlighting the sense of the place, educational and cultural workshops, and coordinated cultural events and programs with the neighboring Lanikūhonua Cultural Institute.</p> <p>The property’s improvement will abide by its zoning limit that no more than 30% of the property will be occupied by structures thereby keeping intact a natural sense of open space and <i>makai</i> view planes. Structures will be set well back from the shoreline considering resiliency needs for rising seas and storm events, the natural and cultural sensitivity of the near shore areas and to ensure open access shoreline paths.</p> <p>The improvements are planned for completion around 2025 when the property will be opened to the public with a new and authentic sense of place recognizing its special setting and history.</p>
Project Acreage	The project area is 10.85 acres (4.39 hectares).
Document Purpose	<p>This cultural impact assessment (CIA) was prepared to comply with the State of Hawai‘i’s environmental review process under Hawai‘i Revised Statutes (HRS) §343, which requires consideration of the proposed project’s potential effect on cultural beliefs, practices, and resources. Through document research and cultural consultation efforts, this report provides information compiled to date pertinent to the assessment of the proposed project’s potential impacts to cultural beliefs, practices, and resources (pursuant to the Office of Environmental Quality Control’s <i>Guidelines for Assessing Cultural Impacts</i>) which may include traditional cultural properties (TCPs). These TCPs may be significant historic properties under State of Hawai‘i significance Criterion e, pursuant to Hawai‘i Administrative Rules (HAR) §13-275-6 and §13-284-6. Significance Criterion e refers to historic properties that “have an important value to the 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 or oral accounts—these associations being important to the group’s history and cultural identity” (HAR §13-275-6 and §13-284-6). The document is intended to support the project’s environmental review and may also serve to support the project’s historic preservation review under HRS §6E-8 and HAR §13-284.</p>
Results of Background Research	Background research for this study yielded the following results, presented in approximate chronological order:

	<ol style="list-style-type: none"> 1. Honouliuli is the largest <i>ahupua'a</i> in the <i>moku</i> (district) of 'Ewa. The literal translation of Honouliuli is "dark water," "dark bay," or "blue harbor," and thus is named for the waters of Pearl Harbor which marks the eastern boundary of the <i>ahupua'a</i> (Jarrett 1930:22). Another source translates Honouliuli as "The blue bays or inlets" (<i>Saturday Press</i>, 11 August 1883). Honouliuli appears in the "Mo'olelo of Lepeamoa," the chicken-girl of Pālāma, where Honouliuli is the name of the husband of the chiefess Kapālāma, and grandfather of Lepeamoa (Westervelt 1923:164–184). 2. Honouliuli is generally described as very hot and dry. Evidence for drought-like conditions is further supported by the relative lack of traditional rain names associated with the Honouliuli Ahupua'a. The Nāulu rain is the only known rain associated with Honouliuli. Due to the lack of rainwater, freshwater resources were accessed via a karstic system. 3. In traditional Hawaiian times, the areas of exposed coral (Pleistocene limestone) outcrop were undoubtedly more extensive. According to McAllister (1933), holes and pits in the coral were generally accessed for water, while larger pits, often containing soil, were used for cultivation. McAllister additionally remarked that at the time of his 1930s survey, <i>mai'a</i> (banana; <i>Musaceae</i>) and <i>kō</i> (sugarcane; <i>Saccharum officinarum</i>) were being cultivated within the pit caves (sinkholes) (McAllister 1933:109). 4. The traditional <i>ka'ao</i> (legends) associated with the area speak of the <i>akua</i> (godly) brothers, Kāne and Kanaloa. It was their supernatural feat of hurling <i>pōhaku</i> (stone) across the island that determined the boundaries of land divisions (Sterling and Summers 1978:1). Additional <i>mo'olelo</i> (stories) speak of Hi'iaka and her travels across the plains of 'Ewa. In particular, the <i>wahi pana</i> (storied place) of Kaupe'a is described. Kamakau describes Kaupe'a as a wide plain where a grove of <i>wiliwili</i> (<i>Erythrina sandwicensis</i>) stands (Kamakau 1991a:47). This plain is an <i>ao kuewa</i>, a realm belonging to homeless souls. In general, the <i>kama'āina</i> of both Honouliuli Ahupua'a and 'Ewa District made a point to avoid this place. 5. Pu'uokapolei, a prominent hill located on the 'Ewa coastal plain, was the primary landmark for travelers on the trail running from Pearl Harbor to Wai'anae. A <i>heiau</i> (pre-Christian place of worship) was once on the summit of the hill, however, by the time of McAllister's survey of O'ahu it had been destroyed (McAllister 1933:108). The hill was also used as a point of solar reference or as a place for celestial observations of the winter solstice and summer solstice. A ceremony at a <i>heiau</i> on Pu'uokapolei provides
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	<p>a vantage point to capture the sun setting directly behind Pu‘u Pālailai, a peak farther west in the Wai‘anae range. A coinciding ceremony at Kūpalaha Heiau in Waikīkī captures the same essence as the sun sets behind Pu‘uokapolei.</p> <ol style="list-style-type: none"> 6. John Papa ‘Ī‘Ī, a historian and attendant to Kamehameha I, describes a network of leeward O‘ahu trails that in later historic times encircled and crossed the Wai‘anae Range, allowing passage from West Loch to the Honouliuli lowlands, past Pu‘uokapolei and Waimānalo Gulch to the Wai‘anae coast and onward, along the shoreline of O‘ahu (‘Ī‘Ī 1959:96–98). Following ‘Ī‘Ī’s description, a portion of this trail network would have passed close to the present Farrington Highway alignment, north of the project area. 7. In early historic times, the population of Honouliuli was concentrated at the western edge of West Loch in the vicinity of Kapapahu Point. This area was clearly a major focus of population due to the abundance of marine resources in close proximity to a wide expanse of well-irrigated bottomland suitable for wetland taro cultivation. 8. Following the Māhele of 1848, 96 individual land claims were made in the <i>ahupua‘a</i> of Honouliuli, with 72 claims being registered and awarded by King Kamehameha III to <i>maka‘āinana</i> (commoners). The 72 <i>kuleana</i> (individual parcels) awards were almost all made adjacent to Honouliuli Gulch, which contained fishponds, <i>lo‘i</i> (irrigated taro field), <i>kula</i> (pasture/field), and house lots. 9. Beginning with the time of Western Contact, Hawaiian populations were introduced to many virulent western diseases which began to decimate the native populations. In 1832, a missionary census of Honouliuli recorded the population as 1,026. Within four years the population was down to 870 (Schmitt 1973:19, 22). Between 1848 and 1853, a series of epidemics of measles, influenza, and whooping cough often wiped out whole villages. 10. With the increasing foreign interests on O‘ahu Island during the last half of the nineteenth century, an array of agricultural enterprises was attempted. In 1871, John Coney rented the lands of Honouliuli to James Dowsett and John Meek, who used the land for cattle grazing. In 1877, James Campbell purchased most of Honouliuli Ahupua‘a for a total of \$95,000. 11. Major land use changes came to western Honouliuli when the U.S. military began development in the area. Military installations were constructed both near the coast and in the foothills and upland areas. Barbers Point Military Reservation (formerly Battery Barbers Point from 1937–1944) at Kalaeloa (Barbers
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	<p>Point Beach) was used, beginning in 1921, as a training area for firing 155 millimeter (mm) caliber guns (Payette 2003). Also in the vicinity were Camp Malakole Military Reservation (formerly Honouliuli Military Reservation), used from 1939, and Gilbert Military Reservation, used from 1922–1944. Fort Barrette (a.k.a. Kapolei Military Reservation and Battery Hatch) atop Pu‘uokapolei was in use from 1931–1948 for housing four 3-inch anti-aircraft batteries (Payette 2003). In the 1950s, the site was used as a Nike missile base. Palailai Military Reservation was built in 1921 atop Pu‘u Pālailai in Makakilo and housed Battery Palailai and Fire Control Station B (Payette 2003).</p> <p>12. Beginning in 1939, Alice Kamokilaikawai Campbell, daughter of James and Abigail Kuaihelani Maipinepine Campbell, resided in Lanikūhonua, adjacent to the project area for nearly 30 years. Mrs. Campbell named the area Lanikūhonua which means “where the heavens meet the earth” (Lanikūhonua Cultural Institute 2019). Cultural descendant Nettie Fernandez Tiffany, current caretaker of the Lanikūhonua Institute, stated that her mother, Leilani Fernandez, was a close friend of Alice Campbell (personal communication October 2019). Mrs. Fernandez owned a beach home within the current project area and was the previous caretaker of the Campbell Estate property.</p> <p>13. The 1980s saw a joint venture between Japanese construction giant, Kumagai Gumi, and Hawai‘i developers, Horita Corporation and TSA International, for the development of a \$6 billion resort originally called “West Beach” (<i>The Age</i>, 3 December 1986:34). Four man-made lagoons were constructed, as well as an 18-hole golf course, luxury condominiums, and a hotel (<i>Honolulu Star-Bulletin</i>, 20 August 1998). West Beach was subsequently developed as Ko Olina Resort.</p>
Results of Community Consultation	<p>CSH attempted to contact 80 Hawaiian organizations, agencies, and community members. Of the 13 people that responded, one of these <i>kama‘āina</i> (native born) and/or <i>kūpuna</i> (elder) provided written testimony and one met with CSH for more in-depth interview. Consultation was received from the following community members:</p> <ol style="list-style-type: none"> 1. Nettie Tiffany, <i>kahu</i> (caretaker) of Lanikūhonua Cultural Institute 2. William Aila Jr., Interim Chair of Hawaiian Homes Commission, Director of Department of Hawaiian Homelands 3. Kūhiō Lewis, Chief Executive Officer (CEO) for the Council for Native Hawaiian Advancement (CNHA) 4. Tracie Ka‘ōnohilani Farias Lopes, <i>Kumu Hula</i> (<i>hula</i> teacher) for Ka Lā ‘Ōnohi Mai O Ha‘eha‘e and Instructor at Hawai‘i Pacific University and R. Keawe Lopes, <i>Kumu Hula</i> of Ka Lā ‘Ōnohi Mai

	O Ha‘eha‘e and Director of the Kawaihuelani Center for Hawaiian Language at the University of Hawai‘i at Mānoa
Impacts and Recommendations	<p>Based on information gathered from the community consultation, participants voiced their concerns in the following cultural context:</p> <ol style="list-style-type: none"> 1. Nettie Tiffany, <i>kahu</i> of the Lanikūhonua Cultural Institute, pointed out various native vegetation present at Lanikūhonua. She also pointed out Anianikū and Kō‘ula fishponds located west of the proposed project area. 2. Although not specifically identified, Ms. Tiffany shared that religious practices did occur on the project area and within the surrounding vicinity. 3. William Aila Jr. mentioned there is a “Kuahu [altar] located to the west of Lanikuhonua just beyond the housing but within the County Park that is unimproved.” He believes “that it is a fishing shrine.” He recalled, “When I was younger 40 years ago, fishermen left ho‘okupu [offerings] on it.” Mr. Aila also shared his belief that “Uau Kani (Wedge tail shearwater) continue nest in the area surrounding it.” 4. CSH recommends that the proposed project should allow access to the shoreline in the vicinity of the proposed project area for ongoing traditional cultural practices including the gathering of aquatic resources such as fish, <i>limu</i> (seaweed) and salt and <i>hula</i>. 5. Ms. Tiffany shared that burial remains have been previously identified within the project area. Therefore, there is a probability of disturbing other burials not previously identified if construction and development of this proposed project should continue. 6. Ms. Tiffany emphasized the importance of the protection of one’s self as well as others while on The Cove property and when conducting work. She shared that all work conducted for the project should be done with <i>pono</i> (proper) and workers need to be <i>maka‘ala</i> (aware). It is the intentions and actions of people that guide a reaction from the spirits. If any disturbance of <i>iwi kūpuna</i> (ancestral remains) or any other culturally significant materials such as <i>pōhaku</i> (stone) should occur, both Native Hawaiian and legal protocols need to be followed. 7. CSH recommends the project proponents consult with the Lanikūhonua Cultural Institute during the design process to avoid potential impacts to undisclosed cultural sites and ongoing cultural practices occurring within The Cove Redevelopment project area. 8. Kūhiō Lewis suggested that project proponents could curate a type of continuation of the Makahiki sense of place and celebration by incorporating traditional Hawaiian games such as spear throwing and <i>‘ulu maika</i> (ancient Hawaiian game suggesting bowling) into the storytelling of the area.

	<p>9. Mr. Lewis stated there are “amazing opportunities” for economic development in the area. He noted “our people need jobs, they need opportunities that don’t exist on the west side.” He emphasized that “Hawaiians need to be involved in the economy of this development.” He stated that project proponents should not bring in mainland developers.</p> <p>10. Mr. Lewis suggested the marketplace “should be run by a Hawaiian entity that can work to build up the capacity of the businesses from this area to sell their products.” He noted, “it’s not just the vendors, it’s the people running the marketplace so that the values are inclusive throughout the whole thing.” He stated that the marketplace should not have mainland franchises. It should have Hawai‘i-based products from Hawaiian-based businesses grounded in Hawaiian values.</p> <p>11. Mr. Lewis would like Hawaiian businesses involved in the “facilitation of the operations or curating the stories that are being told at those areas.” He pointed out there are “amazing businesses that practice traditional type of things that could have a place in that Ko Olina Resort area space.” He clarified that he is “not talking about people to demonstrate how to pound <i>poi</i> [the Hawaiian staff of life, made from cooked taro corms] or <i>kalo</i> [Taro; <i>Colocasia esculenta</i>], or show them how to make <i>kapa</i> [tapa; bark cloth].”</p> <p>12. Mr. Lewis stated the project proponents need to focus on incorporating Hawaiian values. He emphasized that the Hawaiian community should be given opportunities to curate stories that are “real and authentic to Hawai‘i.” He suggested shows performed at the proposed amphitheater should be developed and curated by Hawaiians from the area telling their stories. He also suggested the amphitheater should allow charitable uses so the local community could use it for events such as an annual <i>ho‘olaule‘a</i> (celebration), block party, or other gatherings celebrating the area’s history and traditions without paying exorbitant fees.</p> <p>13. Mr. Lewis emphasized that “there needs to be a sense of place for the west side community.” It should not only cater to tourists but should also be a destination for locals. He would like it to be a place where “locals and visitors can live together, be alongside each other.”</p> <p>14. Mr. Lewis stated that “the best way to contribute to the perpetuation of this place” is to find meaningful opportunities for Native Hawaiians to be involved in the economy. He noted, “it’s not even just Hawaiians anymore, [...] all the ethnic groups are struggling to make ends meet” and “have no meaningful involvement in the economy.” He pointed out that every day, droves from the local community are packing up their stuff,</p>
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	<p>moving to the mainland and taking with them “the fabric of <i>aloha</i> (love), the connection to Hawai‘i, the stories of Hawai‘i.” He emphasized, “That’s how you perpetuate Hawai‘i, you allow the people from this place to stay here.”</p> <p>15. Tracie Ka‘ōnohilani Farias Lopes stated that their <i>‘ohana</i> family has “frequented the beautiful beaches from Ko ‘Olina to Nene‘u [Pōka‘ī Bay] for family gatherings.” They have also “actively fished the reefs along the coast and enjoyed manini [very common reef surgeonfish; <i>Acanthurus triostegus</i>], weke [Certain species of the <i>Mullidae</i>, surmullets or goatfish], kala [Surgeonfish, unicorn fish, <i>Teuthidae</i>; <i>Naso hexacanthus</i>, <i>N. unicornis</i>, <i>N. brevirostris</i>], maiko [surgeonfish; <i>Acanthurus nigroris</i>], he‘e [Octopus; <i>Polypus</i> sp.] and ‘ō‘io [Ladyfish, bonefish; <i>Albula vulpes</i>] from Keaulana, Kalaniana‘ole Beach Park, Ulehawa, Pu‘uohulu-Kai, and Mā‘ili.”</p> <p>16. Mrs. Lopes emphasized that “As kumu hula, educators and creative show directors, the vision for this development is exciting because Hawai‘i, the people of Hawai‘i and the visitors who visit our home deserve to see authentic Hawaiian entertainment in Hawai‘i.” She stated that Ko ‘Olina will be a “beautiful setting” for <i>kama ‘āina</i> and visitors to see “authentic Hawaiian entertainment.”</p> <p>17. Mrs. Lopes emphasized that “Hawai‘i needs a show that will only focus on the traditions, beauty and excitement of Hawaiian culture and dance and not have to journey through Polynesia for a great experience.” She added, “The Hawaiian experience is great on its own and we know this because we live this. It’s time to put Hawai‘i first in the entertainment industry here.”</p> <p>18. Mrs. Lopes was asked to create a new show at the Paradise Cove Lū‘au in 2016. She recalled that “With the helpful insight and research of Keawe [Lopes], the memories of many past shows, the collaboration of cultural resource people, a template for kumu to work from and kumu/director guided practices with all cast members,” they were able to “open three new shows in only 5 months.” To ensure the show was unique, Mr. and Mrs. Lopes “composed and selected songs celebrating O‘ahu and Hawai‘i while incorporating traditional and contemporary elements. Choreography was then created and taught to the dancers to perform by the kumu hula.” One of the songs created during this process was “Nani Ko‘olina.”</p> <p>19. Mrs. Lopes expressed her hope that more <i>mele</i> (songs) like “Nani Ko‘olina” can be “composed to share as hula presentations at the proposed entertainment venue that features what is truly Hawaiian thought in poetic expression.” She emphasized that the “key is to bring creative and culturally grounded kumu who are connected to the area and culture to build a solid Hawaiian show.”</p>
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	<p>20. Mrs. Lopes stated that including “mele like ‘Nani Ko‘olina’ in the show, repopulating the seashore with kauna‘oa [<i>Cuscuta sandwichiana</i>], sharing stories of Kākuhihewa and sharing mele that tell of the delicacies of the ocean, food preparation and fishing practices perhaps can all support the vision of the entertainment aspect of the project.” She emphasized that the “most important is to have a kumu hula who is trained and culturally grounded lead the entertainment.”</p> <p>21. Mrs. Lopes thanked James Campbell Company for “the initiative to use this land to promote, celebrate and perpetuate our Hawaiian cultural art forms, language and mo‘olelo for all ages to experience.” She emphasized that “This will be a significant step forward and the James Campbell Company will be at the forefront of this significant movement with mele like “ ‘Nani Ko‘olina’ and ‘He Mele Inoa No Kuhihewa’ and the collective creativity of our kanaka [Hawaiian people] today.” She also noted that “the show and other cultural elements can provide magical and meaningful experiences for both kama‘āina and malihini [tourist].”</p> <p>22. Mrs. Lopes stated, “For us, it’s important to entertain but to also educate.” She noted, “One of the most popular daily activities at any hotel or show for our malihini is the hula [dance] lesson,” however, she feels that “sometimes these activities can be too commercial and sometimes inappropriate when taught for the mass because how we run our hālau is very, very different.” She suggests the song, “Hula In Paradise,” which she composed specifically for this area would be a “perfect hula to teach because it is in English and it acknowledges nature that surrounds you while on the property and also shares some cultural practices as well in a fun way.” The chorus of the song is an example of “how culture and entertainment can be incorporated and still be tasteful to all.”</p> <p>23. The Lopes ‘Ohana has a “special spiritual connection to Ko ‘Olina and Lanikūhonua.” Mrs. Lopes recalled taking her daughters to Anianikū to experience the ocean for the first time and to dedicate them to Ke Akua. She noted that visting Ko ‘Olina is “not just relaxation time but a re-connect to our past experiences and inspires future experiences as well.”</p> <p>24. Mrs. Lopes also noted the “ocean and shoreline of Nānākuli and the proposed area of revitalization in Ko‘olina” is where she was “water baptized as an adult” and where she “spent the most time with my kumu [teacher] O’Brian, kumu Thaddius and Charles Ka‘upu while learning hula and oli [chant].” Her <i>kumu</i> O’Brian set aside “special times of the year on property to re-unite with hālau [house for <i>hula</i> instruction] members,” as well as “time for Kapu kai or ceremonial preparations in the ocean for his dancers to</p>
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	<p>meditate, spiritually cleanse and pray before important hula and life events.” She emphasized that “these experiences are so important to us as practitioners.”</p> <p>25. Mr. and Mrs. Lopes stressed the importance of maintaining access to the ocean so her <i>‘ohana</i>, her <i>hālau</i>, and other cultural practitioners may continue their practices. She suggested “creating a formal agreement between practitioners, the estate and the proposed kahu mālama [caretaker] of the area to allow our people to conduct our training and formal ceremonies there as our way of reconnecting to our sources of strength and healing taught to us by our kumu and kūpuna.”</p> <p>26. Mrs. Lopes noted there are burials within the property and “we should always be respectful when entering the property or near sites.” She thanked Auntie Nettie Tiffany for “holding the ‘ike [knowledge] of the locations of these resting places of our kūpuna,” as well as the project proponents for “taking care of these areas when the project begins.”</p> <p>27. Mrs. Lopes mentioned there are “two hula mounds” at the Ocean Garden. “The larger mound faces the ocean and the other faces the entrance.” She expressed her “support to keep these mounds in its current location and condition.” She stated that the mounds “provide natural staging for entertainment, a space for the daily educational activities and possibly hula ceremonial gatherings and presentations.” She emphasized that “They will continue to be special and very useful areas if preserved.”</p> <p>28. Mr. and Mrs. Lopes strongly support featuring Hawaiian artisans in the proposed marketplace. She stated, “If it is made by the artists of that area themselves, these items are not just souvenirs but can become family heirlooms in the future.” She noted, “We have so many artists in Hawai‘i and being able to feature authentic Hawaiian work in galleries or in shops to purchase in this area is exciting and offers our malihini and kama‘āina a unique shopping experience while supporting our community.”</p> <p>29. Mr. and Mrs. Lopes also expressed gratitude that this “project has the potential of creating numerous jobs for residents in the area.” She emphasized that “This is so important! By offering Hawaiian marketplace and authentic Hawaiian entertainment like this, we believe that many hula practitioners will want to be a part of it and will travel from all moku of O‘ahu to do so.”</p> <p>30. Mr. and Mrs. Lopes are willing to “participate and creatively collaborate” with Auntie Nettie, Uncle Kimo Alama Keaulana, and Twyla Mendez, all of whom have connections with Campbell Estate and are respected in the <i>hula</i> community. Mrs. Lopes noted, “We all uphold legacy and create beautiful experiences in all educational and entertainment settings so this would be exciting.”</p>
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	<p>31. Project construction workers and all other personnel involved in the construction and related activities of the project should be informed of the possibility of inadvertent cultural finds, including human remains. In the event that any potential historic properties are identified during construction activities, all activities will cease and the SHPD will be notified pursuant to HAR §13-280-3. In the event that <i>iwi kūpuna</i> are identified, all earth moving activities in the area will stop, the area will be cordoned off, and the SHPD and Police Department will be notified pursuant to HAR §13-300-40. In addition, in the event of an inadvertent discovery of human remains, the completion of a burial treatment plan, in compliance with HAR §13-300 and HRS §6E-43, is recommended.</p> <p>32. In the event that <i>iwi kūpuna</i> and/or cultural finds are encountered during construction, project proponents should consult with cultural and lineal descendants of the area to develop a reinterment plan and cultural preservation plan for proper cultural protocol, curation, and long-term maintenance.</p>
Ka Pa‘akai Analysis	<p>This project also includes a Ka Pa‘akai Analysis Study. In <i>Ka Pa ‘akai O Ka ‘Aina v. Land Use Commission</i>, the Hawai‘i Supreme Court</p> <p>[...] articulated an analytical framework to assist state agencies in balancing the State’s obligation to protect traditional and customary practices against private property (as well as competing public) interests, by requiring specific findings and conclusions about:</p> <ol style="list-style-type: none"> 1. the identity and scope of ‘valued cultural, historical, or natural resources’ in the relevant area, including the extent to which traditional and customary native Hawaiian rights are exercised in relevant area; 2. the extent to which those resources—including traditional and customary native Hawaiian rights—will be affected or impaired by the proposed action; and 3. the feasible action, if any, to be taken by the [agency] to reasonably protect native Hawaiian rights if they are found to exist. [<i>Ka Pa‘akai O Ka ‘Aina v. Land Use Comm’n</i>, 94 Hawai‘i 31, 35, 47 and 52–53, 7 P.3d 1068, 1072, 1084 and 1089–90 (2000)] <p>Based on information gathered from the cultural and historical background, and community consultation for this project, there are a number of traditional cultural practices and resources to consider.</p> <p>During consultation, Ms. Tiffany pointed out various native vegetation that are present at Lanikūhonua Cultural Institute.</p>

	<p>Ms. Tiffany, Mr. Lewis, and Mrs. Lopes discussed marine resources in the vicinity of the project area. Ms. Tiffany pointed out Anianikū and Kō‘ula fishponds which are located west of the proposed project area. Mr. Lewis mentioned that people swim, dive, and spear fish at Milo Cove (just north of the project area). Mrs. Lopes stated that her ‘ohana has “actively fished the reefs along the coast and enjoyed manini, weke, kala, maiko, he‘e and ‘ō‘io from Keaulana, Kalaniana‘ole Beach Park, Ulehawa, Pu‘uohulu-Kai, and Mā‘ili.”</p> <p>Mr. Lewis, Ms. Tiffany, Mr. Aila Jr., and Mrs. Lopes discussed the spiritual significance of the area. Mr. Lewis mentioned that in traditional times, the area was “where spirits would roam.” He also mentioned the Makahiki season begins in Kapolei with ceremonies, dancing, and games and continues across all the other islands. Ms. Tiffany noted that religious practices did occur on the project area and within the surrounding vicinity. Mr. Aila Jr. mentioned there is a <i>kuahu</i> (altar) where fishermen left <i>ho‘okupu</i> (offerings) located “to the west of Lanikuhonua just beyond the housing but within the County Park that is unimproved.” Mrs. Lopes was “water baptized as an adult” in the “ocean and shoreline of Nānākuli and the proposed area of revitalization in Ko‘olina.” She also brought her daughters to Anianikū to conduct ceremonies dedicating them to Ke Akua. She noted that these ceremonies bound them spiritually to this place.</p> <p>Mr. and Mrs. Lopes have trained and performed <i>hula</i> at both Lanikūhonua and Paradise Cove over the last 17 years. Their <i>halau</i>, Ka Lā ‘Ōnohi Mai O Ha‘eha‘e, had their very first meeting at Lanikūhonua. Mrs. Lopes’ <i>kumu</i> O’Brian set aside “time for Kapu kai or ceremonial preparations in the ocean for his dancers to meditate, spiritually cleanse and pray before important hula and life events.” She emphasized that “these experiences are so important to us as practitioners.”</p> <p>Mrs. Lopes mentioned “two hula mounds” at the Ocean Garden that “provide natural staging for entertainment, a space for the daily educational activities and possibly hula ceremonial gatherings and presentations.”</p> <p>Five burials (SIHP # 50-80-12-4968) were documented during previous archaeological studies (Jourdane 1995, Hammatt 1995) conducted within the project area. Based on associated artifacts, at least two of these burials were post-Contact.</p> <p>Ms. Tiffany and Mrs. Lopes mentioned that burial remains have been previously identified within the project area and discussed the probability of disturbing other burials not previously identified during construction and development of the proposed project.</p>
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	<p>Community members expressed concerns regarding restrictions to access to the shoreline in the vicinity of the area for the gathering of aquatic resources and traditional cultural practices associated with religious activities and <i>hula</i>.</p> <p>Mr. Lewis noted the importance of providing and maintaining access to the ocean for marine resources. He suggested making the ocean easily accessible because in order to access the beach now near the Lanikuhonua Cultural Institute, people have to “go around from the point.”</p> <p>CSH recommends that the proposed project should maintain access to the shoreline in the vicinity of the proposed project area for ongoing traditional cultural practices associated with the gathering of aquatic resources such as fish, <i>limu</i> (seaweed) and salt.</p> <p>Mrs. Lopes supports keeping the “two hula mounds” at the Ocean Garden in their “current location and condition.” She emphasized that, “They will continue to be special and very useful areas if preserved.”</p> <p>Mr. and Mrs. Lopes stressed the importance of maintaining access to the ocean so her <i>‘ohana</i>, her <i>hālau</i>, and other cultural practitioners may continue their practices. She suggested “creating a formal agreement between practitioners, the estate and the proposed kahu mālama [caretaker] of the area to allow our people to conduct our training and formal ceremonies there as our way of reconnecting to our sources of strength and healing taught to us by our kumu and kūpuna.”</p> <p>CSH recommends the project proponents continue to consult with the Lanikūhonua Cultural Institute during the design process to avoid potential impacts to undisclosed cultural sites and ongoing cultural practices occurring within The Cove Redevelopment project area.</p> <p>Ms. Tiffany stated that all work conducted for the project should be done with <i>pono</i> and workers need to be <i>maka‘ala</i>. She pointed out that it is the intentions and actions of people that guide a reaction from the spirits. If any disturbance of <i>iwi kūpuna</i> should occur, both Native Hawaiian and legal protocols need to be followed.</p> <p>Project construction workers and all other personnel involved in the construction and related activities of the project should be informed of the possibility of inadvertent cultural finds, including human remains. In the event that any potential historic properties are identified during construction activities, all activities will cease and the SHPD will be notified pursuant to HAR §13-280-3. In the event that <i>iwi kūpuna</i> are identified, all earth moving activities in the area will stop, the area will be cordoned off, and the SHPD and Police Department will be notified pursuant to HAR §13-300-40. In addition, in the event of an inadvertent</p>
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	<p>discovery of human remains, the completion of a burial treatment plan, in compliance with HAR §13-300 and HRS §6E-43, is recommended.</p> <p>In the event that <i>iwi kūpuna</i> and/or cultural finds are encountered during construction, project proponents should consult with cultural and lineal descendants of the area to develop a reinterment plan and cultural preservation plan for proper cultural protocol, curation, and long-term maintenance.</p>
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Section 1 Introduction

1.1 Project Background

At the request of Cove Campbell Kobayashi, LLC, Cultural Surveys Hawai‘i, Inc. (CSH) has prepared this cultural impact assessment (CIA) for The Cove Redevelopment project, Honouliuli Ahupua‘a, ‘Ewa District, O‘ahu, TMK: [1] 9-1-057:027. The project area is located between Ali‘i Nui Drive and the shoreline, *makai* (seaward)/west of the entrance to the Ko Olina Resort. The project area is depicted on a portion of the 1998 Ewa U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 1), a tax map plat (Figure 2), and a 2013 aerial photograph (Figure 3).

Cove Campbell Kobayashi, LLC plans to improve the 10.85-acre (4.39-hectare) property located at 92-1089 Ali‘i Nui Drive (The Cove property). This will be the first major improvement of amenities on the property in over 25 years.

Use of the property has been primarily for commercial *lū‘au* (modern term for Hawaiian feast) and entertainment operations since the late 1970s. The on-property facilities that house the current entertainment business date from the property’s last major redevelopment in the early 1990s when the property was zoned and subdivided in recognition of its long-time commercial use. Prior to its commercial use, the property was part of the neighboring Lanikūhonua property which was the residence of Alice Kamokilaikawai Campbell (1884–1971) for over 30 years. Kamokila Campbell was the daughter of James Campbell (1826–1900). The Cove property was acquired by James Campbell in 1877 as a part of his purchase of the *ahupua‘a* (traditional land division) of Honouliuli.

The intent of the upcoming property improvement is to create an authentic Hawaiian gathering place with an inclusive, spiritual, genuine, surprising, and welcoming character for *kama‘āina* (native born) and visitors. When completed, new amenities will celebrate the traditions, beauty, and spirit of ancient Hawai‘i in an immersive coastal setting unlike any place on O‘ahu. The revitalized property will be comprised of a unique mix of Hawaiian music and entertainment, dining, shopping, and other activities that will stand out to the community for its unique setting and memorable experiences. The history of the place will be recognized.

Planned improvements include a new performing arts venue capable of housing a daily entertainment experience focused on Hawaiian culture. To activate the property as a gathering place throughout the day, other planned improvements may include small-scale retail shops, an open-air marketplace showcasing made in Hawai‘i and West O‘ahu goods and services, restaurants showcasing local cuisine and agricultural products, daytime activities appropriate for the coastal setting, and welcoming and engaging common areas. Potential programming may include commercial activities highlighting the sense of the place, educational and cultural workshops, and coordinated cultural events and programs with the neighboring Lanikūhonua Cultural Institute.

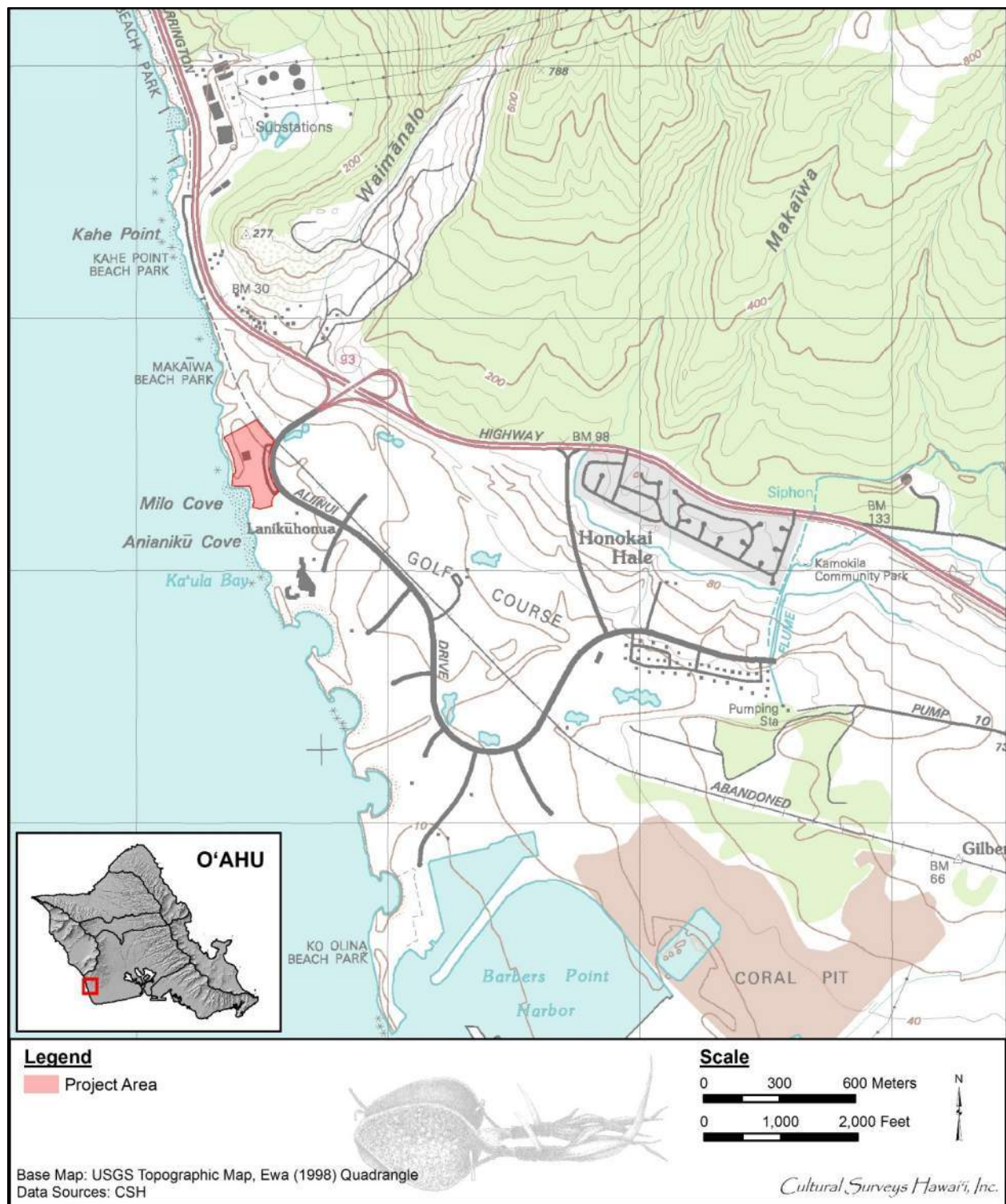


Figure 1. Portion of the 1998 Ewa USGS 7.5-minute topographic quadrangle showing the location of the project area

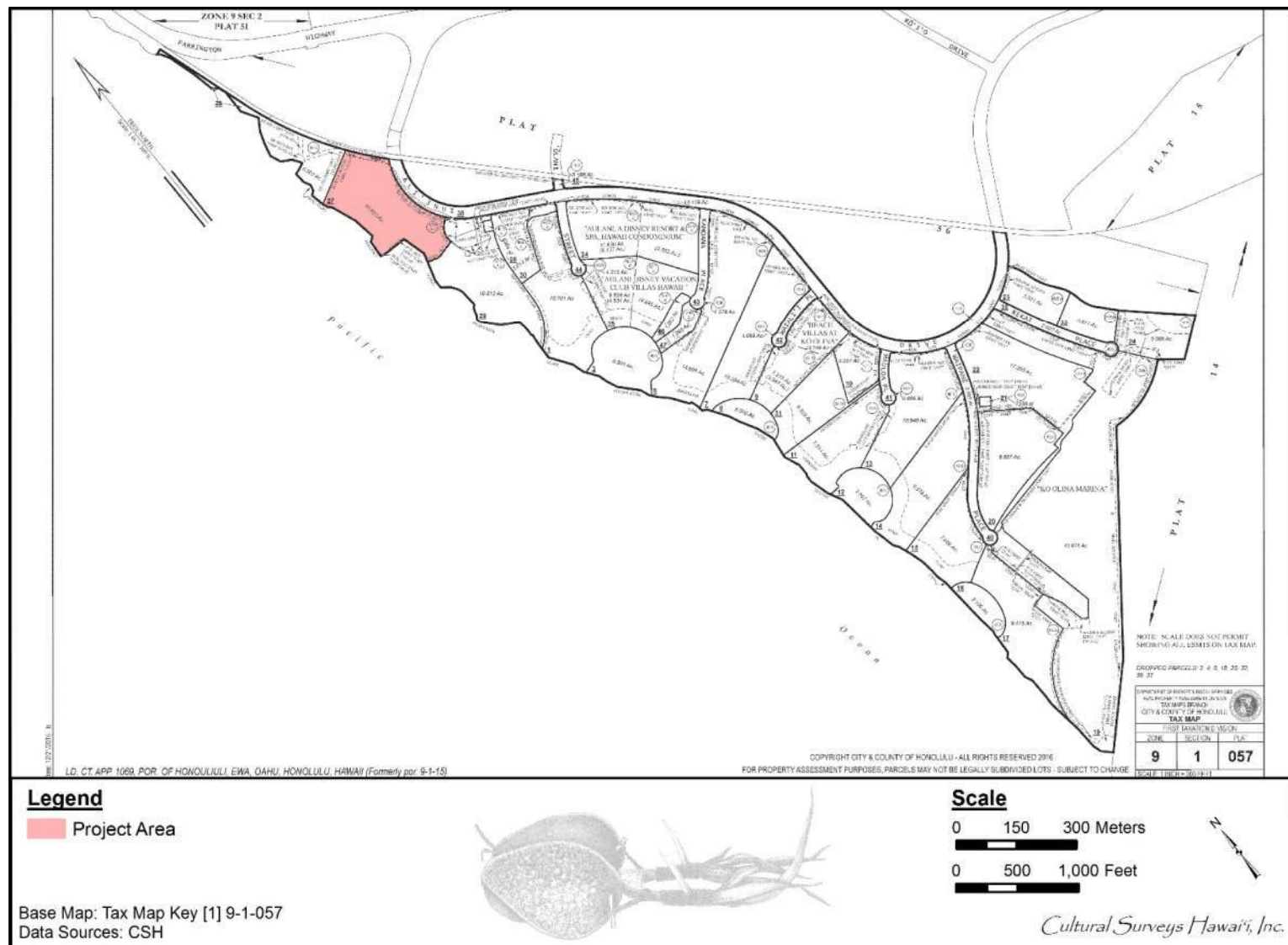


Figure 2. TMK: [1] 9-1-057 showing the location of the project area (Hawai'i TMK Service 2016)



Figure 3. 2013 Google Earth aerial image showing the project area

The property’s improvement will abide by its zoning limit that dictates no more than 30% of the property will be occupied by structures thereby keeping intact a natural sense of open space and *makai* view planes. Structures will be set well back from the shoreline considering resiliency needs for rising seas and storm events, the natural and cultural sensitivity of the near shore areas, and to ensure open access shoreline paths.

The improvements are planned for completion around 2025 when the property will be opened to the public with a new and authentic sense of place recognizing its special setting and history.

1.2 Document Purpose

This CIA was prepared to comply with the State of Hawai‘i’s environmental review process under Hawai‘i Revised Statutes (HRS) §343, which requires consideration of the proposed project’s potential effect on cultural beliefs, practices, and resources. Through document research, this report provides information compiled to date pertinent to the assessment of the proposed project’s potential impacts to cultural beliefs, practices, and resources (pursuant to the Office of Environmental Quality Control’s *Guidelines for Assessing Cultural Impacts*) which may include traditional cultural properties (TCPs). These TCPs may be significant historic properties under State of Hawai‘i significance Criterion e, pursuant to Hawai‘i Administrative Rules (HAR) §13-275-6 and §13-284-6. Significance Criterion e refers to historic properties that “have an important value to the 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 or oral accounts—these associations being important to the group’s history and cultural identity” (HAR §13-275-6 and §13-284-6). The document will likely also support the project’s historic preservation review under HRS §6E.

The purpose of the Ka Pa‘akai Analysis is to assist the client and responsible overseeing agencies to ensure the applicant has sufficiently assessed that the proposed project/action will not harm traditional and customary practices exercised by Native Hawaiians; and to provide sufficient documentation to support the overseeing agency’s assessment.

In *Ka Pa‘akai O Ka ‘Aina v. Land Use Commission*, the Hawai‘i Supreme Court

[...] articulated an analytical framework to assist state agencies in balancing the State’s obligation to protect traditional and customary practices against private property (as well as competing public) interests, by requiring specific findings and conclusions about:

- 1) the identity and scope of ‘valued cultural, historical, or natural resources’ in the relevant area, including the extent to which traditional and customary native Hawaiian rights are exercised in relevant area;
- 2) the extent to which those resources—including traditional and customary native Hawaiian rights—will be affected or impaired by the proposed action; and
- 3) the feasible action, if any, to be taken by the [agency] to reasonably protect native Hawaiian rights if they are found to exist. [*Ka Pa‘akai O Ka ‘Aina v. Land Use Comm’n*, 94 Hawai‘i 31, 35, 47 and 52–53, 7 P.3d 1068, 1072, 1084 and 1089–90 (2000)]

1.3 Scope of Work

The scope of work for this CIA includes the following:

1. Examination of cultural and historical resources, including Land Commission documents, historic maps, and previous research reports, with the specific purpose of identifying traditional Hawaiian activities including gathering of plant, animal, and other resources or agricultural pursuits as may be indicated in the historic record.
2. Review of previous archaeological work at and near the subject parcel that may be relevant to reconstructions of traditional land use activities; and to the identification and description of cultural resources, practices, and beliefs associated with the parcel.
3. Consultation and interviews with knowledgeable parties regarding cultural and natural resources and practices at or near the parcel; present and past uses of the parcel; and/or other practices, uses, or traditions associated with the parcel and environs.
4. Preparation of a report that summarizes the results of these research activities and provides recommendations based on findings.

1.4 Natural Environment

The project area is on the southwest coast of O'ahu, with elevations typically below 5 m above mean sea level. Annual temperature in the project area averages 23.8° C (74.7° F) (Giambelluca et al. 2014). The mean annual rainfall is between 567 mm (22.19 inches) and 569 mm (22.43 inches) (Giambelluca et al. 2013). Surface water in the vicinity is quite limited. Makaīwa Gulch and Waimānalo Gulch to the northeast host intermittent streams, but these rarely flow except during major storms.

1.4.1 *Ka Lepo* (Soils)

According to the U.S. Department of Agriculture (USDA) Soil Survey Geographic (SSURGO) database (2001) and soil survey data gathered by Foote et al. (1972), the project area's soils are diverse (Figure 4). The northern portion of the project area extending to a small portion of the shoreline is within Keaau clay, 0 to 2% slopes (KmA). The remainder of the shoreline is within coral outcrop (CR). The southeastern portion of the project area is within Keaau clay, saline, 0 to 2% slopes (KmbA). The southern portion of the project area is adjacent to Jaucas sand, 0 to 15% slopes (JaC).

Keaau series are described as follows:

This series consists of poorly drained soils on the coastal plains on the island of Oahu. These soils are developed in alluvium deposited over reef limestone or consolidated coral sand. They are nearly level and gently sloping. Elevations range from 5 to 40 feet. The annual rainfall amounts to 20 to 35 inches. Most of the rainfall occurs between November and April. The mean annual soil temperature is 73° F. Keaau soils are geographically associated with Kaloko, Mokuleia, and Pearl Harbor soils.

These soils are used for sugarcane and pasture. The natural vegetation consists of kiawe, bermudagrass, bristly foxtail, and fingergrass [Foote et al. 1972:64–65]

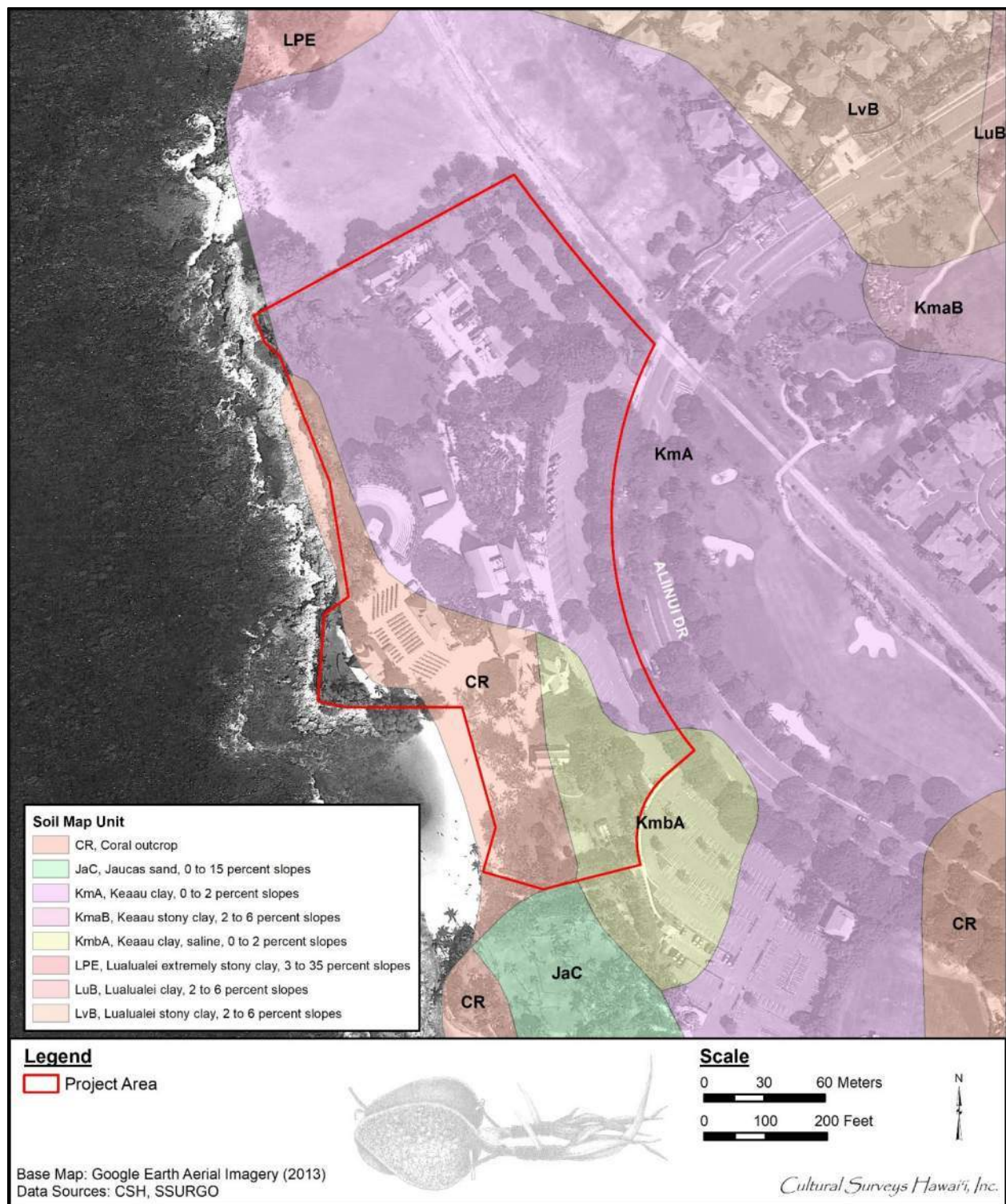


Figure 4. Portion of a 2013 Google Earth aerial imagery with overlay of *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (Foote et al. 1972; USDA SSURGO 2001), indicating soil types within and surrounding the project area

Coral outcrop soils are described as follows:

Coral outcrop (CR) consists of coral or cemented calcareous sand on the island of Oahu. The coral reefs formed in shallow ocean water during the time the ocean stand was at a higher level. Small areas of coral outcrop are exposed on the ocean shore, on the coastal plains, and at the foot of the uplands. Elevations range from sea level to approximately 100 feet. The annual rainfall amounts to 18 to 40 inches. Coral outcrop is geographically associated with Jaucas, Keaau, and Mokuleia soils.

Coral outcrop makes up about 80 to 90 percent of the acreage. The remaining 10 to 20 percent consists of a thin layer of friable, red soil material in cracks, crevices, and depressions within the coral outcrop. This soil material is similar to that of the Malama series.

This land type is used for military installations quarries, and urban development. Vegetation is sparse. It consists of kiawe, koa haole, and fingergrass. [Foote et al. 1972:29]

The Jaucas soil series is described as follows:

excessively drained, calcareous soils that occur as narrow strips on coastal plains, adjacent to the ocean. These soils occur on all islands of this survey area. They developed in wind- and water-deposited sand from coral and seashells. They are nearly level to strongly sloping. Elevations range from sea level to 100 feet [...] [Foote et al. 1972:48]

1.4.2 *Ka Makani* (Winds)

For Native Hawaiians, *makani* (wind) were named for various reasons. Names of winds were assigned based on but not limited to their direction, strength, and geographic location. David Malo, a Native Hawaiian historian, explains some general terms related to wind:

[...] There was the *kona*, a wind from the south, of great violence and of wide extent. It affected all sides of an island, east, west, north, and south, and continued for many days [...] The *kona* wind often brings rain, though sometimes it is rainless. [...] The *hoolua*, a wind that blows from the north, sometimes brings rain and sometimes is rainless. [...] The *hau* is a wind from the mountains, and they are thought to be the cause of it, because this wind invariably blows from the mountains outwards towards the circumference of the island. [Malo 1951:14]

Malo has supplied a foundation of names for winds, however, there is an abundance of names in various stories and chants.

A'e loa is a term given to the prevailing northeasterly trade winds (Nakuina 1992:138) along with *A'e* (Pukui and Elbert 1986:3), *Moa'e*, and *Moa'e Lehua* (Pukui and Elbert 1986:249). In the traditional story *The Wind Gourd of La'amaomao*, Pāka'a and his son Kūapāka'a are descendants of the wind goddess La'amaomao whose traditional home was in a gourd that also contained all of the winds of Hawai'i. La'amaomao controlled and called forth the winds by chanting their names. *Moa'ekū* is a specific wind of 'Ewaloa.

*He Moaeku ko Ewaloa
He Kehau ko Wai'ōpua
He Waikoloa ko Lihue
He Kona ko Puuokapolei
He Maunuunu ko Pu'uloa
[Ke Aloha Aina 1904:3]*

Moa'e-ku is of 'Ewaloa
Kēhau is of Wai'ōpua
Waikōloa is of Līhu'e
Kona is of Pu'uokapolei
Māunuunu is of Pu'uloa
[Nakuina 1992:51]

In the Legend of Halemano, the romantic O'ahu anti-hero chanted a love song with a reference to the winds of Līhu'e:

*Huli ae la Kaala kau i luna,
Waiho wale kai o Pokai,

Nānā wale ke aloha i Honouliuli,
Kokolo kēhau he makani no Lihue.*

Search is made to the top of Kaala,
The lower end of Pokai is plainly
seen.
Love looks in from Honouliuli,
The dew comes creeping, it is like the
wind of Lihue.

[Fornander 1919:5(2):252–253]

In *The Epic Tale of Hi'iakaikapoliopele*, the goddess Hi'iaka, the young sister of the fire goddess Pele, born as an egg and carefully warmed and nourished by Pele herself (Westervelt 1916:69), embarks on a quest to retrieve her older sister's lover, Lohi'au. While traversing the island chain, Hi'iaka encounters various gods and demi-gods, spirits and shapeshifters, as well as chiefs and commoners. According to the *mo'olelo*, Hi'iaka watches as her beloved friend Hōpoe is killed by the embers of her sister Pele. She chants atop of Pōhākea and tells of the winds of Waikōloa and Wai'ōpua.

*KAU HO'OKAHI HANERI A
ME KANALIMAKUMAMĀKOLU
Aloha ku'u hoa i ka pū'ali lā*

*A luna i Pōhākea, he luna o Kamaoha
He lae 'ino 'o Maunauna
'O Līhu'e ke hele 'ia
Honi i ke 'ala mau'u
I ke 'ala o ke kupukupu
E linoa ala e ka Waikōloa
E ka makani he Wai'ōpua
Ku'u pua, me he pua lā i ku'u maka
Ka 'oni i ka haku 'ōnohi, kā ka wai lā i li'u*

I ku'u maka lā, e uē au lā.

[Ho'oulumāhie 2008a:280; Ho'oulumāhie 2008b:262]

CHANT ONE HUNDRED
AND FIFTY-THREE

Alas my friend of the rugged
mountain pass

On high at Pohakea, above Kamaoha
Maunauna is a dangerous escarpment
Lihu'e's high plain yet to be traversed
Inhaling the scent of the grasses
The fragrance of kupukupu fern
Entwined by the Waikoloa breeze
By the wind called Wai'ōpua

My blossom, like a flower in my sight
Moving before my eyes, washed salty
by tears

There in my sight, I weep.

1.4.3 Ka Ua (Rain)

Precipitation is a major component of the water cycle and is responsible for depositing *wai* (fresh water) on local flora. *Kānaka* (Native Hawaiians) recognized two distinct annual seasons. The first, known as *kau* (period of time, especially summer) lasts typically from May to October and is a season marked by a high-sun period corresponding to warmer temperatures and steady

trade winds. The second season, *ho'oilō* (winter, rainy season) continues through the end of the year from November to April and is a much cooler period when trade winds are less frequent, and widespread storms and rainfall become more common (Giambelluca et al. 1986:17). Each small geographic area on O'ahu had a Hawaiian name for its own rains. According to Akana and Gonzalez (2015):

Our kupuna had an intimate relationship with the elements. They were keen observers of their environment, with all of its life-giving and life-taking forces. They had a nuanced understanding of the rains of their home. They knew that one place could have several different rains, and that each rain was distinguishable from another. They knew when a particular rain would fall, its color, duration, intensity, the path it would take, the sound it made on the trees, the scent it carried, and the effect it had on people. [Akana and Gonzalez 2015:XV]

Honouliuli was no exception to this naming practice. Despite the relative lack of rainfall in this area, the Nāulu rain is known to be associated with the *ahupua'a* of Honouliuli. This rain is generally understood as a sudden shower, and more commonly associated with Kawaihae, Hawai'i and Ni'ihau (notoriously dry locations as well) (Akana and Gonzalez 2015:187).

The Nāulu rain is mentioned in a chant offered by Hi'iakaikapoliopole, the younger sister of the volcanic goddess Pele. In *Ka Mo'olelo o Hi'iakaikapoliopole*, the goddess Hi'iaka, embarks on a quest to retrieve her older sister's lover, Lohi'auipo. During Hi'iaka's travel through 'Ewa, she recites an affectionate *oli* (chant) as she recalls the Kai'okia edict placed on her and Lohi'auipo by Pele. One of the main focal points in this chant is the line, "*Ke koi lā i ke ao o ka Nāulu e hanini i ka wai ola ihola nā kupa kama'āina i ka wai a ka 'ōpua.*" This line introduces the Nāulu rain as the rain of Honouliuli. The line continues to say the water from the clouds is what the natives survive on.

<i>Ola i ke ahe a ka makani Māunuunu</i>	I am spared by the Māunuunu wind
<i>I ka hapahapai mai aka makani 'Ao'aoa</i>	By the uplifting 'Ao'aoa breeze
<i>Ke koi lā i ke ao o ka Nāulu e hanini</i>	Urging the Nāulu storm clouds
<i>i ka wai</i>	to pour down their waters
<i>Ola ihola nā kupa kama'āina i ka wai</i>	The natives here survive on water
<i>a ka 'ōpua</i>	from the clouds
<i>Ke halihali a'ela nā 'ōpua i ke awa lau</i>	Which billowing clouds carry along
	to the branching lochs
<i>E koi mai ana iā Hi'iaka e kūo'e helei ke</i>	Compelling Hi'iaka to trudge that
<i>kula</i>	open stretch
[Ho'oulumāhiehie 2008a:294–295]	[Ho'oulumāhiehie 2008b:275–276]

The general lack of rain names is indicative of historic environmental conditions within the *ahupua'a*; these conditions, in turn, shaped agricultural practices in the area. Environmental limitations forced ingenuity and innovation. McAllister provides written evidence of the innovative ways in which Honouliuli's *kama'āina* approached agricultural activities:

[...] It is probable that the holes and pits in the coral were formerly used by Hawaiians. Frequently the soil on the floor of the larger pits was used for cultivation, and even today one comes upon bananas and Hawaiian sugar cane still

growing in them. They afford shelter and protection, but I doubt if previous to the time of Cook there was ever a large population here. [McAllister 1933:109]

1.4.4 *Nā Kahawai* (Streams)

Honouliuli Ahupua'a and the encompassing 'Ewa District are notoriously dry. Agricultural sinkholes were especially important on the 'Ewa plain. In traditional Hawaiian times, the areas of exposed coral (*Pleistocene* limestone) outcrop were undoubtedly more extensive. Limestone outcrop, composed of detritus, calcareous sand, reef dwelling organisms, and coralline algae, is subject to dissolution from water. This dissolution has formed a series of connected and isolated caves under the 'Ewa Plains. Although invisible to human eyes, streams flow under the surface of Honouliuli via the karsic system. "Sink holes" would accumulate water within them via a subterranean water or karst system; this water also contained nutrient-rich sediment that allowed plants such as *kalo* (taro; *Calocasia esculenta*), *kī* (ti; *Cordyline fruticosa*), and *noni* (Indian mulberry; *Morinda citrifolia*) to survive.

To the west are fairly steep gradient gulches forming a more linear than dendritic drainage pattern. The major gulches from east to west are Kalo'i, Hunehune, Makalapa, Makakilo, Awanui, Pālailai, Makaiwa, Waimānalo, and Limaloa. These gulches are steep-sided in the uplands and generally of a high gradient until they emerge onto the flat 'Ewa plain. The alluvium they have carried has spread out in delta fashion over the *mauka* (toward the mountains) portions of the plain, which comprises a dramatic depositional environment at the stream gradient change. These gulches are generally dry, but during seasonal Kona storms, they carry immense quantities of runoff onto the plane and into the ocean. As typical drainages in arid slopes, they are either raging uncontrollably or are dry, and do not form stable water sources for traditional agriculture in their upper reaches. The western Honouliuli gulches, in contrast to those draining into Pearl Harbor to the east, do not have valleys suitable for extensive irrigated agriculture. However, this lack is more than compensated by the rich watered lowlands at the base of Honouliuli Gulch.

Topography of the area is moderately sloping. In terms of hydrology, the area is drained by two deeply dissected gulches, Kalo'i Gulch 300 m to the southwest and Honouliuli Gulch 700 m to the northeast. These gulches at a comparable elevation are believed to rarely run with water. Historic maps indicate a spring located approximately 2.2 km to the north. Such infrequent springs may have been key to the early human activity on the southeast Wai'anae slope.

1.4.5 *Ka Lihikai a me Ka Moana* (Seashore and Ocean)

Both seashore and ocean provided physical and spiritual sustenance for the people of Honouliuli. According to Malo, the ocean was divided into smaller divisions, stretching from 'ae kai (water's edge) to moana (pelagic zone). Outside the coastal areas was the belt known as *kua au*, where the shoal water ended. Further out was the *kai au*, deeper waters designated for surfing, swimming, or spearing squid (Malo 1951:26). For Honouliuli Ahupua'a, specifically between Kalaeloa and Kūalaka'i, the sea of this region was identified as Hilo one. It appears that the name is drawn from an on-shore locality known as Hilo one. According to Maly and Maly (2012),

Hilo one and the spring of Hoakalei—Near the shore of Honouliuli were once found places of fame in the traditions of Hiiaka-i-ka-poli-o-Pele, youngest sister of the Pele clan, who traveled across Honouliuli while on her return trip to Hawaii Island, from Kauai. While traveling along the shore between Kalaeloa and Kualakai,

Hiiaka was adorned with blossoms of the lehua trees which grew in the vicinity. At the place called Hilo one, she found the spring Hoakalei, where she stopped and looked at the water. Upon looking in the water, she saw her own reflection, adorned with the lei of *lehua* blossoms, thus the name Hoakalei (reflections of the garland). [Maly and Maly 2012:125]

While walking the coastline between Kalaeloa and Kūalaka'i, the goddess sang out the following:

*O Hiiaka ka wahine,
Ke ako la i ka pua o Hoakalei,
Ke kui la, ke uo la i ka manai*

Eha ka lei, ka apana lei lehua a ka wahine

*Kuu pokii.
Kuu pokii mai ke ehu makani o lalo.*

Lulumu aku la i ke kai o Hilo-one.

*No Hilo ke aloha, Aloha wale ka lei—e.
[Ka Na 'i Aupuni 1906]*

Hiiaka is the woman
Who picked the flowers of Hoakalei,
And with a needle strung and made
them into

four garlands, the sectioned lei of the
woman,

O my younger sibling.
My younger sibling who came from
the place

where the dusty wind rises from
below. Overturned in the sea of Hilo-
one.

The aloha is for Hilo, Love for the lei.
[Maly and Maly 2012:125]

1.5 Built Environment

The Cove property is located adjacent to Lanikūhonua Cultural Institute to the south, Makaiwa Beach Park to the north, Kai Lani at Ko Olina Aoao and a portion of Ko Olina Golf Course to the east, and the Pacific Ocean to the west (see Figure 3). Ali'inui Drive is the major vehicular artery servicing the project area and the adjacent Ko Olina resorts and connecting them to the H-1 freeway system. The project area has been extensively modified from sugarcane development and previous construction activities related to The Cove property. The eastern portion of the project area consists of a large, paved parking lot area. The remainder of the Cove property consists of large flat grassy areas, portable and intact buildings, and modern *lū'au* huts. The landscaping includes coconut trees (*Cocos nucifera*), *kiawe* (*Prosopis pallid*), *naupaka* (*Scaevola sericea*), mimosa trees (*Albizia julibrissin*), and various exotic shrubs.

Section 2 Methods

2.1 Archival Research

Research centers on Hawaiian activities including *ka 'ao* (legends), *wahi pana* (storied places), *'ōlelo no 'eau* (proverbs), *oli, mele* (songs), traditional *mo'olelo*, traditional subsistence and gathering methods, ritual and ceremonial practices, and more. Background research focuses on land transformation, development, and population changes beginning with the early post-Contact era to the present day.

Cultural documents, primary and secondary cultural and historical sources, historic maps, and photographs were reviewed for information pertaining to the study area. Research was primarily conducted at the CSH library. Other archives and libraries including the Hawai'i State Archives, the Bishop Museum Archives, the University of Hawai'i at Mānoa's Hamilton Library, Ulukau, The Hawaiian Electronic Library (Ulukau 2014), the State Historic Preservation Division (SHPD) Library, the State of Hawai'i Land Survey Division, the Hawaiian Historical Society, and the Hawaiian Mission Houses Historic Site and Archives are also repositories where CSH cultural researchers gather information. Information on Land Commission Awards (LCAs) were accessed via Waihona 'Aina Corporation's Māhele database (Waihona 'Aina 2022), the Office of Hawaiian Affairs (OHA) Papakilo Database (Office of Hawaiian Affairs 2015), and the Ava Konohiki Ancestral Visions of 'Āina website (Ava Konohiki 2015).

2.2 Community Consultation

2.2.1 Scoping for Participants

We begin our consultation efforts with utilizing our previous contact list to facilitate the interview process. We then review an in-house database of *kūpuna* (elders), *kama 'āina*, cultural practitioners, lineal and cultural descendants, Native Hawaiian Organizations (NHOs; includes Hawaiian Civic Clubs and those listed on the Department of Interior's NHO list), and community groups. We also contact agencies such as SHPD, OHA, and the appropriate Island Burial Council where the proposed project is located for their response on the project and to identify lineal and cultural descendants, individuals and/or NHO with cultural expertise and/or knowledge of the study area. CSH is also open to referrals and new contacts.

2.2.2 "Talk Story" Sessions

Prior to the interview, CSH cultural researchers explain the role of a CIA, how the consent process works, the project purpose, the intent of the study, and how their *'ike* (knowledge) and *mana'o* (thought, opinion) will be used in the report. The interviewee is given an Authorization and Release Form to read and sign.

"Talk Story" sessions range from the formal (e.g., sit down and *kūkākūkā* [consultation, discussion] in participant's choice of place over set interview questions) to the informal (e.g., hiking to cultural sites near the study area and asking questions based on findings during the field outing). In some cases, interviews are recorded and transcribed later.

CSH also conducts group interviews, which range in size. Group interviews usually begin with set, formal questions. As the group interview progresses, questions are based on interviewees'

answers. Group interviews are always transcribed and notes are taken. Recorded interviews assist the cultural researcher in 1) conveying accurate information for interview summaries, 2) reducing misinterpretation, and 3) missing details to *mo'olelo*.

CSH seeks *kōkua* (assistance) and guidance on identifying past and current traditional cultural practices of the study area. Those aspects include general history of the *ahupua'a*; past and present land use of the study area; knowledge of cultural sites (for example, *wahi pana*, archaeological sites, and burials); knowledge of traditional gathering practices (past and present) within the study area; cultural associations (*ka'ao* and *mo'olelo*); referrals; and any other cultural concerns the community might have related to Hawaiian cultural practices within or in the vicinity of the study area.

2.2.3 Completion of Interview

After an interview, CSH cultural researchers transcribe and create an interview summary based on information provided by the interviewee. Cultural researchers give a copy of the transcription and interview summary to the interviewee for review and ask them to make any necessary edits. Once the interviewee has made those edits, we incorporate their *'ike* and *mana'o* into the report. When the draft report is submitted to the client, cultural researchers then prepare a finalized packet of the participant's transcription, interview summary, and any photos taken during the interview. We also include a thank you card and honoraria. This is for the interviewee's records.

It is important to CSH cultural researchers to cultivate and maintain community relationships. The CIA report may be completed, but CSH researchers continuously keep in touch with the community and interviewees throughout the year—such as checking in to say hello via email or by phone, volunteering with past interviewees on community service projects, and sending holiday cards to them and their *'ohana* (family). CSH researchers feel this is an important component to building relationships and being part of an *'ohana* and community.

"I ulu no ka lālā i ke kumu—the branches grow because of the trunk," an *'ōlelo no'eau* (#1261) shared by Mary Kawena Pukui with the simple explanation: "Without our ancestors we would not be here" (Pukui 1983:137). As cultural researchers, we often lose our *kūpuna* but we do not lose their wisdom and words. We routinely check obituaries and gather information from other informants if we have lost our *kūpuna*. CSH makes it a point to reach out to the *'ohana* of our fallen *kūpuna* and pay our respects including sending all past transcriptions, interview summaries, and photos for families to have on file for genealogical and historical reference.

Section 3 Traditional Accounts

3.1 *Nā Ka'ao a me nā Mo'olelo* (Legends and Stories)

Hawaiian storytellers of old were greatly honored; they were a major source of entertainment and their stories contained lessons while interweaving elements of Hawaiian lifestyles, genealogy, history, relationships, arts, and the natural environment (Pukui and Green 1995:IX). According to Pukui and Green (1995), storytelling is better heard than read for much becomes lost in the transfer from the spoken to the written word and *ka'ao* are often full of *kaona* or double meanings.

Ka'ao are defined by Pukui and Elbert (1986:108) as a “legend, tale [...], romance, [and/or], fiction.” *Ka'ao* may be thought of as oral literature or legends, often fictional or mythic in origin, and have been “consciously composed to tickle the fancy rather than to inform the mind as to supposed events” (Beckwith 1970:1). Conversely, Pukui and Elbert (1986:254) define *mo'olelo* as a “story, tale, myth, history, [and/or] tradition.” The *mo'olelo* are generally traditional stories about the gods, historic figures or stories which cover historic events and locate the events with known places. *Mo'olelo* are often intimately connected to a tangible place or space (*wahi pana*).

In differentiating *ka'ao* and *mo'olelo* it may be useful to think of *ka'ao* as expressly delving into the *wao akua* (realm of the gods), discussing the exploits of *akua* (gods) in a primordial time. *Mo'olelo* on the other hand, reference a host of characters from *ali'i* (royalty) to *akua*; *kupua* (supernatural beings) to *maka'āinana* (commoners); and discuss their varied and complex interactions within the *wao kānaka* (realm of man). Beckwith elaborates, “In reality, the distinction between *ka'ao* as fiction and *mo'olelo* as fact cannot be pressed too closely. It is rather in the intention than in the fact” (Beckwith 1970:1). Thus a so-called *mo'olelo*, which may be enlivened by fantastic adventures of *kupua*, “nevertheless corresponds with the Hawaiian view of the relation between nature and man” (Beckwith 1970:1).

Both *ka'ao* and *mo'olelo* provide important insight into a specific geographical area, adding to a rich fabric of traditional knowledge. The preservation and passing on of these stories through oration remain a highly valued tradition. Additionally, oral traditions associated with the study area communicate the intrinsic value and meaning of a place, specifically its meaning to both *kama'āina* as well as others who also value that place.

The following section presents traditional accounts of ancient Hawaiians living in the vicinity of the project area. Many relate an age of mythical characters whose epic adventures inadvertently lead to the Hawaiian race of *ali'i* and *maka'āinana*. The *ka'ao* in and around the project area shared below are some of the oldest Hawaiian stories that have survived; they still speak to the characteristics and environment of the area and its people.

3.1.1 The Naming of Honouliuli

Honouliuli is the largest *ahupua'a* in the *moku* (district) of 'Ewa. One translation of the name for this district is given as “unequal” (*Saturday Press*, 11 August 1883). Others translate the word as “strayed” and associate it with the legends of the gods Kāne and Kanaloa:

When Kane and Kanaloa were surveying the islands they came to Oahu and when they reached Red Hill saw below them the broad plains of what is now 'Ewa. To mark boundaries of the land they would throw a stone and where the stone fell

would be the boundary line. When they saw the beautiful land lying below them, it was their thought to include as much of the flat level land as possible. They hurled the stone as far as the Wai‘anae range and it landed somewhere, in the Waimanalo section. When they went to find it, they could not locate the spot where it fell. So ‘Ewa (strayed) became known by the name. The stone that strayed. [Told to E.S. by Simeon Nawaa, 22 March 1954 in Sterling and Summers 1978:1]

Another explanation for the name comes from the “Legend of Lepeamoa,” the chicken-girl of Pālāma. In this legend, Honouliuli is the name of the husband of the chiefess Kapālāma and grandfather of Lepeamoa. The land of Honouliuli was named for him (Westervelt 1923:164–184).

It is likely that the boundaries of the westernmost *ahupua‘a* of ‘Ewa were often contested with people of the neighboring Wai‘anae District. The ‘Ewa people could cite divine sanction that the dividing point was between two hills at Pili o Kahe:

This is a spot where two small hills of the Wai‘anae range come down parallel on the boundary between Honouliuli and Nānākuli (‘Ewa and Wai‘anae). The ancient Hawaiians said the hill on the ‘Ewa side was the male and the hill on the Wai‘anae side was female. The stone was found on the Wai‘anae side hill and the place is known as Pili o Kahe (*Pili* = to cling to, *Kahe* = to flow). The name refers, therefore, to the female or Wai‘anae side hill. And that is where the boundary between the two districts runs. [Told to E.S. by Simeon Nawaa, 22 March 1954 in Sterling and Summers 1978:1]

3.1.2 Pu‘okapolei, Astronomical Marker and *Heiau*

Pu‘uokapolei was the primary landmark for travelers on the cross-*ahupua‘a* trail that ran from Pearl Harbor in the east to Wai‘anae in the West (‘Ī‘Ī 1959:27, 29; Nakuina 1992:54; E.M. Nakuina 1904 in Sterling and Summers 1978:34). *Pu‘u* means hill and *Kapolei* means “beloved Kapo,” a reference to Kapō‘ulakina‘u, the sister of the Hawaiian volcano goddess, Pele (Pukui et al. 1974:89). Kamakau says ancient Hawaiians used Pu‘uokapolei as an astronomical marker to designate the seasons:

[...] the O‘ahu people who reckoned the time (Oahu po‘e helu) called the season Kau for the setting of the sun from Pu‘uokapolei, a hill in Honouliuli, ‘Ewa, to the opening of Mahinaona (i ke kawaha o Mahinaona). When the sun moved south from Pu‘uokapolei—and during the season of the sun in the south—for the coming of coolness and for the sprouting of new buds on growing things—the season was called Ho‘oilo [winter, rainy season]. [Kamakau 1976:14]

A ceremony commemorating the changing of the seasons is still observed each year in the beginning of May at Waikīkī and Honouliuli. This ceremony was documented in a previous cultural impact assessment conducted by CSH (Genz et al. 2012). Sam ‘Ohukani‘ōhi‘a Gon III, Na Wa‘a Lalani Kahuna O Pu‘u Koholā, and the late Kumu Hula John Keola Lake’s *hula hālau* (hula instruction) perform *oli* and *hula* (dance), explaining that the *kilo hōkū* (observers of stars) of O‘ahu observed how, from the perspective of Waikīkī, the sun sets in a southerly direction over the ocean during the winter solstice and in a northerly direction behind the ‘Ewa ridgeline during the summer solstice. During the springtime, the position of the setting sun marches steadily northward each day, and at the beginning of May, the sun sets behind Pu‘uokapolei, perfectly

centered within its depression from the vantage point of Kūpalaha Heiau just west of the Waikīkī Aquarium. A coinciding ceremony at a *heiau* on Pu'uokapolei similarly views the setting of the sun behind Pu'u Pālailai farther west, and a line of sight extending eastward from Pu'u Pālailai, Pu'uokapolei, and the former site of Kūpalaha Heiau ends at the closely associated Papa'ena'ena Heiau. Mr. Gon suggests Papa'ena'ena Heiau may have been part of the ceremonies of this astronomical event.

3.1.3 Kamapua'a and Kamaunuanoho at Pu'uokapolei

Pu'uokapolei was also known to be the home of Kamapua'a's grandmother, Kamaunuanoho, one of the three migrants from Kahiki that were ancestors to the people of O'ahu (Legend of Kamapuaa, Fornander 1919:5(2):318; Kahiolo 1978:81, 107). Kamapua'a, the Hawaiian pig god, once lived in Kaluanui on the windward side of O'ahu, but he escaped to 'Ewa when he was pursued by the chief Olopana.

Kamapua'a subsequently conquered most of the island of O'ahu, and, installing his grandmother [Kamaunuanoho] as queen, took her to Pu'uokapolei, the lesser of the two hillocks forming the southeastern spur of the Wai'anae Mountain Range, and made her establish her court there. This was to compel the people who were to pay tribute to bring all the necessities of life from a distance, to show his absolute power over all. [Nakuina 1904:50]

Emma Nakuina goes on to note, "A very short time ago [prior to 1904] the foundations of Kamaunuanoho's house could still be seen at Puuokapolei" (Nakuina 1904:50). Another account (*Ka Loea Kālai 'āina*, 13 January 1900 in Sterling and Summers 1978:34) speaks of Kekele'aikū, the older brother of Kamapua'a, who also lived on Pu'uokapolei.

In Lilikalā Kame'eleihiwa's version of the *mo'olelo* of Kamapua'a, Pele and Kamapua'a meet and a battle ensues on Hawai'i Island between the two. Kamapua'a tells Kekele'aikū,

'Listen to me, elder brother. You wait here. When you smell the stench of burning bristles, then you must assume I am dead. However, if indeed you do not smell the stench of the bristles, you will know that your younger brother has not been harmed and that he has 'eaten of the cooked taro.' [Kame'eleihiwa 1996:62]

3.2 Nā Wahi Pana (Legendary or Storied Place)

Wahi pana are legendary or storied places of an area. These legendary or storied places may include a variety of natural or human-made structures. Oftentimes dating to the pre-Contact period, most *wahi pana* are in some way connected to a particular *mo'olelo*, however, a *wahi pana* may exist without a connection to any particular story. Davianna McGregor outlines the types of natural and human-made structures that may constitute *wahi pana*:

Natural places have mana [spiritual power], and are sacred because of the presence of the gods, the akua, and the ancestral guardian spirits, the 'aumakua. Human-made structures for the Hawaiian religion and family religious practices are also sacred. These structures and places include temples, and shrines, or heiau, for war, peace, agriculture, fishing, healing, and the like; pu'uhoonua, places of refuge and sanctuaries for healing and rebirth; agricultural sites and sites of food production such as the lo'i pond fields and terraces slopes, 'auwai irrigation ditches, and the

fishponds; and special function sites such as trails, salt pans, holua slides, quarries, petroglyphs, gaming sites, and canoe landings. [McGregor 1996:22]

As McGregor makes clear, *wahi pana* can refer to natural geographic locations such as streams, peaks, rock formations, ridges, offshore islands and reefs, or they can refer to Hawaiian land divisions such as *ahupua'a* or *'ili* (land division smaller than an *ahupua'a*), and man-made structures such as fishponds. In this way, the *wahi pana* of Honouliuli tangibly link the *kama'āina* of Honouliuli to their past. It is common for places and landscape features to have multiple names, some of which may only be known to certain *'ohana* or even certain individuals within an *'ohana*, and many have been lost, forgotten, or kept secret through time. Place names also convey *kaona* (hidden meanings) and *huna* (secret) information that may even have political or subversive undertones. Before the introduction of writing to the Hawaiian Islands, cultural information was exclusively preserved and perpetuated orally. Hawaiians gave names to literally everything in their environment, including individual garden plots and *'auwai* (water courses), house sites, intangible phenomena such as meteorological and atmospheric effects, *pōhaku* (stone), *pūnāwai* (freshwater springs), and many others. According to Landgraf (1994), Hawaiian *wahi pana* “physically and poetically describes an area while revealing its historical or legendary significance” (Landgraf 1994:v).

3.2.1 Nā Inoa 'Āina a me Nā Wahi Pana o Honouliuli

Place names and *wahi pana* of Honouliuli are depicted on Figure 5 and listed in Table 1. Unless otherwise noted, the definitions of place names are taken from Lloyd Soehren's *Hawaiian Place Names* database (Soehren 2019), where no translation is given, it did not appear in Soehren's database.

Table 1. Place names and *wahi pana* of Honouliuli Ahupua'a

Place	Type	Meaning	Source
Awanui	Gulch	Big harbor, or big <i>kawa</i> plant	Pukui and Elbert 1986
'Ēkahanui	Gulch	Large bird's nest fern	Pukui et al. 1974
Hāpapa, Pu'u	Peak	Rock stratum hill; a shallow	Thrum 1922
Hoakalei	Spring	<i>Lei</i> reflection	Pukui et al. 1974
Honouliuli	Stream, gulch	Dark bay; blue harbor	Thrum 1922
Huliwai	Gulch	Water search	Pukui et al. 1974
Hunehune	Gulch	Tiny	Pukui et al. 1974
Kahe	Point	Flow	Pukui et al. 1974
Kahe, Pu'u	Hill	Flow	Pukui et al. 1974
Kalaeloa	<i>'Ili 'āina</i>	The long point	Pukui et al. 1974
Kalaeloa	Point	The long point	Pukui et al. 1974
Kalanamaikahiki			
Kalo'i	Gulch	The taro patch	Pukui et al. 1974
Kānehili	Plain		
Kānehōa, Pu'u	Peak	A native shrub; Kāne's friend	Thrum 1922

Place	Type	Meaning	Source
Kapapapuhi	Point, <i>'ili 'āina</i>	The numerous eels	Thrum 1922
Kapolei	Gulch	Beloved Kapo, a sister of Pele	Pukui et al. 1974
Kapolei, Pu'u o	Hill	Beloved Kapo, a sister of Pele	Pukui et al. 1974
Kapuai, Pu'u	<i>Pu'u</i>	Footstep	Thrum 1922
Kaua, Pu'u	<i>Pu'u</i>	War hill or fort hill	Pukui et al. 1974
Kaupe'a	Plain	Crisscross, interwoven	Pukui and Elbert 1986
Keone'ō'io	Gulch	The sandy place with bonefish (<i>'ō'io</i>)	Pukui et al. 1974
Ko'olina	Village	Delightful, lovely	Pukui et al. 1974
Ku'ina, Pu'u	<i>Pu'u, heiau</i>		
Ku'ua, Pu'u	<i>Pu'u, heiau</i>	Relinquished hill	Pukui et al. 1974
Līhu'e	<i>'Ili 'āina</i>	Cold chill	Pukui et al. 1974
Limaloa	Gulch	Long arm	Pukui et al. 1974
Makaīwa	Gulch	Mother of pearl eyes	Pukui et al. 1974
Makakilo, Pu'u	<i>Pu'u</i>	Observing eyes	Pukui et al. 1974
Makalapa	Gulch	Ridge features	Pukui et al. 1974
Manawahua, Pu'u	<i>Pu'u</i>	Great grief hill, or nausea hill	Pukui et al. 1974
Manawaiahu	Gulch	Bird water pool	Pukui et al. 1974
Manawai'elelū	Gulch	Cockroach water branch	Pukui and Elbert 1986
Maunakapu	Peak	Sacred mountain	Pukui et al. 1974
Maunauna	<i>Pu'u, gulch</i>	Mountain sent on errands	Pukui et al. 1974
Nāmo'opuna	Gulch	The grandchildren	Pukui and Elbert 1986
One'ula	Village, beach	Red sand	Pukui et al. 1974
Pālailai	Gulch	Young <i>lai</i> fish	Pukui et al. 1974
Pālailai, Pu'u	<i>Pu'u</i>	Young <i>lai</i> fish hill	Pukui et al. 1974
Pālāwai	Gulch	Kind of sea moss	Thrum 1922
Pālehua	<i>Pu'u</i>	<i>Lehua</i> flower enclosure	Pukui et al. 1974
Palikea	<i>Pu'u, ridge</i>	White cliff:	Pukui et al. 1974
Paupauwela (Poupouwela)	<i>'Ili 'āina</i>	An angry person	Thrum 1922
Pili o Kahe	Point	Clinging to Kahe	Pukui et al. 1974
Pōhākea	Pass	White stone	Pukui et al. 1974
Pōhaku Palaha	<i>Pōhaku</i>	Broad rock	Thrum 1922
Poulihale	Gulch	Dark house	Pukui et al. 1974
Poulihale, Pu'u	<i>Pu'u</i>	Dark house hill	Pukui et al. 1974
Pu'uloa	<i>'Ili 'āina, beach</i>	Long hill	Pukui et al. 1974

Place	Type	Meaning	Source
Wai'eli	Gulch	Dug water	Pukui et al. 1974
Waimānalo	Gulch	Potable water	Pukui et al. 1974

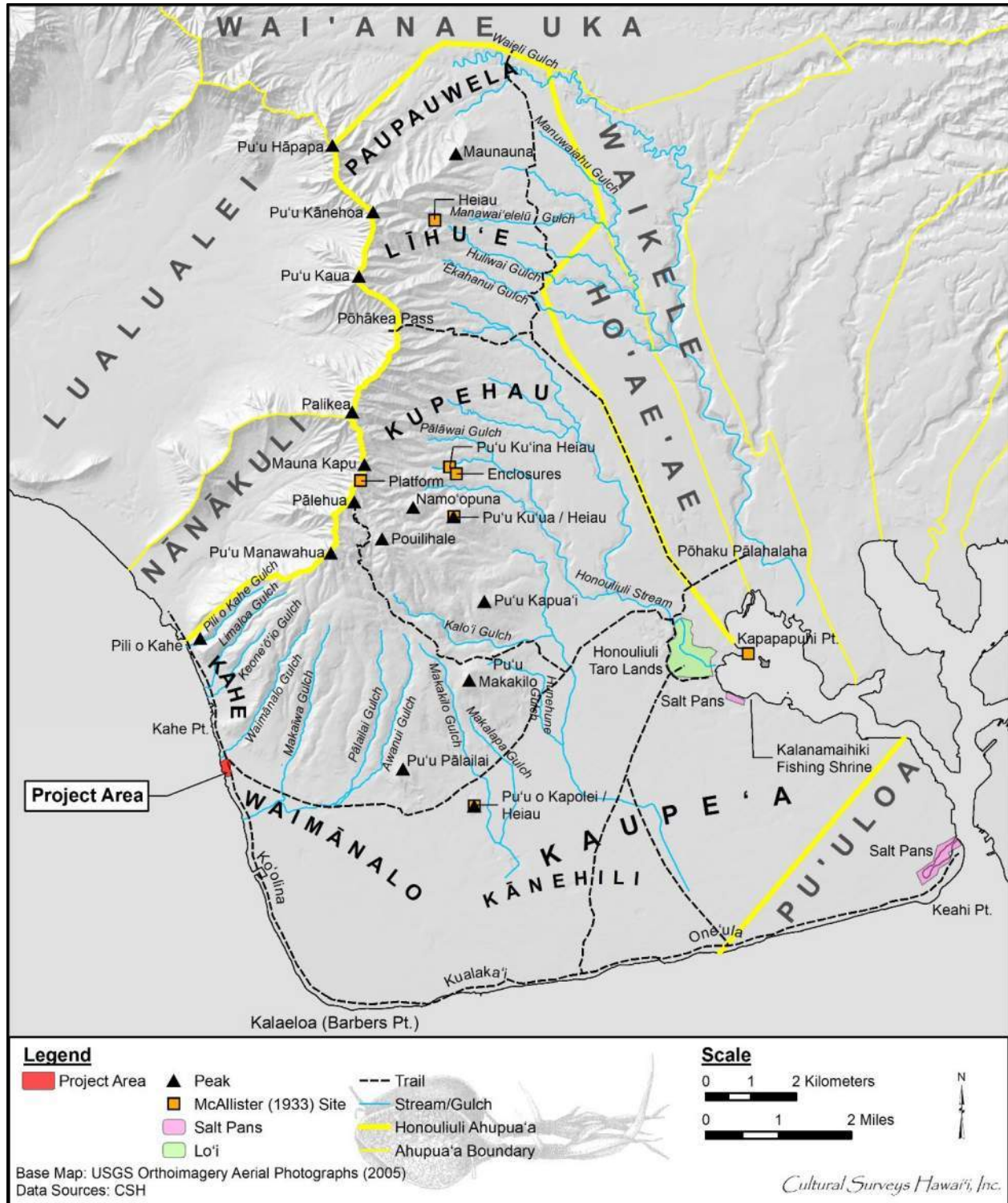


Figure 5. 2005 USGS Orthoimagery aerial photograph with overlay of the location of The Cove Redevelopment project area, and the cultural landscape of Honouliuli Ahupua'a in southwest O'ahu

3.2.2 *Nā Heiau*

Heiau were pre-Christian places of worship. Construction of some *heiau* were elaborate, consisting of large communal structures, while others were simple earth terraces or shrines (McAllister 1933:8).

Heiau are most commonly associated with important religious ceremony; large structures with platforms or altars of one or more terraces were indicative of such function (McAllister 1933:8). Archaeologist Gilbert McAllister reports on two known *heiau* in the *ahupua'a* of Honouliuli, as well as two other sites that could have possibly been *heiau*. These *heiau* were located on Pu'uokapolei, on Pu'u Ku'ua, at the foot of Pu'u Kanehoa, and at the foot of Mauna Kapu (McAllister 1933).

3.2.2.1 Pu'uokapolei

A *heiau* was once located on Pu'uokapolei, but it had been destroyed by the time of McAllister's (1933:108) survey of the island in the early 1930s. The hill was used as a point of solar reference or as a place for such observations (Fornander 1919:6[2]:297). Pu'uokapolei may have been regarded as the gate of the setting sun, just as the eastern gate of Kumukahi in Puna is regarded as the gate of the rising sun; both places are associated with the Hawaiian goddess Kapō (Emerson 1915:41). This somewhat contradicts some Hawaiian cosmologies, in which Kū was the god of the rising sun, and Hina, the mother of Kamapua'a, was associated with the setting of the sun. Fornander (1919:6[2]:292) states that Pu'uokapolei may have been a *leina*, jumping off point associated with the wandering souls who roamed the plains of Kaupe'a and Kānehili, *makai* of the hill.

McAllister writes that the stones from the *heiau* supplied the rock crusher located on the side of this elevation, about 100 feet (ft) away on the seaside. There was once a large rock shelter on the *makai* side where it is said to have been the residence of Kamapua'a and his grandmother (McAllister 1933:108). After conquering the majority of O'ahu, he established his grandmother as queen of this *wahi* (place) (Pukui et al. 1974:203).

3.2.2.2 Pu'u Ku'ua

Pu'u Ku'ua Heiau located in Palikea, Honouliuli, overlooks both Honouliuli and Nānākuli, and is at the height of approximately 1,800 ft. McAllister (1933:108) noted that, "Most of the stones of the *heiau* were used for a cattle pen located on the sea side of the site. That portion of the *heiau* which has not been cleared for pineapples has been planted in ironwoods."

3.2.2.3 Unidentified *heiau* at the foot of Pu'u Kanehoa

Located at the foot of Pu'u Kanehoa is a small enclosure thought to have possibly been a *heiau*. McAllister writes,

My informant, Reiney, recalls the respect the old Hawaiians had for the place when he was punching cattle with them in his youth. It is a walled inclosure 2 by 3 feet. On the inside the walls are between 2 and 3 feet high, and on the outside they range from 2 to 5 feet, depending upon the slope of the land. On three sides the walls are 2 feet wide, but the fourth is 3 feet wide. The walls are evenly faced with a fill of smaller stones. At present the site is surrounded with a heavy growth of Lantana; but only a thick growth of grass and two small guava bushes are in the interior,

which is most unusual unless human hands keep the interior clear. Possibly this is not a *heiau* but a small inclosure considered sacred for some reason. [McAllister 1933:107]

3.2.2.4 Unidentified *heiau* at the foot of Pu'u Kuina

Located in Aikukai, Honouliuli, at the foot of Pu'u Kuina what looked to be a terrace is all that remained when McAllister cataloged Site 134. He notes the inability to determine the size of the *heiau* or the number of terraces that once stood (McAllister 1933:107).

3.2.3 Plains of 'Ewa

3.2.3.1 The Plains of Kaupe'a

Several places on the 'Ewa coastal plain are associated with *ao kuewa*, the realm of the homeless souls. Samuel Kamakau explains Hawaiian beliefs of the afterlife:

There were three realms (*ao*) for the spirits of the dead [...] There were, first, the realm of the homeless souls, the *ao kuewa*; second, the realm of the ancestral spirits, the *ao 'aumakua*; and third, the realm of Milu, *ke ao o Milu*.

The *ao kuewa*, the realm of homeless souls, was also called the *ao 'auwana*, the realm of wandering souls. When a man who had no rightful place in the *'aumakua* [family or personal gods] realm (*kanaka kuleana 'ole*) died, his soul would wander about and stray amongst the underbrush on the plain of Kama'oma'o on Maui, or in the *wiliwili* grove of Kaupe'a on Oahu. If his soul came to Leilono [in Hālawā, 'Ewa near Red Hill], there he would find the breadfruit tree of Leiwalo, *ka 'ulu o Leiwalo*. If it was not found by an *'aumakua* soul who knew it (*i ma'a mau iaia*), or one who would help it, the soul would leap upon the decayed branch of the breadfruit tree and fall down into endless night, the *pō pau 'olo o Milu*. Or, a soul that had no rightful place in the *'aumakua* realm, or who had no relative or friend (*makamaka*) there who would watch out for it and welcome it, would slip over the flat lands like a wind, until it came to a leaping place of souls, *a leina a ka 'uhane*.

On the plain of Kaupe'a beside Pu'uloa [Pearl Harbor], wandering souls could go to catch moths (*pulelehua*) and spiders (*nanana*). However, wandering souls could not go far in the places mentioned earlier before they would be found catching spiders by *'aumakua* souls, and be helped to escape. [...] [Kamakau 1991a:47–49]

This association of Pu'uokapolei and Kānehili with wandering souls is also illustrated in a lament on the death of Kahahana, the paramount chief of O'ahu, who was killed by his father, Kahekili, after Kahahana became treacherous and killed the high priest Ka'opulupulu.

<i>E newa ai o hea make i ka lā,</i>	Go carefully lest you fall dead in the sun,
<i>Akua noho la i Pu'uokapolei.</i>	The god that dwells on Kapolei hill.
<i>E hanehane mai ana ka lā i nā</i>	The sun is wailing on account of the
<i>wahine o Kamao,</i>	women of Kamao,
<i>Akua pe'e, pua 'ohai o ke kaha,</i>	A hiding god, blossoming ohai of the banks
<i>I walea wale i ke a-</i>	Contented among the stones

I ka ulu kanu a Kahai. Among the breadfruit planted by Kahai.
Haina 'oe e ka oo- Thou hast spoken of by the oo-
E ka manu o Kānehili. By the bird of Kānehili.
 [Fornander 1919:6(2):297]

Fornander provides some notes on this lament. The god dwelling at Kapolei is the god Kahahana, stating that this is where his soul has gone. Kamao is one of the names to the door of the underworld. This lament draws an association with wandering souls and the place where the first breadfruit tree was planted by Kaha'i at Pu'uloa (Fornander 1919:6[2]:304).

Pukui (1983) offers this Hawaiian saying, which places the wandering souls in a *wiliwili* (*Erythrina sandwicensis*) grove at Kaupe'a:

Ka wiliwili o Kaupe'a.
 The *wiliwili* grove of Kaupe'a
 In 'Ewa, O'ahu. Said to be where homeless ghosts wander among the trees.
 [Pukui 1983:180]

Beckwith (1970:154) has stressed that "the worst fate that could befall a soul was to be abandoned by its *'aumakua* (ancestral spirit) and left to stray, a wandering spirit (*kuewa*) in some barren and desolate place." These wandering spirits were often malicious, so the places where they wandered were avoided.

3.2.3.2 The Plains of Pukaua

The Hawaiian language newspaper *Ka Loea Kālai'āina* (13 January 1900) relates that near Pu'uokapolei, on the plain of Pukaua, on the *mauka* side of the road, there was a large rock. This *mo'olelo* suggests the plain around Pu'uokapolei was called Pukaua. The *mo'olelo* is as follows:

If a traveler should go by the government road to Waianae, after leaving the village of gold, Honouliuli, he will first come to the plain of Puu-ainako and when that is passed, Ke-one-ae. Then there is a straight climb up to Puu-o-Kapolei and there look seaward from the government road to a small hill. That is Puu-Kapolei [...] You go down some small inclines, then to a plain. This plain is Pukaua and on the *mauka* side of the road, you will see a large rock standing on the plain [...] There were two supernatural old women or rather peculiar women with strange powers and Puukaua belonged to them. While they were down fishing at Kualaka'i [near Barbers Point] in the evening, they caught these things, *'a'ama* crabs (*Grapsus tenuicrustatus*), *pipipi* shellfish (*Nerita picea*), and whatever they could get with their hands. As they were returning to the plain from the shore and thinking of getting home while it was yet dark, they failed for they met a one-eyed person [bad omen]. It became light as they came near to the plain, so that passing people were distinguishable. They were still below the road and became frightened lest they be seen by men. They began to run—running, leaping, falling, sprawling, rising up and running on, without a thought of the *'a'ama* crabs and seaweeds that dropped on the way, so long as they would reach the upper side of the road. They did not go far for by then it was broad daylight. One woman said to the other, 'Let us hide lest

people see us,' and so they hid. Their bodies turned into stone and that is one of the famous things on this plain to this day, the stone body.

This is the end of these strange women. When one visits the plain, it will do no harm to glance on the upper side of the road and see them standing on the plain. [Ka Loea Kālai'āina, 13 January 1900, translation in Sterling and Summers 1978:39]

In another version of this story, the two women met Hi'iaka as she journeyed toward the 'Ewa coast. The women were *mo'o* (lizards) and were afraid that Hi'iaka would kill them, so they changed into their lizard form. One of the lizards hid in a little space on a stone beside the coastal trail, and the other hid nearby (*Ka Hōkū o Hawai'i*, 15 February 1927, translated in Maly 1997:19). From that time on the stone was known as "Pe'e-kāua," meaning "we two hidden." Hi'iaka greeted the two women but did not harm them and continued on.

When she reached Pu'uokapolei, she also greeted two old women who lived at an '*ohai* (*Sesbania tomentosa*) grove on the hill. These women were named Pu'uokapolei and Nāwahineokama'oma'o (*Ka Hōkū o Hawai'i*, 22 February 1927, translated in Maly 1997:19). As she continued her travels, she looked to the ocean and saw the canoe carrying Lohi'au:

<i>Ku'u kāne i ke awa lau o Pu'uloa</i>	My man on the many harbored sea of Pu'uloa
<i>Mai ke kula o Pe'ekāua ke noho</i>	As seen from the plain of Pe'ekāua
<i>E noho kāua i ke kaha o ka 'ōhai</i>	Let us dwell upon the 'ōhai covered shore
<i>I ka wiliwili i ka pua o ka lau noni</i>	Where the <i>noni</i> blossoms are twisted together
<i>O ka ihona i Kānehili la</i>	Descending along Kānehili
<i>Ua hili ho'i au-e</i>	I am winding along.

[*Ka Hōkū o Hawai'i*, 22 February 1927, translated in Maly 1997:20]

3.2.4 Kūalaka'i

Kūalaka'i is the name of an area near Barbers Point, located on the southwestern side of Honouliuli Ahupua'a. Clark (1977:74) says it is named for a type of sea cucumber that squirts a purple fluid when squeezed. Pukui identifies the sea creature as *Tethys* a member of the invertebrate family *Aplysiidae* commonly called sea hares (Pukui et al. 1974:119). Pukui adds this area was once the site of a spring called Hoaka-lei ("lei reflection") "because Hi'iaka picked *lehua* (*Metrosideros polymorpha*) flowers here to make a *lei* (garland) and saw her reflection in the water" (Pukui et al. 1974:119).

Kūalaka'i is mentioned in the "Legend of the Children," a tale that foretold the breaking of the eating *kapu* (taboo) by the *ali'i*. A young brother and sister always fished at Kūalaka'i, a beach area on the southern coast of Honouliuli. On this day, they laid out their nets, but all they caught was a single *palani* (surgeonfish; *Acanthurus dussumieri*), a fish that was *kapu* for men; only women could eat it.

[...] They fished again and again until the afternoon and nothing was caught. The children were weary and went home without fish. When they came as far as Pu'u-o-Kapolei where the blossoms of the ma'o [the native cotton, *Gossypium sandvicense*] looked golden in the sunlight, the sister sat down to make ma'o leis for themselves. When the leis were made they went across the breadth of Kaupē'a to Waipio. [*Ka Loea Kālai'āina*, 22 July 1899:15; translation in Sterling and Summers 1978:7]

They stopped at the stream of Ka'aimalu on the way to their home and the sister convinced her brother to share the fish between the two, thus breaking the *kapu*. "Because these children ate fish secretly, the spot is called Ka'ai-malu (Secret eating) to this day" (Sterling and Summers 1978:7).

3.2.5 Kalaeloa

Kalaeloa literally means "the long point" (Pukui et al. 1974:72). Kalaeloa was the home of Uhumāka'ika'i, a *kupua* who could take the form of a man or a giant parrotfish (*uhu*). He is mentioned in several legends concerning the hero Kawelo and with Kawelo's struggles with the ruling chief of Kaua'i, 'Aikanaka.

This friend was Kauahoa also an alii of Wailua (Kauai). Their king, Aikanaka, in the time of Kākuhihewa of Oahu and Lonoikamakahiki of Hawaii. Aikanaka got offended with Kawelo and sent him to live at Waikiki. Cause. The king at a surf bathing told Kawelo to get a calabash of water for him to wash off with, but on Kawelo's failing to do it, he took a calabash of soft poi and threw it over Kawelo and sent him off as already stated. At Waikiki, Kawelo studied the art of fighting to be revenged on Aikanaka. A *kupua*, Uhu makaikai, a fish was his teacher. Makuakeke was his helper in the canoe. The fish lived at Pōhaku o Kawai near Kalailoa (Kalaeloa), Oahu (Barbers Point) [...] [Hawaiian Ethnological Notes, Bishop Museum Vol. II:114, translation in Sterling and Summers 1978:41]

Kalaeloa is also associated with the introduction of *ulu* (breadfruit) to Hawai'i. According to the *mo'olelo*, the chief Kaha'i left from Kalaeloa for a trip to Kahiki. On his return to the Hawaiian Islands, he brought back the first breadfruit (Kamakau 1991b:110) and planted it near the waters of Pu'uloa or "long hill," now known as Pearl Harbor (Beckwith 1940:97).

3.3 Nā 'Ōlelo No'eau (Proverbs)

Hawaiian knowledge was shared by way of oral histories. Indeed, one's *leo* (voice) is oftentimes presented as *ho'okupu* ("a tribute or gift" given to convey appreciation, to strengthen bonds, and to show honor and respect); the high valuation of the spoken word underscores the importance of the oral tradition (in this case, Hawaiian sayings or expressions), and its ability to impart traditional Hawaiian "aesthetic, historic, and educational values" (Pukui 1983:vii). Thus, in many ways these expressions may be understood as inspiring growth within reader or between speaker and listener:

They reveal with each new reading ever deeper layers of meaning, giving understanding not only of Hawai'i and its people but of all humanity. Since the sayings carry the immediacy of the spoken word, considered to be the highest form of cultural expression in old Hawai'i, they bring us closer to the everyday thoughts and lives of the Hawaiians who created them. Taken together, the sayings offer a

basis for an understanding of the essence and origins of traditional Hawaiian values. The sayings may be categorized, in Western terms, as proverbs, aphorisms, didactic adages, jokes, riddles, epithets, lines from chants, etc., and they present a variety of literary techniques such as metaphor, analogy, allegory, personification, irony, pun, and repetition. It is worth noting, however, that the sayings were spoken, and that their meanings and purposes should not be assessed by the Western concepts of literary types and techniques. [Pukui 1983:vii]

Simply, *‘ōlelo no ‘eau* may be understood as proverbs. The Webster dictionary notes it as “a phrase which is often repeated; especially, a sentence which briefly and forcibly expresses some practical truth, or the result of experience and observation.” It is a pithy or short form of folk wisdom. Pukui equates proverbs as a treasury of Hawaiian expressions (Pukui 1995:xii). Oftentimes within these Hawaiian expressions or proverbs are references to places. This section draws from the collection of author and historian Mary Kawena Pukui and her knowledge of Hawaiian proverbs describing *‘āina* (land), chiefs, plants, and places.

3.3.1 *‘Ōlelo No ‘eau* #493

This *‘ōlelo no ‘eau* is in reference to a wind of ‘Ewa, named Moa‘e. ‘Ewa Moku was known for its oysters and when fishermen went to gather the oysters, they did so in silence as to not scare off the oysters. However, when the Moa‘e wind blew, it would ripple the water, scaring the oysters away.

Haunāele ‘Ewa i ka Moa‘e.

‘Ewa is disturbed by the Moa‘e wind.

Used about something disturbing, like a violent argument. When the people of ‘Ewa went to gather pipi (pearl oyster), they did so in silence, for if they spoke, a Moa‘e breeze would suddenly blow across the water, rippling it, and the oysters would disappear. [Pukui 1983:59]

3.3.2 *‘Ōlelo No ‘eau* #661

This *‘ōlelo no ‘eau* refers to the *nehu* (anchovy, *Stolephorus purpureus*) fish that were to be in abundance in ‘Ewa.

He kai puhi nehu, puhi lala ke kai o ‘Ewa

A sea that blows up nehu fish, blows up a quantity of them, is the sea of ‘Ewa.
[Pukui 1983:74]

3.3.3 *‘Ōlelo No ‘eau* #1330

This *‘ōlelo no ‘eau* is referring to the *‘anae* (full-sized *‘ama ‘ama* [mullet, *Mugil cephalus*]) fish that would travel from ‘Ewa to Ko‘olau, hence the name *‘anaeholo* or travelling mullet fish.

Ka i‘a hali a ka makani.

The fish fetched by the wind.

The *‘anaeholo*, a fish that travels from Honouliuli, where it breeds, to Kaipāpa‘u on the windward side of O‘ahu. It then turns about and returns to its original home It is driven closer to shore when the wind is strong. [Pukui 1983:145]

3.3.4 *‘Ōlelo No‘eau* #1331

This *‘ōlelo no‘eau* is in reference to the oysters of ‘Ewa as well as a reminder to “*hāmau leo*,” (be silent) when gathering this type of fish.

Ka i‘a hāmau leo o ‘Ewa.

The fish of ‘Ewa that silences the voice.

The pearl oyster, which has to be gathered in silence. [Pukui 1983:145]

3.3.5 *‘Ōlelo No‘eau* #1666

Pukui (1983:180) offers this Hawaiian saying, which places the wandering souls in a “*wiliwili*” grove at Kaupe‘a, a place in Honouliuli where homeless ghosts wandered among the trees.

Ka wiliwili o Kaupe‘a

The wiliwili grove of Kaupe‘a

In ‘Ewa, O‘ahu. Said to be where homeless ghosts wander among the trees. [Pukui 1983:180]

3.3.6 *‘Ōlelo No‘eau* #2542

The expression below describes the residents of the Kaupe‘a ‘Ili.

‘Ō‘ū ō loa na manu o Kaupe‘a.

The birds of Kaupe‘a trill and warble.

Said of the chatter of happy people. [Pukui 1983:278]

3.3.7 *‘Ōlelo No‘eau* #2357

Unlike the other *‘ōlelo no‘eau* of ‘Ewa Moku, this *‘ōlelo no‘eau* describes the lands of ‘Ewa as consisting of red dirt. During heavy rains, this red dirt flows down into the ocean, turning the sea of ‘Ewa red.

O ‘Ewa, ‘āina kai ‘ula i ka lepo.

‘Ewa, land of the sea reddened by earth.

‘Ewa was once noted for being dusty, and its sea was reddened by mud in time of rain. [Pukui 1983:257]

3.3.8 *‘Ōlelo No‘eau* #2770

This *‘ōlelo no‘eau* compares the *kāī* variety of *kalo* (taro) to the beauty of a woman of ‘Ewa. *Kāī* was a variety of *kalo* that would yield excellent *poi* (pounded taro).

Ua ‘ai i ke kāī-koi o ‘Ewa.

He has eaten the kāī-koi taro of ‘Ewa.

Kāī is O‘ahu’s best eating taro; one who has eaten it will always like it. Said of a youth or a maiden of ‘Ewa, who, like the *kāī* taro, is not easily forgotten. [Pukui 1983:305]

3.4 *Nā Oli* (Chants)

Oli, according to Mary Kawena Pukui (Pukui 1995:xvi–xvii) are often grouped according to content. Chants often were imbued with *mana* (divine power); such *mana* was made manifest through the use of themes and *kaona*. According to Pukui, chants for the gods (*pule*; prayers) came first, and chants for the *ali* 'i, “the descendants of the gods,” came second in significance. Chants “concerning the activities of the earth peopled by common humans” were last in this hierarchy (Pukui 1995:xvi–xvii). Emerson conversely states,

In its most familiar form the Hawaiians—many of whom [were lyrical masters]—used the *oli* not only for the songful expression of joy and affection, but as the vehicle of humorous or sarcastic narrative in the entertainment of their comrades. The dividing line, then, between the *oli* and those other weightier forms of the *mele*, the *ino*, the *kanikau* (threnody), the *pule*, and that unnamed variety of *mele* in which the poet dealt with historic or mythologic subjects, is to be found almost wholly in the mood of the singer. [Emerson 1965:254]

While *oli* may vary thematically, subject to the perspective of the *ho'opa'a* (chanter), it was undoubtedly a valued art form used to preserve oral histories, genealogies, and traditions, to recall special places and events, and to offer prayers to *akua* and 'aumākua alike. Perhaps most importantly, as Alameida (1993:26) writes, “chants [...] created a mystic beauty [...] confirming the special feeling for the environment among Hawaiians: their *one hānau* (birthplace), their *kula iwi* (land of their ancestors).”

A chant for the chief Kūali'i, an ancient chief of O'ahu, mentions the *ahupua'a* of the 'Ewa District including Honouliuli. Each phrase usually contains a play on words, as the place name and one meaning of the word, or portion of the word, appears on each line, for example, *kele* in Waikele means “slippery.” However, these word plays are not necessarily related to the actual place name meanings of the *ahupua'a*.

<i>Uliuli ka poi e piha nei—o Honouliuli;</i>	Blue is the <i>poi</i> [pounded taro] which appeases [the hunger] of Honouliuli;
<i>Aeae ka paakai o Kahuaiki—Hoaeae;</i>	Fine the salt of Kahuaike—Hoaeae;
<i>Pikele ka ia e Waikele—o Waikele;</i>	Slippery the fish of Waikele— of Waikele;
<i>Ka hale pio i Kauamoa—o Waipio;</i>	The arched house at Kauamoa— of Waipio;
<i>E kuu kaua i ka loko awa—o Waiawa;</i>	Let us cast the net in the <i>awa</i> -pond— of Waiawa;
<i>Mai hoomanana ia oe—o Manana.</i>	Do not stretch yourself at—Manana.
<i>He kini kahawai,</i>	Many are the ravines,
<i>He lau kamano—o Waimano;</i>	Numerous the sharks, at Waimano;
<i>Ko ia kaua e ke au—o Waiiau;</i>	We are drawn by the current—

	of Waiau;
<i>Kukui malumalu kaua—Waimalu;</i>	In the <i>kukui</i> grove we are sheltered—
	in Waimalu;
<i>E ala kaua ua ao-e—o Kalauao;</i>	Let us arise, it is daylight—
	at Kalauao;
<i>E kipi kaua e ai—o Aiea;</i>	Let us enter and dine—at Aiea;
<i>Mai hoohalawa ia oe—O Halawa.</i>	Do not pass by—Halawa.

[*Ka Nupepa Kuokoa*, Book 7, Number 21, 23 May 1868, He mele no Kualii, Kulanipipili, Kulanioka, Kunuiakea; Fornander 1917:4(2):400–401]

A chant for the Kaua'i chief, Kaumuali'i, a rival of Kamehameha I, also mentions place names of the 'Ewa District (Fornander 1919:6[3]:474–480). In a portion of this chant, the wind that blows from one end of 'Ewa to the other is compared to love.

Filled was the air of Ewa with the report,	Kupuni ula ka ea o Ewa i ke ala.
20. Like the sea-spray on the forest trees,	20. Me he puakai la i ka lau laau.
The forest of the ilima plain at Ulihale.	Ka laau i ka ilima o Ulihale,
Even reddening the outside of the house:	Ula no mawaho o ka hale.
The redness extends and covers the leaves of the field.	Ka ea ula. ke pili ka lau o ka weuweu,
The ridge covering of the house is broken by the whirlwind,	Haki ke kaupaku o ka hale i ka ea,
25. Which blows from Halawa to Honouliuli.	25. Ka ea no mai Halawa a Honouliuli,
Unfit is the man who forsakes love,	He uli ke kanaka haalele i ke 'loha.
How can he propagate love!	Me he mea la hala ke 'loha iaia

[Fornander 1919:6(3):475]

3.5 *Nā Mele* (Songs)

The following section draws from the Hawaiian art of *mele*, poetic song intended to create two styles of meaning.

Words and word combinations were studied to see whether they were auspicious or not. There were always two things to consider the literal meaning and the *kaona*, or 'inner meaning.' The inner meaning was sometimes so veiled that only the people to whom the chant belonged understood it, and sometimes so obvious that anyone who knew the figurative speech of old Hawai'i could see it very plainly. There are but two meanings: the literal and the *kaona*, or inner meaning. The literal is like the body and the inner meaning is like the spirit of the poem. [Pukui 1949:247]

The Hawaiians were lovers of poetry and keen observers of nature. Every phase of nature was noted and expressions of this love and observation woven into poems of praise, of satire, of resentment, of love and of celebration for any occasion that might arise. The ancient poets carefully selected men worthy of carrying on their art. These young men were taught the old *meles* and the technique of fashioning new ones. [Pukui 1949:247]

3.5.1 Makakilo

This *mele* talks about the love of Makakilo, an area within the 'Ewa District that lies *mauka* of the proposed project area. In this *mele*, a line "*Kaulana kou inoa a'o Barbers Point*" references the area of Kalaeloa and it being a welcoming home for sailors.

<i>Aloha ku'u home a'o Makakilo</i>	Loved is my home at Makakilo
<i>Aia i ka nani a'o Makakilo</i>	There, in the beauty of Makakilo
<i>Kaulana kou inoa a'o Barbers Point</i>	Your name is famous, Barbers Point
<i>Home ho'okipa mau ia no ka sela moku</i>	Always a welcoming home for the sailor
<i>Ho'ihō'i ke aloha a'o Makakilo</i>	Let love return to Makakilo
<i>Home ho'okipa mau ia no ka malihini</i>	Always a hospitable home for the visitor
<i>Huli aku mākou iā kou nani</i>	We turn towards your loveliness
<i>A 'ike i ka nani o ke kuahiwi</i>	And see the beauty of the mountains
<i>Ha'ina 'ia mai ana ka puana</i>	The story is now told
<i>Ho'ihō'i ke aloha a'o Makakilo</i>	Let love return to Makakilo

[Mike Bonniece, n.d]

3.5.2 Mele no Kūali'i

The celebrated chief, Kūali'i, is said to have led an army of twelve thousand against the chiefs of Ko'olauloa with an army of twelve hundred upon the plains of Keahumoa (Fornander 1917:6[2]:364–401). According to McAllister (1933:107), the plains of Keahumoa are located west of Kīpapa Gulch in Waialeale. Perhaps because the odds were so skewed the battle was called off and the *ali'i* of Ko'olau ceded the districts of Ko'olauloa, Ko'olaupoko, Waialua, and Wai'anae to Kūali'i. When the *ali'i* of Kaua'i heard of this victory at Honouliuli they gave Kaua'i to Kūali'i as well and thus he became in possession of all the islands. The strife at Honouliuli was the occasion of the recitation of a song for Kūali'i by a certain Kapa'ahulani. This *mele* compares the king to certain places and objects in the islands, in this instance to the first breadfruit planted by Kaha'i at Pu'uloa, and a pig and a woman on Pu'uokapolei, possibly a reference to Kamapua'a and his grandmother.

In this *mele*, the cold winds of Kumomoku and Leleiwe, near Pu'uloa in Honouliuli are compared unfavorably to the god Kū:

<i>Aole i like Ku.</i>	Not like these are thou, Ku
<i>Ia ua hoohali kehau,</i>	[Nor] the rain that brings the land breeze,
<i>Mehe ipu wai ninia la,</i>	Like a vessel of water poured out.
<i>Na hau o Kumomoku;</i>	Nor to the mountain breeze of Kumomoku,
<i>Kekee na hau o Leleiwi,</i>	[The] land breeze coming round to Leleiwi.
<i>Oi ole ka oe i ike</i>	Truly, have you not known?
<i>I ka hau kuapuu</i>	The mountain breezes, that double up your back,
<i>Kekee noho kee, o Kaimohala,</i>	[That make you] sit crooked and cramped at Kaimohala,
<i>O Kahili i Kaupea-la</i>	The Kahili at Kaupea?
<i>Aole i like Ku</i>	Not like these are thou, Ku

[Fornander 1917:6(2):390–391]

A later section of this *mele* also refers to Pu'uokapolei and makes mention of the famous blue *poi* of Honouliuli.

<i>O Kawelo-e, e Kawelo-e,</i>	O Kawelo! Say, Kawelo!
<i>O Kaweloiki puu oioi,</i>	Kawelokiki, the sharp-pointed hill,
<i>Puu o Kapolei-e-</i>	Hill of Kapolei.
<i>Uliuli ka poi e piha nei-o Honouliuli.</i>	Blue is the poi which appeases [the hunger] of Honouliuli.

[Fornander 1917:6(2):400–401]

3.5.3 *Eia Mai Au 'o Makalapua*

This *mele* pays homage to the royal train called *Lanakila*. In honoring this train, the *mele* also pays homage to its most honored and well-known passenger, Queen Lili'uokalani. This *mele* may also be understood as a protest song.

In analyzing this *mele*, cultural historian Kīhei de Silva notes that “Eia mai Au ‘o Makalapua” is the second of three chants that make up *hō‘alo i ka ihu o ka Lanakila* (Three Train Chants for Lili'uokalani). He adds that these songs, “when considered in chronological succession [...] add a Hawaiian dimension to the story of Benjamin Franklin (B.F.) Dillingham’s Oahu Railway and Land Company (OR&L), a story that otherwise reads far too much like an early script of *How the West was Won*” (de Silva 2003). De Silva provides a chronology of B.F. Dillingham’s rise to

influence within Hawaiian political spheres, and his eventual founding and construction of the OR&L line. Dillingham also figures prominently within Honouliuli Ahupua'a (see Section 4.2). Dillingham's personal history is described by de Silva as follows:

- Arrived in Honolulu in 1865 as first mate of the *Whistler*.
- He promptly fell off a horse and broke his leg. When his ship left without him, he took a job as a clerk in a hardware store.
- 20 years later, in 1885, he had become Hawai'i's first big-time land speculator, buying and leasing vast tracts of property in West O'ahu in hopes of reselling it to housing and ag. interests.
- When no one, in fact, took interest in his largely inaccessible property, he decided to build a railroad through it.
- In 1888, Dillingham convinced Kalākaua to sign a franchise giving him three years to build a line running from Honolulu to the far end of Pearl River Lagoon. His critics called it 'Dillingham's Folly,' but Dillingham boasted that he would put his railroad into operation by Sept. 4, 1889, his 45th birthday.
- Things did not go well in the early months of construction, and in order to fulfill this boast, Dillingham had to fire up a miniscule saddle-tank engine named *Kauila*, hitch it to a flatcar that carried his passengers on jury-rigged seats, and send it bucking, wheezing, and spewing greasy foam down a mile-and-a-half of track that ended in the rice paddies of Pālama.
- Despite this farcical beginning, the construction of Dillingham's railroad then proceeded in rather impressive fashion: the line was opened to 'Aiea in November 1889, to Mānana in January 1890, to Honouliuli and 'Ewa Mill in June and July 1890, to Wai'anae in July 1895, to Waialua in June, 1898, and to Kahuku in January 1899. [de Silva 2003]

In 1890, as construction of the railway moved forward, B.F. Dillingham bought and shipped to Hawai'i a passenger coach named *The Pearl* and a locomotive named *General Valleho*. According to de Silva (2003), the *Pearl* was built in San Francisco and was "paneled in rich woods and outfitted with plush chairs, velvet drapes, electric lights, a kitchen, a *lānai* (porch) with a striped canvas awning, and a new-fangled contraption called a flush toilet." The *General Valleho* was renamed the *Lanakila* by Dillingham:

[...] [He] gave it the number 45, a tribute to his 45th birthday boast and erstwhile victory in the rice paddies of Pālama. The *Lanakila* became Dillingham's 4th locomotive—after the *Kauila*, *Leahi*, and *Ka'ala*—and for many years it was regarded as the most attractive engine in the OR&L stable. Dillingham apparently wasted no time in hitching the *Pearl* to the *Lanakila* and using the pair as his wine-'em and dine-'em celebrity train, the vehicle in which he wooed financial and political support for his business ventures. [de Silva 2003]

As part of Dillingham's plans to woo the influential, he invited King Kalākaua on the inaugural ride on the *Lanakila*. Dillingham also insisted the luxury coach *Pearl* serve as the king's own royal car. De Silva (2003) notes it is "safe for us to assume that Queen Lili'u[okalani] rode in the *Pearl*

when the *Lanakila* took her on the train rides.” With the opening of the ‘Ewa Mill station, Queen Lili‘uokalani once again embarked on a journey on the *Lanakila*; this particular journey took her through “the lowlands of Honouliuli, and finally to the exposed coral plain of Pōlea on which the ‘Ewa Mill Station was located” (de Silva 2003).

<i>Eia mai au ‘o Makalapua</i>	Here I am, Makalapua
<i>Hō‘alo i ka ihu o ka Lanakila.</i>	Traveling where the <i>Lanakila</i> goes.
<i>‘O ke ku‘e a ka hao a i Kūwili</i>	The piston works at Kūwili
<i>Ka hiona ‘olu a ‘o Hālawa.</i>	And down the pleasant descent of Hālawa.
<i>Ua lawa ka ‘ikena i ke awalau</i>	Satisfying is the view of the lochs
<i>Iā ‘Ewa ka i‘a hāmau leo.</i>	Of ‘Ewa, “land of the silent fish.”
<i>Ua piha ka uahi a i Mānana</i>	The smoke rises at Mānana
<i>Aweawe i ke kula o Waipi‘o.</i>	And streams along at Waipi‘o.
<i>I kai ho‘i au a Honouliuli</i>	Then I reached the lowlands of Honouliuli
<i>Ahuwale ke ko‘a o Pōlea.</i>	Where the corals of Pōlea lie exposed.
<i>Ha‘ina ‘ia mai ana ka puana</i>	This is the conclusion of the song
<i>Hō‘alo i ka ihu a ka Lanakila.</i>	Of traveling where the <i>Lanakila</i> goes.
[de Silva 2003]	

De Silva (2003) provides a remarkable breakdown of this *mele*, delving into the subtext to reveal another layer of understanding, of *kaona*:

‘Makalapua’ shares [...] the sense of awesome efficiency and harmony [...] These are apparent in ‘Makalapua’s’ description of the working of the train’s piston at Kūwili, in the rising and billowing of steam at Mānana and Waipi‘o, and especially in the sense of speed with which the *mele* whisks us from Honolulu to Pōlea in the space of its six, two-line verses. Efficiency and harmony, however, are not at the heart of ‘Makalapua;’ it is inspired and driven, instead, by *aloha ‘āina*—love for the land—and by *kū‘ē ho‘ohui ‘āina*—resistance to annexation. In my reading of the *mele*, the dominant imagery is that of flower-stringing. The train and track serve as the contemporary equivalent of lei needle and thread; with them, Lili‘u sews a series of beloved place-names and place-associations into a lei of adornment and protection for Ke-awalau-o-Pu‘uloa. Keawalauopu‘uloa, the many-harbored sea of Pu‘uloa, is the old name for Pearl Harbor. The cession of Pearl Harbor to America in return for sugar reciprocity was one of the hottest political issues of ‘Makalapua’s’ day. Lili‘u was absolutely opposed to any Keawalau deals; her brother, on the other hand, had regularly waved this bait at the American nose; he was even rumored, on his Nov. 1890 departure to San Francisco, to have harbored a hidden Pearl Harbor agenda. The key lines of ‘Makalapua’ are ‘Ua lawa ka ‘ikena i ke awalau / Iā ‘Ewa ka i‘ā hāmau leo [...] I kai ho‘i au a Honouliuli / Ahuwale ke ko‘a o Pōlea.’ In my reading, these lines say: ‘We hold to our knowledge of Keawalau, we are like its closed-mouthed pipi, its oysters; we will never give up

the pearl that we contain; here at the shoreline of Honouliuli we normally silent fish reveal this deeply held conviction.' [de Silva 2003]

Section 4 Historical Accounts

4.1 Pre- and Early Post-Contact

Various Hawaiian legends and early historical accounts indicate the *ahupua'a* of Honouliuli was once widely inhabited by pre-Contact Hawaiian populations, including the Hawaiian *ali'i*. In early historic times, the population of Honouliuli was concentrated at the western edge of West Loch in the vicinity of Kapapahu Point in the “Honouliuli Taro Lands” (see Figure 5). This substantial settlement is attributable for the most part to the plentiful marine and estuarine resources available at the coast, as well as lowlands fronting the West Loch of Pearl Harbor (Kaihuopala'ai) suitable for wetland taro cultivation. Handy and Handy report,

The lowlands, bisected by ample streams, were ideal terrain for the cultivation of irrigated taro. The hinterland consisted of deep valleys running far back into the Ko'olau range. Between the valleys were ridges, with steep sides, but a very gradual increase of altitude. The lower parts of the valley sides were excellent for the culture of yams and bananas. Farther inland grew the 'awa for which the area was famous. [Handy and Handy 1972:469]

Dicks et al. (1987:78–79) conclude, on the basis of 19 radiocarbon dates and three volcanic glass dates, that “Agricultural use of the area spans over 1,000 years.”

Also, breadfruit, coconuts, *wauke* (paper mulberry; *Broussonetia papyrifera*), bananas, *olonā* (*Touchardia latifolia*), and other plants were grown in the interior. 'Ewa was known as one of the best areas to grow gourds and was famous for its *māmaki* (*Pipturus*). It was also famous for a rare taro called the *kāi o 'Ewa*, which was grown in mounds in marshy locations (Handy and Handy 1972:471).

In addition, forest resources along the slopes of the Wai'anae Range, as suggested by E.S. and E.G. Handy, probably acted as a viable subsistence alternative during times of famine and/or low rainfall:

The length or depth of the valleys and the gradual slope of the ridges made the inhabited lowlands much more distant from the 'wao, or upland jungle, than was the case on the windward coast. Yet the 'wao here was more extensive, giving greater opportunity to forage for wild foods during famine time. [Handy and Handy 1972:469–470]

John Papa 'Ī'i describes a network of leeward O'ahu trails that in later historic times encircled and crossed the Wai'anae Range, allowing passage from West Loch to the Honouliuli lowlands, past Pu'uokapolei and Waimānalo Gulch to the Wai'anae coast and onward, along the shoreline of O'ahu (Figure 6; 'Ī'i 1959:96–98). Following 'Ī'i's description, a portion of this trail network would have passed close to the present Farrington Highway alignment, north of the project area. The Malden map of 1825 (Figure 7) indicates the nearest community just northeast of the project area along the coast.

Ali'i were also attracted to this region. One historical account of particular interest refers to an *ali'i* residing in Ko Olina (as described in Sterling and Summers 1978)—the place name historically associated with the immediate vicinity of the project area:



Figure 6. Portion of Rockwood map of trails of Leeward O'ahu ca. 1810 (from 'I 1959:96) showing the location of The Cove Redevelopment project area

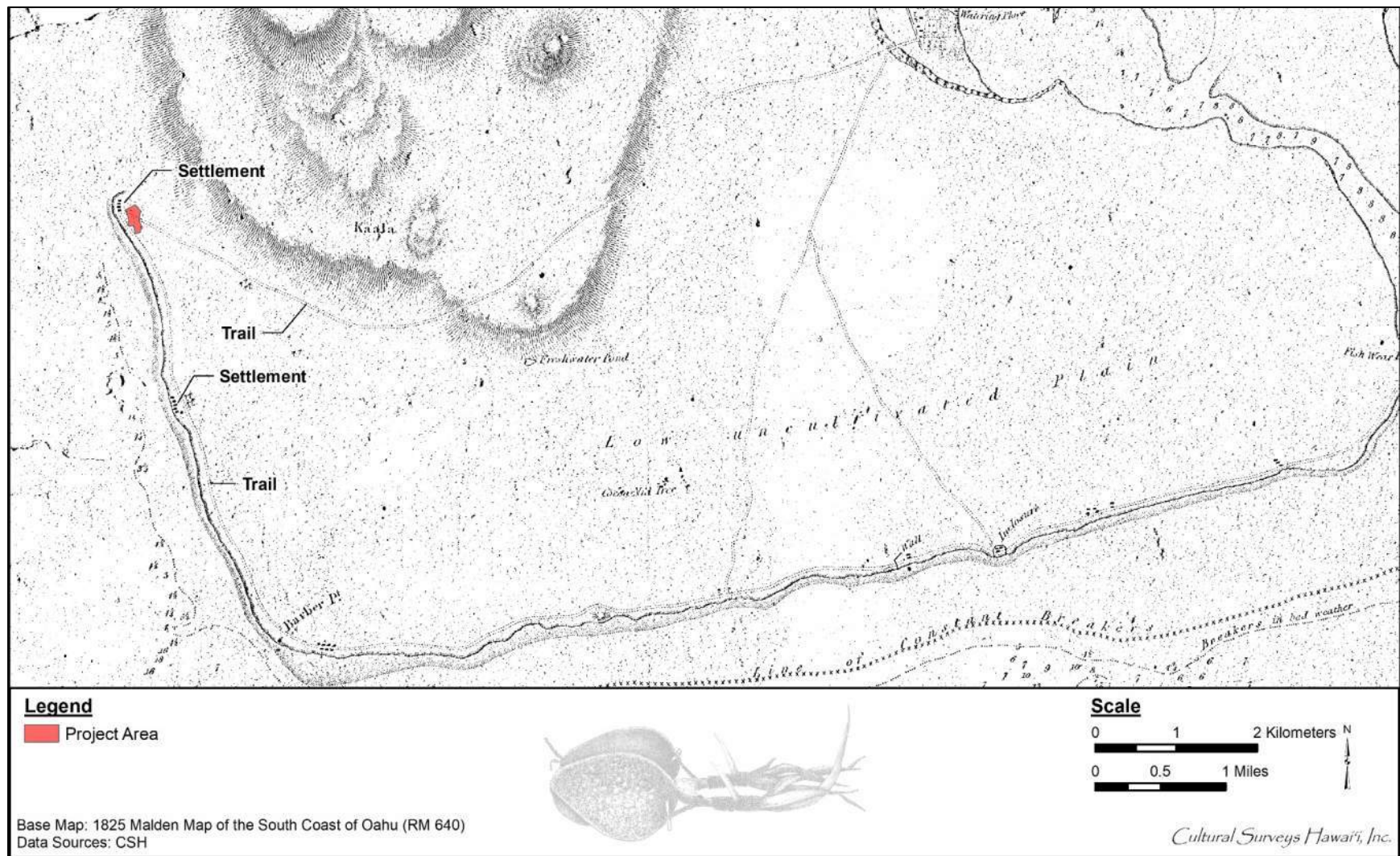


Figure 7. Portion of 1825 Malden map of the South Coast of Oahu (RM 640) showing the location of The Cove Redevelopment project area in relation to former trails and settlements

Koolina is in Waimanalo near the boundary of Ewa and Waianae. This was a vacationing place for chief Kakuhihewa and the priest Napuaikamao was the caretaker of the place. Remember Reader, this Koolina is not situated in the Waimanalo on the Koolau side of the island but the Waimanalo in Ewa. It is a lovely and delightful place and the chief, Kakuhihewa loved this home of his. [*Ke Au Hou* 13 July 1910 in Sterling and Summers 1978:41]

Other early historical accounts of the general region typically refer to the more populated eastern portion of 'Ewa District, where missions and schools were established, and subsistence resources were perceived to be greater. However, the presence of historic properties along the barren coral plains and coast of southwest Honouliuli Ahupua'a indicate pre-Contact and early post-Contact populations also adapted to less inviting areas, despite the environmental hardships.

Subsequent to Western Contact in the area, the landscape of the 'Ewa plains and Wai'anae slopes was adversely affected by the over-harvesting of the sandalwood forest, and particularly by the introduction of domesticated animals and exotic plant species. Domesticated animals including goats, sheep, and cattle were brought to the Hawaiian Islands by Captain George Vancouver in the early 1790s and were allowed to graze freely about the land for some time after. It is unclear when the domesticated animals were brought to O'ahu; however, L.A. Henke reports the existence of a longhorn cattle ranch in Wai'anae by at least 1840 (Frierson 1972:10). At the same time, perhaps as early as 1790, exotic vegetation species were introduced to the area. These typically included vegetation best suited to a terrain disturbed by the logging of sandalwood forest and eroded by animal grazing. Within the project area, the majority of the vegetation is composed of introduced species, mainly grasses.

At Contact, the most populous *ahupua'a* on the island was Honouliuli, with the majority of the population centered around Pearl Harbor. In 1832, a missionary census of Honouliuli recorded the population as 1,026. Within four years the population was down to 870 (Schmitt 1973:19, 22). In 1835, there were eight to ten deaths for every birth (Kelly 1991:157–158). Between 1848 and 1853, there was a series of epidemics of measles, influenza, and whooping cough that often dismantled whole villages. In 1853, the population of 'Ewa and Wai'anae combined was 2,451 people. In 1872, it was 1,671 (Schmitt 1968:71). The inland area of 'Ewa was probably abandoned by the mid-nineteenth century due to population decline and consolidation of the remaining people in the town of Honouliuli.

4.2 Mid- to Late 1800s

The Organic Acts of 1845 and 1846 initiated the process of the Māhele—the division of Hawaiian lands—which introduced private property into Hawaiian society. In 1848, the crown and the *ali'i* received their land titles. The common people received their *kuleana* (individual parcels) in 1850. During the Māhele of 1848, 72 individual land claims in the *ahupua'a* of Honouliuli were registered and awarded by King Kamehameha III to commoners (Tuggle and Tomonari-Tuggle 1997:34). The 72 *kuleana* awards were almost all made adjacent to Honouliuli Gulch, which contained fishponds and irrigated taro fields. No commoner awards were within or in the immediate vicinity of the project area, which appears to have been included in the largest *ali'i* award (Royal Patent 6071, LCA 11216, 'Āpana [lot] 8) granted in Honouliuli Ahupua'a to Miriam Ke'ahi-Kuni Kekau'ōnohi on January 1848 (Native Register). Kekau'ōnohi acquired a deed to all unclaimed land within the *ahupua'a*, totaling 43,250 acres.

Kekau'ōnohi was one of Liholiho's (Kamehameha II's) wives, and after his death she lived with her half-brother, Luanu'u Kahalai'a, who was governor of Kaua'i (Kelly 1983:21). Subsequently, Kekau'ōnohi ran away with Queen Ka'ahumanu's stepson, Keli'iahonui and became the wife of Chief Levi Ha'alelea. Upon her death on 2 June 1851, her property passed to her husband and his heirs. In 1863, the owners of the *kuleana* lands deeded their lands back to Ha'alelea to pay off debts owed to him (Frierson 1972:12). In 1864, Ha'alelea died, and his second wife, Anadelia Amoe, transferred ownership of the land to her sister's husband, John Coney (Yoklavich et al. 1995:16).

In 1871, John Coney rented the land to James Dowsett and John Meek, who used the land for cattle grazing. In 1877, James Campbell purchased most of Honouliuli Ahupua'a—including the project area—for a total of \$95,000. He then drove off 32,347 head of cattle belonging to Dowsett, Meek, and James Robinson and constructed a fence around the outer boundary of his property (Bordner and Silva 1983:C-12). He let the land rest for one year and then began to restock the ranch, so that he had 5,500 head after a few years (Dillingham 1885 in Frierson 1972:14).

An 1873 map depicts sparse housing in the vicinity of the project area with surroundings undeveloped and likely utilized for cattle grazing (Figure 8). An oblong-shaped area in the southern portion of the project area extends south into the Lanikūhonua area and northwest into the Pacific Ocean. The area appears to be an area containing a water feature that drains out into the sea.

In 1881, a medical student touring the island to provide smallpox vaccinations to the population viewed Campbell's property, recalled the Honouliuli Ranch:

I took a ride over the Honouliuli Ranch which is quite romantic. The soil is a deep, reddish loam, up to the highest peaks, and the country is well-grassed. Springs of water abound. The ilima, which grows in endless quantities on the plains of this ranch, is considered excellent for feeding cattle; beside it grows the indigo plant, whose young shoots are also good fodder, of which the cattle are fond. Beneath these grows the manieizie grass, and Spanish clover and native grasses grow in the open; so there is abundant pasturage of various kinds here. As I rode, to the left were towering mountains and gaping gorges; ahead, undulating plains, and to the right, creeks and indentations from the sea. A wide valley of fertile land extends between the Nuuanu Range and the Waianae Mountains and thence to the coast of Waialua. There are many wild goats in this valley, which are left more or less because they kill the growth of mimosa bushes, which would otherwise overrun the country and destroy the pasturage for cattle. [Briggs 1926:62–63]

Most of Campbell's lands in Honouliuli were used exclusively for cattle ranching. At that time, one planter remarked that "the country was so dry and full of bottomless cracks and fissures that water would all be lost and irrigation impracticable" (Ewa Plantation Company 1923:6–7). In 1879, Campbell brought in a well-driller from California to search the 'Ewa plains for water. The exploratory well, drilled to a depth of 240 ft near Campbell's home in 'Ewa, resulted in "a sheet of pure water flowing like a dome of glass from all sides of the well casing" ("The Legacy of James Campbell" n.d. in Pagliaro 1987:3). Following this discovery, plantation developers and ranchers drilled numerous wells in search of the valuable resource. A Hawaii Government map from 1881 shows a stone quarry to the southeast of the project area (Figure 9).

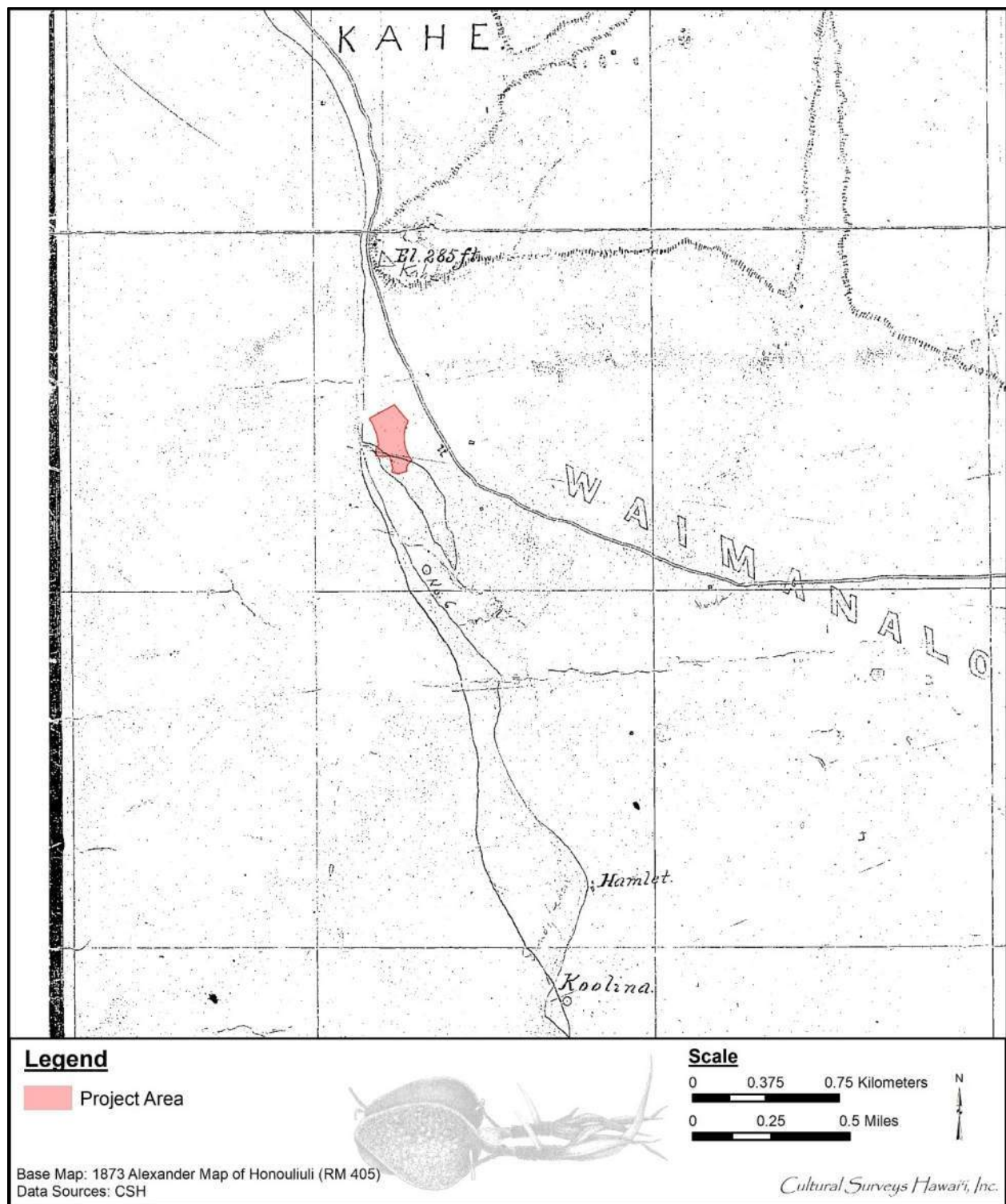


Figure 8. Portion of 1873 Alexander map of Honouliuli (RM 405) showing the southern portion of the project area within a former water feature surrounded by undeveloped lands

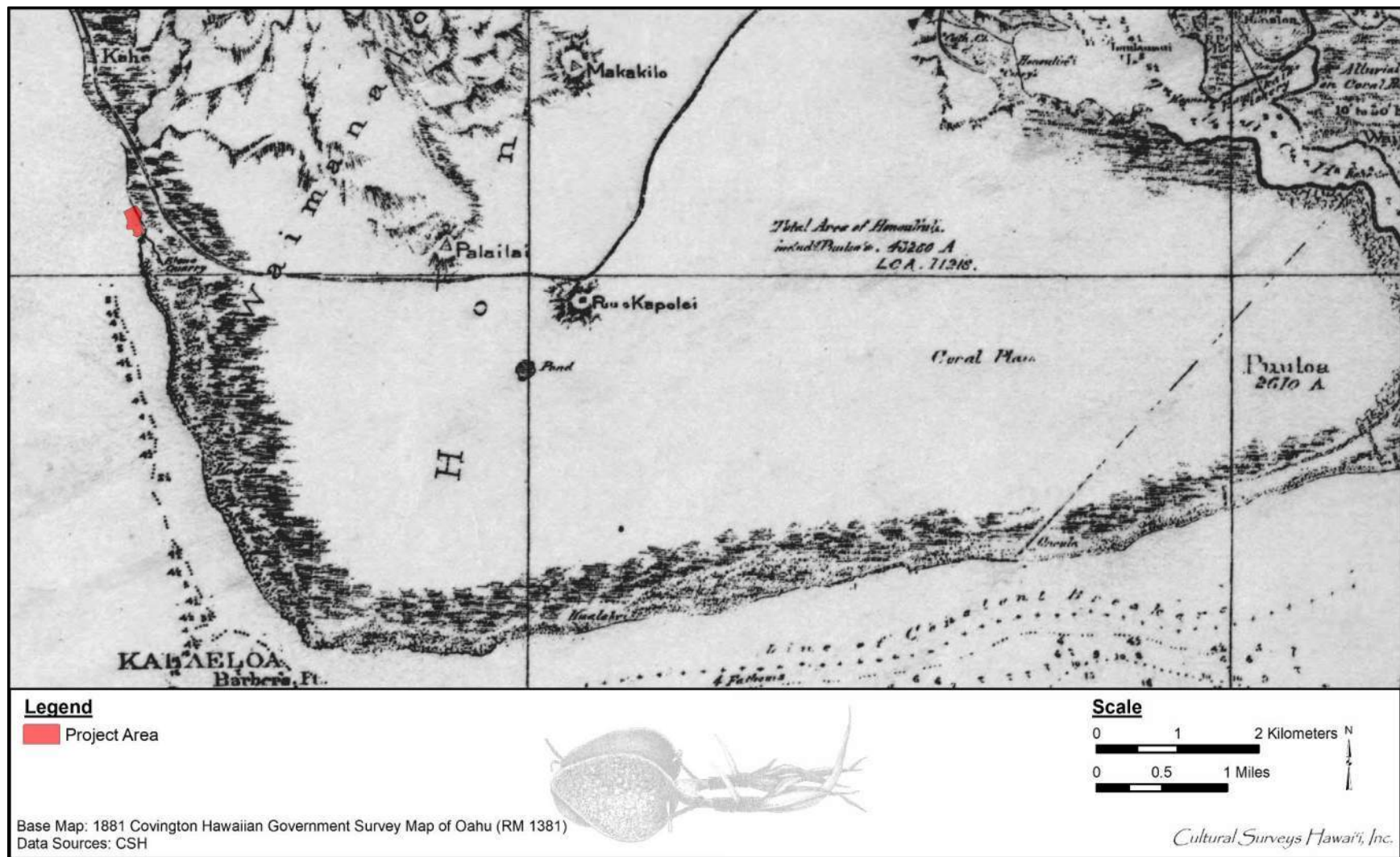


Figure 9. Portion of 1881 Covington Hawaiian Government Survey map of Oahu (RM 1381) showing the location of The Cove Redevelopment project area with a stone quarry to the southeast

In 1886, Campbell and B.F. Dillingham put together the “Great Land Colonization Scheme,” which was an attempt to sell Honouliuli land to homesteaders (Thrum 1886:74). This homestead idea failed, but with the water problem solved by the drilling of artesian wells, Dillingham decided the area could be used instead for large-scale cultivation (Pagliaro 1987:4). In 1889, Campbell leased his property to Benjamin Dillingham, who subsequently formed the Oahu Railway and Land Company (OR&L) as the result of a franchise granted by King Kalākaua in 1886. In 1889, Dillingham opened the first 9 miles of narrow-gauge track on the King’s birthday. To attract business to his new railroad system, Dillingham subleased all land below 200 ft elevation to William Castle, who in turn sublet the area to the Ewa Plantation Company for sugarcane cultivation. Dillingham’s Honouliuli lands above 200 ft elevation, which were suitable for sugarcane cultivation, were sublet to the Oahu Sugar Company. Throughout this time, and into modern times, cattle ranching continued in the area and Honouliuli Ranch—established by Dillingham—was the “fattening” area for the other ranches (Frierson 1972:15).

4.3 1900s to Present

Historic maps and aerial photographs depict little change from the early 1900s to the development of the Ko Olina Resort area for the resort and harbor (Figure 10 through Figure 19). During the early 1900s, the Ewa Plantation Company grew quickly. When the rainy season began, they plowed ground perpendicular to the slope so that soil would be carried down the drainage ditches into the lower coral plain. After a few years, about 373 acres of coral wasteland were reclaimed in this manner (Immisch 1964). By the 1920s, the Ewa Plantation Company was generating large profits and was the “richest sugar plantation in the world” (*Paradise of the Pacific* December 1902:19–22). The 1919 U.S. Army War Department map (see Figure 11) shows plantation infrastructure including a railway, large wall, and unimproved road near the project area. A 1939 map of the Ewa Plantation indicates Field No. 1 is within the project area (see Figure 14).

By 1920, the lands of Honouliuli were used primarily for sugarcane cultivation and ranching (Frierson 1972:18). Much of the lands in western Honouliuli unsuitable for commercial sugar cultivation remained pasture land for grazing livestock. In the late 1920s, the main residential communities were at the northeast edge of the ‘Ewa Plain. The largest community was still at Honouliuli village. ‘Ewa was primarily a plantation town, focused around the sugar mill, with a public school as well as a Japanese School. Additional settlement was in Waipahu, centered around the Waipahu sugar mill, operated by the Oahu Sugar Company.

Beginning in 1939, Alice Kamokilaikawai Campbell, daughter of James and Abigail Kuaihelani Maipinepine Campbell, resided in Lanikūhonua, adjacent to the project area for nearly 30 years. Mrs. Campbell named the area Lanikūhonua which means “where the heavens meet the earth” (Lanikūhonua Cultural Institute 2019). Cultural descendant Nettie Fernandez Tiffany, current caretaker of the Lanikūhonua Institute, stated that her mother, Leilani Fernandez, was a close friend of Alice Campbell (personal communication October 2019). Mrs. Fernandez owned a beach home within the current project area and was the previous caretaker of the Campbell Estate property (see Figure 19).

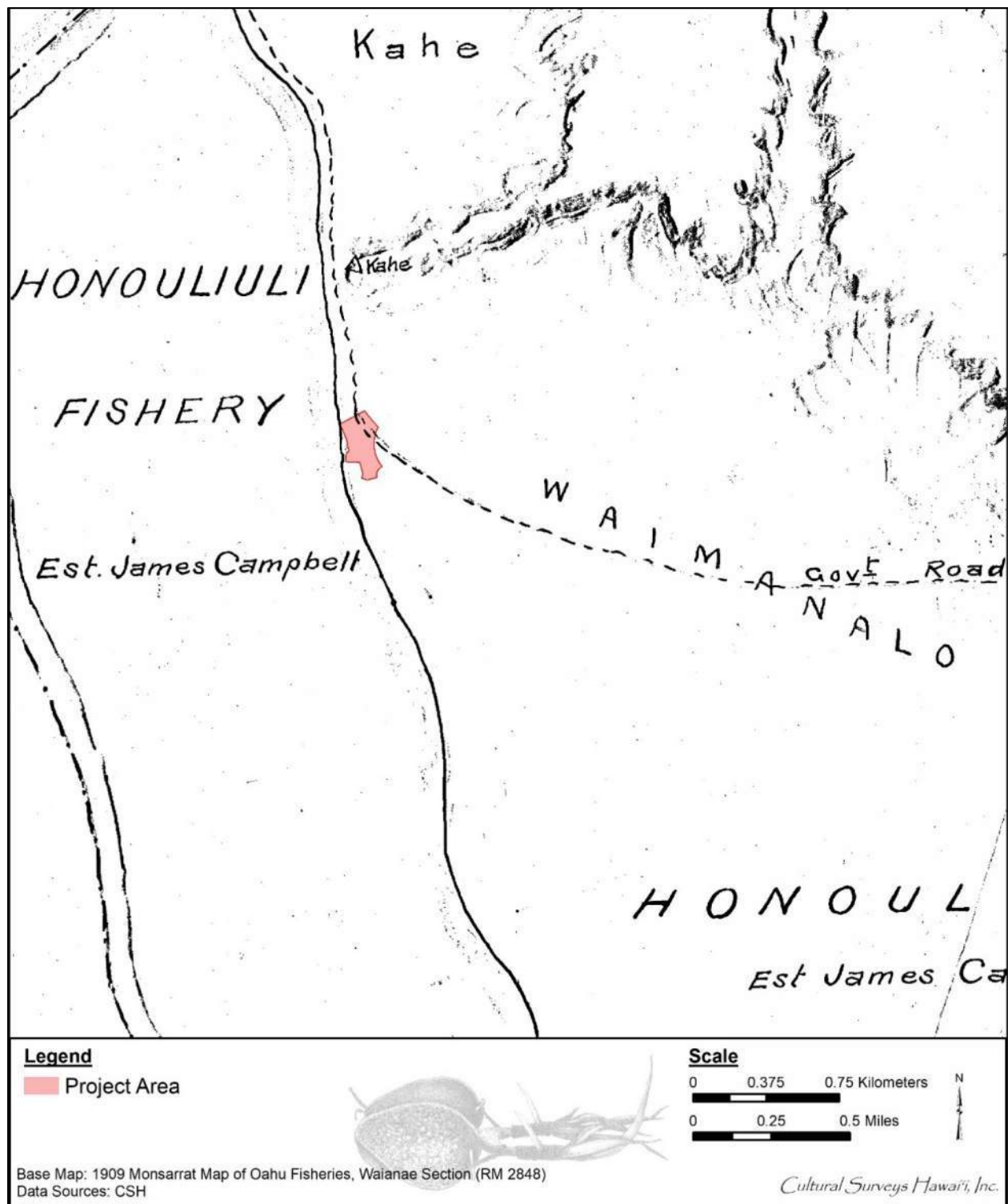


Figure 10. Portion of a 1909 Monsarrat map of Oahu Fisheries, Waianae Section (RM 2848) showing the location of The Cove Redevelopment project area

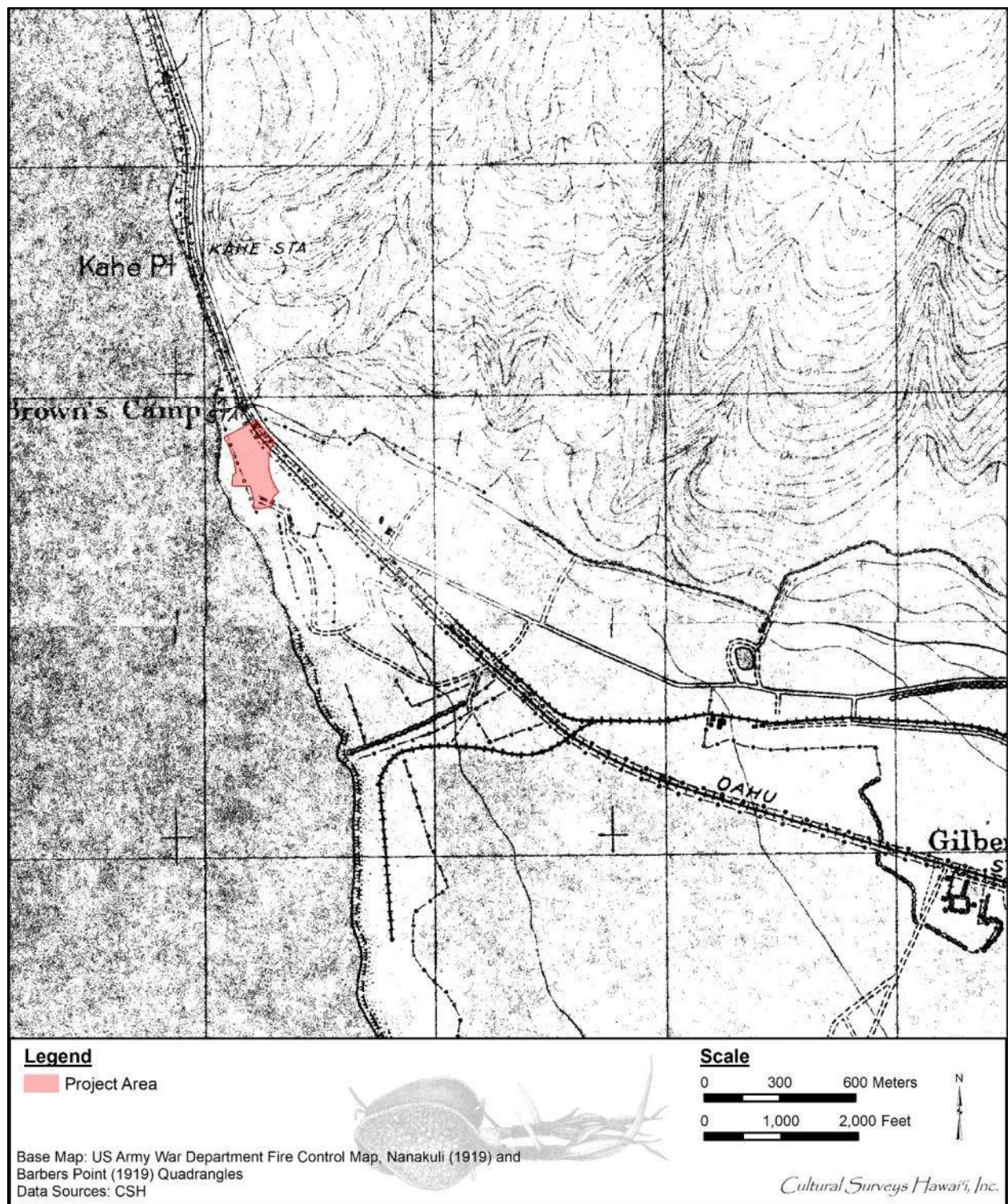


Figure 11. Portion of 1919 U.S. Army War Department fire control map, Nanakuli and Barbers Point quadrangles, showing the location of The Cove Redevelopment project area showing the OR&L Railroad to the northeast

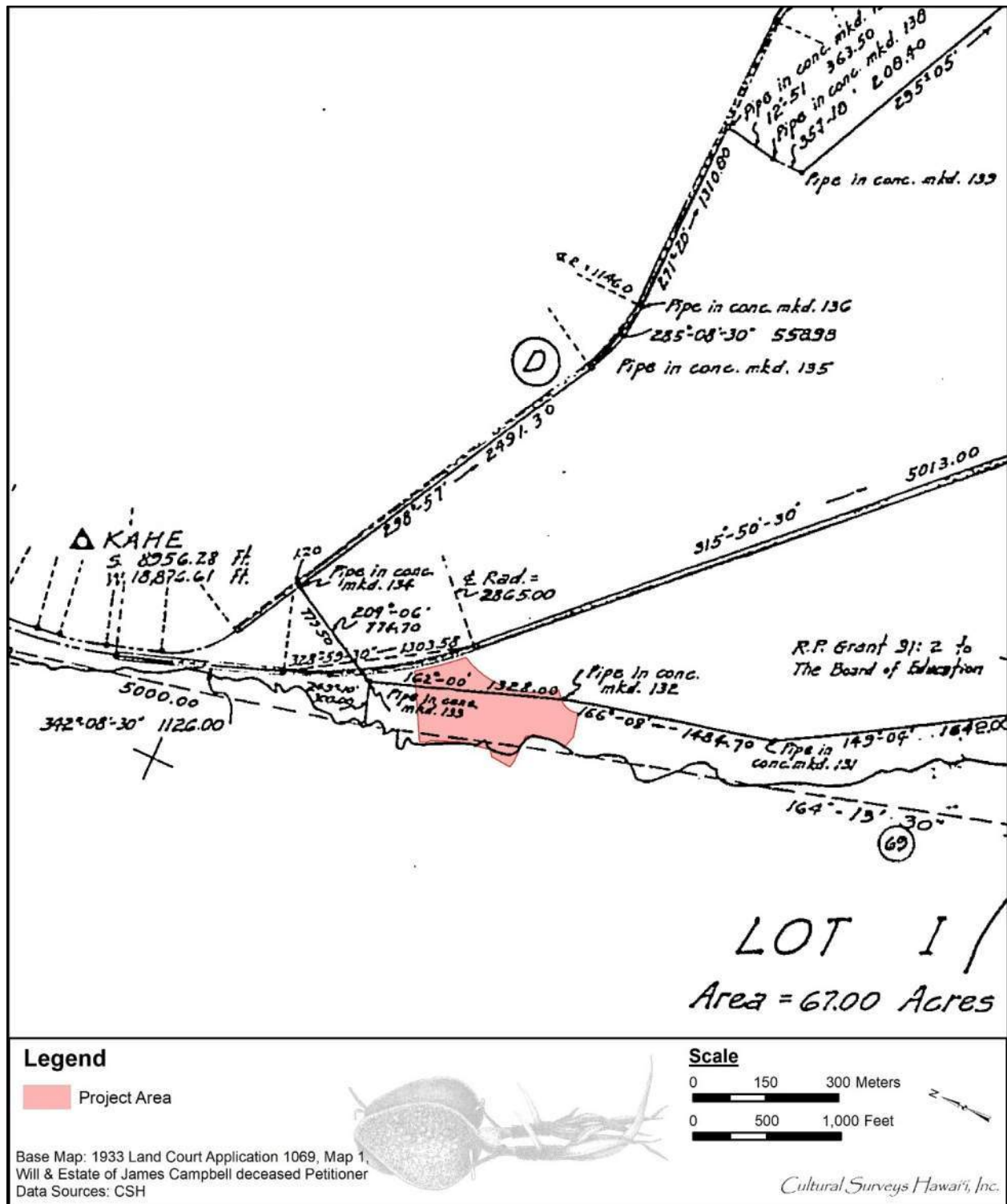


Figure 12. Portion of a 1933 Land Court Application 1069, Map 1, Will and Estate of James Campbell deceased Petitioner, showing the location of The Cove Redevelopment project area



Figure 13. Portion of the 1936 U.S. Army War Department terrain map, Waianae and Barbers Point quadrangles showing the location of The Cove Redevelopment project area (the white area east of the project area is likely sugarcane lands)

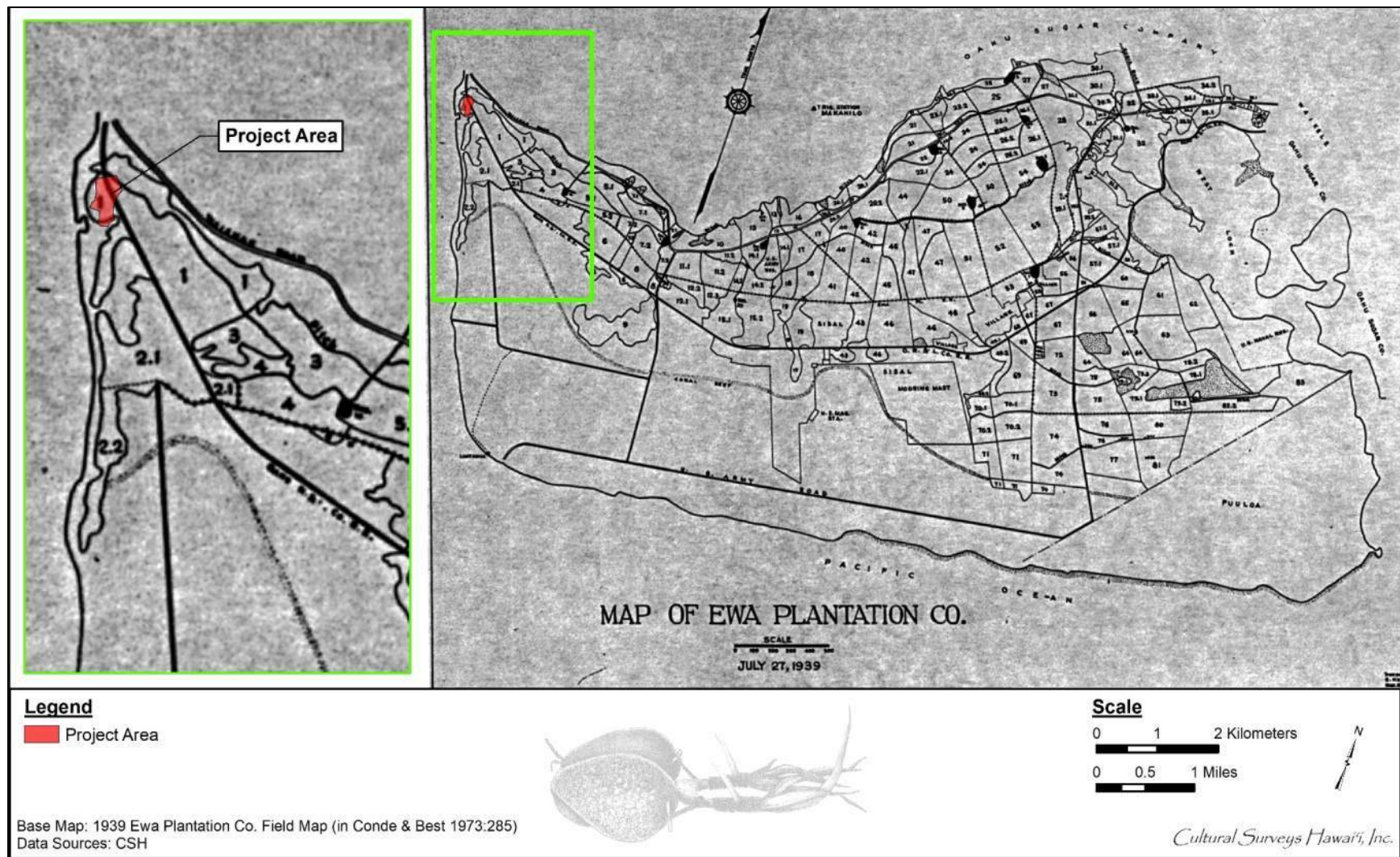


Figure 14. 1939 field map of Ewa Plantation Company, showing the location of The Cove Redevelopment project area as mostly within sugarcane cultivation Field 1 (Condé and Best 1973:285)

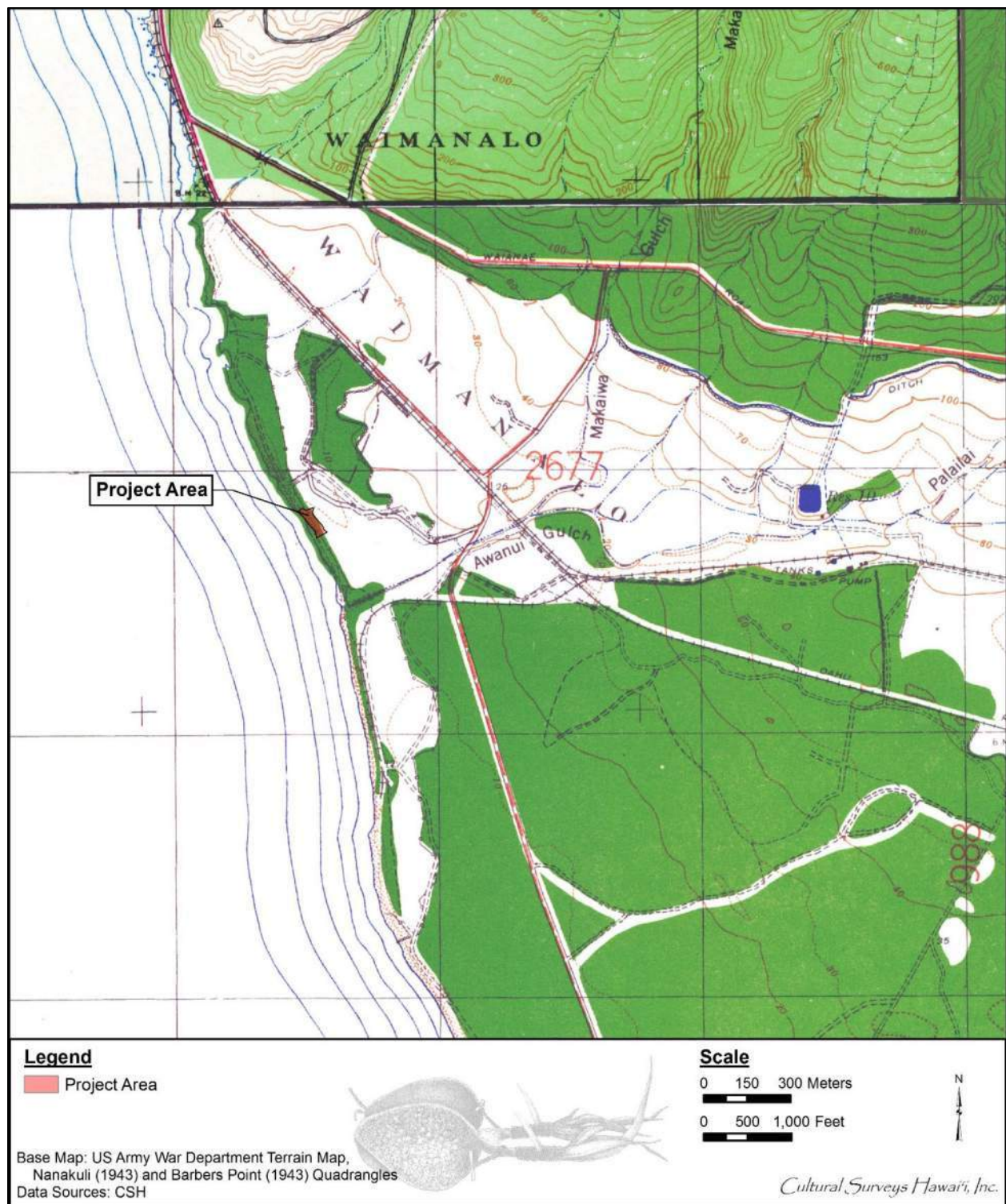


Figure 15. Portion of 1943 U.S. Army War Department terrain map, Nanakuli and Barbers Point quadrangles, showing the location of the project area (the white area east of the project area is likely sugarcane lands)

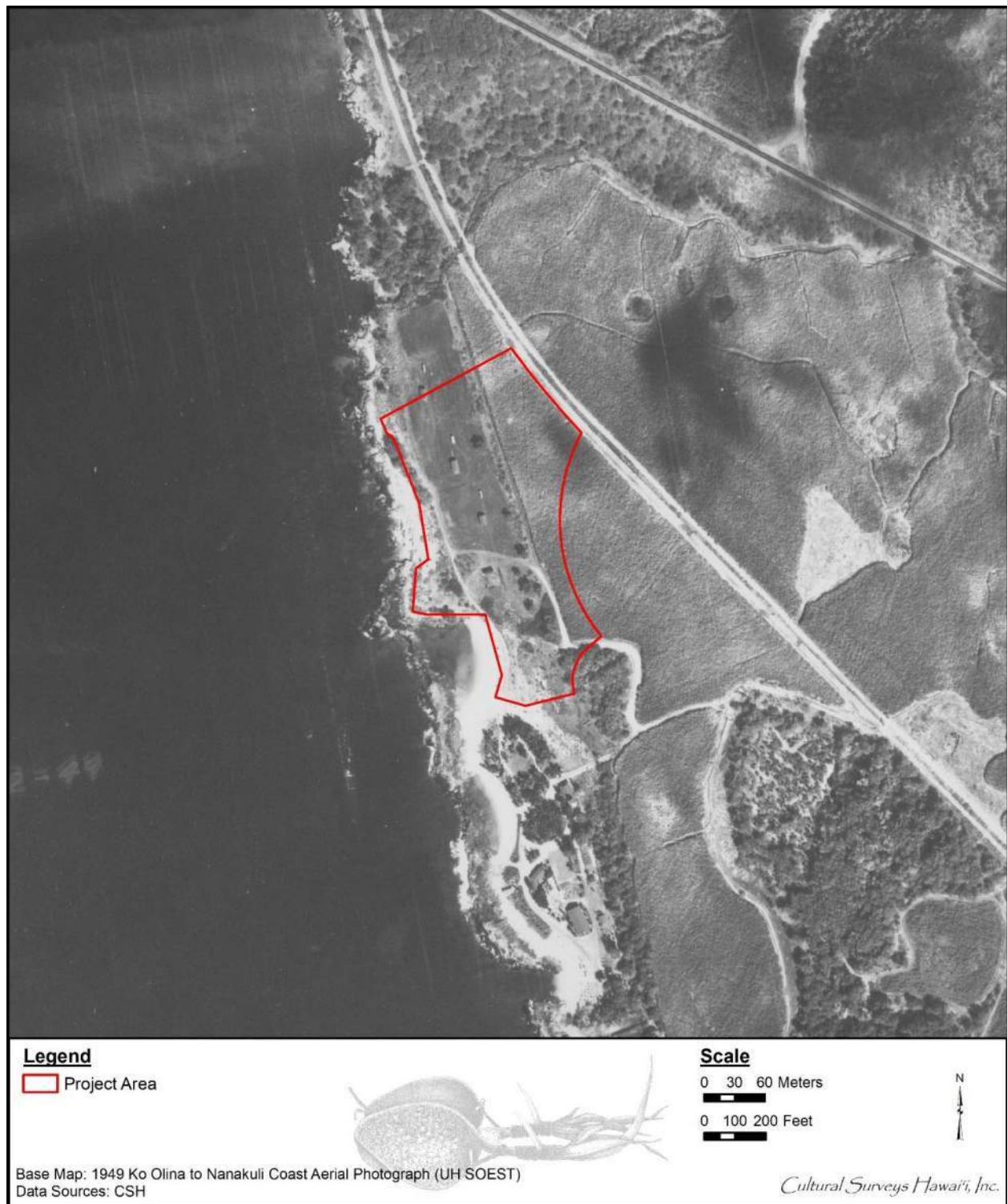


Figure 16. 1949 Ko Olina to Nanakuli Coast aerial photograph (UH SOEST), showing development of a few structures in the project area

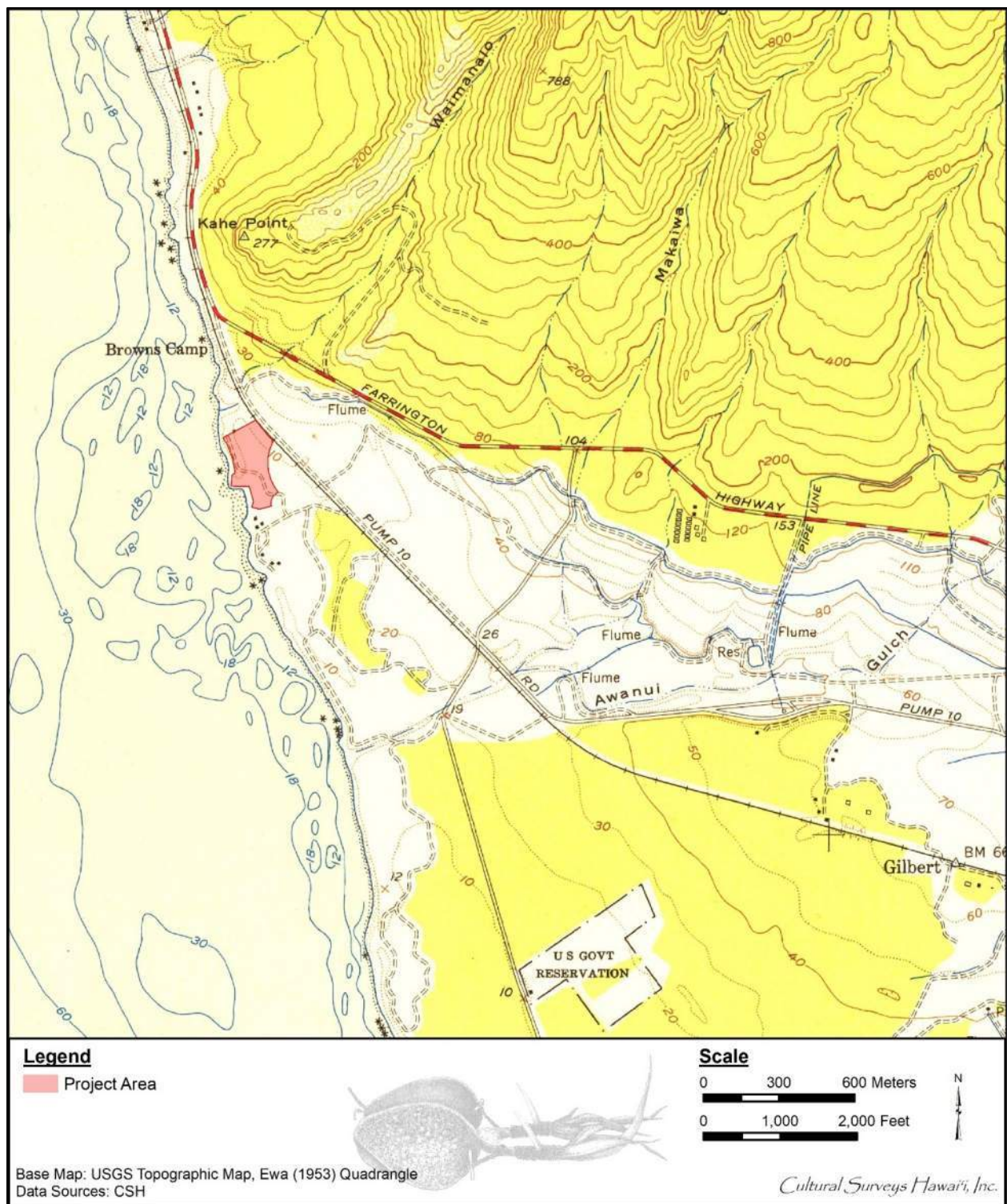


Figure 17. Portion of the 1953 Ewa USGS topographic quadrangle showing the location of The Cove Redevelopment project area

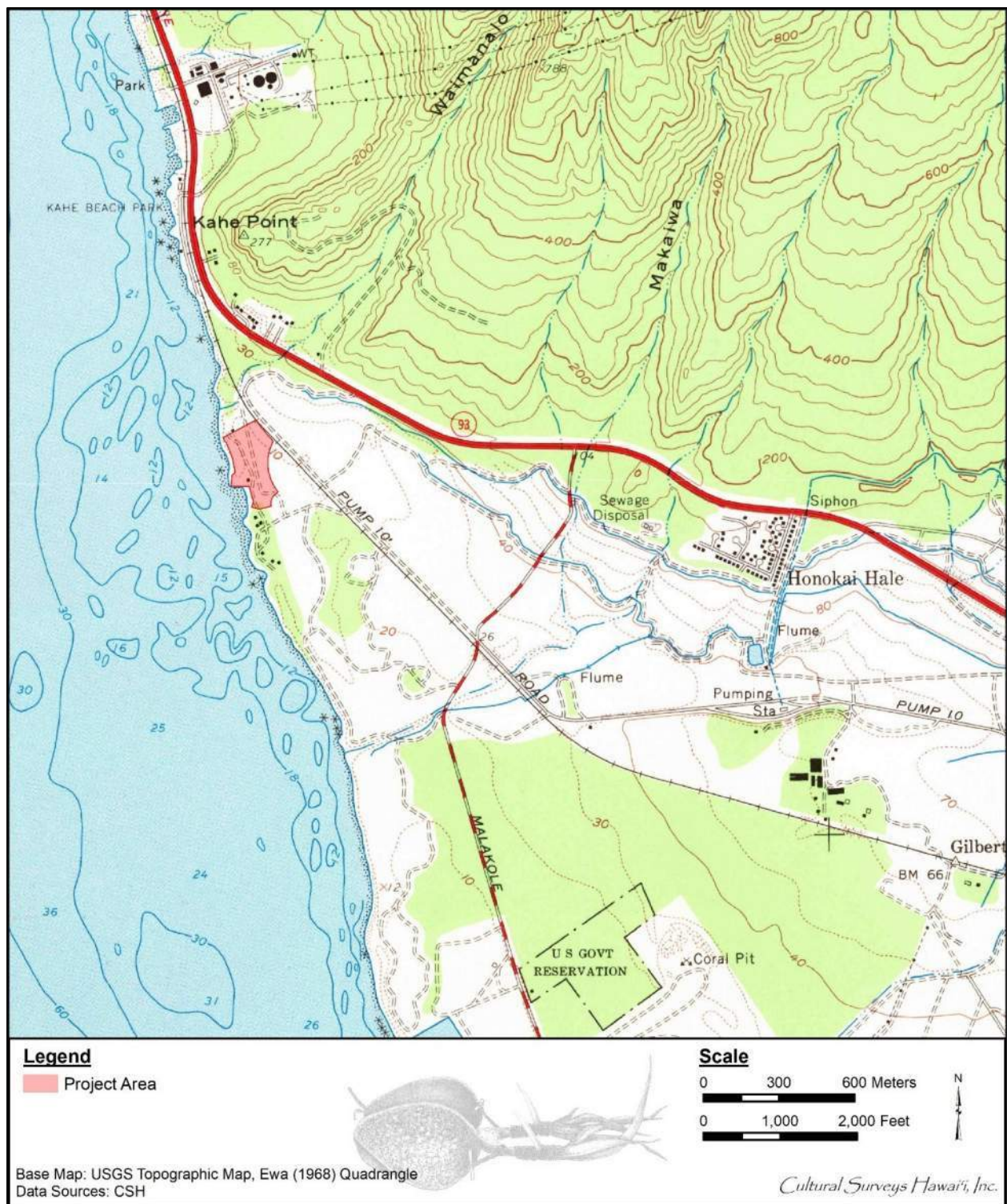


Figure 18. Portion of the 1968 Ewa USGS topographic quadrangle showing the location of The Cove Redevelopment project area

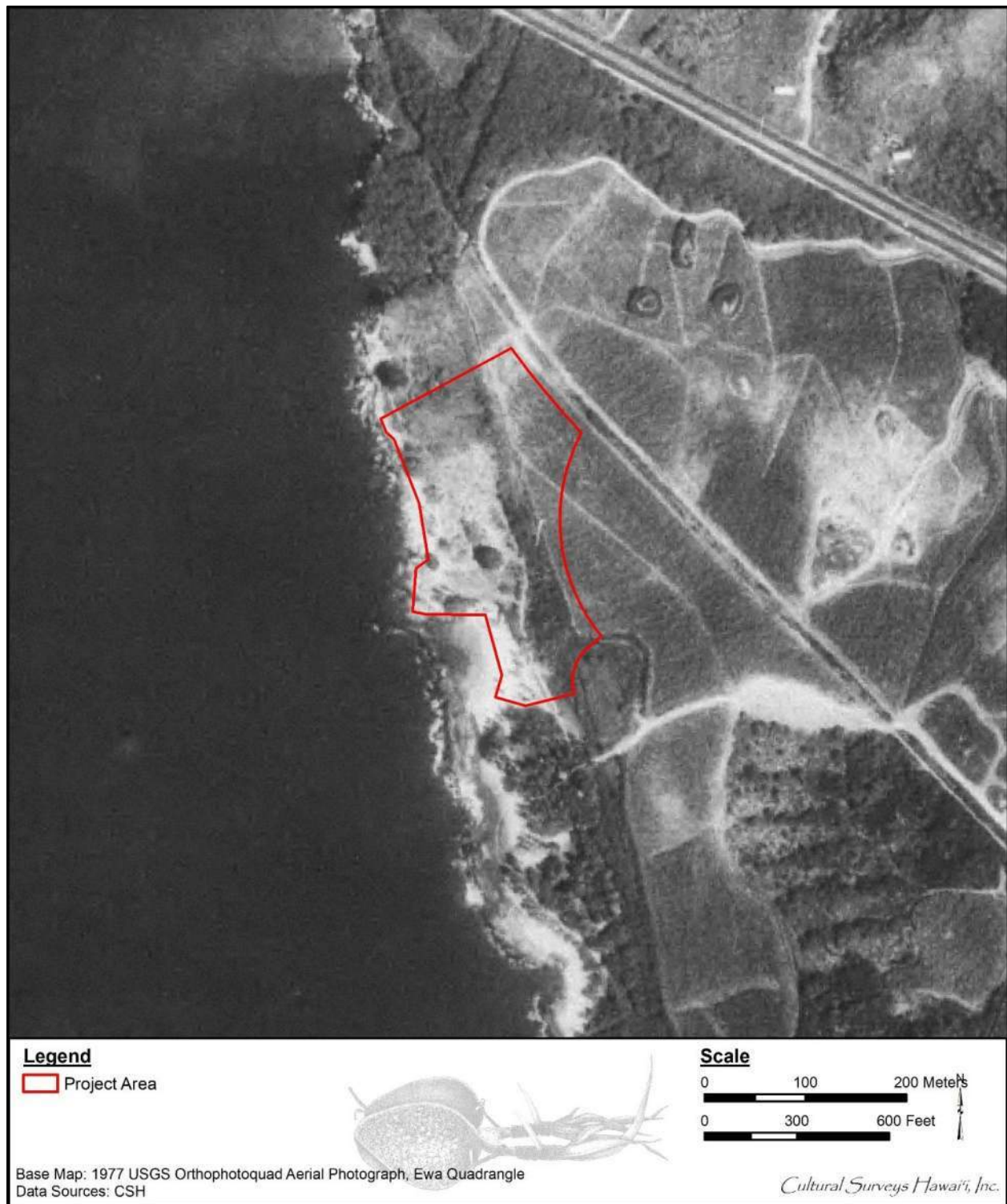


Figure 19. 1977 USGS Orthophotoquad aerial photograph, Ewa quadrangle, depicting no structures or development in the project area

Major land use changes came to western Honouliuli when the U.S. military began development in the area. Military installations were constructed both near the coast and in the foothills and upland areas (Figure 20). Barbers Point Military Reservation (formerly Battery Barbers Point from 1937–1944) at Barbers Point Beach was used beginning in 1921 as a training area for firing 155 mm guns (Payette 2003). Also in the vicinity were Camp Malakole Military Reservation (formerly Honouliuli Military Reservation), used from 1939, and Gilbert Military Reservation, used from 1922–1944. The 1919 U.S. Army war map (see Figure 11) indicates the Gilbert Station, understood as the site of a very small Gilbert Camp associated with the railway and Ewa Plantation, and Waimanalo Camp in the vicinity but well outside the project area.

Barbers Point Naval Air Station, in operation from 1942 to the 1990s, was the largest and most significant base in the area. It housed numerous naval and defense organizations, including maritime surveillance and anti-submarine warfare aircraft squadrons, a U.S. Coast Guard Air Station, and components of the U.S. Pacific Fleet. Fort Barrette (a.k.a. Kapolei Military Reservation and Battery Hatch) atop Pu'uokapolei was in use from 1931–1948 for housing four 3-inch anti-aircraft batteries (Payette 2003). In the 1950s, the site was used as a Nike missile base. Palailai Military Reservation was built in 1921 atop Pu'u Pālailai in Makakilo and housed Battery Palailai and Fire Control Station B (Payette 2003).

The OR&L railroad alignment is northeast/northwest of the project area (see Figure 14). Throughout World War II, the railway served a critical function in transporting military personnel and equipment. However, the development of an improved road system and increasing numbers of cars on the island began to cut into passenger totals on the OR&L. According to the National Register of Historic Places (NRHP) inventory forms on file at SHPD, on 12 December 1947, all operations outside Honolulu ceased.

In 1950, the U.S. Navy purchased the track and right-of-way from Pearl Harbor to the Naval Ammunition Depot (NAD) access road in Nānākuli for \$1.00 in the name of “National Defense.” The NAD maintained this 25.5-mile stretch of track until the early 1950s, when a 6.5-mile stretch from Pearl Harbor to Waipahu was ceded to the Territory of Hawai'i. A further 6 miles was ceded to the Territory in 1954 after a heavy flood. The final 13-mile stretch was in use until 1968, when it too was ceded to the state. In 1970, the Hawaiian Railway Society was formed to preserve and restore remaining portions of the OR&L. The Society restored 6.5 miles of track from 'Ewa to Nānākuli, including the portion adjacent to the current project area, and continues to use and maintain the railroad for historical tours.

The 1980s saw a joint venture between Japanese construction giant Kumagai Gumi and Hawai'i developers Horita Corporation and TSA International for the development of a \$6 billion resort (*The Age*, 3 December 1986:34). The development was originally called “West Beach,” and construction began on the lagoon and harbor in November 1986 (Figure 21 and Figure 22). Four man-made lagoons were constructed, as well as an 18-hole golf course, luxury condominiums, and a hotel (*Honolulu Star-Bulletin*, 20 August 1998). West Beach was subsequently developed as Ko Olina Resort.

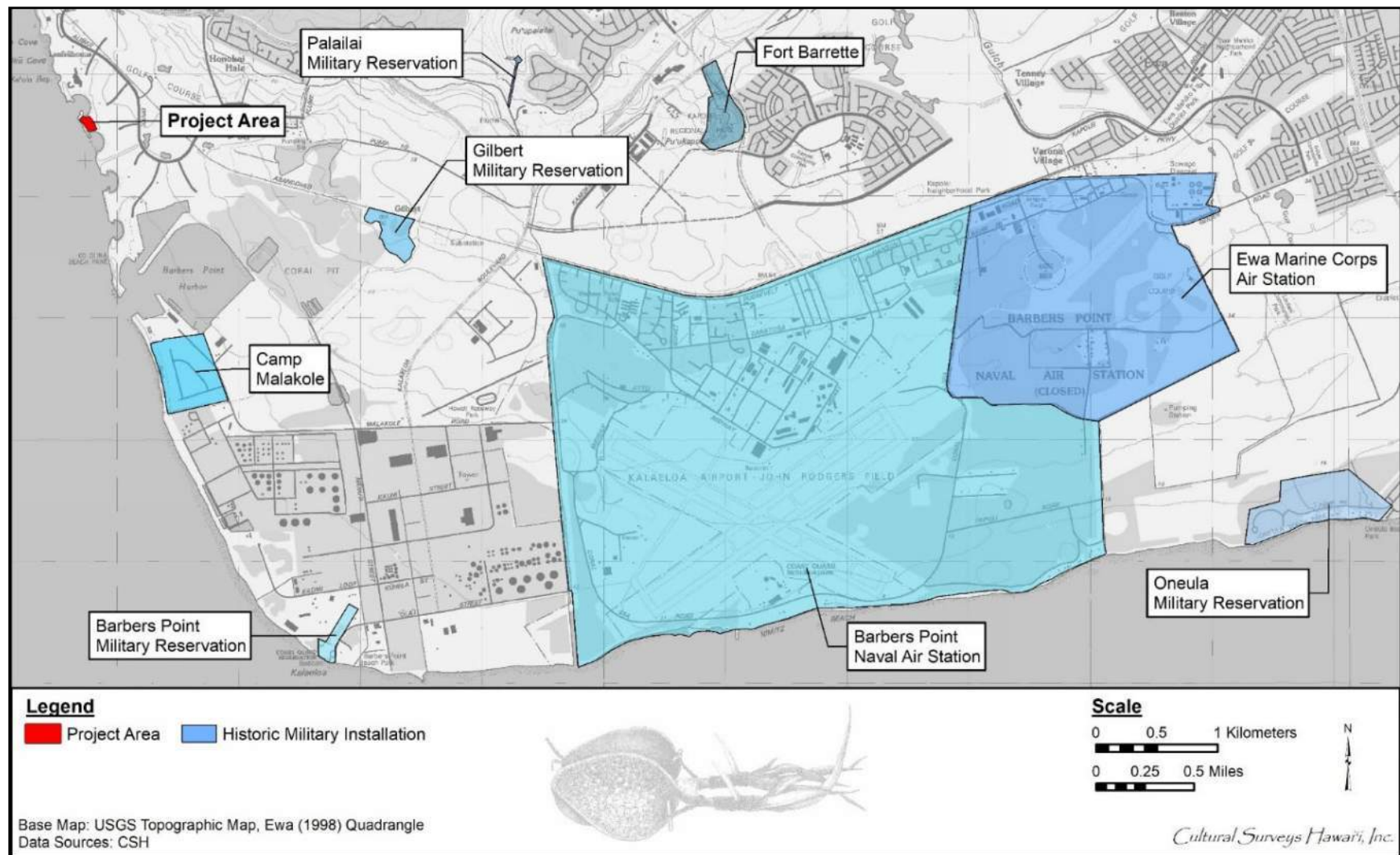


Figure 20. Portion of the 1998 Ewa USGS topographic quadrangle, showing the project area with an overlay of the locations of historic military installations



Figure 21. Aerial photo of early Ko Olina Resort area development with project area in upper left (Ko Olina Development, LLC, n.d.)



Figure 22. Aerial photo of early Ko Olina Resort area development with the project area in the middle left (Ko Olina Development, LLC, n.d.)

Section 5 Previous Archaeological Research

The project area and its vicinity has been the subject of many archaeological and paleo-ecological studies, which are summarized below. Previously conducted modern archaeological studies are depicted in Figure 23 and listed in Table 2. These studies identified numerous historic properties, which are depicted in Figure 24 and listed in Table 3.

The first effort to record historic properties in Honouliuli was made by Thrum (1906:46), who references “a heiau on Kapolei hill, ‘Ewa—size and class unknown. Its walls thrown down for fencing.” The former *heiau* was on Pu‘uokapolei, approximately 5.5 km southeast of the current project area.

In his 1930 surface survey of the island of O‘ahu, archaeologist J. Gilbert McAllister recorded the specific locations of important archaeological and cultural sites, and the general locations of some sites of lesser importance. McAllister (1933:107–108) recorded seven sites at Honouliuli (McAllister Site #s 133 through 139/ State Inventory of Historic Places (SIHP) #s 50-80-08-133 through -138 and 50-80-13-139), and these became the first seven sites in the Bishop Museum’s Site Numbering System (50-Oa-B6-1 through 50-Oa-B6-7). The nearest of these specific sites to the project area is McAllister Site 138, which includes the Pu‘uokapolei Heiau and an adjacent rock shelter located far east of the project area. Additionally, McAllister (1933:109) designated Site 146, which comprises archaeological features covering a large but poorly defined area along the coast. His impressions of Site 146 are recorded as follows:

‘Ewa coral plains, throughout which are remains of many sites. The great extent of old stone walls, particularly near the Pu‘uloa Salt Works belongs to the ranching period of about 75 years ago [ca. 1850s]. It is probable that the Hawaiians formerly used the holes and pits in the coral. Frequently the soil on the floor of larger pits was used for cultivation, and even today one comes upon bananas and Hawaiian sugar cane still growing in them. They afford shelter and protection, but I doubt if previous to the time of Cook there was ever a large population here. [McAllister 1933:109]

These archaeological sites of the ‘Ewa coral plains would be the subject of some 50 or so archaeological studies conducted in the 1970s and 1980s and another score by the end of the century.

From the period between McAllister’s 1930 study and the flurry of work that began in 1969, there are only a few sporadic pieces of poorly documented research.

“In 1933, Dr. Kenneth P. Emory examined a well-preserved house site and a possible *heiau* in the western part of the coral plain; these sites were later destroyed by sugar-cane planting” (Sinoto 1976:1). In 1959, William Kikuchi removed several burials from a burial cave (Bishop Museum Site 50-Oa-B6-10/SIHP # 50-80-12-2317) at the Standard Oil Refinery; the cave was subsequently destroyed (Barrera 1975:1). Kikuchi recovered 12-16 incomplete primary and/or secondary burials cached in a sinkhole or crevice exposed during construction activities near the big bend of Malakole Street, southeast of the project area (Kikuchi 1959; Davis 1990:146–147). In 1960, Yosi Sinoto and Elspeth Sterling made note of a house site (Bishop Museum Site 50-Oa-B6-8/SIHP # 50-80-08-1176). Davis (1990:147) stated that “In 1962, Lloyd Soehren recorded

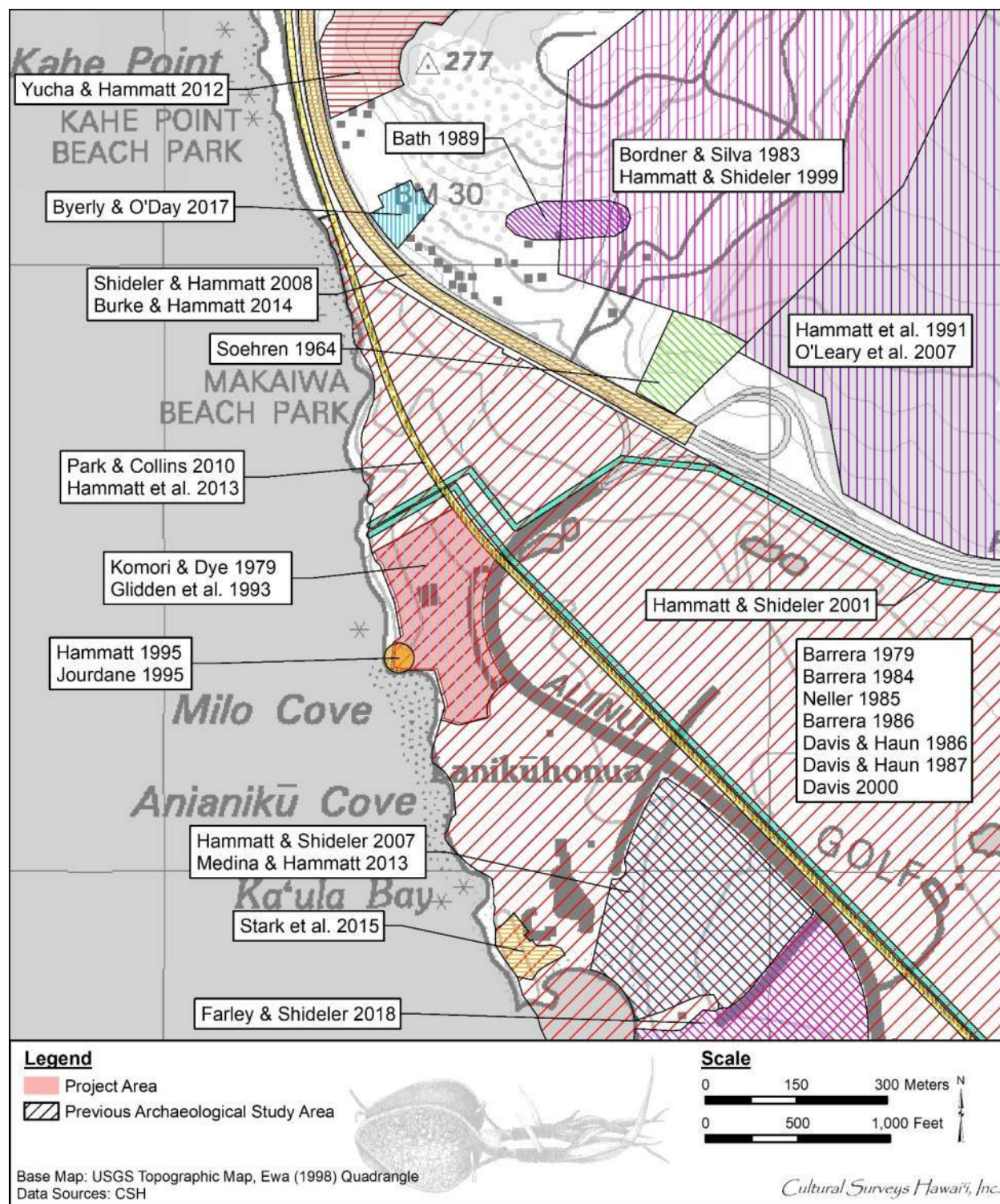


Figure 23. Portion of a 1998 Ewa USGS 7.5-minute topographic quadrangle depicting previous archaeological studies in the vicinity of the project area

Table 2. Previous archaeological studies in the vicinity of the project area

Reference	Type of Study	Location	Results (SIHP # 50-80-12****)
Soehren 1964	Archaeological field investigation	Waimānalo Gulch	Documented one house site (SIHP # -2317)
Barrera 1979	Archaeological survey	West Beach	Recorded ten historic properties, none in project area per se; properties documented included walls, enclosures, midden scatters, and a fishing shrine
Komori and Dye 1979	Archaeological testing	West Beach	Excavated six small (0.5 sq m) test pits in two transect lines; substantial historic disturbance already in much of area; no traditional Hawaiian features noted
Bordner and Silva 1983	Archaeological reconnaissance and historical documentation	Proposed Waimānalo Gulch landfill site	One possible WWII-era encampment identified
Barrera 1984	Archaeological status report	West Beach	Reviewed and summarized work back to 1979 and second phase of work completed in July 1984; within and in vicinity of project area
Neller 1985	Review and evaluation	West Beach	Neller, finding fault in previous archaeological work, called for more work to address “inadequacies of the historic preservation measures being taken and proposed for the West Beach project”
Barrera 1986	Archaeological investigations	West Beach	Summary of archaeological investigations spanning six years clearly trying to respond to Neller’s (1985) critiques; gives formal SIHP numbers for Neller-numbered sites
Davis and Haun 1986	Archaeological status report	West Beach	Reviewed and summarized archaeological field work completed in 1986
Davis and Haun 1987	Intensive survey and test excavations	West Beach	Detailed historic property descriptions in vicinity and a radiocarbon date from a hearth feature at SIHP # -3352-2 with a range of AD 1235-1420
Bath 1989	Site visit report	Waimānalo Gulch	Three petroglyphs (SIHP # -4110) documented

Reference	Type of Study	Location	Results (SIHP # 50-80-12****)
Hammatt et al. 1991	Archaeological inventory survey	Makaīwa Hills project site, TMKs: [1] 9-1-015:005 and 017; 9-2-003:002, 005, and 084	Identified 34 sites, including prehistoric habitation and agricultural features, rock shelters, petroglyphs, <i>ahu</i> (altar), and various sugarcane cultivation infrastructure
Glidden et al. 1993	Data recovery excavations	The Cove property	Bernice Pauahi Bishop Museum (BPBM) Applied Research Group conducted subsurface backhoe testing at The Cove property, excavating nine backhoe trenches; Trenches 1–6 lacked a cultural component and were basically sterile; Trenches 7–9 showed post-Contact cultural activity; Trench 7 indicated traditional Hawaiian activity
Hammatt 1995	Response to inadvertent discovery of human remains	The Cove property	Following initial burial find of SIHP # -4968 by Jourdane (1995), five burials documented in a gas line excavation
Jourdane 1995	Burial documentation	The Cove property	Documents discovery of human remains (minimum # of individuals [MNI] 1) disturbed during excavation for gas lines at The Cove property; little specific information could be determined; assigned SIHP # -4968
Hammatt and Shideler 1999	Archaeological inventory survey	Waimānalo Gulch Sanitary Landfill	No historic properties observed within proposed project area, however, two sites in Waimānalo Gulch property, but not proposed project area including a WWII and Civil Defense complex known as “Battery Arizona” and a contemporary Hawaiian shrine incorporating “sacred stones”; additional petroglyph site also reported on property
Davis 2000	Data recovery	West Beach	Four-volume data recovery study completes data recovery work carried out in 1980s; identified several historic properties in or very close to present project area

Reference	Type of Study	Location	Results (SIHP # 50-80-12****)
Hammatt and Shideler 2001	Archaeological inventory survey	North of Barbers Point	Two historic properties confirmed: SIHP # -1433, a <i>ko'a</i> or traditional Hawaiian fishing shrine, and SIHP # -1434, related to a complex of walls and an enclosure (Barrera 1979; Davis and Haun 1987:D-6); six other previously reported properties in vicinity include SIHP #s -1435, a historic retaining wall; -1464, a remnant historic wall (ranching or sugar); -3358, a shell midden deposit; -3359, an agricultural cairn; -3360, a habitation (midden) deposit; and -3361, another habitation (midden) deposit searched for but not confirmed
Hammatt and Shideler 2007	Archaeological literature review and field inspection	Ko Olina	Four historic properties (two traditional Hawaiian habitation deposits and two WWII sites) previously identified within approx. 21.2-acre project area but had been addressed to satisfaction of SHPD (now either obliterated or buried)
O'Leary et al. 2007	Archaeological inventory survey	Makaīwa Hills	Identified two historic properties: SIHP # -6870, a terrace, three springs, and a small rock shelter; and SIHP # -6871, a paved area situated on a ridge top
Shideler and Hammatt 2008	Letter report	Farrington Hwy and Haleakalā Rd to Ali'i Nui Dr	Letter addressing architectural concerns including historic bridges post-dating 1940 needing assessment for historical significance; includes a culvert north of Nānāikapono School, Piliokoe Bridge, and bridge crossing Keone'ō'io Gulch at Tracks Beack Park
Park and Collins 2010	Archaeological monitoring	Kahe Water Pipeline project, TMKs: [1] 9-1-015:002 and 9-2-003:011	Although trenching took place within OR&L railway right-of-way (ROW), no portion of railway structure (tracks) impacted; no subsurface human remains or cultural deposits observed during archaeological monitoring, although modern garbage and several historic-period bottle fragments and ceramic fragments observed within fill materials

Reference	Type of Study	Location	Results (SIHP # 50-80-12****)
Yucha and Hammatt 2012	Archaeological inventory survey	Kahe Valley	Identified ten historic properties including military-related defensive position/observation post complex (SIHP # -7137) on ridge north of current project area
Hammatt et al. 2013	Archaeological inventory survey	Tracks Beach Park, TMK: [1] 9-2-003:011	Addressed 13.4-km (8.3-mile), 12.2 m (40-ft wide) corridor (40.4 acres total) project area, but subsurface testing limited to six test excavations in Tracks Beach area; no new significant historic properties; discusses OR&L, SIHP # -9714, previously placed on NRHP
Medina and Hammatt 2013	Archaeological monitoring	Aulani Walt Disney Resort at Ko Olina	No historic properties identified
Burke and Hammatt 2014	Archaeological monitoring	Farrington Hwy between Haleakalā Rd and Ali'i Nui Dr	No historic properties identified
Stark et al. 2015	Archaeological assessment (no finds AIS)	Four Seasons Resort at Ko Olina	No historic properties identified
Byerly and O'Day 2017	Archaeological inventory survey	1.83-acre area on <i>mauka</i> side of Farrington Hwy where it meets the sea (Hawaiki Submarine Cable Landing project), TMKs: [1] 9-2-049:001, 002, and 005; 9-2-051:001 por., 010, and 011; and Farrington Hwy	No historic properties identified on surface of terrestrial parcels; however, one NRHP listed historic property identified intersecting route of subterranean horizontal directional drilling (HDD) bore: OR&L ROW (SIHP # -9714); because HDD bore will run 45 to 50 m below surface, reasonably concluded project would have no effect on the OR&L ROW

Reference	Type of Study	Location	Results (SIHP # 50-80-12****)
Farley and Shideler 2018	Archaeological literature review and field inspection	Atlantis Resort and Residence at Ko Olina	Background research indicates five previously identified historic properties in project area including SIHP # -1436, a lime kiln; SIHP # -1438, a four-component beach midden with Feature 3 comprising a subsurface cultural layer containing shell midden, faunal remains, traditional Hawaiian artifacts, pit features, and a human burial; SIHP # -1453, a cave/unmodified sinkhole with a midden deposit; SIHP # -3351, habitation complex comprising seven relatively distinct surface deposits and a shelter cave; and SIHP # -3362, which comprises entirety of low ground behind coastal sand dunes including a former coastal marsh; evidence of only SIHP # -1436 observed during field inspection; preservation plan for SIHP # -1436 recommended along with archaeological monitoring at locations of SIHP #s -1438 and -3351

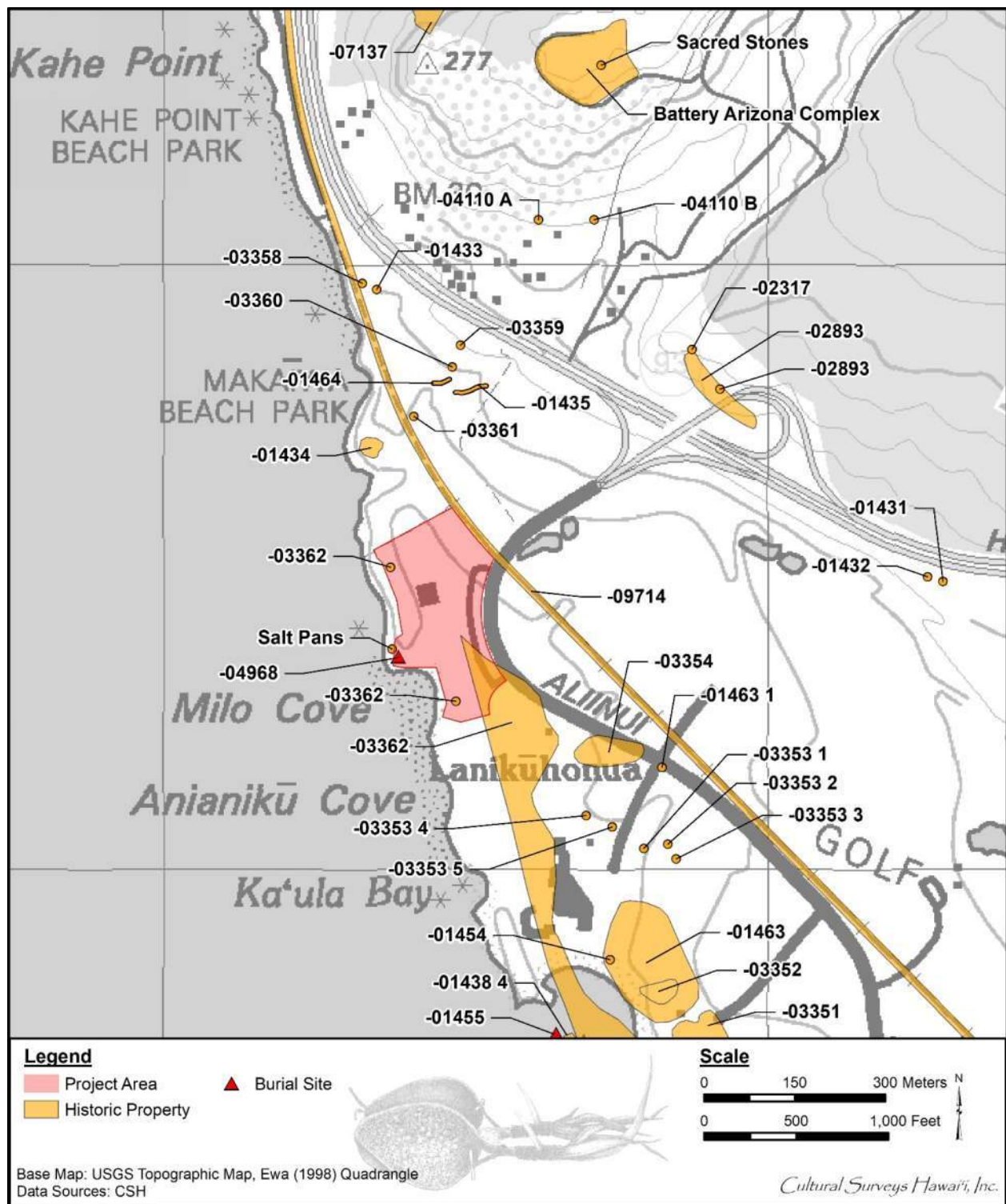


Figure 24. Portion of a 1998 Ewa USGS 7.5-minute topographic quadrangle depicting previously identified historic properties in the vicinity of the project area

Table 3. Previously identified historic properties in the vicinity of the project area

SIHP # 50-80-12-	Type	Source	Comments
1431	Wall	Davis 2000	Indeterminate age; dry masonry
1432	Wall	Davis 2000	Indeterminate age; likely related to animal control functions
1433	<i>Koa</i> (shrine)	Hammatt et al. 2013	Pre-Contact
1434	Habitation complex	Davis 2000	Both pre- and post-Contact; includes two enclosure/platforms and a wall
1435	Retaining wall	Davis 2000	Post-Contact, possible erosion control wall
1438-4	Subsurface cultural deposit	Barrera 1979, Davis and Haun 1987, Davis 2000	Four-component midden; Feature 3 comprises charcoal-stained sand on back slope of dune without any visibly associated architectural features; testing revealed numerous fire pits, trash pits, midden, and traditional Hawaiian artifacts
1454	Military revetment (wall)	Davis 2000	Associated with twentieth century military activity (WWII); described by Davis (2000:132) as "an open emergency bunker"
1455	Burial (human)	Neller 1985, Barrera 1986, Davis and Haun 1987, Davis 2000	Davis (2000: III:60) regarded this as Neller Site N-20; human bones exposed by fishermen (antiquity uncertain)
1463	Military coastal defense complex	Neller 1985, Barrera 1986, Davis and Haun 1987, Davis 2000	Davis (2000) associates this with Neller Site N-17; concrete slabs and cast boxes; inferred function: fire control and support center for coastal defense batteries; 15 features (numbered SIHP #s -1463:1 through -1463:15)
1463-1	Military defense structure	Davis and Haun, 1987, Davis 2000	Post-Contact, fire-control/ammunition storage and auxiliary support facility possibly associated with armament at Coastal Gun Battery 3363
1464	Remnant wall	Davis and Haun, 1987, Davis 2000	Post-Contact; probable erosion control
2317	Habitation site	Soehren 1964	Waimanalo Gulch house site, age indeterminate

SIHP # 50-80-12-	Type	Source	Comments
2893	Overhang shelter and petroglyphs	Davis and Haun 1987, Davis 2000	Pre-Contact, eight sub-features including two rock shelters, two platforms, a thin surface midden scatter, and three sets of petroglyphs
3351	Habitation complex	Davis and Haun 1987, Davis 2000	Cluster of eight relatively distinct surface deposits and a shelter cave in one of more than a dozen sinkholes and shallow depressions scattered over an area of moderately sloping terrain; habitation deposits numbered SIHP #s -3351:1 through 5, 7, and 8; a structurally unmodified sinkhole/cave identified as -3351:6
3352	Habitation complex	Davis and Haun 1987, Davis 2000	Area of exposed cultural deposits scattered over moderately sloping terrain with an estimated area of 2,100 sq m; identified 21 hearths
3353-1	Open floor habitation	Davis and Haun 1987, Davis 2000	Pre-Contact, estimated site age AD 1593–1793, subsurface cultural deposit with a thin scattering of shell midden and a few artifacts including a bone fishhook-shank fragment, a coral abrader, and eight pieces of volcanic glass (Davis and Haun 1987: B-613)
3353-2	Open floor habitation	Davis and Haun 1987, Davis 2000	Pre-Contact, estimated site age AD 1640–1794, subsurface cultural deposit with a thin scattering of shell midden and volcanic glass (Davis and Haun 1987: B-164)
3353-3	Open floor habitation	Davis and Haun 1987, Davis 2000	Pre-Contact modified sinkhole
3353-4	Open floor habitation	Davis and Haun 1987, Davis 2000	Pre- and post-Contact, subsurface deposit described by Davis (2000:75) as “extremely disturbed”; consists of four relic deposits and possible habitation cave, up to 100 m apart from one another
3353-5	Open floor habitation	Davis and Haun 1987, Davis 2000	Pre- and post-Contact, subsurface deposit disturbed (Davis and Haun 1987:50)
3354	Open floor habitation	Davis and Haun 1987, Davis 2000	Indeterminate age, open area composed of exposed coral bedrock scattered with cultural material (Davis and Haun 1987: B-168)
3358	Open floor habitation	Davis and Haun 1987, Davis 2000	Indeterminate age, subsurface deposit containing shell midden, fire-cracked rock, and broken bowl of clay smoking pipe (Davis and Haun 1987: D-21)

SIHP # 50-80-12-	Type	Source	Comments
3359	Cairn	Davis and Haun 1987, Davis 2000	Indeterminate age, roughly piled basalt cobble and boulder structure
3360	Open floor habitation	Davis and Haun 1987, Davis 2000	Indeterminate age; disturbed subsurface cultural layer containing shell midden, coral and fire-cracked rock, bird and rat bone, volcanic glass, a basalt flake, and piece of possibly worked stone (Davis and Haun 1987: D-24)
3361	Open floor habitation	Davis and Haun 1987, Davis 2000	Indeterminate age; subsurface deposit containing shell midden, fire-cracked rock, charcoal, corroded metal, bottle glass, various fragments of corroded metal, and two brass cartridge casings (Davis and Haun 1987: D-25)
3362	Coastal marshland (subsurface wetland deposit)	Davis and Haun 1987, Davis 2000	Feature 1, within current project area, described as coastal backwater marshland with no apparent cultural function prior to nineteenth century cultivation; Feature 2, outside current project area, is cultural deposit indicative of habitation
4110 A	Petroglyph	Bath 1989	Pre-Contact
4110 B	Petroglyph	Bath 1989	Pre-Contact
4968	Burial (human)	Jourdane 1995, Hammatt 1995	Five burials (designated SIHP # -4968: Burials 1 through 5); at least two burials post-Contact based on associated artifacts (button associated with Burial 2 and two gold earrings associated with Burial 3)
7137	Military complex	Yucha and Hammatt 2012	Post-Contact, defensive position/observation post complex consisting of 15 features
9714	OR&L ROW	NRHP Form (1975)	Narrow-gauge steel rails (36 inches) on raised roadbed of mixed materials for length of 15 miles; passes on northeast edge of current project area
No SIHP assigned	Sacred stones	Hammatt and Shideler 1999	Indeterminate age
No SHIP assigned	Battery Arizona Complex	Hammatt and Shideler 1999	Post-Contact
No SIHP assigned	Salt pans	Komori and Dye 1979	Pre-Contact

another secondary human burial in a sinkhole at the Barbers Point Naval Air Station.” In 1966, Lloyd Soehren “carried out salvage excavations at a possible fishing shrine (BPBM Site # 50-Oa-B6-13/SIHP # -9645).” The site was reported as destroyed by construction (Barrera 1975:1), but Davis (1990:148) confirmed the shrine and performed additional excavations in 1982. In 1969, artifacts were recovered by Roger Green from a beach midden site (50-Oa-B6-14/SIHP # 50-80-12-2722) south of the barge harbor.

5.1 West Beach Studies

Studies conducted for the West Beach development include field surveys to extensive data recovery projects. In the West Beach Study Area (see Figure 23), numerous identified historic properties include paleoecological sites (e.g., sinkholes), traditional Hawaiian sites including burials and habitation complexes, plantation-era infrastructure (e.g., the OR&L ROW), and military infrastructure. Of particular concern to developers in Hawai'i, as well as the community, is the prospect of finding human remains in the course of development. Documented finds of human remains are shown with the approximate geographic locations of burial finds (Figure 25 and Table 4). In general, there appears to be a pattern of burial interment immediately adjacent (within 100 m) to the (former, natural) coast. However, scattered burials have been reported from more inland locations. Approximately 26 burials are known to have been encountered in the greater West Beach/Ko Olina Resort project area. One burial, SIHP # -4968, is within the southeastern portion of the project area (see Figure 24).

Studies conducted for the West Beach development are described below.

5.1.1 Barrera 1979

William Barrera, Jr. (1979) carried out the first archaeological survey of what would eventually become the Ko Olina Resort area, but which was known at the time as “West Beach.” His introductory remarks under his “Conclusion and Recommendations” merit relating:

When compared with the archaeological remains discovered during the various surveys of the deep draft harbor site on the south side of the project area, the West Beach remains are rather sparse and, to the untrained eye, unimpressive. This is not an indication of lack of interest on the part of the aboriginal population, but is more a function of the extensive clearing of large areas for sugarcane production [...] The remains reported in this volume, then, represent only a small fraction of what once existed at West Beach, and therefore assume added significance. [Barrera 1979:14]

Barrera recorded ten historic properties (SIHP #s 50-80-12-1430 through -1438 and -2721) in his study. These included walls, enclosures, midden scatters, and a fishing shrine (the shrine is still preserved well north of the current project area). None of the historic properties are within the project area.

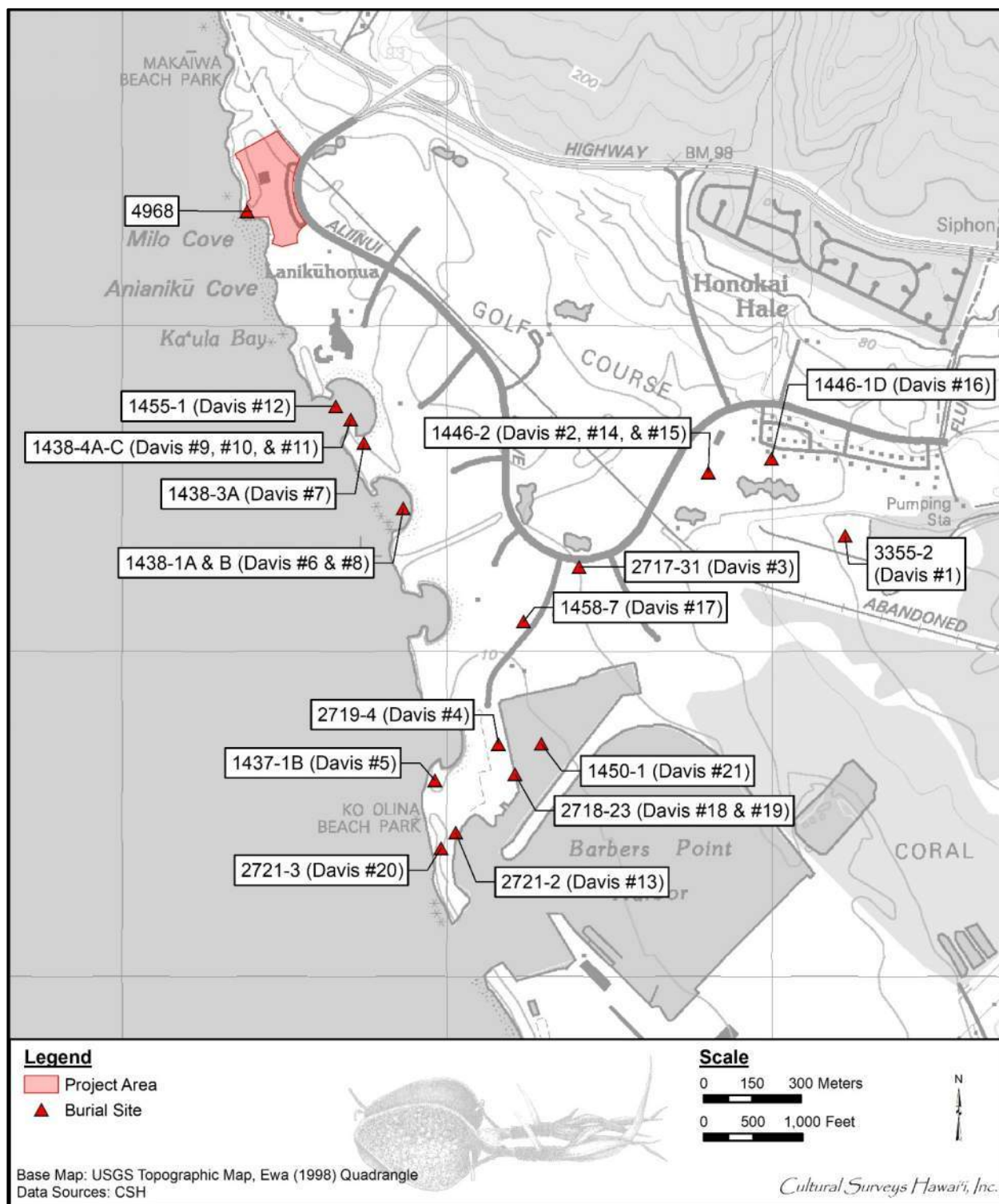


Figure 25. Portion of the 1998 Ewa USGS topographic quadrangle showing the approximate locations of previously identified human burials within and near the project area

Table 4. West Beach burials

SIHP # 50-80-12-	Burial #	Source
1437:1b	Davis #5	Davis 2000:4:6.1
1438:1A	Davis #6	Davis 2000:4:6.2
1438:1B	Davis #8	Davis 2000:4:6.2
1438:3A	Davis #7	Davis 2000:4:6.2
1438:4A	Davis #9	Davis 2000:4:6.2
1438:4B	Davis #10	Davis 2000:4:6.2
1438:4C	Davis #11	Davis 2000:4:6.2
1446:1D	Davis #16	Davis 2000:4:6.3
1446:2	Davis #2	Davis 2000:4:6.1
1446:2	Davis #14	Davis 2000:4:6.2
1446:2	Davis #15	Davis 2000:4:6.3
1450:1	Davis #21	Davis 2000:4:6.3
1455:1	Davis #12	Davis 2000:4:6.2
1458:7	Davis #17	Davis 2000:4:6.3
2717:31	Davis #3	Davis 2000:4:6.1
2718:23	Davis #18	Davis 2000:4:6.3
2718:23	Davis #19	Davis 2000:4:6.3
2719:4	Davis #4	Davis 2000:4:6.1
2721:2	Davis #13	Davis 2000:4:6.2
2721:3	Davis #20	Davis 2000:4:6.2
3355:2	Davis #1	Davis 2000:4:6.1
4968	—	Jourdane 1995; Hammatt 1995

5.1.2 Komori and Dye 1979

Eric Komori and Thomas Dye (1979) carried out archaeological testing at Lanikūhonua (The Cove property) within the current project area. Six small (0.5 sq m) test pits were excavated in two transect lines. Komori and Dye (1979) noted substantial historic disturbance had already disturbed much of the area and noted no traditional Hawaiian features. However, they did note the presence of charcoal flecks indicated early human activity and therefore recommended archaeological monitoring.

5.1.3 Barrera 1984

William Barrera, Jr. produced an archaeological status report (1984) that reviewed and summarized work going back to 1979, as well as a second phase of work completed in July 1984. Much of the work reported on was south of the present project area, but the results of further study of the SIHP # 50-80-12-1438 midden deposit are presented (Barrera Jr. 1984:25–29). Barrera's report also includes a brief study by architect Glen Mason (1984) on the SIHP # 50-80-12-1436 lime kiln.

5.1.4 Neller 1985

Earl Neller, then of SHPD, produced a preliminary review and evaluation of archaeological studies and recommendations (Neller 1985). Neller found much to fault in the status of archaeological work up to that time and called for more archaeological work to address “the inadequacies of the historic preservation measures being taken and proposed for the West Beach project” (Neller 1985:6). Neller also produced a sketch of historic properties and cave concentrations (Figure 26) that indicates the caves are east and southeast of the project area. However, it should be noted that Neller's fieldwork in the West Beach area was quite brief, comprising only a day or two, and that his location of historic properties and caves was probably not intended to be highly accurate. Neller's (1985) sites are given as temporary site numbers prefixed with an “N” for “Neller Number.”

5.1.5 Barrera 1986

William Barrera, Jr. (1986) produced a summary of his archaeological investigations spanning six years, clearly in response to the critiques of Neller's (1985) review. Barrera also gave formal SIHP number designations for the Neller-numbered sites.

5.1.6 Davis and Haun 1986

Bertell Davis and Alan Haun (1986) produced a *Preliminary Report Upon Completion of Field Work* summarizing Phase 2 intensive survey and test excavation work at West Beach. They include no maps but relate, largely in tabular form, data regarding historic properties and the work accomplished. During Phase 2 excavations, four spatially separate activity areas were recorded as component features of SIHP # 50-80-12-1438, numbered 1 through 4 from south to north. Excavation at SIHP # -1438:3, which is south of the project area, included three test units. In 1987, Davis and Haun followed up their preliminary report on survey and test excavations with an “Interim Report.” The interim report includes information on all three historic properties east of the project area, including the results of test excavation at SIHP #s -1438 and -3362 (within the project area). The interim report would not be followed by a final report for more than 13 years (see Davis 2000 discussion below).

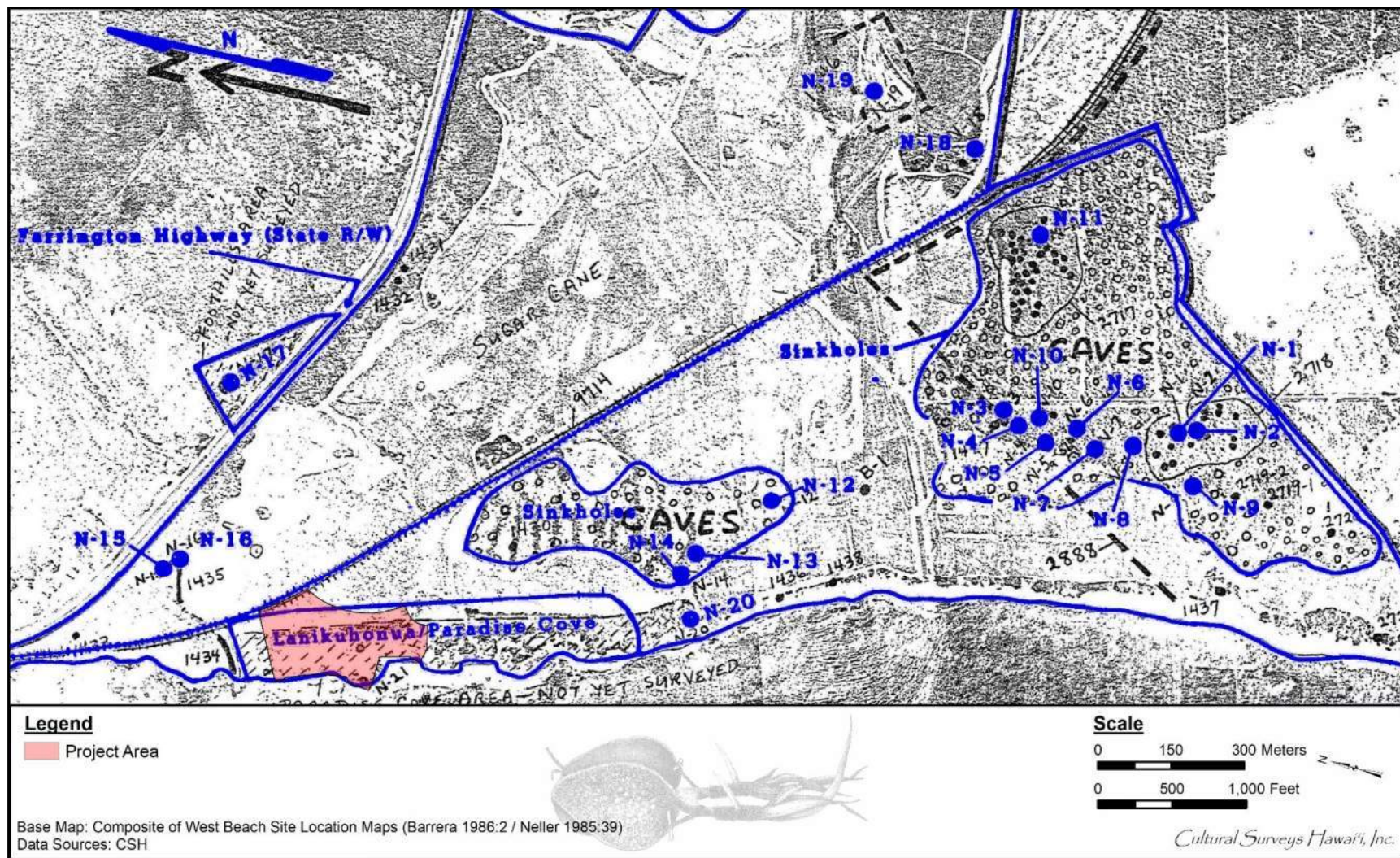


Figure 26. Composite of West Beach site location maps (Neller 1985 and Barrera 1986) in relation to the project area

5.1.7 Glidden et al. 1993

Subsurface backhoe testing consisting of nine trenches at The Cove property was conducted by Glidden et al. (1993). Trenches 1 through 6 lacked a cultural component and were determined to be sterile. Trenches 7 through 9 indicated post-Contact cultural activity, and Trench 7 indicated traditional Hawaiian activity. This study is within the current project area.

5.1.8 Jourdane 1995 and Hammatt 1995

Jourdane (1995) documented the discovery of human remains disturbed during excavation for gas lines at The Cove property within the current project area. Little specific information could be determined, and the remains were designated as SIHP # 50-80-12-4968. Jourdane suggested a private CRM firm should investigate the findings, and this was completed by CSH in 1995 (Hammatt 1995). CSH documented an excavation associated with a gas line wrapping around the main stage at The Cove property that included five burials (designated SIHP # -4968: Burials 1 through 5). It was documented that at least two of the burials were post-Contact based on associated artifacts (a button associated with Burial 2 and two gold earrings associated with Burial 3). SIHP # -4968 is in the western portion of the project area.

5.1.9 Davis 2000

The data recovery work at West Beach was largely carried out in the 1980s but was not completed until Davis' four-volume data recovery study came out in 2000. Davis (2000) is a culmination of the previous studies for West Beach, which cumulatively recorded 157 historic properties within six eco-zones. These properties were distributed throughout the West Beach Study Area, and their type and function vary greatly within both traditional Hawaiian and post-Contact contexts. Based on the results of the Phase 2 survey and test excavations reported by Davis and Haun (1987), Phase 4 data recovery excavations were recommended for two sites (SIHP #s 50-80-12-1438 and -3362). During these excavations, a new feature component of SIHP # -3362 was identified and designated as SIHP # -3362:2; however, this feature component was outside the project area. The results of Phase 2 intensive survey and test excavations, initially reported by Davis and Haun (1986, 1987; see discussion above), as well as subsequent Phase 4 data recovery investigations, are presented by Davis (2000).

5.2 Other Modern Archaeological Studies

In more recent times, archaeological studies have been conducted for smaller and more discrete project areas. These studies are primarily within the West Beach and/or Barbers Point Harbor study areas and were conducted for recent developments.

5.2.1 Bordner and Silva 1983

An archaeological reconnaissance of Waimānalo Gulch was conducted by Bordner and Silva in 1983. One possible World War II-era encampment was identified "at roughly the 175-foot mark" within the study area (Bordner and Silva 1983:C-3). No further work was recommended.

5.2.2 Bath 1989

In 1989, the SHPD was notified of petroglyphs located in the lower elevations at the mouth of Waimānalo Gulch. Three petroglyphs were observed "pecked into black lava rock" (Bath 1989).

Two of the petroglyphs were anthropomorphic, while one petroglyph consisted of abstract symbols. The site was briefly documented and designated SIHP # 50-80-12-4110.

5.2.3 Hammatt et al. 1991

In 1991, CSH conducted an archaeological inventory survey (AIS) of the Makaīwa Hills development project (Hammatt et al. 1991). The project area included a 1,915-acre parcel in Honouliuli Ahupua‘a, located between the town of Makakilo and Waimānalo Gulch, and bounded to the south by Farrington Highway and to the north by Pālehua Road. A total of 34 historic properties were identified, including prehistoric habitation structures (temporary and permanent), agricultural features (terraces and mounds), rock shelters, petroglyphs, *ahu* (altar), and various sugarcane cultivation infrastructure. Within the Makaīwa Hills project area, habitation sites were found to be clustered in higher elevations above 1,000 ft and in lower elevations below 500 ft (Hammatt et al. 1991). The higher elevations would have contained ample forest subsistence resources for gathering on both a continual basis, as well as during times of famine and drought. The lower elevations would be close to the shoreline and bountiful coastal resources.

5.2.4 Hammatt and Shideler 1999

In 1999, CSH conducted an AIS for the approximately 200-acre Waimānalo Gulch Sanitary Landfill property (Hammatt and Shideler 1999). No historic properties were observed within the proposed project area, however, two sites were in the Waimānalo Gulch property, but not the proposed project area including a World War II and Civil Defense complex known as “Battery Arizona” and a contemporary Hawaiian shrine incorporating “sacred stones.” An additional petroglyph site was also reported on the property.

5.2.5 Hammatt and Shideler 2001

The field investigation conducted by Hammatt and Shideler (2001) indicated cable corridors going through areas intensively disturbed by prior sugarcane cultivation, modern construction activity associated with transportation infrastructure, and by recent Ko Olina Resort development. Based on background research and fieldwork results, no further archaeological research was recommended. Only two historic properties were identified within 50 m (164 ft) of a proposed fiber optic cable alignment: the OR&L railroad (SIHP # -9714) and Ewa Plantation Sugar Company irrigation infrastructure (SIHP # -4341).

5.2.6 O’Leary et al. 2007

In 2006 CSH conducted an addendum AIS for the Makaīwa Hills project (O’Leary et al. 2007). The project’s original AIS was completed by CSH in 1991 (Hammatt et al. 1991). The original AIS documented 17 historic properties, five of which were recommended for preservation. Due to the time gap, CSH conducted a reconnaissance to relocate the 17 historic properties and found two additional historic properties. The two historic properties include SIHP # -6870, a terrace, three springs, and a small rock shelter; and SIHP # -6871, a paved area situated on a ridge top.

5.2.7 Park and Collins 2010

Pacific Consulting Services, Inc. (Park and Collins 2010) reported on archaeological monitoring in support of a Kahe Reverse Osmosis Water Pipeline project (TMKs: [1] 9-1-015:002 and 9-2-003:011) along a 4-mile portion of the OR&L ROW. A variety of stratigraphic sequences

were observed and documented in 13 profile locations along the pipeline corridor, but no new subsurface archaeological features or deposits were encountered.

5.2.8 Yucha and Hammatt 2012

In 2010 and 2011, CSH conducted an archaeological inventory survey for the Hawaiian Electric Co. (HECO) Kahe Power Plant master plan update (Yucha and Hammatt 2012). During the survey, ten historic properties were identified. One of these is a military-related defensive position/observation post comprising 15 features on a ridge north of the current project area. The remainder of the historic properties are located within Kahe Valley.

5.2.9 Hammatt et al. 2013

CSH (Hammatt et al. 2013) reported on AIS testing at Tracks Beach Park for a proposed Leeward Bikeway project (TMK: [1] 9-2-003:011). A 13.4-km (8.3-mile) long, 12.2-km (40-ft) wide corridor (total area of 40.4 acres) project area was addressed but subsurface testing was limited to six test excavations in the beach park area. No new significant historic properties were identified; however, the OR&L (SIHP # 50-80-12-9714), previously placed on the NRHP, is discussed.

5.2.10 Medina and Hammatt 2013

The report produced by Medina and Hammatt (2013) regarding archaeological monitoring for the Aulani Disney Resort and Spa at Ko Olina indicates no cultural materials were identified. Stratigraphic profiles included a series of mixed fills over coral shelf. Interestingly, a dark brown clay loam was observed resting on the coral shelf. This was interpreted as natural alluvial sediments by Medina and Hammatt (2013:58).

5.2.11 Burke and Hammatt 2014

CSH produced an archaeological monitoring report for the Farrington Highway Part 1, Phases A and B, 12-inch and 24-inch Water Main Installation project (Burke and Hammatt 2014). No historic properties were identified.

5.2.12 Byerly and O'Day 2017

Garcia & Associates (Byerly and O'Day 2017) produced an AIS report for a 1.83-acre area on the *mauka* side of Farrington Highway where it meets the sea for a Hawaiiki Submarine Cable Landing project, TMKs: [1] 9-2-049:001, 002, and 005; 9-2-051:001 por., 010, and 011; and Farrington Highway. No historic properties were identified on the surface of the terrestrial parcels. However, one NRHP and Hawai'i Register of Historic Places-listed historic property was identified intersecting the route of the subterranean HDD bore: the OR&L ROW (SIHP # -9714). Because the HDD bore will run 45 to 50 m below surface, however, it was reasonably concluded that the project would have no effect on the OR&L ROW.

Section 6 Community Consultation

6.1 Introduction

Throughout the course of this assessment, an effort was made to contact and consult with Native Hawaiian Organizations (NHO), agencies, and community members including descendants of the area, in order to identify individuals with cultural expertise and/or knowledge of the *ahupua'a* of Honouliuli. CSH initiated its outreach effort in June 2021 through letters, email, telephone calls, and in-person contact. CSH completed the community consultation in October 2022.

6.2 Community Contact Letter

Letters (Figure 27, Figure 28, and Figure 29) along with a map and an aerial photograph of the project were mailed with the following text:

Aloha mai kāua,

On behalf of the James Campbell Company, LLC. (JCC), Cultural Surveys Hawai'i, Inc. (CSH) is conducting a Cultural Impact Assessment (CIA) for the proposed The Cove at Ko Olina Redevelopment Project, Honouliuli Ahupua'a, 'Ewa District, O'ahu Island, Tax Map Key (TMK):[1] 9-1-057:027¹. The project area is depicted on portions of the 'Ewa (1998) U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 1) and a 2013 aerial photograph (Figure 2).

Project Description

The Applicant, JCC, plans to redevelop the 10.85-acre property as The Cove Redevelopment project. The proposed improvements will be the first major enhancement of existing amenities on the property in over 25 years. The conceptual land use plan is provided in Figure 3.

The intent of the upcoming property improvement is to create an authentic Hawaiian gathering place with an inclusive, spiritual, genuine, surprising, and welcoming character for *kama'āina* (Hawai'i residents) and visitors. When completed, new amenities will celebrate the traditions, beauty, and spirit of ancient Hawai'i in an immersive coastal setting unlike any place on O'ahu. The revitalized property will be comprised of a unique mix of Hawaiian music and entertainment, dining, shopping, and other activities that will stand out to the community for its unique setting and memorable experiences. The history of the place will be recognized.

Redevelopment of the site will include a new entertainment/performing arts venue capable of housing a daily-run entertainment experience focused on Hawaiian culture. A show will continue as the main entertainment offering. To activate the property throughout the day, the property will also serve as a landscaped gathering

¹ The name of the project has since changed to: The Cove at Ko Olina Redevelopment Project, Honouliuli Ahupua'a, 'Ewa District, O'ahu Island, Tax Map Key (TMK):[1] 9-1-057:027

Cultural Surveys Hawai'i, Inc.
Archaeological and Cultural Impact Studies
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Fax: (808) 262-4950

Job code: HONOULIULI 182kkaapana@culturalsurveys.comwww.culturalsurveys.com

July 2021

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Redevelopment of the site will include a new entertainment/performing arts venue capable of housing a daily-run entertainment experience focused on Hawaiian culture. A show will continue as the main entertainment offering. To activate the property throughout the day, the property will also serve as a landscaped gathering area where educational activities could occur during the daytime hours. Other planned improvements may include small-scale retail shops, an open-air marketplace hosting goods made in Hawai'i, restaurants showcasing local cuisine and agricultural products, and welcoming and engaging common areas. Potential programming may include commercial activities highlighting the sense of the place, daytime activities that fit appropriately within the coastal setting, cultural workshops, or coordinated events and programs with the neighboring Lanikūhonua Cultural Institute. Design of the structures will be inspired by Hawaiian architecture, and will provide a beautiful, authentic, and modern setting. The project will be designed to provide an open, welcoming space with landscaped pedestrian walkways to create an inviting environment that enhances the beauty of the surrounding shoreline area. Retail and dining options will attract guests throughout Ko Olina Resort and families in the 'Ewa and Wai'anae

Figure 27. Consultation Letter – Page One

HONOULIULI 182- The Cove at Ko Olina Cove Redevelopment Project**Page 2**

regions looking for a unique experience in a friendly, authentic setting. Conceptual land uses within the project site have been identified into the following areas: Arrival/Mauka Village, Performing Arts Area, Makai Village, and Beach Village, with designated areas to provide open space/circulation, parking, and a service area.

Construction of the project will support economic recovery in the Kapolei area of O'ahu and the state, particularly considering the significant economic impacts resulting from the COVID-19 pandemic. The redevelopment is estimated to create 490 long-term, full-time jobs and contribute to the economic diversity in the West O'ahu region. The coastal development will also serve as a major recreation resource, visual amenity, and economic generator for the community. Structures will be set well back from the shoreline considering long-term planning to address climate change, events, the natural and cultural sensitivity of the near shore areas, and to ensure open access shoreline paths. The redevelopment anticipates maintaining the current level of public beach access, to protect the natural cove and lagoon that is a special natural resource in the area.

Improvements are planned to start as early as 2023 and may be completed by 2025.

Occupancy and other figures provided reflect pre-COVID-19 operations under the assumption that they will be reflective of operations after the current crisis abates.

Current Project Setting and Description

The property is bounded and accessed by Ali'inui Street, with Ko Olina Golf Club located to the east, the Pacific Ocean to the west, Lanikūhonua Cultural Institute to the south, and public beach access at the planned Makaīwa Beach Park to the north. The project is situated in the Ko Olina Resort, Aulani Disney Resort and Spa, Marriott's Ko Olina Beach Club, timeshares, and the public beach areas of the Ko Olina lagoons.

The property is a self-contained, premier entertainment venue that covers approximately 10.85 acres of land. The current commercial *lū'au* dinner and show operates daily from 5:00 p.m. to 9:00 p.m., and can accommodate approximately 1,000 visitors. Attendance averages 500 patrons each evening, with between 700 to 900 guests on the weekends and during peak visitor months. In addition to the *lū'au*, the property also houses services, amenities, and activities, including a greeting and photo arrival area and Hawaiian games and arts and crafts demonstrations. Restrooms are provided for guests, and a back of house area is also included to support site operations. A commercial wedding chapel was constructed in the early 1990s. Figure 4 indicates existing structures on the site. Structures on the site are comprised of portable and intact buildings and modern *lū'au* huts that support existing commercial uses. Public use of the beach/cove adjacent to the property are also allowed.

A portion of the site is currently used as open space. The existing landscaping includes coconut trees (*Prosopis pallid*), naupaka (*Scaevola sericea*), mimosa trees (*Albizia julibrissin*), and various exotic shrubs. Activities such as the Hawaiian games and arts and crafts, are hosted in the open space areas.

Figure 28. Consultation Letter - Page Two

HONOULIULI 182- The Cove at Ko Olina Cove Redevelopment Project**Page 3****Purpose of the CIA**

The purpose of this CIA is to gather information about the project area and its surroundings through research and interviews with individuals knowledgeable about this area in order to assess potential impacts to the cultural resources, cultural practices, and beliefs identified as a result of the planned project. We are seeking your *kōkua* and guidance regarding the following aspects of our study:

- **General history as well as present and past land use of the project area**
- **Knowledge of cultural sites which may be impacted by future development of the project area—for example, historic and archaeological sites, as well as burials**
- **Knowledge of traditional gathering practices in the project area, both past and ongoing**
- **Cultural associations of the project area, such as *mo'olelo* and traditional uses**
- **Referrals of *kūpuna* or elders and *kama'āina* who might be willing to share their cultural knowledge of the project area and the surrounding *ahupua'a* lands**
- **Any other cultural concerns the community might have related to Hawaiian or other ethnic cultural practices within or in the vicinity of the project area**

If you contribute to this effort and with your permission, we would like to use your name in the report to give you proper credit.

Due to the current situation with COVID-19, CSH has temporarily halted in-person consultation as a necessary precaution. We are available to speak with you over the phone, by video chat, or you may also submit a written statement regarding the project, project area, and/or your knowledge of the area. If you prefer to submit a written statement, CSH is able to provide a questionnaire that you may use as a guideline or you may answer the questionnaire directly. Please choose what is convenient for you, though the questionnaire is not necessary. A pre-stamped envelope will be provided to send your statement back to us.

With respect to social-distancing, we are working primarily from home and are available at any time through email. If you would prefer to meet in-person, we can schedule a date to meet with you while still following the safety guidelines. Your patience, understanding, and cooperation is greatly appreciated, and we pray for the safety of you and your loved ones.

If you are interested in participating in this study, please contact Kamuela Kaapana by email at kkaapana@culturalsurveys.com or by phone at (808) 262-9972.

Mahalo nui loa,

Kamuela Kaapana
Cultural Researcher

Figure 29. Consultation Letter - Page Three

area where educational activities could occur during the daytime hours. Other planned improvements may include small-scale retail shops, an open-air marketplace hosting goods made in Hawai'i, restaurants showcasing local cuisine and agricultural products, and welcoming and engaging common areas. Potential programming may include commercial activities highlighting the sense of the place, daytime activities that fit appropriately within the coastal setting, cultural workshops, or coordinated events and programs with the neighboring Lanikūhonua Cultural Institute. Design of the structures will be inspired by Hawaiian architecture, and will provide a beautiful, authentic, and modern setting. The project will be designed to provide an open, welcoming space with landscaped pedestrian walkways to create an inviting environment that enhances the beauty of the surrounding shoreline area. Retail and dining options will attract guests throughout Ko Olina Resort and families in the 'Ewa and Wai'anae regions looking for a unique experience in a friendly, authentic setting. Conceptual land uses within the project site have been identified into the following areas: Arrival/Mauka Village, Performing Arts Area, Makai Village, and Beach Village, with designated areas to provide open space/circulation, parking, and a service area.

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A portion of the site is currently used as open space. The existing landscaping includes coconut trees (*Prosopis pallid*), naupaka (*Scaevola sericea*), mimosa trees (*Albizia julibrissin*), and various exotic shrubs. Activities such as the Hawaiian games and arts and crafts, are hosted in the open space areas.

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In most cases, two or three attempts were made to contact individuals, organizations, and agencies. Community outreach letters were sent to a total of 80 individuals or groups, 13 responded, and one of these *kama 'āina* and/or *kupuna* met with CSH for a more in-depth interview.

6.3 Community Contact Table

Below in Table 5 are names, affiliations, dates of contact, and comments from NHOs, individuals, organizations, and agencies contacted for this project. Results are presented below in alphabetical order.

Table 5. Community contact table

Name	Affiliation	Comment
Aila, Jr., William	Interim Chair of Hawaiian Homes Commission/ Director of Department of Hawaiian Homelands	Letter and figures sent via USPS 24 June 2021 Letter and figures sent via email 25 June 2021 Mr. Aila replied 25 June 2021, suggested speaking with Shad Kane and Nettie Tiffany. Mr. Aila also mentioned there is a " <i>Kuahu</i> [altar] located to the west of Lanikuhonua just beyond the housing but within the County Park that is unimproved. My understanding is that it is a fishing shrine. When I was younger 40 years ago, fishermen left ho'okupu [offerings] on it. I also believe that <i>Uau Kani</i> (Wedge tail shearwater) continue nest in the area surrounding it." CSH reached out to Shad Kane ('Ewa Moku Representative, Aha Moku; Kalaeloa Heritage and Legacy Foundation) but received no response
Caceres, Mana Kaleilani	OIBC Representative for 'Ewa	Letter and figures sent via email 25 June 2021 Mr. Caceres replied 28 June 2021 recommending speaking with Shad Kane CSH reached out to Shad Kane but received no response
Holt Takamine, Victoria	Executive Director, PA'I Foundation	Letter and figures sent via USPS 24 June 2021 Letter and figures sent via email 25 June 2021 Letter and figures sent via USPS 29 July 2021 Letter and figures sent via email 30 July 2021 Ms. Holt-Takamine replied 31 July 2021

		CSH replied 2 August 2021 CSH followed up via email 15 October 2021 CSH followed up via telephone 4 November 2021
Kai, G. Umi	President, 'Aha Kāne	Letter and figures sent via USPS 24 June 2021 Letter and figures sent via email 25 June 2021 Letter and figures sent via USPS 29 July 2021 Letter and figures sent via email 30 July 2021 Mr. Kai replied to CSH 30 July 2021 recommending contacting Shad Kane CSH reached out to Shad Kane but received no response
Lewis, Kūhiō	Chief Executive Officer (CEO) for the Council for Native Hawaiian Advancement (CNHA)	Letter and figures sent via email 4 August 2022 Nicholas Carroll replied on behalf of Mr. Lewis via email 8 August 2022 CSH met with Mr. Lewis via zoom 19 August 2022 Interview summary sent for review 29 August 2022 Mr. Lewis approved summary 20 September 2022
Lopes, Tracie and Keawe	<i>Kumu Hula</i>	Letter and figures sent via email 4 August 2022 Letter and figures sent via email 25 August 2022 Ms. Lopes replied via email 31 August 2022 CSH met with Ms. Lopes via zoom 13 October 2022 Ms. Lopes provided written testimony 8 November 2022
National Park Service Honouliuli National Monument		Letter and figures sent via USPS 24 June 2021 Letter and figures sent via email 25 June 2021 Ms. Wakatsuki replied 28 June 2021 recommending reaching out to the Historic Hawai'i Foundation CSH reached out to Kirsten Faulkner (Historic Hawai'i Foundation) but received no response
Norman, Keala	Cultural/lineal descendant	Letter and figures sent via email 25 June 2021 Ms. Norman replied 25 June 2021 recommending contacting Nettie Tiffany and Shad Kane Ms. Norman replied 26 June 2021 recommending contacting Hawaiian Civic Clubs in the area CSH reached out to Shad Kane, Hailama Farden, and Jalna Keala, (Association of Hawaiian Civic Clubs), Rona Rodenhurst ('Ahahui Siwila Hawai'i o Kapolei Hawai'i O Kapolei [Kapolei Hawaiian Civic Club]); Marleen Kau'i Serrao and Lawrence A. Woode Jr., ('Ewa-Pu'uloa Hawaiian Civic Club) but received no response

Perry, La'akea	<i>Kumu hula</i> , Ke Kai O Kahiki	Letter and figures sent via email 4 August 2022 Mr. Perry replied via email 6 August 2022 CSH followed up via email 25 August 2022 Mr. Perry replied via email 30 August 2022 recommending consulting with Nettie Tiffany
Ryan, Pohai	Executive Director Native Hawaiian Hospitality Association	Letter and figures sent via USPS 24 June 2021 Letter and figures sent via email 25 June 2021 Ms. Mālia Sanders (Director of Operations NaHHA) replied on 25 June 2021 recommended John Bond, Kanehili Cultural Hui, Manuel "Manny" Kuloloio, and Nettie Tiffany
Schaedel, Homelani	President, Malu'ōhai Residents Association	Letter and figures sent via USPS 24 June 2021 Letter and figures sent via email 25 June 2021 Ms. Schaedel replied on 28 June 2021 recommended contacting Nettie Tiffany
Solis, Ka'āhiki	SHPD, Cultural Historian (O'ahu)	Letter and figures sent via email 25 June 2021 Ms. Solis replied on 25 June 2021 suggested reviewing the federal NHO list Ms. Solis replied 28 June 2021 suggesting reviewing past CIAs done for the area for additional contacts
Tiffany, Nettie	<i>Kahu</i> for Lanikūhonua	Letter and figures sent via USPS 24 June 2021 Letter and figures sent via email 25 June 2021 CSH had phone conversation with Ms. Tiffany Tentative meeting scheduled for 5 August 2021 Ms. Tiffany needed to reschedule meeting due to not feeling well CSH called Ms Tiffany 10 August 2021 to reschedule meeting Meeting reschedule for 18 August 2021 CSH met with Ms. Tiffany 18 August 2021 Summary approved 15 September 2021

6.4 *Kama‘āina* Interviews

6.4.1 Nettie Tiffany

On 18 August 2021, CSH conducted an interview with Ms. Nettie Tiffany at the beautiful Lanikūhonua Cultural Institute regarding the proposed The Cove Redevelopment project, to share her *‘ike* of the *ahupua‘a*, any cultural practices that exist within the area, as well as any concerns for the proposed project.

Upon arrival to Lanikūhonua, Ms. Tiffany, *kahu* of Lanikūhonua, gave a tour of the property to CSH cultural researcher Kamuela Kaapana, pointing out the various native vegetation, prominent land areas such as Anianikū and Kō‘ula fishponds, as well as the proposed project area, which lies west of Lanikūhonua.

While sitting in the *hālau* (long house, meeting house) by Anianikū Fishpond, Ms. Tiffany shared an array of *mo‘olelo* of the area. Although these *mo‘olelo* will not be included in this interview summary due to personal and cultural sensitivity, it is very important to note that Ms. Tiffany would like to express two main concerns and suggestions regarding the project.

Ms. Tiffany shared that there are *‘ilina* (burials) on the grounds of The Cove property. Burials have been identified in past years, however, there is great possibility that many more burials may be disturbed if any ground disturbance activities and/or construction takes place. It is also important to note that in the past, many religious ceremonies have taken place in the vicinity of the project area.

Ms. Tiffany would like to emphasize the importance of protection of one’s self as well as others while on the The Cove property and when conducting work. It is Native Hawaiian belief that the intentions and actions of people have a way of attracting a response from those who have passed, whether it may be good or bad. It is important to be prepared when conducting work, specifically in the project area, and if one should ever come across *iwi kūpuna*, *pōhaku*, or any other culturally significant materials, it should be handled with care in both a Native Hawaiian sense as well as under the regulations and standards of the law.

6.4.2 Kūhiō Lewis

On 19 August 2022, CSH spoke with Kūhiō Lewis via video conference to discuss the CIA for The Cove Redevelopment project. Mr. Lewis is Chief Executive Officer (CEO) for the Council for Native Hawaiian Advancement (CNHA). Headquartered in Kapolei, the CNHA is “a member-based 501(c)3 non-profit organization with a mission to enhance the cultural, economic, political, and community development of Native Hawaiians” (CNHA 2022). CNHA provides “access to capital, financial education and individualized financial counseling services with a focus on low and moderate-income families” (CNHA 2022). CNHA also provides “grants and loans targeting underserved communities in Hawai‘i” (CNHA 2022).

Mr. Lewis began by discussing the history of the area. He noted that in traditional times, there was not much activity in the area. The area was “where spirits would roam.” He also mentioned the importance of the Makahiki season to the history of the area. Makahiki is an “[a]ncient festival beginning about the middle of October and lasting about four months, with sports and religious festivities and taboo on war” (Pukui and Elbert 1986:225). Mr. Lewis noted that Kapolei is where the Makahiki season began. The Makahiki season would start in Kapolei with ceremonies,

dancing, and games and continued across all the other islands. He suggested project proponents could curate a type of continuation of the Makahiki sense of place and celebration by incorporating traditional Hawaiian games such as spear throwing and *'ulu maika* (ancient Hawaiian game suggesting bowling) into the storytelling of the area.

Mr. Lewis also discussed the importance of providing and maintaining access to the ocean for marine resources and recreational activities. He suggested making the ocean easily accessible because in order to access the beach now near the Lanikuhonua Cultural Institute, people have to “go around from the point.” He also noted people swim, dive, and spear fish at Milo Cove (just north of the project area).

Mr. Lewis stated that there are “amazing opportunities” for economic development in the area. He noted, “our people need jobs, they need opportunities that don’t exist on the west side.” He emphasized that “Hawaiians need to be involved in the economy of this development.” He stated that project proponents should not bring in mainland developers.

Mr. Lewis mentioned the Ko Olina Resort area is a tourist destination, likening it to the “west side Waikīkī.” He stated it is not “necessarily a bad thing, as long as there is meaningful involvement economically for the west side people.” He noted that if “Hawaiians don’t have [a] meaningful place in the development of this, it’s going to be hard for us to buy in to whatever they’re proposing.” He stated that Native Hawaiians want to be a part of the economy as “operators and administrators,” not just “waiters, cooks or cleaners.”

Mr. Lewis discussed the proposed retail shops and marketplace. He suggested the marketplace “should be run by a Hawaiian entity that can work to build up the capacity of the businesses from this area to sell their products.” He noted, “it’s not just the vendors, it’s the people running the marketplace so that the values are inclusive throughout the whole thing.” He stated the marketplace should not have mainland franchises. It should have Hawai‘i-based products from Hawaiian-based businesses grounded in Hawaiian values.

He pointed out there are “amazing businesses that practice traditional type of things that could have a place” in the resort area. He clarified that he is “not talking about people to demonstrate how to pound *poi* [the Hawaiian staff of life, made from cooked taro corms] or *kalo* [Taro; *Colocasia esculenta*], or show them how to make *kapa* [tapa; bark cloth].” He would like Hawaiian businesses involved in the “facilitation of the operations or curating the stories that are being told at those areas.”

Mr. Lewis stated that the project proponents need to focus on incorporating Hawaiian values. He noted it’s “not just putting on one plaque about Hawaiian culture” describing “what used to be.” He emphasized that the Hawaiian community should be given opportunities to curate stories that are “real and authentic to Hawai‘i.” He suggested shows performed at the proposed amphitheater should be developed and curated by Hawaiians from the area telling their stories. He also suggested the amphitheater should allow charitable uses so the local community could use it for events such as an annual *ho‘olaule‘a* (celebration), block party, or other gatherings celebrating the area’s history and traditions without paying exorbitant fees.

He emphasized that “there needs to be a sense of place for the west side community.” It should not only cater to tourists but should also be a destination for locals. He asked, “How many local

people go [to the resort area]?”. He would like it to be a place where “locals and visitors can live together, be alongside each other.”

Mr. Lewis stated that “the best way to contribute to the perpetuation of this place” is to find meaningful opportunities for Native Hawaiians to be involved in the economy. He noted, “it’s not even just Hawaiians anymore, [...] all the ethnic groups are struggling to make ends meet” and “have no meaningful involvement in the economy.” He pointed out that every day, droves from the local community are packing up their stuff, moving to the mainland and taking with them “the fabric of *aloha* (love), the connection to Hawai‘i, the stories of Hawai‘i.” He emphasized, “That’s how you perpetuate Hawai‘i, you allow the people from this place to stay here.”

6.5 Written Testimony from Tracie Ka‘ōnohilani Farias Lopes

On 30 October 2022, Ms. Tracie Ka‘ōnohilani Farias Lopes, *Kumu Hula* (*hula* teacher) of Ka Lā ‘Ōnohi Mai O Ha‘eha‘e and Instructor at Hawai‘i Pacific University, provided written testimony on behalf of herself and her husband, R. Keawe Lopes, also *Kumu Hula* of Ka Lā ‘Ōnohi Mai O Ha‘eha‘e and Director of the Kawaihuelani Center for Hawaiian Language at the University of Hawai‘i at Mānoa, regarding the CIA for The Cove Redevelopment project. Their statement is included below in its entirety.

Aloha Kākou,

My name is Tracie Ka‘ōnohilani Farias Lopes and I submit this letter to you on behalf of myself and my husband, R. Keawe Lopes Jr. Mahalo [Thanks] for this opportunity to share our connection to Ko ‘Olina, the relationships we have with the kūpuna [elders] and our cultural practices in the area.

I considered Ko‘olina and Nānākuli as my second home while schooled in the hula [traditional dance] by O‘Brian Eselu and Thaddius Wilson of Nā Wai ‘Ehā O Puna since 1983. I spent 15 years learning hula and training for events and competitions like Merrie Monarch on the grounds of Lanikūhonua and Paradise Cove. O‘Brian Eselu directed the lū‘au [Hawaiian feast] entertainment there for over 35 years after being asked to help with the show by Kumu Hula Vicky Takamine who also directed and performed. After years of watching the show with my kumu [teacher], I also performed as a soloist in the show after becoming Miss Aloha Hula in 1994.

By my kumu’s side, I was able to meet and form relationships with the kūpuna of the area who are kupa [native] of the land living there for generations. Aunty Agnes Cope, Uncle Kamaki Kanahale and Aunty Georgiana Kahele were very close to my kumu and they were always supportive of my endeavors in hālau [house for hula instruction] and school. In 1998, Keawe and I trained Lokalia Kahele (mo‘opuna [grandchild] of Aunty Agnes and daughter of Aunty “Jana”) during her journey to becoming Miss Aloha Hula 1998 at the Merrie Monarch Festival. During my hula training at Lanikūhonua in the early 1990s, I met Aunty Nettie Tiffany. She modeled for us how to respect each other, to mālama [take care of] the ‘āina [land] of this pu‘uhonua [place of refuge, peace, and safety], to work with integrity and to always acknowledge and honor your mo‘okū‘auhau [genealogy] in your work. It was and still is very inspirational to be in her presence. Aunty Doreen Lindsey lived in Nānākuli and was a musician for our hālau who at one time, danced with O‘Brian

at Ko 'Olina. We shared good times on stage and off with her and her 'ohana [family] and she often shared stories of entertainment life. Auntie Doreen and Uncle Ike Ka'aihue also sponsored me as a scholarship recipient of the Nānāikapono Hawaiian Civic Club while I worked toward my Bachelors in Education degree at the University of Hawai'i at Mānoa. We performed at the Nānāikapono scholarship lū'au in various areas including the Kahele residence every year to support their efforts to help educate students in higher education. I was included as a part of the community because of these relationships and hula experiences that continue to influence my life and my 'ohana today. While in college, I met Keawe and he brought me into his family who also grew up here.

Keawe was raised in Nānākuli. His great-grandparents William & Stella (Brede) Lopes were amongst the first homesteaders to move to Nānākuli in the 1940s and today we can account for seven generations still living on the homestead. Our 'ohana frequented the beautiful beaches from Ko 'Olina to Nene'u [Pōka'i Bay] for family gatherings. We actively fished the reefs along the coast and enjoyed manini [very common reef surgeonfish; *Acanthurus triostegus*], weke [Certain species of the *Mullidae*, surmullets or goatfish], kala [Surgeonfish, unicorn fish, *Teuthidae*; *Naso hexacanthus*, *N. unicornis*, *N. brevirostris*], maiko [surgeonfish; *Acanthurus nigroris*], he'e [Octopus; *Polypus* sp.] and 'ō'io [Ladyfish, bonefish; *Albula vulpes*] from Keaulana, Kalaniana'ole Beach Park, Ulehawa, Pu'uohulu-Kai, and Mā'ili. Our 'ohana also entertained ~played Hawaiian music and danced the hula informally. His uncle, Nālani Ka'ehu'ae'a Tenorio taught hula in Nānākuli for many years. The homestead provided a rich diversity of cultural experts. Many of the families who moved to Nānākuli in the early years were native speakers of Hawaiian and cultural experts who not only knew the mo'olelo [stories] of Nānākuli and her surrounding districts but also brought with them their family lore and mannerisms as well. Keawe's grandmother Leialoha Kanehailua Lopes was a native speaker from Kohala and his Uncle Raymond Alapa'i was a native speaker from Pu'uānāhulu.

Together, Keawe and I are kumu hula of our hālau hula [dance school] named Ka Lā 'Ōnohi Mai O Ha'eha'e and our very first hālau meeting was held at Lanikūhonua and we have trained and performed at both Lanikūhonua and Paradise Cove through the last 17 years of hālau. In 2000 and 2002, we were part of a 'uniki [ceremonial graduation] process with our kumu hula, Uncle Kimo Alama Keaulana who now resides in Nānākuli. Together, we learned and continue to learn so much about hula and life from him. Through Uncle Kimo, we also met a gracious Nānākuli native named Uncle Joseph Keaulana and he shared music and so much aloha [love, kindness, grace] with us. He also taught Keawe how to play the pila kū nui or upright bass. As kumu hula, we have had the opportunity to work with Auntie Nettie, Keola Lloyd and Marie Wong as performers in the 'Mele and Hula at Lanikūhonua' fundraiser event and recently performed in August 2022. We were also recommended by Uncle Kimo to teach hula to the students at the 'Lei O Lanikūhonua' event for a couple years and Keawe and I will return to teach at the event in March of 2023. We appreciate the work that the James Campbell Company

already does to support the education of our students in the moku [district] of Wai'anae and the cultural programs offered as well. Thank you for including us in your community efforts.

Keawe and I have three daughters and our 'ohana also has a special spiritual connection to Ko 'Olina and Lanikūhonua. When it was time to dedicate our girls to Ke Akua [God], we took them to Anianikū to experience the ocean for the first time. The ceremony was different for all three girls but it is what binds them together spiritually to this place. We thank Aunty Nettie for this beautiful experience and spiritual guidance. It is our hope that our children will continue to honor and mālama Lanikūhonua with their families in the future. Our family also loves to spend leisure time in Ko 'Olina when we are able to. Just being able to stay in the area for a few days is not just relaxation time but a re-connect to our past experiences and inspires future experiences as well.

The ocean and shoreline of Nānākuli and the proposed area of revitalization in Ko'olina is where I was water baptized as an adult and where I spent the most time with my kumu O'Brian, kumu Thaddius and Charles Ka'upu while learning hula and oli [chant]. I learned how to control my breathing and create vocal sounds for oli while sitting on the property, facing the ocean and following the wave patterns before me. O'Brian also set aside special times of the year on property to re-unite with hālau members and time for Kapu kai or ceremonial preparations in the ocean for his dancers to meditate, spiritually cleanse and pray before important hula and life events. These experiences are so important to us as practitioners and both Keawe and I want to express our support of the revitalization plan to continue to allow ocean access to us, the hālau and cultural practitioners to practice. It's not just providing "beach access" to people who want to sightsee or swim. We suggest creating a formal agreement between practitioners, the estate and the proposed kahu mālama [caretaker] of the area to allow our people to conduct our training and formal ceremonies there as our way of reconnecting to our sources of strength and healing taught to us by our kumu and kūpuna.

I have been doing hula all my life and from the late 1980s, I learned hula at Paradise Cove near the Ocean Garden and other areas of the property after the hālau left Aunty Verna Wilson's home on Puala'a Street in Hālawā. I have so many memories of hosting entertainers and community members at our hālau fundraisers, training, event performances, cultural practices and special event openings here. Four years after O'Brian's passing in 2012, I heard that a new show was needed at Paradise Cove at an event inducting our kumu to the Hawaiian Music Hall of Fame. About a month later, I was asked by Keith Horita to return to the cove to create the new show at the Paradise Cove Lū'au. After an initial meeting with Keawe and I, I decided to return to take on that kuleana [responsibility] and asked my hula brother, La'akea Perry to join in. It was a yes to the company but also a decision to return to honor and continue the work of our kumu. Upon returning in 2016 as one of the new entertainment directors, we were greeted by long time employees like family members you have not seen for a while but still remember. What a warm welcome it was.

With the helpful insight and research of Keawe, the memories of many past shows, the collaboration of cultural resource people, a template from kumu to work from and kumu/director guided practices with all cast members, we were able to open three new shows in only 5 months. To ensure that our show was unique, Keawe and I composed and selected songs celebrating O'ahu and Hawai'i while incorporating traditional and contemporary elements. Choreography was then created and taught to the dancers to perform by the kumu hula and one of the songs born from this process was 'Nani Ko'olina.'

'Nani Ko'olina' was written for the hula presentation at the imu [underground oven] amphitheatre show. This mele [song] honors place and people and recognizes that where we come from is a part of who we are. It speaks of the surrounding sea, the kauna'oa [*Cuscuta sandwichiana*] that once flourished seaside, our ali'i [chief] Kākuhihewa who found peace here and the legacy of kumu O'Brian Eselu. It is our hope that more mele like this can be composed to share as hula presentations at the proposed entertainment venue that features what is truly Hawaiian thought in poetic expression. The key is to bring creative and culturally grounded kumu who are connected to the area and culture to build a solid Hawaiian show. Keawe and I want to share that we are willing to be a part of the process. At this time, we share our mele, 'Nani Ko'olina' as an example of how a carefully selected repertoire can specifically honor people and place.

Nani Ko'olina

Composed and Copyrighted by: Keawe & Tracie Lopes

A he nani Ko'olina i ka'u 'ike 'Ike 'ia ē ka mili a ka 'ehu kai	How beautiful is Ko'olina when I look at her Seen is the caress of the sea spray
Kai nehenehe i ke kahaone Kahaone lei 'ia i ke kauno'a	It is a sea that gently moves upon the sand A sandy beach embraced by the kauno'a
Kau aku ka 'ōnohi o ke aloha He aloha ē se luana a ke ali'i	The focus of my affection is placed there Beloved is the enjoyment of the chief
He ali'i nui 'oe e Kākuhihewa Hewa 'ole ē ka leo o ka heahea	You are a great chief Kākuhihewa Sincere (not wrong) is the voice of welcome
Hea aku ka puana no ka Paradaiso A he nani Ko'olina i ka'u 'ike	Rendered is the refrain for Paradise (Cove) How beautiful is Ko'olina when I look at her

In reference to the proposed project description from the James Campbell Company, I read that 'The revitalized property will be comprised of a unique mix of Hawaiian music and entertainment, dining, shopping, and other activities that will stand out to the community for its unique setting and memorable experiences. The history of the place will be recognized. Redevelopment of the site will include a new entertainment/performing arts venue capable of housing a daily-run entertainment experience focused on Hawaiian culture. A show will continue as the main entertainment offering.'

Including mele like 'Nani Ko'olina' in the show, repopulating the seashore with kauna'oa, sharing stories of Kākuhihewa and sharing mele that tell of the delicacies of the ocean, food preparation and fishing practices perhaps can all support the vision of the entertainment aspect of the project. The most important is to have a kumu hula who is trained and culturally grounded lead the entertainment.

No one can dispute that 'Ōlelo Hawai'i [Hawaiian language] is the foundation of our flourishing cultural art forms and hula 'ōlapa [dancer or type of hula] or hula kahiko [ancient dance] is an important element to also include in entertainment if we are to provide authentic Hawaiian expression. Both Keawe and I are Hawaiian Language professors and Keawe is the director of the Kawaihuelani Center for Hawaiian Language at UH Mānoa. When planning for the kahiko in the Paradise Cove show, we decided to honor Kākuhihewa. Keawe discovered a mele in the Hawaiian language newspapers that took us to Kūkaniloko at the birth of Kākuhihewa who would spend leisure time in Ko'olina. We share the mele with you here.

He Mele Inoa No Kūhihewa
Published in the Hawaiian Language Newspapers

[Ka Holomua October 10, 1914]

Eia Kūhihewa Kalani Alii nui
Ke kuahue o Halawalawa ka Io
Ka pua kakoililani a Manuia
Ka weolani no Kūkaniloko -a
Kani ku'ilua Hawea ka pahu alii
Ku'i nakolokolo o ka Aumakua

Kani oeo kani omeku ka Iwa
O Ihukolo ke kahuna alii
Uuina nakolo nakulukulu
Kani ku'i ka hekili pamalo
Olapa e lalapa mai ka uwila
Mo ka piko o ke alii - e, Aiala
He punua, he Lale manu no Kaiona
O Kūhihewa Kalani a Ku-e
E noho i ka moku Oahunui
Ua-ike-a

This hula noho [sitting hula] was choreographed by Keawe and I as a hula noho puniu [a sitting hula that incorporates a small knee drum made of a coconut shell with fish skin cover] presentation and we taught it to the cast. It is unlike any other kahiko presentation found on O'ahu and it challenged the cast to know more about what they are performing and who they honor in these mele hula. This hula aligns with the revitalization project vision because this hula 'ōlapa recognizes place, is authentic and it celebrates the birth of the new King at Kūkaniloko, O'ahu. In this chant, the elemental manifestations appear to honor a king while sharing traditional

Hawaiian and the choreography engages both dancer and audience. Authenticity is so important to us so the use of live instruments and chanting is part of the presentation. In reference to the project description again, I read that the 'intent' of this land improvement is to create an 'authentic Hawaiian gathering place with an inclusive, spiritual, genuine, surprising, and welcoming character for kama'āina (Hawai'i residents) and visitors. When completed, new amenities will celebrate the traditions, beauty, and spirit of ancient Hawai'i in an immersive coastal setting unlike any place on O'ahu.'

As kumu hula, educators and creative show directors, the vision for this development is exciting because Hawai'i, the people of Hawai'i and the visitors who visit our home deserve to see authentic Hawaiian entertainment in Hawai'i and this will be a beautiful setting for that. Hawai'i needs a show that will only focus on the traditions, beauty and excitement of **Hawaiian** culture and dance and not have to journey through Polynesia for a great experience. The Hawaiian experience is great on its own and we know this because we live this. It's time to put Hawai'i first in the entertainment industry here.

We thank the James Campbell Company for the initiative to use this land to promote, celebrate and perpetuate our Hawaiian cultural art forms, language and mo'olelo for all ages to experience. This will be a significant step forward and the James Campbell Company will be at the forefront of this significant movement with mele like 'Nani Ko'olina' and 'He Mele Inoa No Kuhihewa' and the collective creativity of our kanaka [Hawaiian people] today, the show and other cultural elements can provide magical and meaningful experiences for both kama'āina and malihini [tourist].

Keawe and I are willing to participate and creatively collaborate with Auntie Nettie, our kumu, Uncle Kimo Alama Keaulana and our dear friend and hoa kumu [fellow teacher], Twyla Mendez who all have connections with Campbell Estate and are respected in our hula community. We all uphold legacy and create beautiful experiences in all educational and entertainment settings so this would be exciting. We are also grateful that this project has the potential of creating numerous jobs for residents in the area. This is so important! By offering Hawaiian marketplace and authentic Hawaiian entertainment like this, we believe that many hula practitioners will want to be a part of it and will travel from all moku of O'ahu to do so.

In regards to the marketplace. We strongly support the concept that Hawaiian Artisans can be featured there. When I travel, I want to learn about the culture specific to that place and what I bring home to my family has to mean something. If it is made by the artists of that area themselves, these items are not just souvenirs but can become family heirlooms in the future. We have so many artists in Hawai'i and being able to feature authentic Hawaiian work in galleries or in shops to purchase in this area is exciting and offers our malihini and kama'āina a unique shopping experience while supporting our community. Workshops shared by these artists would be a wonderful experience as well.

In regards to our kūpuna resting there, as dancers training in the area, we were reminded that kūpuna were buried there and that we should always be respectful when entering the property or near sites. Thank you for taking care of these areas when the project begins and mahalo to Aunty Nettie for holding the 'ike [knowledge] of the locations of these resting places of our kūpuna.

At the Ocean Garden, there are two hula mounds. We want to express our support to keep these mounds in its current location and condition. The larger mound faces the ocean and the other faces the entrance. Both provide natural staging for entertainment, a space for the daily educational activities and possibly hula ceremonial gatherings and presentations. They will continue to be special and very useful areas if preserved.

One final comment on entertainment. One of the most popular daily activities at any hotel or show for our malihini is the hula lesson. People visit from miles around to come to Hawai'i and many of them want to experience learning the hula. I speak for myself that sometimes these activities can be too commercial and sometimes inappropriate when taught for the mass because how we run our hālau is very, very different. For me, if an authentic Hawaiian show in the evening is presented, this can be a wonderful prelude to the show. For us, it's important to entertain but to also educate. In February 2021, I wrote a song specifically for this area that I thought would be a perfect hula to teach because it is in English and it acknowledges nature that surrounds you while on the property and also shares some cultural practices as well in a fun way. The chorus of this song 'Hula In Paradise' is printed below to share an example of how culture and entertainment can be incorporated and still be tasteful to all.

Hula In Paradise by Tracie Lopes

Chorus:

Neath the coco palms above
Near the ocean shore I love
I can see the beauty right before me
'O 'oe a 'o au, just you and me

In closing, Ko'olina is indeed a home to us and a beautiful pana 'āina [celebrated land] that is caressed by the ocean, shaded by the many coconut trees and a place where we all spend time together. This is a place we all personally invest in to protect and preserve for us today and for future generations. We thank the James Campbell Company and Cultural Surveys Hawai'i for this opportunity to share our story with you.

[...]

Mahalo

Section 7 Traditional Cultural Practices

Timothy R. Pauketat succinctly describes the importance of traditions, especially regarding the active manifestation of one's culture or aspects thereof. According to Pauketat:

People have always had traditions, practiced traditions, resisted traditions, or created traditions [...] Power, plurality, and human agency are all a part of how traditions come about. Traditions do not simply exist without people and their struggles involved every step of the way. [Pauketat 2001:1]

It is understood that traditional practices are developed within the group, in this case, within the Hawaiian culture. These traditions are meant to mark or represent aspects of Hawaiian culture that have been practiced since ancient times. As with most human constructs, traditions are evolving and prone to change resulting from multiple influences, including modernization as well as other cultures. It is well known that within Hawai'i, a "broader 'local' multicultural perspective exists" (Kawelu 2015:3). While this "local" multicultural culture is deservedly celebrated, it must be noted that it has often come into contact with "traditional Hawaiian culture." This contact between cultures and traditions has undoubtedly resulted in numerous cultural entanglements. These cultural entanglements have prompted questions regarding the legitimacy of newly evolved traditional practices. The influences of "local" culture are well noted throughout this section, and understood to represent survivance or "the active sense of presence, the continuance of native stories, not a mere reaction, or a survivable name. Native survivance stories are renunciations of dominance, tragedy and victimry" (Vizenor 1999:vii). Acknowledgement of these "local" influences help to inform nuanced understandings of entanglement and of a "living [Hawaiian] contemporary culture" (Kawelu 2015:3). This section strives to articulate traditional Hawaiian cultural practices as were practiced within the *ahupua'a* in ancient times, and the aspects of these traditional practices that continue to be practiced today; however, this section also challenges "tropes of authenticity," (Cipolla 2013) and acknowledges the multicultural influences and entanglements that may "change" or "create" a tradition.

This section integrates information from Sections 3–6 in examining cultural resources and practices identified within or in proximity of the project area in the broader context of the encompassing Honouliuli landscape. Excerpts from interviews are incorporated throughout this section where applicable.

7.1 Gathering of Plant and Aquatic Resources

Lying in the lee of the Wai'anae mountain range, the project area is one of the driest areas of O'ahu with most of the area averaging about 550 mm (22 inches) of rain on the coastal and inland region of the *ahupua'a* and about 1,200 mm (39 inches) in the northern region up into the Wai'anae mountain range (Giambelluca et al. 2013). The area is drained by Kalo'i Gulch and Honouliuli Gulch. These gulches are believed to rarely run with water. Historic maps also indicate a spring located to the north. Such infrequent springs may have been key to the early human activity on the southeast Wai'anae slope.

Despite the relative lack of rainfall in this area, there exists a traditional rain name associated with the *ahupua'a* of Honouliuli. This rain, known as the Nāulu, is described as a sudden shower and is more commonly associated with Kawaihae, Hawai'i and Ni'ihau (notoriously dry locations

as well) (Akana and Gonzalez 2015:187). The general lack of distinctive, traditional rain names is indicative of historic environmental conditions within the *ahupua'a*. Due to these conditions, *maka'āinana* living within the *ahupua'a* were forced to modify or utilize freshwater resources in innovative ways.

Fresh water remains available below the surface of Honouliuli. Dissolution “pit caves” (Mylroie and Carew 1995) or “sink holes” would accumulate water within them via a subterranean water or karst system; this water also contained nutrient-rich sediment that allowed for the cultivation of significant plant resources such as *kalo*, *kī*, and *noni*. McAllister documented examples of traditional agricultural activity in Honouliuli, writing that the *kama'āina* of the *ahupua'a* utilized the soil on the floor of caves for cultivation. At the time of his survey in the 1930s both *mai'a* (bananas) and *kō* (sugarcane) were still being cultivated within these pits.

The lowlands fronting West Loch of Pearl Harbor (Kaihuopala'ai) were suitable for the cultivation of the traditional Hawaiian staple crop, *kalo*. The production (and consumption) of *kalo* was vitally important to many communities of Native Hawaiians living in 'Ewa. Captain James King, visiting Hawai'i in 1779, noted that “the natives of these islands are, in general, above the middle size and well made; they walk very gracefully, run nimbly and are capable of bearing great fatigue” (Shintani 1993:10). Accordingly, the high level of physical activity and physical fitness described by Captain King was a normal part of Hawaiian life and was largely attributable to the availability of plant and food resources such as *kalo*, *'uala* (sweet potato; *Ipomoea batatas*), *niu*, *mai'a*, *limu*, and *i'a* (fish). Besides the observed contributions to stamina and health, *kalo* was also a revered staple food, believed to have derived from the first-born son of Wakea and Papa.

[...] the supreme god Kane 'in the form of Wakea (a form associated with the earth) produced two sequential offspring: the first became *kalo* (taro) plant, the second became Hāloa, the ancestor of man [...] thus, in kinship terms, the taro is the elder brother and the senior branch of the family tree, mankind belongs to the junior branch, stemming from the younger brother.' [Trask 2012:75]

'Ewa was also famous for a rare taro called the “*kāi o 'Ewa*,” which was grown in mounds in marshy locations (Handy and Handy 1972:471). The cultivation of this prized and delicious taro led to the saying, “*Ua 'ai i ke kāi-koi o 'Ewa*, He has eaten the Kāi-koi taro of 'Ewa” (Pukui 1983:305).

Traditional Hawaiian diets were also supplemented with ocean-based proteins. Native Hawaiians historically fished the reefs, farmed fishponds, and utilized the freshwater springs in the *ahupua'a* of Honouliuli. The lochs of Pearl Harbor were ideal for the construction of fishponds and fish traps. References to the abundance of ocean resources can be found within *mo'olelo*, *wahi pana*, and *'olelo no'eau* associated with Honouliuli Ahupua'a.

The *mo'olelo* “Legend of the Children” describes the coastal area of Kūalaka'i as being plentiful in fish. Clark (1977:74) and Pukui et al. (1974:119) describe Kūalaka'i as a type of sea cucumber (*Tethys*) that squirts purple fluid when squeezed. The *'olelo no'eau*, “*Kai a hali a ka makani*,” translates to “the fish fetched by the wind” which describes the migration of the *'anae* that travels from the leeward coast to the windward coast of O'ahu.

During a tour of the Lanikūhonua Cultural Institute, *kahu* Nettie Tiffany pointed out various native vegetation that are present. She also pointed out Anianikū and Kō‘ula fishponds which are located west of the proposed project area.

Kūhiō Lewis discussed the importance of providing and maintaining access to the ocean for marine resources and recreational activities. He suggested making the ocean easily accessible because in order to access the beach now near the Lanikuhonua Cultural Institute, people have to “go around from the point.” He also noted that people swim, dive, and spear fish at Milo Cove.

Tracie Ka‘ōnohilani Farias Lopes stated their *‘ohana* has “frequented the beautiful beaches from Ko ‘Olina to Nene‘u [Pōka‘ī Bay] for family gatherings.” They have also “actively fished the reefs along the coast and enjoyed manini, weke, kala, maiko, he‘e and ‘ō‘io from Keaulana, Kalaniana‘ole Beach Park, Ulehawa, Pu‘uohulu-Kai, and Mā‘ili.”

7.2 Cultural Sites

There exist a myriad of cultural sites or *wahi pana* for ‘Ewa Moku; however, for the *ahupua‘a* of Honouliuli trails, plains, and temples were of particular importance.

Trails were and continue to be valuable resources for Native Hawaiian culture and life ways. In the past, trails were well-used for travel within the *ahupua‘a* between *mauka* and *makai* and laterally between *ahupua‘a*. A historical trail system existed in O‘ahu extending from Honolulu to Wai‘anae. A cross-*ahupua‘a* (east-west) trail that bordered Pearl Harbor, passed through Honouliuli north of Pu‘uokapolei, and continued along the coast to Wai‘anae following the route of the modern Farrington Highway. A *mauka-makai* (north-south) trail branched off the cross-*ahupua‘a* trail into two offshoots that led to the settlements of Kūalaka‘i and One‘ula which are located along the southern coast, southeast of the project area.

The ‘Ewa coastal plain was also a place of spiritual significance as it was associated with the *ao kuewa*, the realm of homeless souls. According to Samuel Kamakau, there existed three spirit realms, the *ao kuewa*, *ao ‘aumakua*, and *ke ao o milu*. Upon death, the spirit of the recently deceased was said to leave the body and then proceed toward a *leina* where they would leap into Pō, the world of the unseen (Handy and Pukui 1972:146). The spirit was guided to and over the *leina* and into Pō by their *‘aumakua* (Handy and Pukui 1972:146), however, if the soul of the deceased had no place in the *‘aumakua* realm, or was abandoned by an *‘aumakua*, they were destined to wander the *wiliwili* grove of Kaupe‘a until such time that they were rescued by their *‘aumakua*. Fornander (1919:6[2]:292) states that Pu‘uokapolei may have been a *leina*, a jumping off point associated with the wandering souls who roamed the plains of Kaupe‘a and Kānehili, *makai* of the hill.

Mr. Lewis noted that in traditional times, there was not much activity in the area. The area was “where spirits would roam.”

Pu‘uokapolei was also known to be the home of Kamapua‘a’s grandmother, Kamaunuanoho, (Nakuina 1904:50). There was once a large rock shelter on the *makai* side said to have been the residence of Kamapua‘a and his grandmother (McAllister 1933:108). After conquering the majority of O‘ahu, he established his grandmother as queen (Pukui 1974:203). Another account (*Ka Loea Kālai‘āina*, 13 January 1900 in Sterling and Summers 1978:34) stated that Kekele‘aikū, the older brother of Kamapua‘a, also lived on Pu‘uokapolei.

The plain of Pukaua is also located near Pu'uokapolei, east of the project area. Two distinct *mo'olelo* are connected with this cultural site. The first of these two stories was presented in the 13 January 1900 edition of *Ka Loea Kālai 'āina* which states two old women with supernatural powers were heading to their home to Pukaua following an evening of fishing at the village of Kualaka'i. As the sun began to rise, the women hid to avoid being seen and their bodies turned to stone. The second *mo'olelo* involves Hi'iaka, and is spread across several daily editions of *Ka Hōkū o Hawai'i* from February 1927. According to the *mo'olelo*, the two women were *mo'o*. The women met Hi'iaka as she journeyed toward the 'Ewa coast. They were afraid Hi'iaka would kill them, so they transformed into their lizard form and hid from Hi'iaka (*Ka Hōkū o Hawai'i*, 15 February 1927, translated in Maly 1997:19). This stone was known as "Pe'e-kāua," which translates to "we two hidden."

Kūalaka'i is the name of an ancient fishing village located on the southwestern side of Honouliuli Ahupua'a, southeast of the project area. Kūalaka'i is mentioned in the "Legend of the Children" which foretells the breaking of the eating *kapu* by the *ali'i* (*Ka Loea Kālai 'āina*, 22 July 1899:15, translation in Sterling and Summers 1978:7). This area was also once the site of a spring called Hoaka-lei ("lei reflection"), where according to *mo'olelo*, Hi'iaka picked *lehua* and saw her reflection in the water (Pukui et al. 1974:119).

Kalaeloa is an area located south of the project area at the southwestern point of O'ahu. Kalaeloa Point was the home of Uhu Makaikai, a *kupua* who could take the form of a man or a giant parrotfish (*uhu*). He is mentioned in several legends concerning the hero Kawelo and with Kawelo's struggles with 'Aikanaka, the ruling chief of Kaua'i (Hawaiian Ethnological Notes, Bishop Museum Vol. II:114, translation in Sterling and Summers 1978:41).

Mr. Lewis also mentioned the importance of the Makahiki season to the history of the area. He noted Kapolei is where the Makahiki season began. The Makahiki season would start in Kapolei with ceremonies, dancing, and games and continued across all the other islands. He suggested project proponents could curate a type of continuation of the Makahiki sense of place and celebration by incorporating traditional Hawaiian games such as spear throwing and *'ulu maika* into the storytelling of the area.

Cultural practices within Honouliuli of late have been inspired by traditional understandings of caring for natural and cultural resources. The Kalaeloa Heritage and Legacy Foundation has adopted practices wherein the community can *mālama* cultural sites, and in turn benefit from the knowledge inherent in such sites. Previously documented cultural sites within the Kalaeloa Heritage Park are actively cared for while also the subject of numerous university-level studies. These sites have been established as important centers for an *'āina*-based education.

Several *heiau* stood in Honouliuli Ahupua'a including Pu'uokapolei Heiau, Pu'u Ku'ua Heiau, and two unidentified *heiau* located at the foot of Pu'u Kanehoa and Pu'u Kuina, respectively. Each year, a ceremony commemorating the changing of the seasons is still observed in the beginning of May at Waikīkī and Honouliuli. Sam 'Ohukani'ōhi'a Gon III, Na Wa'a Lalani Kahuna O Pu'u Koholā, and the late Kumu Hula John Keola Lake's *hula hālau* perform *oli* and *hula* during the ceremony (Genz et al. 2012). The ceremony occurs at Pu'uokapolei Heiau which is oriented so that it views the setting of the sun behind Pu'ula'ila'i farther west, and maintains a line of sight extending eastward from Pu'ula'ila'i toward Papa'ena'ena Heiau, located in Waikīkī.

7.3 *Hula*

In *Unwritten Literature of Hawaii: The Sacred Songs of the Hula*, Nathaniel B. Emerson discusses the significance of the art of *hula* in traditional Hawaiian society. He notes,

[...] the hula stood for very much to the ancient Hawaiian; it was to him in place of our concert-hall and lecture-room, our opera and theater, and thus became one of his chief means of social enjoyment. Besides this, it kept the communal imagination in living touch with the nation's legendary past. [...] The Hawaiian song, its note of joy par excellence, was the *oli*, but it must be noted that in every species of Hawaiian poetry, *mele* whether epic or eulogy or prayer, sounding through them all we shall find the lyric note. [Emerson 1965:7]

Emerson continues,

The hula was a religious service, in which poetry, music, pantomime, and the dance lent themselves, under the forms of dramatic art, to the refreshment of men's minds. Its view of life was idyllic and it gave itself to the celebration of those mythical times where gods and goddesses moved on the earth as men and women and when men and women were as gods. As to subject-matter, its warp was spun largely from the bowels of the old-time mythology into cords through which the race maintained vital connection with its mysterious past. Interwoven with these, forming the woof, were threads of a thousand hues and of many fabrics, representing the imaginations of the poet, the speculations of the philosopher, the aspirations of many a thirsty soul, as well as the ravings and flame-colored pictures of the sensualist, the mutterings and incantations of the kahuna, the mysteries and paraphernalia of Polynesian mythology, the annals of the nation's history-the material, in fact, which in another nation and under different circumstances would have gone to the making of its poetry, its drama, its opera, its literature. [Emerson 1965:11–12]

Traditionally, the art of *hula* was practiced by a “body of trained and paid performers” who were educated in both song and dance (Emerson 1965:13). According to Emerson,

The ancient Hawaiians did not personally and informally indulge in the dance for their own amusement, as does pleasure loving society at the present time. Like the Shah of Persia, but for very different reasons, Hawaiians of the old time left it to be done for them by a body of trained and paid performers. This was not because the art and practice of the hula were held in disrepute quite the reverse-but because the hula was an accomplishment requiring special education and arduous training in both song and dance, and more especially because it was a religious matter, to be guarded against profanation by the observance of tabus and the performance of priestly rites. [Emerson 1965:13]

Mrs. Lopes stated that she considered Ko ‘Olina and Nānākuli her “second home” while being “schooled in the hula by O‘Brian Eselu and Thaddius Wilson of Nā Wai ‘Ehā O Puna since 1983.” She “spent 15 years learning hula and training for events and competitions like Merrie Monarch on the grounds of Lanikūhonua and Paradise Cove.” She noted, “O‘Brian Eselu directed the lū‘au entertainment there for over 35 years after being asked to help with the show by Kumu Hula Vicky

Takamine who also directed and performed.” Mrs. Lopes also “performed as a soloist in the show after becoming Miss Aloha Hula in 1994.”

Since the late 1980s, Mrs. Lopes has “learned hula at Paradise Cove near the Ocean Garden and other areas of the property.” She has “so many memories of hosting entertainers and community members at our hālau fundraisers, training, event performances, cultural practices and special event openings here.”

Mrs. Lopes has met and formed relationships with the “kūpuna of the area who are kupa of the land living there for generations” including “Aunty Agnes Cope, Uncle Kamaki Kanahale and Aunty Georgiana Kahele.” During her *hula* training at Lanikūhonua in the early 1990s, Mrs. Lopes met Aunty Nettie Tiffany who modeled for them “how to respect each other, to mālama the ‘āina of this pu‘uhonua, to work with integrity and to always acknowledge and honor your mo‘okū‘auhau in your work.”

Mr. and Mrs. Lopes are *kumu hula* of Ka Lā ‘Ōnohi Mai O Ha‘eha‘e. Their very first *hālau* meeting was held at Lanikūhonua and they have trained and performed at both Lanikūhonua and Paradise Cove through the last 17 years. As *kumu hula*, they have worked with Aunty Nettie, Keola Lloyd, and Marie Wong for the “Mele and Hula at Lanikūhonua” fundraiser event as recently as August 2022. They have also taught students at the “Lei O Lani Kūhonua” for a “couple of years” and will “return to teach at the event in March of 2023.” The Lei ‘O Lanikūhonua Hula Festival is

[...] an annual hula festival unlike any other. A gift of hula masters coming together to share their knowledge with high school-age hula students in a one-day celebration of Hawaiian culture and dance. Since its debut in 2007, the Lei ‘O Lanikūhonua Hula Festival has grown in stature and popularity. In 2010, the Festival drew more than 90 students from ten (10) public and private schools. By 2014, that number had tripled to 279 students. This year’s event, an estimated 500 students will be participating in the Festival. [Lanikuhonua 2022]

In 2016, Mrs. Lopes was asked to create a new show at the Paradise Cove Lū‘au. She recalled that, “With the helpful insight and research of Keawe [Lopes], the memories of many past shows, the collaboration of cultural resource people, a template from kumu to work from and kumu/director guided practices with all cast members,” they were able to “open three new shows in only 5 months.” To ensure the show was unique, Mr. and Mrs. Lopes “composed and selected songs celebrating O‘ahu and Hawai‘i while incorporating traditional and contemporary elements. Choreography was then created and taught to the dancers to perform by the kumu hula.” One of the songs was “Nani Ko‘olina.” She noted,

‘Nani Ko‘olina’ was written for the hula presentation at the imu amphitheatre show. This mele honors place and people and recognizes that where we come from is a part of who we are. It speaks of the surrounding sea, the kauna‘oa that once flourished seaside, our ali‘i Kākuhihewa who found peace here and the legacy of kumu O‘Brian Eselu.

Mrs. Lopes expressed her hope that “more mele like this can be composed to share as hula presentations at the proposed entertainment venue that features what is truly Hawaiian thought in poetic expression.” She noted the “key is to bring creative and culturally grounded kumu who are

connected to the area and culture to build a solid Hawaiian show.” Mr. and Mrs. Lopes are “willing to be a part of the process.”

Mrs. Lopes stated that including “mele like ‘Nani Ko‘olina’ in the show, repopulating the seashore with kauna‘oa, sharing stories of Kākuhihewa and sharing mele that tell of the delicacies of the ocean, food preparation and fishing practices perhaps can all support the vision of the entertainment aspect of the project.” She emphasized, “The most important is to have a kumu hula who is trained and culturally grounded lead the entertainment.”

Mr. Lopes also discovered a *mele* named “He Mele Inoa No Kuhihewa” in the Hawaiian language newspapers celebrating the birth of the *ali‘i* Kākuhihewa, who was born at Kūkaniloko and spent “leisure time in Ko‘olina.” Mr. Lopes choreographed a *hula noho* and Mrs. Lopes created a *hula noho puniu* presentation that they taught to the cast. Mrs. Lopes noted the presentation “challenged the cast to know more about what they are performing and who they honor in these mele hula.” She emphasized that this “hula aligns with the revitalization project vision because this hula ‘ōlapa recognizes place, is authentic and it celebrates the birth of the new King at Kūkaniloko, O‘ahu.”

Ms. Lopes emphasized that “As kumu hula, educators and creative show directors, the vision for this development is exciting because Hawai‘i, the people of Hawai‘i and the visitors who visit our home deserve to see authentic Hawaiian entertainment in Hawai‘i.” She stated Ko ‘Olina will be a “beautiful setting” for *kama‘āina* and visitors to see “authentic Hawaiian entertainment.” She emphasized that “Hawai‘i needs a show that will only focus on the traditions, beauty and excitement of **Hawaiian** culture and dance and not have to journey through Polynesia” for a great experience.” She added, “The Hawaiian experience is great on its own and we know this because we live this. It’s time to put Hawai‘i first in the entertainment industry here.”

Mrs. Lopes mentioned there are “two hula mounds” at the Ocean Garden. “The larger mound faces the ocean and the other faces the entrance.” She expressed her “support to keep these mounds in its current location and condition.” She stated that the mounds “provide natural staging for entertainment, a space for the daily educational activities and possibly hula ceremonial gatherings and presentations.” She emphasized that “They will continue to be special and very useful areas if preserved.”

Mrs. Lopes stated, “For us, it’s important to entertain but to also educate.” She noted, “One of the most popular daily activities at any hotel or show for our malihini is the hula lesson,” however, she feels that “sometimes these activities can be too commercial and sometimes inappropriate when taught for the mass because how we run our hālau is very, very different.” She suggests the song, “Hula In Paradise,” which she composed specifically for this area would be a “perfect hula to teach because it is in English and it acknowledges nature that surrounds you while on the property and also shares some cultural practices as well in a fun way.” The chorus of the song is an example of “how culture and entertainment can be incorporated and still be tasteful to all.”

Mrs. Lopes emphasized that “Ko‘olina is indeed a home to us and a beautiful pana ‘āina that is caressed by the ocean, shaded by the many coconut trees and a place where we all spend time together. This is a place we all personally invest in to protect and preserve for us today and for future generations”

7.4 Religious Practices

A variety of religious practices were conducted by Native Hawaiians which included prayers and chants to help cleanse the land, *ho'oponopono* or the practice of reconciliation, and others.

Although not specifically identified, Ms. Tiffany shared that religious practices did occur on the project area and within the surrounding vicinity.

In an email response, Mr. Aila mentioned there is a “Kuahu [altar] located to the west of Lanikuhonua just beyond the housing but within the County Park that is unimproved.” He shared his understanding “that it is a fishing shrine.” He recalled, “When I was younger 40 years ago, fishermen left *ho'okupu* [offerings] on it.” Mr. Aila also shared his belief that “Uau Kani (Wedge tail shearwater) continue nest in the area surrounding it.”

The Lopes 'Ohana has a “special spiritual connection to Ko 'Olina and Lanikūhonua.” Mrs. Lopes shared, “When it was time to dedicate our girls to Ke Akua, we took them to Anianikū to experience the ocean for the first time. The ceremony was different for all three girls but it is what binds them together spiritually to this place.”

Mrs. Lopes mentioned their family loves to spend leisure time in Ko 'Olina. She noted that “being able to stay in the area for a few days is not just relaxation time but a re-connect to our past experiences and inspires future experiences as well.” It is their hope that “our children will continue to honor and mālama Lanikūhonua with their families in the future.”

Mrs. Lopes noted the “ocean and shoreline of Nānākuli and the proposed area of revitalization in Ko'olina” is where she was “water baptized as an adult” and where she “spent the most time with my kumu O'Brian, kumu Thaddius and Charles Ka'upu while learning hula and oli.” She added, “I learned how to control my breathing and create vocal sounds for oli while sitting on the property, facing the ocean and following the wave patterns before me.” Her *kumu* O'Brian set aside “special times of the year on property to re-unite with hālau members,” as well as “time for Kapu kai or ceremonial preparations in the ocean for his dancers to meditate, spiritually cleanse and pray before important hula and life events.” She emphasized that “these experiences are so important to us as practitioners.”

Mr. and Mrs. Lopes expressed their “support of the revitalization plan to continue to allow ocean access to us, the hālau and cultural practitioners to practice.” Mrs. Lopes noted, “It's not just providing 'beach access' to people who want to sightsee or swim.” She suggested,

[...] creating a formal agreement between practitioners, the estate and the proposed kahu mālama of the area to allow our people to conduct our training and formal ceremonies there as our way of reconnecting to our sources of strength and healing taught to us by our kumu and kūpuna.

7.5 Burials

Native Hawaiians are protective of their *iwi kūpuna* as it is their *mana* (spiritual essence) that flows within these lands. As stated by the State Historic Preservation Division,

When departing kupuna was laid to rest there was never a doubt that their remains would empower their descendants until they themselves were reduced to earth.

Some kupuna were covered by stacked stones while others were buried with no surface markers at all, frequently in sand dunes. [SHPD, n.d.]

It is believed that the *mana* of a person is held within the *iwi* (bones). Therefore, *iwi kūpuna* were treated with upmost respect. For example, remains of a passing *ali* 'i were usually buried in the cover of night to protect the *iwi* from possible poachers, or those who might steal them to utilize the *mana* of the passing *ali* 'i (SHPD, n.d.).

'Ewa was famous for the many limestone caves formed in the uplifted coral, called the "Ewa Karst." In traditional Hawaiian times, the areas of exposed coral outcrop were undoubtedly more extensive. Where not covered by alluvium or stockpiled material, this Pleistocene limestone outcrop has characteristic dissolution "pit caves" (Mylroie and Carew 1995). The caves of Pu'uloa were sometimes also used as burial caves. Following the death of Keali'iahonui, son of Kaua'i's last king, Kaumuali'i, in 1849, his body was buried in Pu'uloa (Alexander 1907:27).

Ms. Tiffany shared that there are burial remains that have been previously identified within the project area. Therefore, there is a probability of disturbing other burials not previously identified if construction and development of this proposed project should continue.

She stated that all work conducted for the project should be done with *pono* and workers need to be *maka'ala*. She pointed out that it is the intentions and actions of people that guide a reaction from the spirits. If any disturbance of *iwi kūpuna* should occur, both Native Hawaiian and legal protocols need to be followed.

Mrs. Lopes noted there are burials within the property and "we should always be respectful when entering the property or near sites." She thanked Aunty Nettie Tiffany for "holding the 'ike of the locations of these resting places of our kūpuna," as well as the project proponents for "taking care of these areas when the project begins."

Section 8 Summary and Recommendations

8.1 Results of Background Research

Background research for this study yielded the following results, presented in approximate chronological order:

1. Honouliuli is the largest *ahupua'a* in the *moku* of 'Ewa. Honouliuli translates literally as “dark water,” “dark bay,” or “blue harbor,” and thus is named for the waters of Pearl Harbor which mark the eastern boundary of the *ahupua'a* (Jarrett 1930:22). Another source translates Honouliuli as “The blue bays or inlets” (*Saturday Press*, 11 August 1883). Honouliuli appears in the “Mo'olelo of Lepeamoa,” the chicken-girl of Pālāma, where Honouliuli is the name of the husband of the chiefess Kapālāma, and grandfather of Lepeamoa (Westervelt 1923:164–184).
2. Generally, Honouliuli was described as very hot and dry. Evidence of drought-like conditions is further supported by the relative lack of traditional rain names associated with Honouliuli Ahupua'a. The Nāulu rain is the only known associated rain name for Honouliuli. Due to the lack of rainwater, freshwater resources were accessed via a karstic system.
3. In traditional Hawaiian times, the areas of exposed coral (Pleistocene limestone) outcrop were undoubtedly more extensive. According to McAllister (1933), holes and pits in the coral were generally accessed for water, while larger pits, often containing soil, were used for cultivation. McAllister additionally remarked that at the time of his 1930s survey *mai'a* (banana; *Musaceae*) and *kō* (sugarcane; *Saccharum officinarum*) were being cultivated within the pit caves (sinkholes) (McAllister 1933:109).
4. The traditional *ka'ao* associated with the area speak of the *akua* brothers, Kāne and Kanaloa. It was their supernatural feat of hurling *pōhaku* across the island that determined the boundaries of land divisions (Sterling and Summers 1978:1). Additional *mo'olelo* speak of Hi'iaka and her travels across the plains of 'Ewa. In particular, the *wahi pana* of Kaupe'a is described. Kamakau describes Kaupe'a as a wide plain where a grove of *wiliwili* (*Erythrina sandwicensis*) stands (Kamakau 1991a:47). This plain is an *ao kuewa*, a realm belonging to homeless souls. In general, the *kama'āina* of both Honouliuli Ahupua'a and 'Ewa District made a point to avoid this place.
5. Pu'uokapolei is a prominent hill located on the 'Ewa coastal plain that was the primary landmark for travelers on the trail running from Pearl Harbor to Wai'anae. A *heiau* was once on the summit of the hill, however, by the time of McAllister's survey of O'ahu it had been destroyed (McAllister 1933:108). The hill was also used as a point of solar reference or as a place for celestial observations of the winter and summer solstice. A ceremony at a *heiau* on Pu'uokapolei provides a vantage point to capture the sun setting directly behind Pu'u Pālailai, a peak farther west in the Wai'anae range. A coinciding ceremony at Kūpalaha Heiau in Waikīkī captures the same essence as the sun sets behind Pu'uokapolei.
6. John Papa 'Ī'ī describes a network of leeward O'ahu trails that in later historic times encircled and crossed the Wai'anae Range, allowing passage from West Loch to the

Honouliuli lowlands, past Pu'uokapolei and Waimānalo Gulch to the Wai'anae coast and onward, along the shoreline of O'ahu ('Ī'ī 1959:96–98). Following 'Ī'ī's description, a portion of this trail network would have passed close to the present Farrington Highway alignment, north of the project area. The Malden map of 1825 indicates the nearest community just northeast of the project area along the coast.

7. In early historic times, the population of Honouliuli was concentrated at the western edge of West Loch in the vicinity of Kapapahu Point. This area was clearly a major focus of population due to the abundance of marine resources in close proximity to a wide expanse of well-irrigated bottomland suitable for wetland taro cultivation.
8. Following the Māhele of 1848, 96 individual land claims were made in the *ahupua'a* of Honouliuli, with 72 claims being registered and awarded by King Kamehameha III to *maka'āinana*. The 72 *kuleana* awards were almost all made adjacent to Honouliuli Gulch, which contained fishponds, irrigated *lo'i*, *kula*, and house lots.
9. Beginning with the time of Western Contact, however, Hawaiian populations were introduced to many virulent western diseases which began to decimate the native populations. In 1832, a missionary census of Honouliuli recorded the population as 1,026. Within four years the population was down to 870 (Schmitt 1973:19, 22). Between 1848 and 1853, a series of epidemics of measles, influenza, and whooping cough often wiped out whole villages.
10. With the increasing foreign interests on O'ahu Island during the last half of the nineteenth century, an array of agricultural enterprises was attempted. In 1871, John Coney rented the lands of Honouliuli to James Dowsett and John Meek, who used the land for cattle grazing. In 1877, James Campbell purchased most of Honouliuli Ahupua'a for a total of \$95,000.
11. Major land use changes came to western Honouliuli when the U.S. military began development in the area. Military installations were constructed both near the coast and in the foothills and upland areas. Barbers Point Military Reservation (formerly Battery Barbers Point from 1937–1944) at Barbers Point Beach was used beginning in 1921 as a training area for firing 155 mm guns (Payette 2003). Also in the vicinity were Camp Malakole Military Reservation (formerly Honouliuli Military Reservation), used from 1939, and Gilbert Military Reservation, used from 1922–1944. Fort Barrette (a.k.a. Kapolei Military Reservation and Battery Hatch) atop Pu'uokapolei was in use from 1931–1948 for housing four 3-inch anti-aircraft batteries (Payette 2003). In the 1950s, the site was used as a Nike missile base. Palailai Military Reservation was built in 1921 atop Pu'u Pālailai in Makakilo and housed Battery Palailai and Fire Control Station B (Payette 2003).
12. Beginning in 1939, Alice Kamokilaikawai Campbell, daughter of James and Abigail Kuaihelani Maipinepine Campbell, resided in Lanikūhonua, adjacent to the project area for nearly 30 years. Mrs. Campbell named the area Lanikūhonua, which means “where the heavens meet the earth” (Lanikūhonua Cultural Institute 2019). Cultural descendant Nettie Fernandez Tiffany, current caretaker of the Lanikūhonua Institute, stated that her mother, Leilani Fernandez, was a close friend of Alice Campbell (personal communication October 2019). Mrs. Fernandez owned a beach home within the current project area and was the previous caretaker of the Campbell Estate property.

13. The 1980s saw a joint venture between Japanese construction giant Kumagai Gumi and Hawai'i developers Horita Corporation and TSA International for the development of a \$6 billion resort originally called "West Beach," (*The Age*, 3 December 1986:34). Four man-made lagoons were constructed, as well as an 18-hole golf course, luxury condominiums, and a hotel (*Honolulu Star-Bulletin*, 20 August 1998). West Beach was subsequently developed as Ko Olina Resort.

8.2 Results of Community Consultation

CSH attempted to contact Hawaiian organizations, agencies, and community members as well as cultural and lineal descendants in order to identify individuals with cultural expertise and/or knowledge of the project area and vicinity. Community outreach letters were sent to a total of 80 individuals or groups; 13 responded, one of these *kama'āina* and/or *kūpuna* provided written testimony and one met with CSH for a more in-depth interview. Consultation was received from community members as follows:

1. Nettie Tiffany, *kahu* of Lanikūhonua Cultural Institute
2. William Aila Jr., Interim Chair of Hawaiian Homes Commission, Director of Department of Hawaiian Homelands
3. Kūhiō Lewis, Chief Executive Officer (CEO) for the Council for Native Hawaiian Advancement (CNHA)
4. Tracie Ka'ōnohilani Farias Lopes, *Kumu Hula* for Ka Lā 'Ōnohi Mai O Ha'eha'e and Instructor at Hawai'i Pacific University and R. Keawe Lopes, *Kumu Hula* of Ka Lā 'Ōnohi Mai O Ha'eha'e and Director of the Kawaihuelani Center for Hawaiian Language at the University of Hawai'i at Mānoa

8.3 Impacts and Actions

Based on information gathered from the community consultation, participants voiced their concerns in the following cultural context:

1. Nettie Tiffany, *kahu* of the Lanikūhonua Cultural Institute, pointed out various native vegetation present at Lanikūhonua. She also pointed out Anianikū and Kō'ula fishponds located west of the proposed project area.
2. Although not specifically identified, Ms. Tiffany shared that religious practices did occur on the project area and within the surrounding vicinity.
3. William Aila Jr. mentioned there is a "Kuahu [altar] located to the west of Lanikuhonua just beyond the housing but within the County Park that is unimproved." He believes "that it is a fishing shrine." He recalled, "When I was younger 40 years ago, fishermen left ho'okupu [offerings] on it." Mr. Aila also shared his belief that "Uau Kani (Wedge tail shearwater) continue nest in the area surrounding it."
4. CSH recommends that the proposed project should allow access to the shoreline in the vicinity of the proposed project area for ongoing traditional cultural practices associated with the gathering of aquatic resources such as fish, *limu* (seaweed) and salt.
5. Ms. Tiffany shared that burial remains have been previously identified within the project area. Therefore, there is a probability of disturbing other burials not previously identified if construction and development of this proposed project should continue.

6. Ms. Tiffany emphasized the importance of the protection of one's self as well as others while on The Cove property and when conducting work. She shared that all work conducted for the project should be done with *pono* (proper) and workers need to be *maka'ala* (aware). It is the intentions and actions of people that guide a reaction from the spirits. If any disturbance of *iwi kūpuna* (ancestral remains) or any other culturally significant materials such as *pōhaku* (stone) should occur, both Native Hawaiian and legal protocols need to be followed.
7. CSH recommends the project proponents consult with the Lanikūhonua Cultural Institute during the design process to avoid potential impacts to undisclosed cultural sites and ongoing cultural practices occurring within The Cove Redevelopment project area.
8. Kūhiō Lewis suggested that project proponents could curate a type of continuation of the Makahiki sense of place and celebration by incorporating traditional Hawaiian games such as spear throwing and *'ulu maika* (ancient Hawaiian game suggesting bowling) into the storytelling of the area.
9. Mr. Lewis stated there are "amazing opportunities" for economic development in the area. He noted "our people need jobs, they need opportunities that don't exist on the west side." He emphasized that "Hawaiians need to be involved in the economy of this development." He stated that project proponents should not bring in mainland developers.
10. Mr. Lewis suggested the marketplace "should be run by a Hawaiian entity that can work to build up the capacity of the businesses from this area to sell their products." He noted, "it's not just the vendors, it's the people running the marketplace so that the values are inclusive throughout the whole thing." He stated that the marketplace should not have mainland franchises. It should have Hawai'i-based products from Hawaiian-based businesses grounded in Hawaiian values.
11. Mr. Lewis would like Hawaiian businesses involved in the "facilitation of the operations or curating the stories that are being told at those areas." He pointed out there are "amazing businesses that practice traditional type of things that could have a place" in the resort area. He clarified that he is "not talking about people to demonstrate how to pound *poi* [the Hawaiian staff of life, made from cooked taro corms] or *kalo* [Taro; *Colocasia esculenta*], or show them how to make *kapa* [tapa; bark cloth]."
12. Mr. Lewis stated the project proponents need to focus on incorporating Hawaiian values. He emphasized that the Hawaiian community should be given opportunities to curate stories that are "real and authentic to Hawai'i." He suggested shows performed at the proposed amphitheater should be developed and curated by Hawaiians from the area telling their stories. He also suggested the amphitheater should allow charitable uses so the local community could use it for events such as an annual *ho'olaule'a* (celebration), block party, or other gatherings celebrating the area's history and traditions without paying exorbitant fees.
13. Mr. Lewis emphasized that "there needs to be a sense of place for the west side community." It should not only cater to tourists but should also be a destination for locals. He would like it to be a place where "locals and visitors can live together, be alongside each other."
14. Mr. Lewis stated that "the best way to contribute to the perpetuation of this place" is to find meaningful opportunities for Native Hawaiians to be involved in the economy. He noted, "it's not even just Hawaiians anymore, [...] all the ethnic groups are struggling to make

- ends meet” and “have no meaningful involvement in the economy.” He pointed out that every day, droves from the local community are packing up their stuff, moving to the mainland and taking with them “the fabric of *aloha* (love), the connection to Hawai‘i, the stories of Hawai‘i.” He emphasized, “That’s how you perpetuate Hawai‘i, you allow the people from this place to stay here.”
15. Tracie Ka‘ōnohilani Farias Lopes stated that their ‘*ohana* family has “frequented the beautiful beaches from Ko ‘Olina to Nene‘u [Pōka‘ī Bay] for family gatherings.” They have also “actively fished the reefs along the coast and enjoyed manini [very common reef surgeonfish; *Acanthurus triostegus*], weke [Certain species of the *Mullidae*, surmullets or goatfish], kala [Surgeonfish, unicorn fish, *Teuthidae*; *Naso hexacanthus*, *N. unicornis*, *N. brevirostris*], maiko [surgeonfish; *Acanthurus nigroris*], he‘e [Octopus; *Polypus* sp.] and ‘ō‘io [Ladyfish, bonefish; *Albula vulpes*] from Keaulana, Kalaniana‘ole Beach Park, Ulehawa, Pu‘uohulu-Kai, and Mā‘ili.”
 16. Mrs. Lopes emphasized that “As kumu hula, educators and creative show directors, the vision for this development is exciting because Hawai‘i, the people of Hawai‘i and the visitors who visit our home deserve to see authentic Hawaiian entertainment in Hawai‘i.” She stated that Ko ‘Olina will be a “beautiful setting” for *kama‘āina* and visitors to see “authentic Hawaiian entertainment.”
 17. Mrs. Lopes emphasized that “Hawai‘i needs a show that will only focus on the traditions, beauty and excitement of **Hawaiian** culture and dance and not have to journey through Polynesia for a great experience.” She added, “The Hawaiian experience is great on its own and we know this because we live this. It’s time to put Hawai‘i first in the entertainment industry here.”
 18. Mrs. Lopes was asked to create a new show at the Paradise Cove Lū‘au in 2016. She recalled that “With the helpful insight and research of Keawe [Lopes], the memories of many past shows, the collaboration of cultural resource people, a template for kumu to work from and kumu/director guided practices with all cast members,” they were able to “open three new shows in only 5 months.” To ensure the show was unique, Mr. and Mrs. Lopes “composed and selected songs celebrating O‘ahu and Hawai‘i while incorporating traditional and contemporary elements. Choreography was then created and taught to the dancers to perform by the kumu hula.” One of the songs created during this process was “Nani Ko‘olina.”
 19. Mrs. Lopes expressed her hope that more *mele* (songs) like “Nani Ko‘olina” can be “composed to share as hula presentations at the proposed entertainment venue that features what is truly Hawaiian thought in poetic expression.” She emphasized that the “key is to bring creative and culturally grounded kumu who are connected to the area and culture to build a solid Hawaiian show.”
 20. Mrs. Lopes stated that including “mele like ‘Nani Ko‘olina’ in the show, repopulating the seashore with kauna‘oa [*Cuscuta sandwichiana*], sharing stories of Kākuhihewa and sharing mele that tell of the delicacies of the ocean, food preparation and fishing practices perhaps can all support the vision of the entertainment aspect of the project.” She emphasized that the “most important is to have a kumu hula who is trained and culturally grounded lead the entertainment.”
 21. Mrs. Lopes thanked James Campbell Company for “the initiative to use this land to promote, celebrate and perpetuate our Hawaiian cultural art forms, language and mo‘olelo

- for all ages to experience.” She emphasized that “This will be a significant step forward and the James Campbell Company will be at the forefront of this significant movement with mele like “ ‘Nani Ko‘olina’ and ‘He Mele Inoa No Kuhihewa’ and the collective creativity of our kanaka [Hawaiian people] today.” She also noted that “the show and other cultural elements can provide magical and meaningful experiences for both kama‘āina and malihini [tourist].”
22. Mrs. Lopes stated, “For us, it’s important to entertain but to also educate.” She noted, “One of the most popular daily activities at any hotel or show for our malihini is the hula [dance] lesson,” however, she feels that “sometimes these activities can be too commercial and sometimes inappropriate when taught for the mass because how we run our hālau is very, very different.” She suggests the song, “Hula In Paradise,” which she composed specifically for this area would be a “perfect hula to teach because it is in English and it acknowledges nature that surrounds you while on the property and also shares some cultural practices as well in a fun way.” The chorus of the song is an example of “how culture and entertainment can be incorporated and still be tasteful to all.”
 23. The Lopes ‘Ohana has a “special spiritual connection to Ko ‘Olina and Lanikūhonua.” Mrs. Lopes recalled taking her daughters to Anianikū to experience the ocean for the first time and to dedicate them to Ke Akua. She noted that visiting Ko ‘Olina is “not just relaxation time but a re-connect to our past experiences and inspires future experiences as well.”
 24. Mrs. Lopes also noted the “ocean and shoreline of Nānākuli and the proposed area of revitalization in Ko‘olina” is where she was “water baptized as an adult” and where she “spent the most time with my kumu [teacher] O’Brian, kumu Thaddius and Charles Ka‘upu while learning hula and oli [chant].” Her *kumu* O’Brian set aside “special times of the year on property to re-unite with hālau [house for *hula* instruction] members,” as well as “time for Kapu kai or ceremonial preparations in the ocean for his dancers to meditate, spiritually cleanse and pray before important hula and life events.” She emphasized that “these experiences are so important to us as practitioners.”
 25. Mr. and Mrs. Lopes stressed the importance of maintaining access to the ocean so her ‘ohana, her hālau, and other cultural practitioners may continue their practices. She suggested “creating a formal agreement between practitioners, the estate and the proposed kahu mālama [caretaker] of the area to allow our people to conduct our training and formal ceremonies there as our way of reconnecting to our sources of strength and healing taught to us by our kumu and kūpuna.”
 26. Mrs. Lopes noted there are burials within the property and “we should always be respectful when entering the property or near sites.” She thanked Auntie Nettie Tiffany for “holding the ‘ike [knowledge] of the locations of these resting places of our kūpuna,” as well as the project proponents for “taking care of these areas when the project begins.”
 27. Mrs. Lopes mentioned there are “two hula mounds” at the Ocean Garden. “The larger mound faces the ocean and the other faces the entrance.” She expressed her “support to keep these mounds in its current location and condition.” She stated that the mounds “provide natural staging for entertainment, a space for the daily educational activities and possibly hula ceremonial gatherings and presentations.” She emphasized that “They will continue to be special and very useful areas if preserved.”
 28. Mr. and Mrs. Lopes strongly support featuring Hawaiian artisans in the proposed marketplace. She stated, “If it is made by the artists of that area themselves, these items are

not just souvenirs but can become family heirlooms in the future.” She noted, “We have so many artists in Hawai‘i and being able to feature authentic Hawaiian work in galleries or in shops to purchase in this area is exciting and offers our malihini and kama‘āina a unique shopping experience while supporting our community.”

29. Mr. and Mrs. Lopes also expressed gratitude that this “project has the potential of creating numerous jobs for residents in the area.” She emphasized that “This is so important! By offering Hawaiian marketplace and authentic Hawaiian entertainment like this, we believe that many hula practitioners will want to be a part of it and will travel from all moku of O‘ahu to do so.”
30. Mr. and Mrs. Lopes are willing to “participate and creatively collaborate” with Auntie Nettie, Uncle Kimo Alama Keaulana, and Twyla Mendez, all of whom have connections with Campbell Estate and are respected in the *hula* community. Mrs. Lopes noted, “We all uphold legacy and create beautiful experiences in all educational and entertainment settings so this would be exciting.”
31. Project construction workers and all other personnel involved in the construction and related activities of the project should be informed of the possibility of inadvertent cultural finds, including human remains. In the event that any potential historic properties are identified during construction activities, all activities will cease and the SHPD will be notified pursuant to HAR §13-280-3. In the event that *iwi kūpuna* are identified, all earth moving activities in the area will stop, the area will be cordoned off, and the SHPD and Police Department will be notified pursuant to HAR §13-300-40. In addition, in the event of an inadvertent discovery of human remains, the completion of a burial treatment plan, in compliance with HAR §13-300 and HRS §6E-43, is recommended.
32. In the event that *iwi kūpuna* and/or cultural finds are encountered during construction, project proponents should consult with cultural and lineal descendants of the area to develop a reinterment plan and cultural preservation plan for proper cultural protocol, curation, and long-term maintenance.

Section 9 Ka Pa'akai Analysis

9.1 Overview

In *Ka Pa'akai vs Land Use Commission*, 94 Hawai'i (2000) the Court held the following analysis must also be conducted:

1. The identity and scope of valued cultural, historical, or natural resources in the project area, including the extent to which traditional and customary native Hawaiian rights are exercised in the project area;
2. The extent to which those resources—including traditional and customary native Hawaiian rights—will be affected or impaired by the proposed action; and
3. The feasible action, if any, to be taken by the LUC to reasonably protect native Hawaiian Rights if they are found to exist.

Based on information gathered from the cultural and historical background, and community consultation for this project, there are a number of traditional cultural practices and resources to consider.

9.1.1 Archaeological Resources

Archaeological studies have recorded the presence of subsurface historic properties of both pre- and/or early post-Contact traditional Hawaiian and post-Contact western-related cultural deposits and human burials. Some of these historic properties appear relatively intact despite the years of plantation activity that have altered portions of these areas.

9.1.2 Plant Resources

Honouliuli Ahupua'a is the largest *ahupua'a* in the *moku* of 'Ewa. The environment of Honouliuli is very hot and dry. These environmental limitations forced ingenuity and innovation. *Kama'āina* of Honouliuli used agricultural sinkholes that accumulated water within them via a subterranean water or karst system; this water also contained nutrient-rich sediment allowing plants such as *kalo*, *kī*, and *noni* to survive.

The southeastern portion of the current project area appears to be in what was once a marshy wetland plain of Honouliuli. This area likely provided ancient Hawaiians with the environment needed for the cultivation of taro. Following the initial years of European Contact, westerners engaged in new massive agricultural ventures. Cattle grazing was popular in the area and later the Ewa Plantation Company used the area for sugarcane cultivation.

Nettie Tiffany pointed out various native vegetation that are present at Lanikūhonua Cultural Institute.

9.1.3 Marine Resources

References to the abundance of ocean resources can be found within *mo'olelo*, *wahi pana*, and *'ōlelo no'eau* associated with Honouliuli Ahupua'a.

Kūalaka'i is mentioned in the "Legend of the Children" which foretells the breaking of the eating *kapu* by the *ali'i* (*Ka Loea Kālai'āina*, 22 July 1899:15, translation in Sterling and Summers

1978:7). Kūalaka'i is the name of an ancient fishing village located on the southwestern side of Honouliuli Ahupua'a, southeast of the project area. Pukui et al. (1974:119) describe Kūalaka'i as a type of sea cucumber (*Tethys*) that squirts purple fluid when squeezed.

The *ōlelo no'eau*, "*Kai a hali a ka makani*," translates to "the fish fetched by the wind" which describes the migration of the *'anae* that travels from Honouliuli to Kaipāpa'u on the windward coast of O'ahu and then turns around and returns to Honouliuli where it breeds (Pukui 1983:145). When the winds are strong, the *'anae* are driven closer to the shore.

Nettie Tiffany, Kūhiō Lewis, and Tracie Ka'ōnohilani Farias Lopes discussed marine resources in the vicinity of the project area.

Ms. Tiffany pointed out Anianikū and Kō'ula fishponds which are located west of the proposed project area.

Mr. Lewis mentioned that people swim, dive, and spear fish at Milo Cove. He noted the importance of providing and maintaining access to the ocean for marine resources. He suggested making the ocean easily accessible because in order to access the beach now near the Lanikuhonua Cultural Institute, people have to "go around from the point."

Ms. Lopes stated that her *'ohana* has "actively fished the reefs along the coast and enjoyed manini, weke, kala, maiko, he'e and 'ō'io from Keaulana, Kalaniana'ole Beach Park, Ulehawa, Pu'uohulu-Kai, and Mā'ili."

9.1.4 Wahi Pana

Mr. Lewis noted that in traditional times, the area was "where spirits would roam." The 'Ewa coastal plain was associated with the *ao kuewa*, the realm of the homeless souls, including the plains of Kaupe'a and Kānehili. The plains of Kaupe'a is where spirits wandered among the *wiliwili* trees to catch night moths and spiders for food (*Ke Au Hou*, 12 July 1911 in Sterling and Summers 1978). The association of the plains of Kānehili with wandering souls is illustrated in a lament on the death of the chief Kahahana, who was killed by his father, Kahekili, after Kahahana killed the high priest Ka'opulupulu (Fornander 1919:6:297).

The Ko Olina Resort area was also a popular vacation destination for *ali'i* such as Chief Kakūhihewa and the priest Napuaikamao, who was also the caretaker of the area.

Mr. Lewis also mentioned the importance of the Makahiki season to the history of the area. The Makahiki season began in Kapolei with ceremonies, dancing, and games and continued across all the other islands. He suggested project proponents could curate a type of continuation of the Makahiki sense of place and celebration by incorporating traditional Hawaiian games such as spear throwing and *'ulu maika* into the storytelling of the area.

9.1.5 Religious Practices

Several community members discussed the spiritual significance of the area.

Ms. Tiffany noted that religious practices did occur on the project area and within the surrounding vicinity.

William Aila Jr. mentioned there is a "Kuahu [altar] located to the west of Lanikuhonua just beyond the housing but within the County Park that is unimproved." He believes "that it is a fishing shrine." When he was younger, he observed fishermen leaving *ho'okupu* (offerings) on the altar.

He also mentioned that “Uau Kani (Wedge tail shearwater)” continue nest in the area surrounding the altar.

Mrs. Lopes discussed her *'ohana's* “special spiritual connection to Ko ‘Olina and Lanikūhonua.” She stated, “When it was time to dedicate our girls to Ke Akua, we took them to Anianikū to experience the ocean for the first time. The ceremony was different for all three girls but it is what binds them together spiritually to this place.” She also mentioned that she was “water baptized as an adult” in the “ocean and shoreline of Nānākuli and the proposed area of revitalization in Ko‘olina.”

Nathaniel B. Emerson (1965:11–12) states that “hula was a religious service, in which poetry, music, pantomime, and the dance lent themselves, under the forms of dramatic art, to the refreshment of men’s minds.” *Hula* was practiced by a “body of trained and paid performers” and required “special education and arduous training in both song and dance” (Emerson 1965:13).

Mrs. Lopes “spent 15 years learning hula and training for events and competitions like Merrie Monarch on the grounds of Lanikūhonua and Paradise Cove.” She has hosted entertainers and community members at “hālau fundraisers, training, event performances, cultural practices and special event openings.” Her *kumu*, O‘Brian Eselu has “directed the lū‘au entertainment there for over 35 years.”

She recalled, “I learned how to control my breathing and create vocal sounds for oli while sitting on the property, facing the ocean and following the wave patterns before me.” Her *kumu* O‘Brian set aside “special times of the year on property to re-unite with hālau members,” as well as “time for Kapu kai or ceremonial preparations in the ocean for his dancers to meditate, spiritually cleanse and pray before important hula and life events.” She emphasized that “these experiences are so important to us as practitioners.”

Mrs. Lopes and her husband, Keawe Lopes, are *kumu hula* of Ka Lā ‘Ōnohi Mai O Ha‘eha‘e. They have trained and performed at both Lanikūhonua and Paradise Cove over the last 17 years. Their very first *hālau* meeting was held at Lanikūhonua.

Mr. and Mrs. Lopes composed the *mele* “Nani Ko‘olina” which honors the “place and people and recognizes that where we come from is a part of who we are.” The *mele* “speaks of the surrounding sea, the kauna‘oa that once flourished seaside, our ali‘i Kākuhihewa who found peace here and the legacy of kumu O‘Brian Eselu.”

Mrs. Lopes mentioned “two hula mounds” at the Ocean Garden that “provide natural staging for entertainment, a space for the daily educational activities and possibly hula ceremonial gatherings and presentations.” She supports keeping these mounds in their “current location and condition.” She emphasized that, “They will continue to be special and very useful areas if preserved.”

Mr. and Mrs. Lopes stressed the importance of maintaining access to the ocean so her *'ohana*, her *hālau*, and other cultural practitioners may continue their practices. She suggested “creating a formal agreement between practitioners, the estate and the proposed kahu mālama [caretaker] of the area to allow our people to conduct our training and formal ceremonies there as our way of reconnecting to our sources of strength and healing taught to us by our kumu and kūpuna.”

9.1.6 Burials

Previous archaeological investigations have documented both pre-Contact and post-Contact human burials throughout the greater Honouliuli area along the shoreline. In general, there appears to be a pattern of burial interment immediately adjacent (within 100 m) to the (former, natural) coast. However, scattered burials have been reported from more inland locations. Isolated burials and burial clusters have been found just above the water table and below historic-era fill materials, primarily within sand deposits.

Human burial discoveries were reported by at least three previous studies (Jourdane 1995, Hammatt 1995, and Davis 2000). Approximately 26 burials are known to have been encountered in the greater West Beach/Ko Olina Resort project area (SIHP #s 50-80-12-01737, -01438, -01446, -01450, -01455, -01458, -02717, -02718, -02719, -02721, and -03355). Five burials, SIHP # 50-80-12-04968, are within the western portion of the current project area consisting of at least two post-Contact burials based on associated artifacts. The burials were found in association with a Jaucas sand environment, sinkholes, cists, pits, and caches.

During consultation, Ms. Tiffany and Mrs. Lopes mentioned that burial remains have been previously identified within the project area and discussed the probability of disturbing other burials not previously identified during construction and development of the proposed project.

Ms. Tiffany stated that all work conducted for the project should be done with *pono* and workers need to be *maka'ala*. She pointed out that it is the intentions and actions of people that guide a reaction from the spirits. If any disturbance of *iwi kūpuna* should occur, both Native Hawaiian and legal protocols need to be followed.

Mrs. Lopes also stressed that visitors “should always be respectful when entering the property or near sites.” She noted that Auntie Nettie Tiffany holds the for “‘ike of the locations of these resting places of our kupuna.”

9.2 Analysis

9.2.1 Valued Cultural, Historical, or Natural Resources in the Project Area

During consultation, Ms. Tiffany pointed out various native vegetation that are present at Lanikūhonua Cultural Institute.

Ms. Tiffany, Mr. Lewis, and Mrs. Lopes marine resources in the vicinity of the project area. Ms. Tiffany pointed out Anianikū and Kō'ula fishponds which are located west of the proposed project area. Mr. Lewis mentioned that people swim, dive, and spear fish at Milo Cove. Mrs. Lopes stated that her 'ohana has “actively fished the reefs along the coast and enjoyed manini, weke, kala, maiko, he'e and 'ō'io from Keaulana, Kalaniana'ole Beach Park, Ulehawa, Pu'uohulu-Kai, and Mā'ili.”

Mr. Lewis, Ms. Tiffany, Mr. Aila Jr., and Mrs. Lopes discussed the spiritual significance of the area. Mr. Lewis mentioned that in traditional times, the area was “where spirits would roam.” He also mentioned the Makahiki season begins in Kapolei with ceremonies, dancing, and games and continues across all the other islands. Ms. Tiffany noted that religious practices did occur on the project area and within the surrounding vicinity. Mr. Aila Jr. mentioned there is a *kuahu* (altar) where fishermen left *ho'okupu* (offerings) located “to the west of Lanikuhonua just beyond the housing but within the County Park that is unimproved.” Mrs. Lopes was “water baptized as an

adult” in the “ocean and shoreline of Nānākuli and the proposed area of revitalization in Ko‘olina.” She also brought her daughters to Anianikū to conduct ceremonies dedicating them to Ke Akua. She noted that these ceremonies bound them spiritually to this place.

Mr. and Mrs. Lopes have trained and performed *hula* at both Lanikūhonua and Paradise Cove over the last 17 years. Their *halau*, Ka Lā ‘Ōnohi Mai O Ha‘eha‘e, had their very first meeting at Lanikūhonua. Mrs. Lopes’ *kumu* O’Brian set aside “time for Kapu kai or ceremonial preparations in the ocean for his dancers to meditate, spiritually cleanse and pray before important hula and life events.” She emphasized that “these experiences are so important to us as practitioners.”

Mrs. Lopes mentioned “two hula mounds” at the Ocean Garden that “provide natural staging for entertainment, a space for the daily educational activities and possibly hula ceremonial gatherings and presentations.”

Five burials (SIHP # 50-80-12-4968) were documented during previous archaeological studies (Jourdane 1995, Hammatt 1995) conducted within the project area. Based on associated artifacts, at least two of these burials were post-Contact.

Ms. Tiffany and Mrs. Lopes mentioned that burial remains have been previously identified within the project area and discussed the probability of disturbing other burials not previously identified during construction and development of the proposed project.

9.2.2 The Extent to which Traditional and Customary Native Hawaiian Resources will be Affected by the Proposed Action

Community members expressed concerns regarding restrictions to access to the shoreline in the vicinity of the area for the gathering of aquatic resources and traditional cultural practices associated with religious activities and *hula*.

9.2.3 Feasible Action, if any, to be taken to Reasonably Protect Native Hawaiian Rights

Mr. Lewis noted the importance of providing and maintaining access to the ocean for marine resources. He suggested making the ocean easily accessible because in order to access the beach now near the Lanikuhonua Cultural Institute, people have to “go around from the point.”

CSH recommends that the proposed project should allow access to the shoreline in the vicinity of the proposed project area for ongoing traditional cultural practices associated with the gathering of aquatic resources such as fish, *limu* (seaweed) and salt.

Mrs. Lopes supports keeping the “two hula mounds” at the Ocean Garden in their “current location and condition.” She emphasized that, “They will continue to be special and very useful areas if preserved.”

Mr. and Mrs. Lopes stressed the importance of maintaining access to the ocean so her *‘ohana*, her *hālau*, and other cultural practitioners may continue their practices. She suggested “creating a formal agreement between practitioners, the estate and the proposed kahu mālama [caretaker] of the area to allow our people to conduct our training and formal ceremonies there as our way of reconnecting to our sources of strength and healing taught to us by our kumu and kūpuna.”

CSH recommends the project proponents consult with the Lanikūhonua Cultural Institute during the design process to avoid potential impacts to undisclosed cultural sites and ongoing cultural practices occurring within The Cove Redevelopment project area.

Ms. Tiffany stated that all work conducted for the project should be done with *pono* and workers need to be *maka'ala*. She pointed out that it is the intentions and actions of people that guide a reaction from the spirits. If any disturbance of *iwi kūpuna* should occur, both Native Hawaiian and legal protocols need to be followed.

Project construction workers and all other personnel involved in the construction and related activities of the project should be informed of the possibility of inadvertent cultural finds, including human remains. In the event that any potential historic properties are identified during construction activities, all activities will cease and the SHPD will be notified pursuant to HAR §13-280-3. In the event that *iwi kūpuna* are identified, all earth moving activities in the area will stop, the area will be cordoned off, and the SHPD and Police Department will be notified pursuant to HAR §13-300-40. In addition, in the event of an inadvertent discovery of human remains, the completion of a burial treatment plan, in compliance with HAR §13-300 and HRS §6E-43, is recommended.

In the event that *iwi kūpuna* and/or cultural finds are encountered during construction, project proponents should consult with cultural and lineal descendants of the area to develop a reinterment plan and cultural preservation plan for proper cultural protocol, curation, and long-term maintenance.

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Appendix D

Traffic Impact Report for The Cove Redevelopment

Traffic Impact Report

The Cove Redevelopment



Prepared for:
James Campbell Company LLC

Prepared by:
Wilson Okamoto Corporation

November 2024

TRAFFIC IMPACT REPORT
FOR
THE COVE REDEVELOPMENT

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November 2024

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I. INTRODUCTION

A. Purpose of Study

The purpose of this study is to identify and assess the traffic impacts resulting from the Cove redevelopment within the Ko Olina Resort on the island of Oahu. The proposed project entails the redevelopment of the existing entertainment/luau venue to include similar uses and accommodate new retail and restaurant uses.

B. Scope of Study

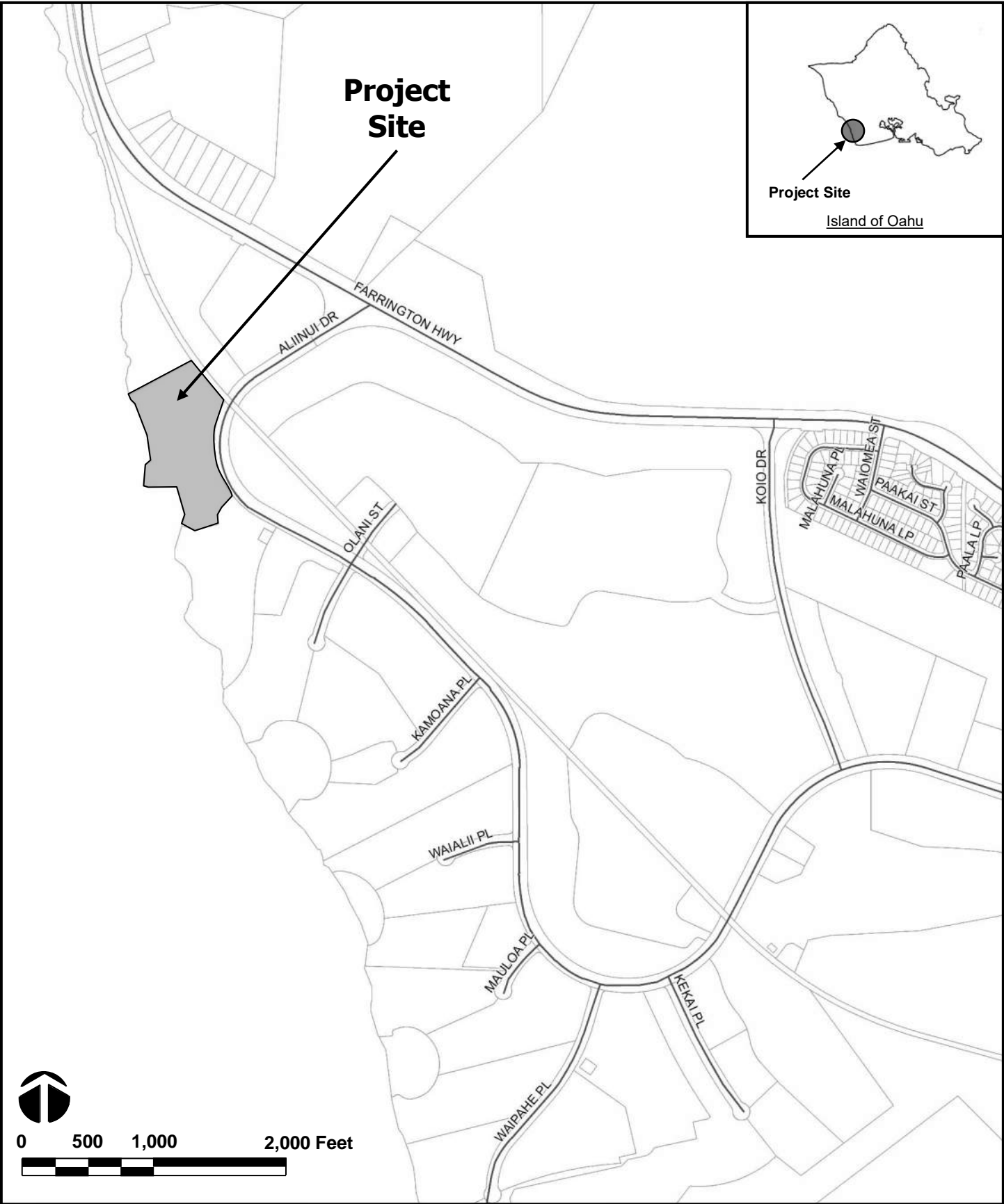
This report presents the findings and conclusions of the traffic study, the scope of which includes:

1. Description of the proposed project.
2. Evaluation of existing roadway and traffic operations in the vicinity.
3. Analysis of future roadway and traffic conditions without the proposed project.
4. Analysis and development of trip generation characteristics for the proposed project.
5. Superimposition of site-generated traffic over future traffic conditions.
6. The identification and analysis of traffic impacts resulting from the proposed project.
7. Recommendations of improvements, if appropriate, that would mitigate the traffic impacts resulting from the proposed project.

II. PROJECT DESCRIPTION

A. Location

The project site is located adjacent to Aliinui Drive and the Ko Olina Resort on the island of Oahu (see Figure 1). The project site is bounded by Aliinui Drive to the east, the Leeward coast to the west, the Lanikuhonua Cultural Institute to the south, and a vacant parcel to the north. The project site is further identified as Tax Map Key (TMK) [1] 9-1-057:027. Access to the proposed project is expected to continue to be provided via driveways off Aliinui Drive.



0 500 1,000 2,000 Feet



THE COVE REDEVELOPMENT

LOCATION MAP AND VICINITY MAP

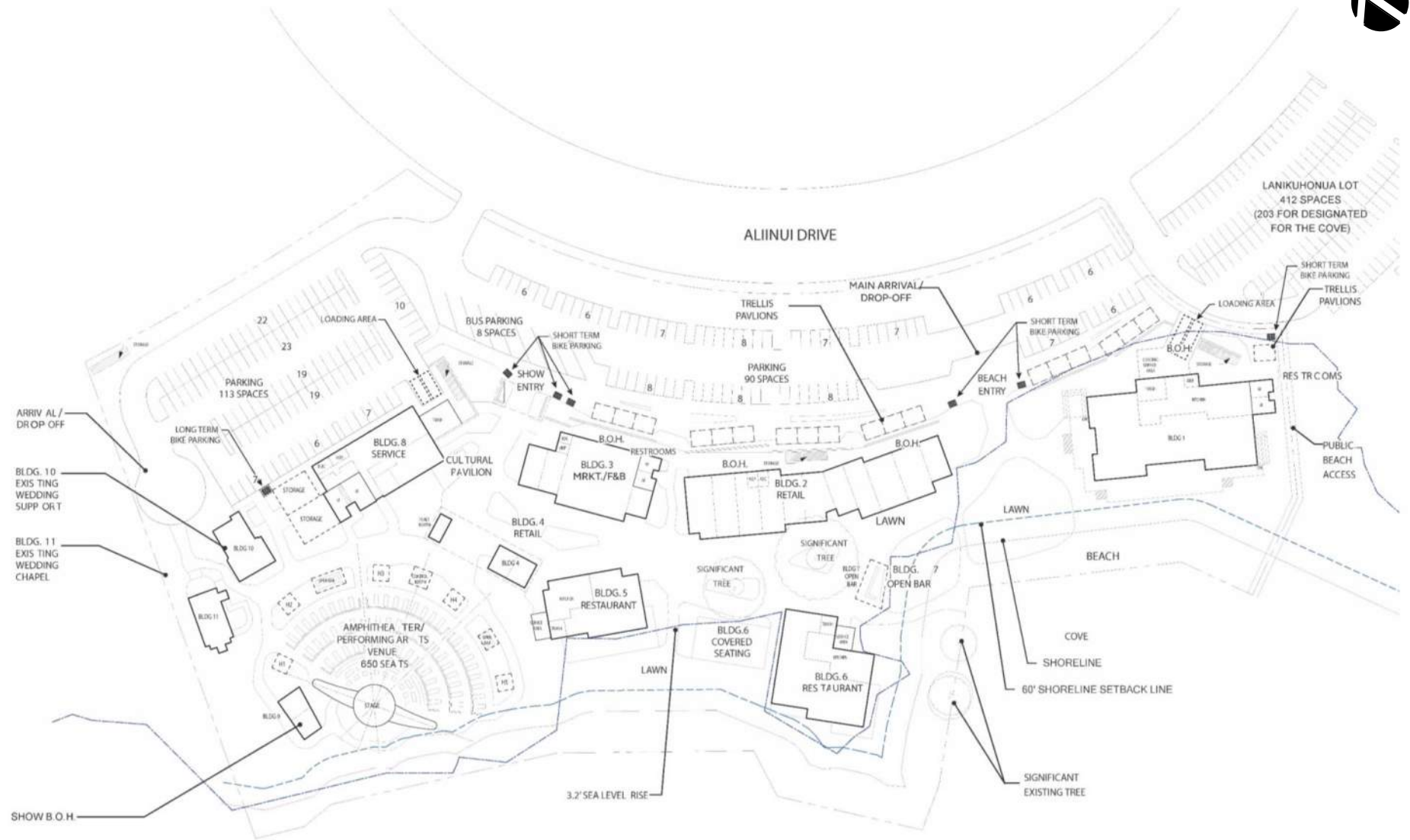
FIGURE
1

B. Project Characteristics

The project site for the proposed Cove redevelopment is located on an approximately 10.85-acre parcel adjacent to the Ko Olina Resort and currently houses a commercial entertainment/luau venue. The venue hosts a nightly dinner show with a maximum seating capacity of 1,200 guests. The proposed project entails the redevelopment of the existing site to include the following uses:

- A new amphitheater for luau events similar to existing uses with a lower maximum seating capacity for 650 guests per show
- Three new quality restaurants (~30,240 square feet square feet (sf)) expected to be open for lunch and dinner service only
- Open-air marketplace (~8,220 sf) with local fast-food offerings and all-day service
- 18,000 sf of retail uses to feature made in Hawaii goods and services
- Ancillary spaces

Parking for the existing uses is currently accommodated within on-site parking areas and supplemented by an adjacent off-site parking area. The on-site parking lot located near the north end of the project site is designated for employees, loading, and service operations (hereinafter referred to as the “staff lot”) while a second on-site parking area located between the two project driveways off Aliinui Drive is designated for reserved and bus parking (hereinafter referred to as the “visitor lot”). Additional parking for passenger vehicles is provided within the adjacent off-site parking lot for the Lanikuhonua Cultural Institute. With the proposed Cove redevelopment, the staff lot is expected to be reconfigured to serve as parking stalls for valet operations, accommodate loading and service areas, and include a drop-off area to serve the existing chapel operations. In addition, the existing visitor lot will be reconfigured to reduce the number of existing bus parking stalls and provide a double loaded aisle of standard parking stalls for passenger vehicles. Access to the Cove redevelopment will continue to be provided via existing driveways off Aliinui Drive with vehicles entering the project site via the northern one-way driveway and exiting via a one-way driveway connection that leads to the Lanikuhonua Cultural Institute and the southern two-way driveway. The proposed project is expected to be completed by Year 2027. See Figure 2 for the proposed site plan.



THE COVE REDEVELOPMENT

PROJECT SITE PLAN

FIGURE
2

III. BASELINE TRAFFIC CONDITIONS

A. Area Roadway System

In the vicinity of the project, Aliinui Drive is a predominantly four-lane, two-way divided private roadway generally oriented in the north-south direction providing to the project site and through the adjacent resort area. Southeast of the project site, Aliinui Drive intersects Olani Street. At this signalized intersection, the northbound and southbound approaches of Aliinui Drive include an exclusive left-turn lane, a through lane, and a shared through and right-turn lane. Olani Street is a four-lane, two-way private roadway generally oriented in the east-west direction that provides access to the adjacent commercial and residential uses to the east and hotel uses to the west. At the intersection with Aliinui Drive, the eastbound and westbound approaches of Olani Street include a shared left-turn and through lane and a shared through and right-turn lane.

South of the intersection with Olani Street, Aliinui Drive intersects Kamoana Place. At this unsignalized T-intersection, the northbound approach of Aliinui Drive includes an exclusive left-turn lane and two through lanes while the southbound approach has a through lane and a shared through and right-lane. The west leg of the intersection is comprised of Kamoana Place, a four-lane, two-way private roadway generally oriented in the east-west direction that provides access to adjacent hotel uses and public beach parking. At the intersection with Aliinui Drive, the westbound approach of Kamoana Place includes stop-controlled exclusive left-turn and right-turn lanes.

B. Traffic Volumes and Conditions

1. General

a. Baseline Traffic Data

The traffic data used for the purpose of analysis is based on manual turning movement counts collected in September 2018 (see Appendix A). The manual turning movement count survey was conducted during the morning peak hours between 6:00 AM and 9:00 AM and during the afternoon peak hours between 3:00 PM and 6:00 PM at the following intersections:

- Aliinui Drive and Olani Street
- Aliinui Drive and Kamoana Place

In addition, screen line traffic volumes were also collected along Aliinui Drive just north of the resort's main entrance. These counts were supplemented by manual turning movement counts collected in November 2023 at the intersection of Aliinui Drive and Olani Street to verify counts from 2018 and assess traffic volumes in the vicinity after the COVID pandemic which resulted in decreased traffic volumes and changes to travel patterns. A comparison of the traffic data taken from Years 2018 and 2023 shows that traffic volumes collected in 2023 are generally less than those collected in 2018. In addition, given the project's proximity to the Ko Olina Resort and the target marketing audience for the proposed uses, hotel occupancy data collected by the State of Hawaii Department of Business, Economic Development and Tourism (DBEDT) was also assessed to compare hotel occupancy between Years 2018 and 2023, the years when the traffic data was collected. The data from DBEDT are aggregated based on location (i.e. Waikiki, other Oahu) and type (i.e. midscale, upscale, luxury). For the purpose of this assessment, occupancy rates for Waikiki, Other Oahu, and Upscale categories were considered. The assessment indicates that in general, occupancy rates for all the categories considered are also less in 2023 than in 2018. As such, for the purpose of this report, the Year 2018 traffic data was used to represent baseline Year 2023 conditions for a conservative assessment.

b. Capacity Analysis Methodology

The highway capacity analysis performed in this study is based upon procedures presented in the "Highway Capacity Manual", Transportation Research Board, 2016, and the "Synchro" software, developed by Trafficware. The analysis is based on the concept of Level of Service (LOS) to identify the traffic impacts associated with traffic demands during the peak periods of traffic.

LOS is a quantitative and qualitative assessment of traffic operations. Levels of Service are defined by LOS “A” through “F”; LOS “A” representing ideal or free-flow traffic operating conditions and LOS “F” unacceptable or potentially congested traffic operating conditions.

“Volume-to-Capacity” (v/c) ratio is another measure indicating the relative traffic demand to the road carrying capacity. A v/c ratio of one (1.00) indicates that the roadway is operating at or near capacity. A v/c ratio of greater than 1.00 indicates that the traffic demand exceeds the road’s carrying capacity. The LOS definitions are included in Appendix B.

2. Baseline Peak Hour Traffic

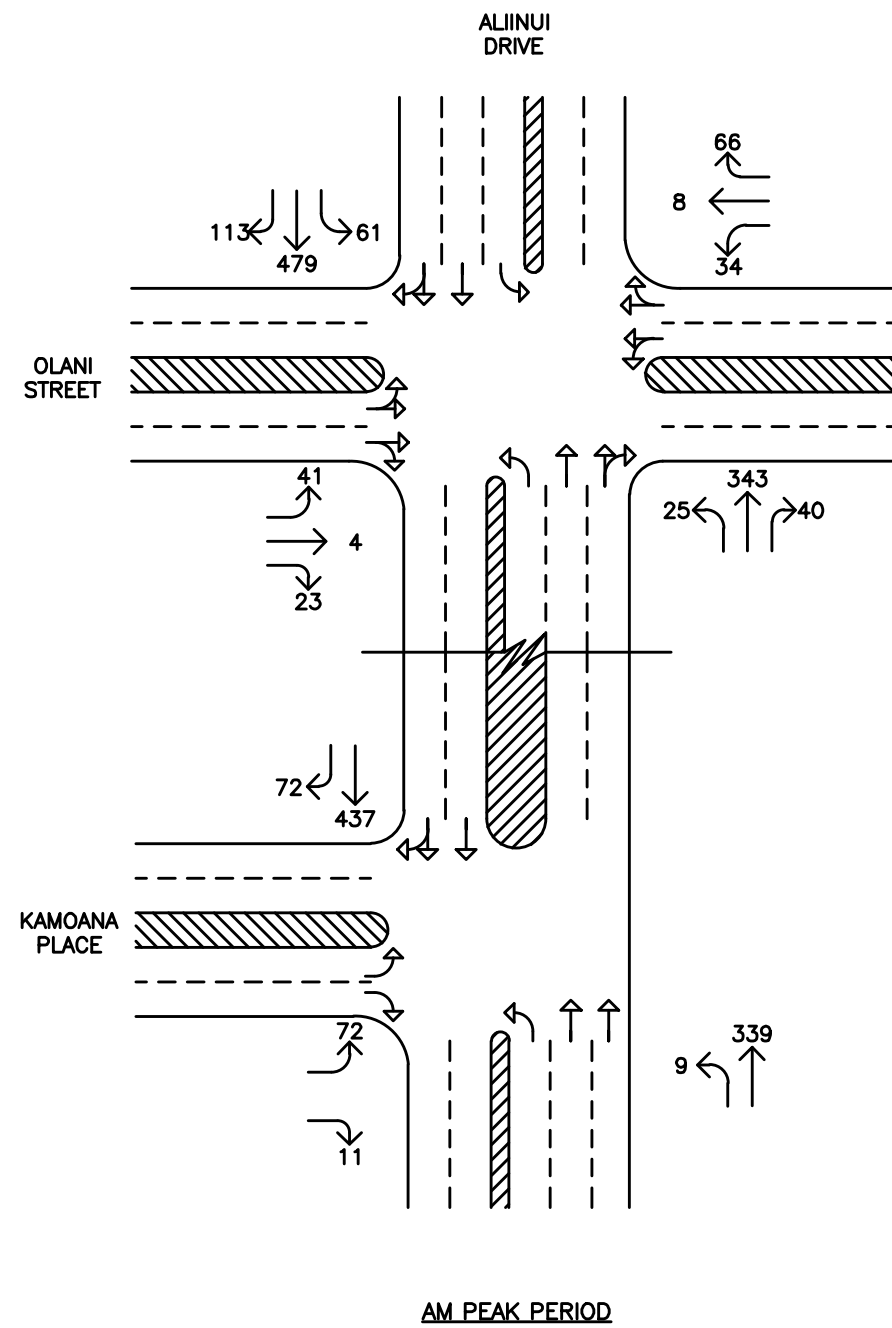
a. General

Figure 3 shows the existing lane configurations and baseline AM and PM peak period traffic volumes. The AM peak hour of traffic generally occurs between 7:30 AM and 8:30 AM. The PM peak hour of traffic generally occurs between the hours of 4:15 PM and 5:15 PM. The analysis is based on these peak hour time periods for each intersection to identify the traffic impacts resulting from the proposed project. LOS calculations are included in Appendix C.

b. Aliinui Drive and Olani Street

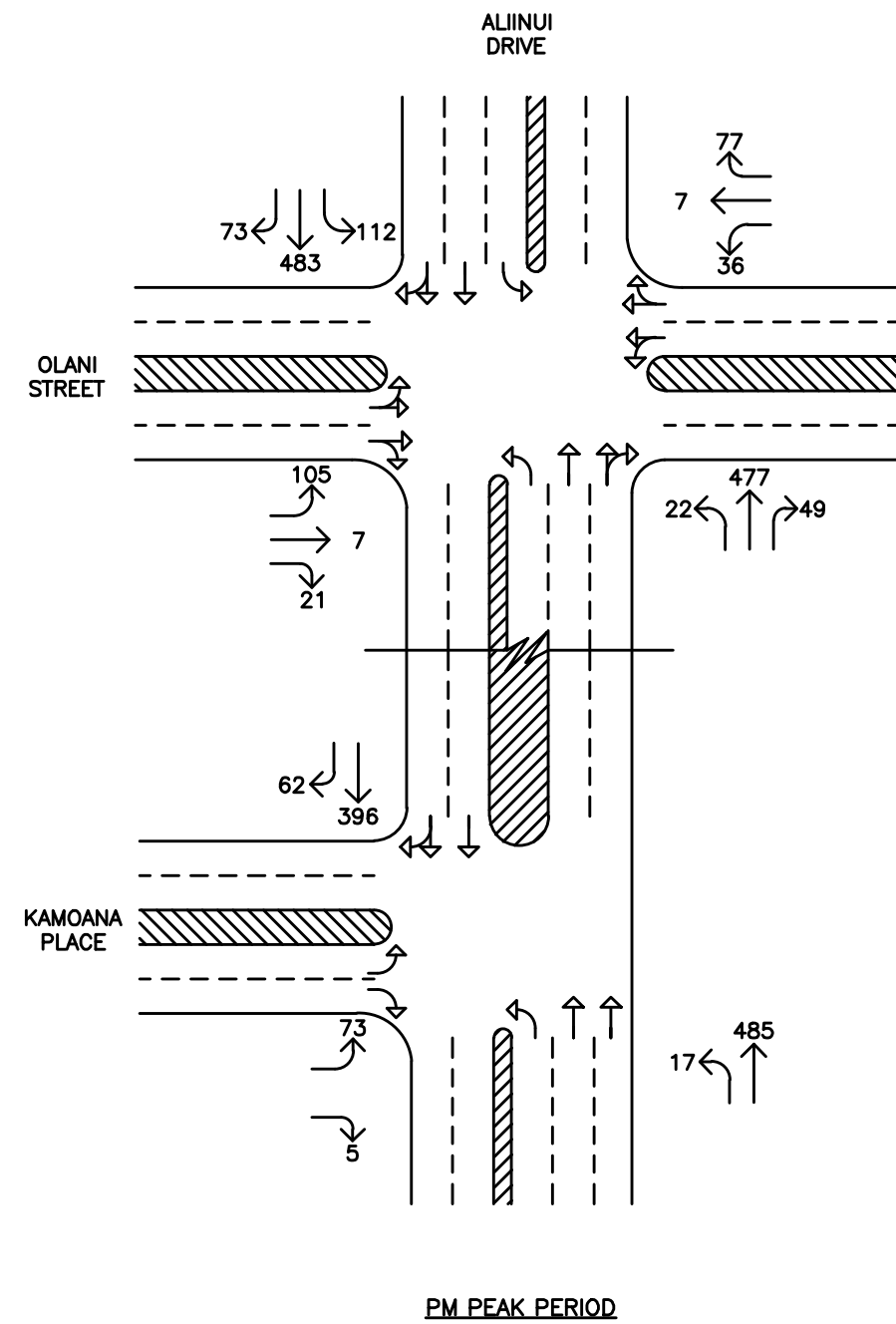
At the intersection with Olani Street, Aliinui Drive carries 408 vehicles northbound and 653 vehicles southbound during the AM peak period. During the PM peak period, traffic volumes are higher with 548 vehicles travelling northbound and 668 vehicles travelling southbound. The northbound and southbound approaches operate at LOS “B” during both peak periods.

Olani Street carries 68 vehicles eastbound and 108 vehicles westbound during the AM peak period. During the PM peak period, traffic volumes are higher with 132 vehicles travelling eastbound and 120 vehicles travelling westbound. The eastbound and westbound



LEGEND

- 90 TRAFFIC MOVEMENT VOLUME (VPH)
- LANE USAGE



THE COVE REDEVELOPMENT

BASELINE PEAK HOURS OF TRAFFIC

FIGURE
3

approaches operate at LOS “A” during the AM peak period and LOS “B” during the PM peak period.

Crosswalks are provided across all sides of the intersection. During the AM peak period, 12 pedestrians and 157 pedestrians were observed crossing Aliinui Drive on the north and south sides of the intersection, respectively, while 6 pedestrians and 19 pedestrians were observed crossing Olani Street on the east and west sides of the intersection, respectively. During the PM peak period, 43 pedestrians and 178 pedestrians were observed crossing Aliinui Drive on the north and south sides of the intersection, respectively, while 15 pedestrians and 32 pedestrians were observed crossing Olani Street on the east and west sides of the intersection, respectively.

c. Aliinui Drive and Kamoana Place

At the intersection with Kamoana Place, Aliinui Drive carries 348 northbound vehicles and 509 southbound vehicles during the AM peak period. During the PM peak period, the overall traffic volume is greater with 502 vehicles travelling northbound and 458 vehicles travelling southbound. The northbound left-turn lane operates at LOS “A” during both peak periods.

The Kamoana Place approach of the intersection carries 83 vehicles during the AM peak period and 78 vehicles during the PM peak period. The eastbound approach operates at LOS “C” during both peak periods.

Crosswalks are provided across Kamoana Place on the west side of the intersection. During the AM peak period, 53 pedestrians were observed crossing Kamoana Place on the west side of the intersection, while 43 pedestrians were observed crossing at this location during the PM peak period.

d. Aliinui Drive North of Olani Street

North of the project site near the Ko Olina Resort entrance, Aliinui Drive carries 480 vehicles northbound and 687 vehicles

southbound during the AM peak period. During the PM peak period, traffic volumes are higher with 715 vehicles travelling northbound and 729 vehicles traveling southbound.

IV. PROJECTED TRAFFIC CONDITIONS

A. Site-Generated Traffic

1. Trip Generation Methodology

The trip generation methodology used in this study is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in “Trip Generation, 10th Edition,” 2017. The ITE trip generation rates are developed empirically by correlating vehicle trip generation data with various land use characteristics such as the number of vehicle trips generated per 1,000 sf of development. It should be noted that a more recent edition of the Trip Generation Manual was published at the end of 2021 which included additional retail land uses. However, there is still limited data available for these uses and as such, the 2017 edition was used. As previously mentioned, the maximum capacity for the luau shows for the proposed project will be reduced from the existing venue. In addition, as previously discussed, the baseline traffic data used for the purpose of analysis is based on Year 2018 when traffic volumes and hotel occupancy rates were higher. Given the target market audience for the existing and proposed luau venue, majority of luau attendees are assumed to come from areas like Waikiki and hotels within the adjacent resort area. As such, since hotel occupancy rates were higher in 2018 which is used to represent baseline conditions, trips associated with the luau shows are assumed to be captured within the collected traffic data and additional trips associated with this use are not anticipated with the planned modifications to the venue. The trip generation included in the tables below reflect the additional new uses planned on-site. Table 1 below summarizes the additional trip generation characteristics related to the proposed project applied to the AM and PM peak hours of traffic.

Table 1: Additional Peak Hour Trip Generation

SHOPPING CENTER (RETAIL)		
INDEPENDENT VARIABLE:		1,000 sf of development = 18
		PROJECTED TRIP ENDS
AM PEAK	ENTER	11
	EXIT	6
	TOTAL	17
PM PEAK	ENTER	33
	EXIT	36
	TOTAL	69
QUALITY RESTAURANT		
INDEPENDENT VARIABLE:		1,000 sf of development = 30.24
		PROJECTED TRIP ENDS
AM PEAK	ENTER	11
	EXIT	11
	TOTAL	22
PM PEAK	ENTER	158
	EXIT	78
	TOTAL	236
FAST FOOD RESTAURANT WITHOUT A DRIVE-THROUGH WINDOW (MARKETPLACE)		
INDEPENDENT VARIABLE:		1,000 sf of development = 8.22
		PROJECTED TRIP ENDS
AM PEAK	ENTER	124
	EXIT	83
	TOTAL	207
PM PEAK	ENTER	117
	EXIT	116
	TOTAL	233
TOTALS		
		PROJECTED TRIP ENDS
AM PEAK	ENTER	145
	EXIT	100
	TOTAL	245
PM PEAK	ENTER	307
	EXIT	230
	TOTAL	537

The trip generation methodology also includes provisions for multimodal trips. Multimodal trips are trips made using non-motorized modes of travel such as walking and biking, as well as trips made using transit. Field observations indicate that a significant portion of the patrons of the existing restaurant and commercial uses near the project site elect to walk to/from their

destinations due to the close proximity of adjacent hotels, limited parking in the vicinity, and pedestrian friendly infrastructure along Aliinui Drive to facilitate these trips. Given the close proximity and compatible uses planned for the proposed project, a portion of the additional site-generated trips are similarly expected to be made via non-motorized modes (i.e., walking or biking) to/from adjacent uses. As such, the additional trips generated by the proposed project were adjusted to account for guests who are expected to access the project site via non-motorized modes. Table 2 summarizes the adjusted trip generation characteristics related to the proposed project applied to the AM and PM peak hours of traffic.

Table 2: Adjusted Peak Hour Trip Generation

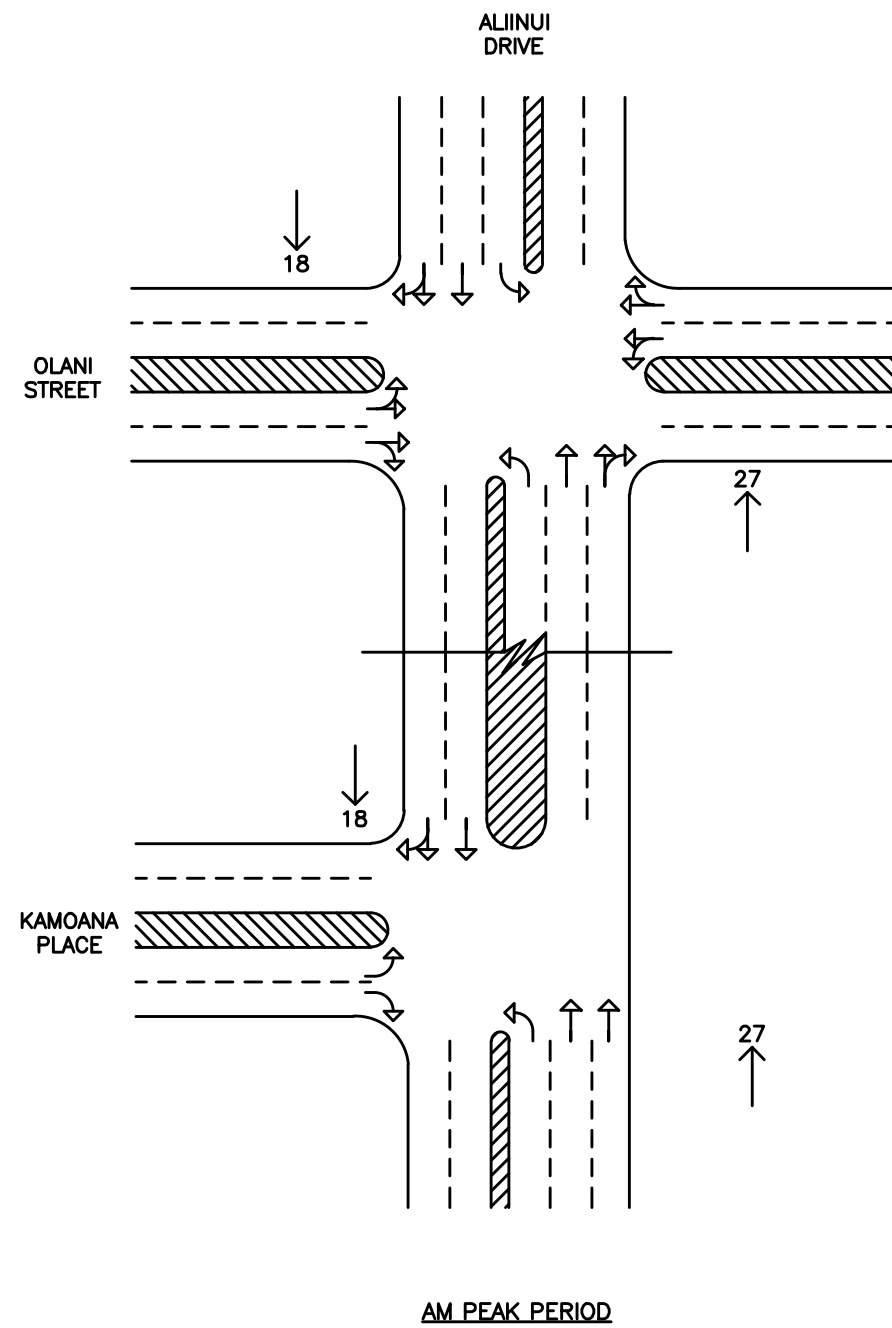
SHOPPING CENTER		
		PROJECTED TRIP ENDS
AM PEAK	ENTER	3
	EXIT	1
	TOTAL	4
PM PEAK	ENTER	7
	EXIT	7
	TOTAL	14
QUALITY RESTAURANT		
		PROJECTED TRIP ENDS
AM PEAK	ENTER	11
	EXIT	11
	TOTAL	22
PM PEAK	ENTER	57
	EXIT	28
	TOTAL	85
FAST FOOD RESTAURANT WITHOUT A DRIVE-THROUGH WINDOW		
		PROJECTED TRIP ENDS
AM PEAK	ENTER	25
	EXIT	17
	TOTAL	42
PM PEAK	ENTER	23
	EXIT	23
	TOTAL	46

Table 2: Adjusted Peak Hour Trip Generation (Cont'd)

TOTALS		
		PROJECTED TRIP ENDS
AM PEAK	ENTER	38
	EXIT	29
	TOTAL	67
PM PEAK	ENTER	87
	EXIT	58
	TOTAL	145

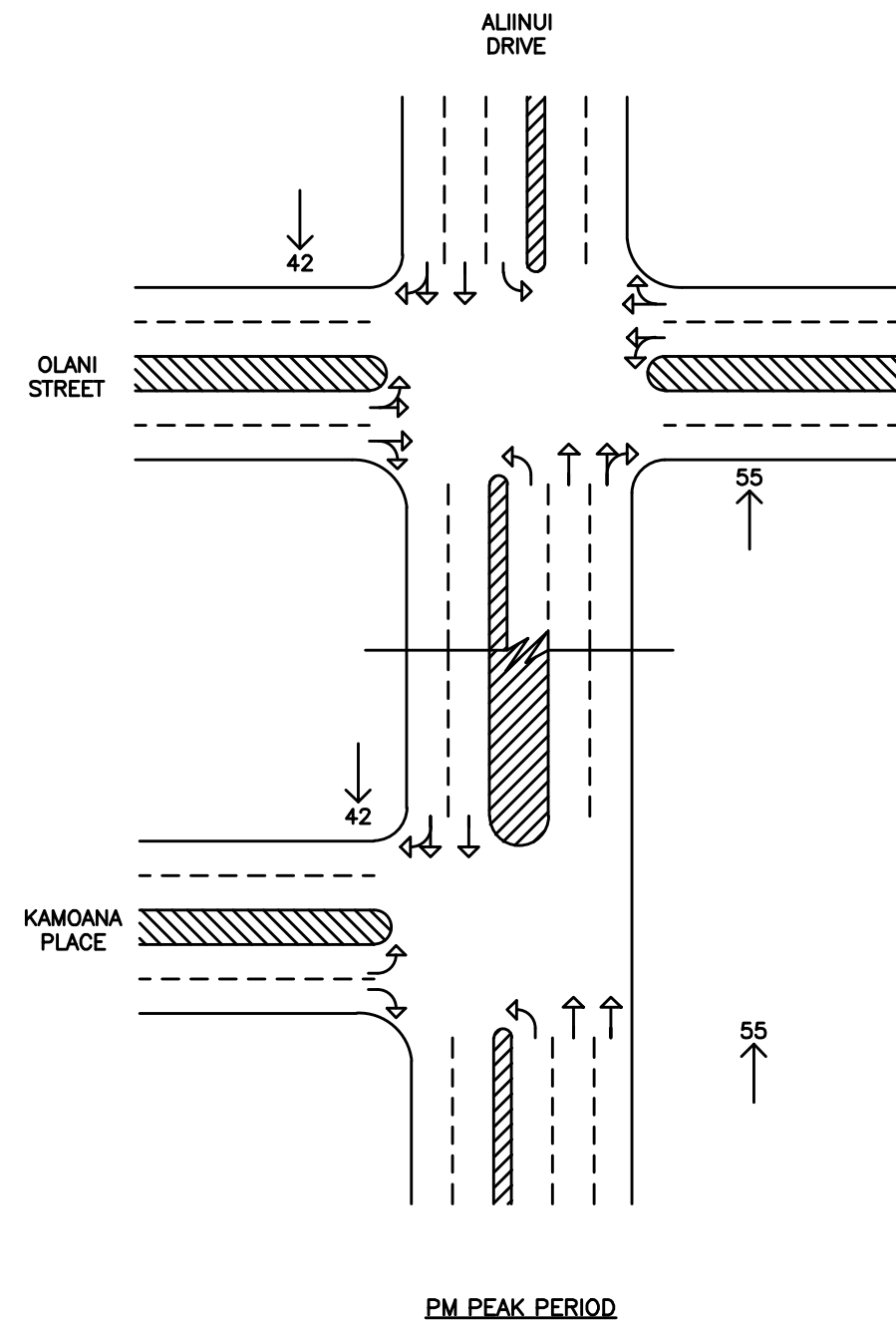
2. Trip Distribution

Figure 4 shows the distribution of site-generated traffic during the AM and PM peak periods. Access to the project site will continue to be provided via the existing driveways off Aliinui Drive. As previously discussed, the trips associated with the luau/entertainment venue were captured within the baseline counts. The directional distribution of those trips is expected to remain similar to baseline conditions. Additional site-generated trips associated with the proposed project are expected to be divided between those that will access the project site internally from areas within the surrounding resort area and those that will access the project from external. The synergy between the existing hotel, commercial, and restaurant uses within the adjacent resort is expected to translate to the similar uses planned by the development. In addition, it should be noted that the proposed retail spaces are expected to feature specialty products that typically cater to visitors and guests to the islands. For these reasons, the majority of the trips associated with the new commercial and restaurant uses are expected to be internal trips within the surrounding resort area with the exception of trips associated with the high-quality restaurant since high-quality restaurants are often associated with a celebrity name or a recognizable brand that may appeal to patrons outside of the immediate resort community. As such, 20% of the site-generated trips associated with the high-quality restaurant were assumed to be external trips with 80% assumed to be internal trips within the resort. The directional distribution of all additional site-generated trips was based upon their assumed



LEGEND

- 90
TRAFFIC MOVEMENT VOLUME (VPH)
- LANE USAGE



origin/destination (internal vs external), allowed turning movements, and relative convenience of the available routes.

B. Through Traffic Forecasting Methodology

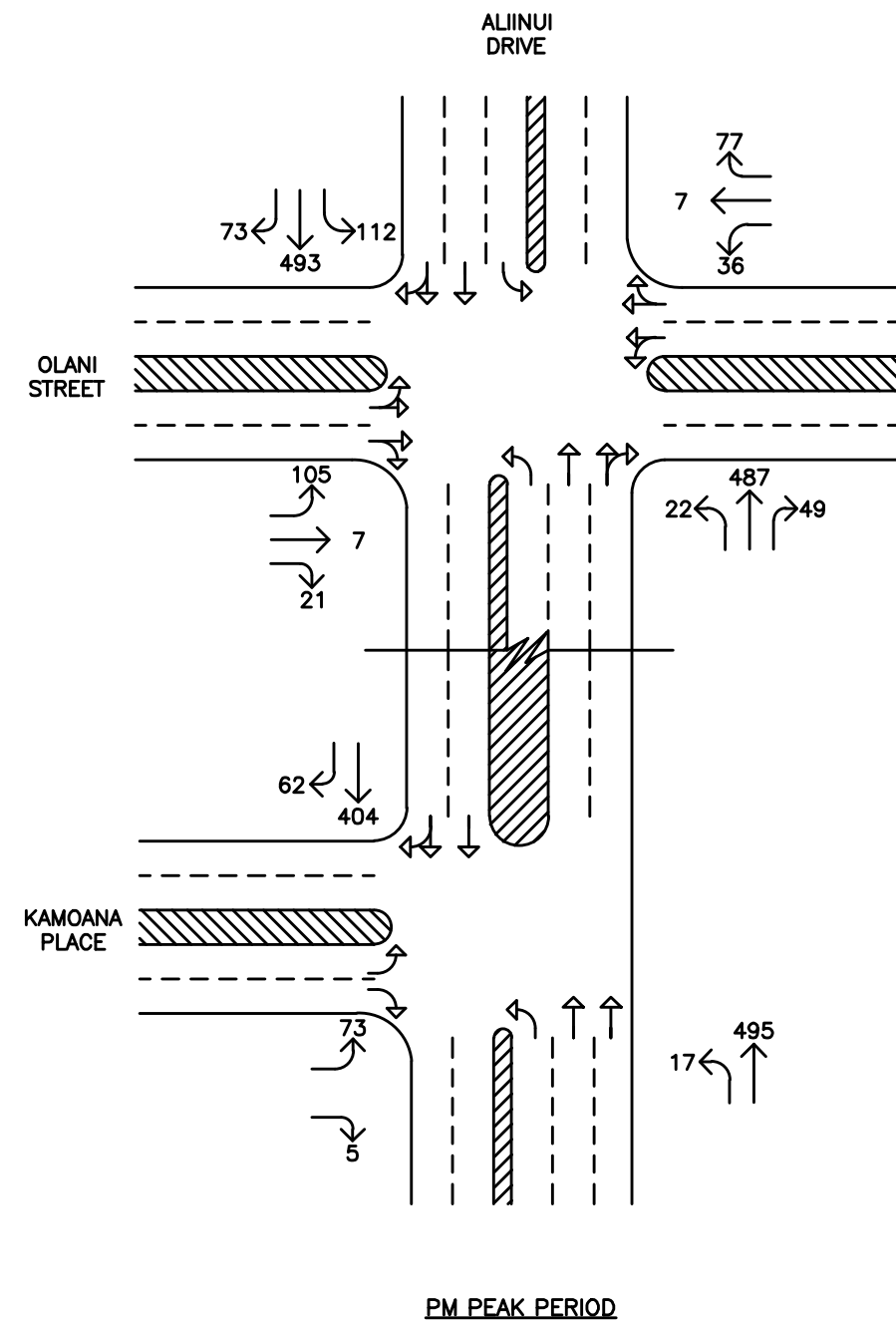
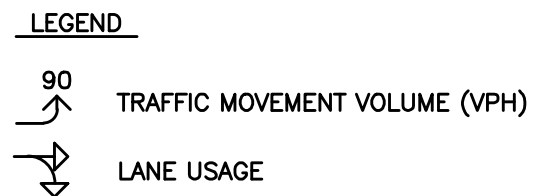
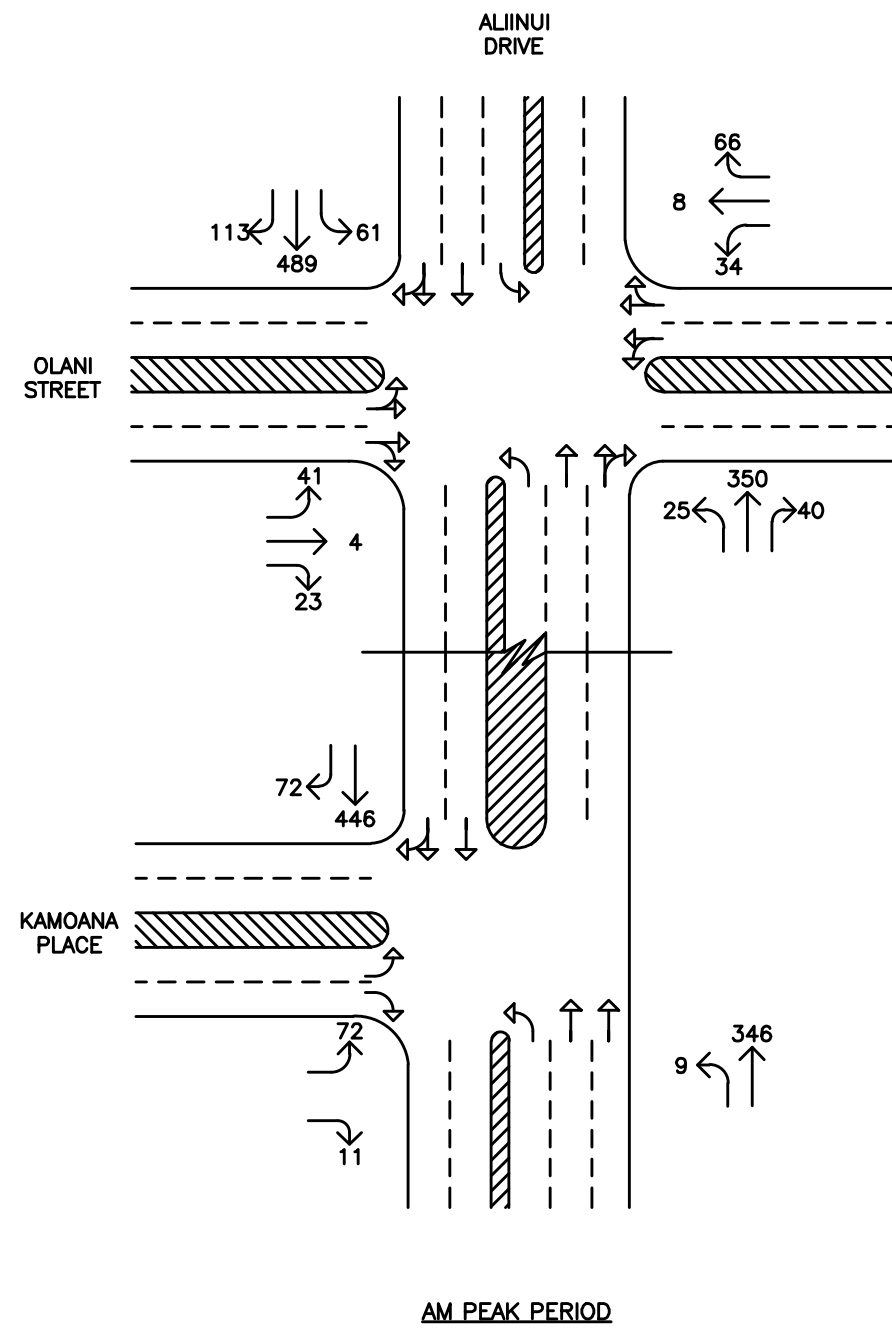
There is insufficient historical traffic data available in the immediate vicinity of the project site to determine a historical trend. However, the influence of other developments within the surrounding area are addressed in the following section. For the purpose of this report, an average annual growth rate of 0.5% was conservatively assumed along Aliinui Drive to account for ambient growth in traffic along that roadway due to other influence. Using 2023 as the Base Year, a growth rate of 1.02 was applied to the baseline through traffic demands along Aliinui Drive to achieve the projected Year 2027 traffic demands.

C. Other Considerations

There are currently a number of undeveloped parcels adjacent to Aliinui Drive. Several of these parcels were under consideration for development in recent years, but none of these development plans have moved beyond the initial planning stages at this time. As such, additional development in the region is possible in the future but is not expected to occur prior to the completion of the Cove redevelopment and no additional projects were included in the without project conditions for this report. It should be noted, however, that as indicated in the previous section, an ambient growth factor was incorporated into the analysis to account of some growth by Year 2027.

D. Total Traffic Volumes Without Project

The projected Year 2027 AM and PM peak period traffic volumes and operating conditions without the Cove redevelopment is shown in Figure 5 and summarized in Table 3. The analysis incorporates ambient growth in traffic. The baseline levels of service are provided for comparison purposes. LOS calculations are included in Appendix D.



THE COVE REDEVELOPMENT

YEAR 2027 PEAK HOURS OF TRAFFIC WITHOUT PROJECT

FIGURE
5

**Table 3: Baseline and Year 2027 (Without Project) LOS
Traffic Operating Conditions**

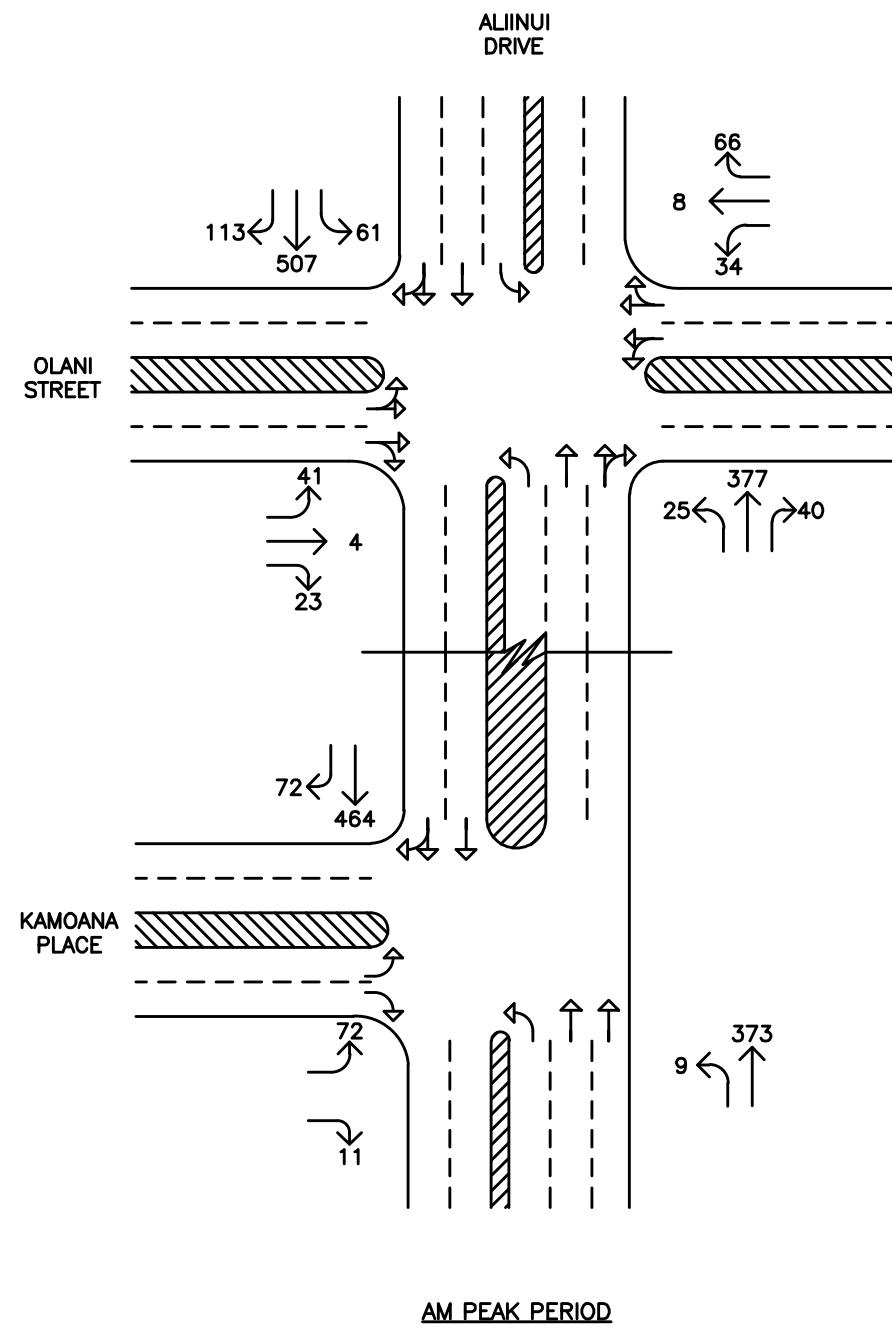
Intersection	Approach/ Critical Movement	AM		PM	
		Base- line	Year 2027 w/out Proj	Base- line	Year 2027 w/out Proj
Aliinui Dr/ Olani St	Eastbound	A	A	B	B
	Westbound	A	A	B	B
	Northbound	B	B	B	B
	Southbound	B	B	B	B
Aliinui Dr/ Kamoana Pl	Eastbound	C	C	C	C
	Northbound (LT*)	A	A	A	A

*LT = Left Turn

Under Year 2027 without project conditions, traffic operations are expected to remain similar to baseline conditions. Along Aliinui Drive, the approaches at the intersection with Olani Street are expected to continue operating at LOS “B” during the AM peak period, and LOS “B” during the PM peak period. At the intersection with Kamoana Place, traffic operations on the eastbound approach are expected to continue operating at LOS “C” or better during both peak periods, while the northbound left-turn lane along Aliinui Drive is expected to continue operating at LOS “A” or better during both peak periods. North of the project site along Aliinui Drive, minimal ambient growth in traffic is anticipated and as such, traffic operations are also expected to remain similar to baseline conditions.

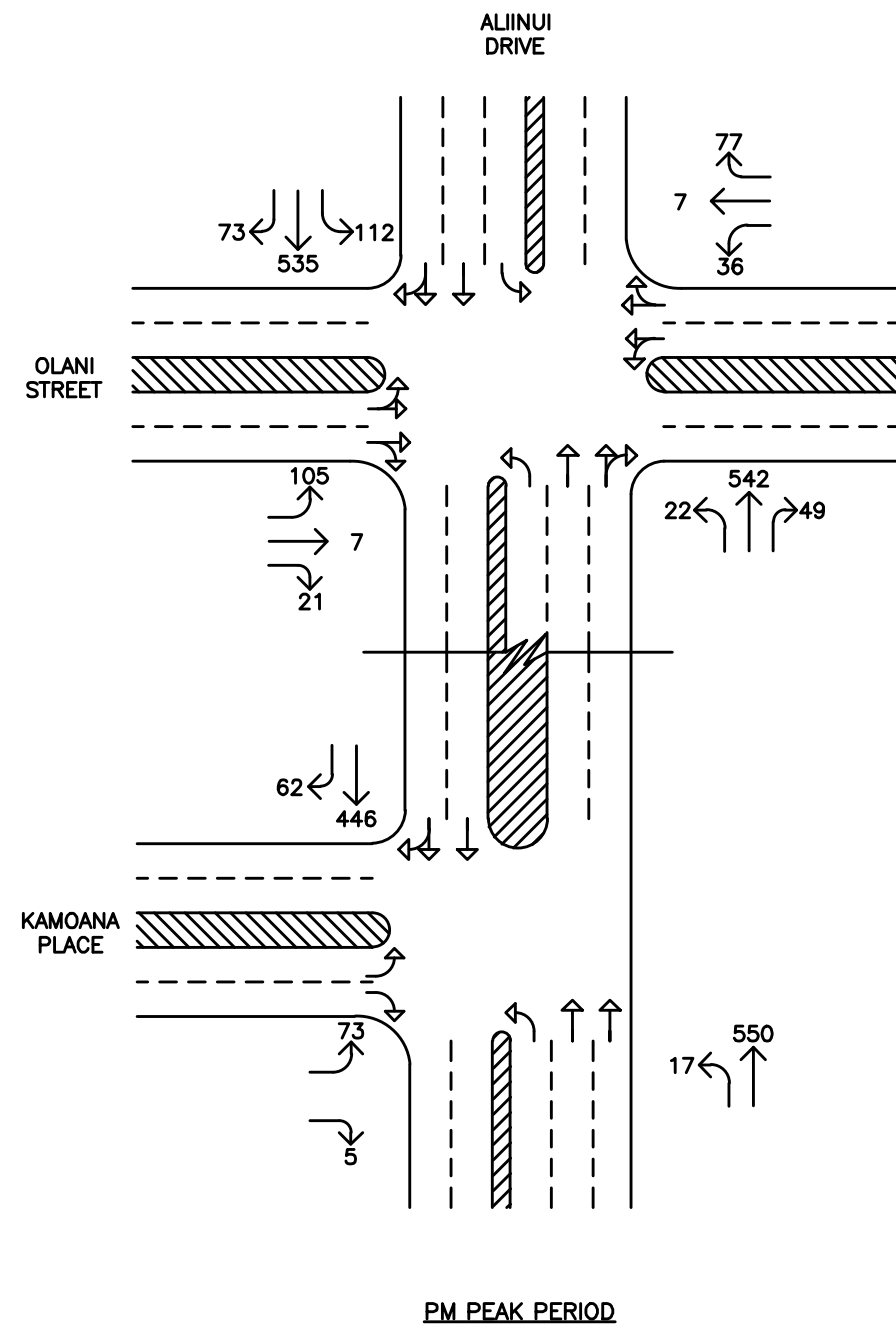
E. Total Traffic Volumes With Project

Figure 6 shows the projected Year 2027 cumulative AM and PM peak hour traffic conditions resulting from the Cove redevelopment. The cumulative volumes consist of site-generated traffic superimposed over Year 2027 projected traffic demands. The traffic impacts resulting from the proposed project are addressed in the following section.



LEGEND

- 90 TRAFFIC MOVEMENT VOLUME (VPH)
- LANE USAGE



THE COVE REDEVELOPMENT

YEAR 2027 PEAK HOURS OF TRAFFIC WITH PROJECT

FIGURE
6

V. TRAFFIC IMPACT ANALYSIS

The projected Year 2027 cumulative AM and PM peak hour traffic conditions resulting from the proposed project are summarized in Table 4. The baseline and projected Year 2027 (Without Project) operating conditions are provided for comparison purposes. LOS calculations are included in Appendix E.

Table 4: Baseline and Year 2027 (Without and With Project) LOS Traffic Operating Conditions

Intersection	Approach/ Critical Movement	AM			PM		
		Base- line	Year 2027		Base- line	Year 2027	
			w/o Proj	w/ Proj		w/o Proj	w/ Proj
Aliinui Dr/ Olani St	Eastbound	A	A	B	B	B	B
	Westbound	A	A	B	B	B	B
	Northbound	B	B	B	B	B	B
	Southbound	B	B	B	B	B	B
Aliinui Dr/ Kamoana Pl	Eastbound	C	C	C	C	C	C
	Northbound (LT*)	A	A	A	A	A	A

*LT = Left Turn

Under Year 2027 with project conditions, traffic operations are generally expected to remain similar to baseline and without project conditions. Along Aliinui Drive the approaches at the intersection with Olani Street are expected to continue operating at LOS “B” or better during both peak periods, whereas those at the intersection with Kamoana Place are expected to continue operating at LOS “C” or better during both periods. As previously discussed, a portion of trips are assumed to travel to/from areas external to the resort via Aliinui Drive north of the project site. With the addition of site-generated trips as result of the proposed redevelopment, traffic volumes along Aliinui Drive north of the project site are expected to increase by approximately 1% during the AM peak period and 3% during the PM peak period. These increases in the total traffic volumes are generally within the range of daily fluctuations along the surrounding roadways and represent a minimal increase in the overall traffic volumes. As such, traffic operations along Aliinui Drive near the project driveways are also expected to remain similar to without project conditions.

VI. MULTIMODAL FACILITIES

A. Pedestrian Facilities

The proposed project is located adjacent to the Ko Olina Resort, a master-planned resort and residential community that includes a network of improved pedestrian facilities that facilitate access between the various destinations within the resort. These pedestrian facilities are generally comprised of sidewalks, shared-use paths, crosswalks, and curb ramps with overhead lighting, canopy trees, and other landscaping treatments that enhance the overall pedestrian environment.

Pedestrian facilities along Aliinui Drive are predominantly located on the west side of the roadway except in the vicinity of Olani Street where commercial and restaurant uses are located. In the vicinity of the project site along Aliinui Drive, continuous improved (paved) sidewalks are provided along the west side of the roadway with wide, landscaped strips that serve as a buffer between the pedestrian zone of the walkway and vehicle travel way, and trees that provide intermittent shade. In addition, overhead street lighting is provided along both sides of the roadway to increase pedestrian comfort during the evening hours. The nearest pedestrian crossing from the project site is located at the intersection of Aliinui Drive and Olani Street. At this location, pedestrian crossings are facilitated by marked crosswalk, curb ramps, and a traffic signal system.

Along Olani Street and Kamoana Place, similar continuous improved sidewalks buffered by landscaping strips are also provided to facilitate access to the adjacent hotel and commercial uses. Trees and other landscaping treatments increase the attractiveness of these facilities and enhance the overall pedestrian experience. See Figure 7 for pedestrian facilities in the vicinity of the project.

B. Bicycle Facilities

1. Methodology

Bicycle Level of Traffic Stress (LTS) is a metric developed by the Mineta Transportation Institute used to classify a roadway segment or intersection. The LTS ranking system is based on the amount of traffic stress imposed on cyclists based on variables such as street width, prevailing vehicle speed, and average daily traffic volumes. The Level of Traffic Stress ranges



Project Site

ALINUI DR

FARRINGTON HWY

OLANI ST

KAMOANA PL

LEGEND



Major Pedestrian Facilities



Crosswalk



THE COVE REDEVELOPMENT

PEDESTRIAN FACILITIES

FIGURE

7

from 1 to 4 and can be assessed for a given segment or intersection via six tables provided by the Mineta Transportation Institute. The general descriptions of the LTS levels are as follows:

- LTS 1: Characterized by strong separation from all except low speed, low volume traffic. Simple crossings. Suitable for children.
- LTS 2: Except in low speed/low volume traffic situations, cyclists have their own place to ride that keeps them from having to interact with traffic except at formal crossings. There is a physical separation from higher speed and multilane traffic. Crossings are easy for an adult to navigate. This refers to a level of traffic stress that most adults can tolerate, particularly those sometimes classified as interested but concerned.
- LTS 3: Involves interaction with moderate speed or multilane traffic, or close proximity to higher speed traffic. Refers to a level of traffic stress acceptable to those classified as enthused and confident.
- LTS 4: Involves interaction with higher speed traffic or close proximity to high-speed traffic. Refers to a level of stress acceptable only to those classified as strong and fearless.

It should be noted that current LTS methodology assumes no traffic stress is imposed on cyclists at signalized intersections. Guidance provided by the Mineta Transportation Institute includes categorizing signalized intersections as a LTS 2.

2. Existing Conditions and Bicycle Level of Traffic Stress

In the vicinity of the project, existing bicycle facilities include bike lanes along both sides of Aliinui Drive between the Ko Olina Resort entrance and the southern terminus of Aliinui Drive. It should be noted that pavement markings along this roadway indicate that golf carts are also permitted to use this lane. Beyond the immediate vicinity of the project, there are currently limited bicycle facilities along Farrington Highway with bicyclists observed utilizing the shoulder areas of the highway.

The Level of Traffic Stress (LTS) was assessed for the roadways in the vicinity of the project to determine the level of stress imposed upon bicyclists on the prevailing speed and geometric characteristics of the roadway. Near the on-and off-ramps to Aliinui Drive, Farrington Highway is rated at LTS 4 due to the lack of dedicated bicycle facilities along this roadway thereby

requiring bicyclists to be in close proximity with high-speed traffic. Along Aliinui Drive, the roadway segment between Farrington Highway and the resort entrance is rated at LTS 3. Although traffic volumes along Aliinui Drive are less, the level of traffic stress imposed upon bicyclists is influenced by the lack of dedicated bike facilities and multilane configuration of this roadway segment. South of the Ko Olina Resort entrance, Aliinui Drive improves to LTS 2 due to the provision of bike lanes along both sides of the roadway. Figure 8 depicts the existing bicycle facilities in the vicinity of the project while Figure 9 shows the existing LTS.


It should be noted that the City and County of Honolulu also has additional bike improvements planned vicinity of the project (see Figure 8). These improvements are included in the Oahu Bike Plan (updated 2019) published by the City's Department of Transportation Services. These include the provision of bikes lane along Aliinui Drive between the Ko Olina Resort entrance and Farrington Highway and conversion of the existing bike lanes along Aliinui Drive south of the main entrance to buffered bike lanes. In addition, north of the project site, a new shared-use path is planned to run alongside the heritage railway route with shoulder bikeways proposed along Farrington Highway from Piliokahi Avenue to Kalaeloa Boulevard. Although the development of these additional facilities is expected to increase the number of bicycle facilities and may reduce the level of traffic stress for bicyclists within the project vicinity, the timeline for these improvements is not known at this time.

C. Transit Facilities

1. Methodology

Transit Capacity and Quality of Service is a metric used to measure transit availability, comfort, and convenience from both the passenger and transit service provider's points of view. The framework for this metric is outlined in the Transit Cooperative Research Program (TCRP) Report 165: Transit Capacity and Quality of Service Manual (TCQSM), 3rd Edition published in 2013 which provides research-based guidance on public transit



	THE COVE REDEVELOPMENT		FIGURE 8
	EXISTING AND PROPOSED BICYCLE FACILITIES		



capacity and quality of service. The quality of service concepts and methods contained in the TCQSM address real-world transit operations, comprehensive planning, and design needs. The research for and development of the TCQSM has also directly supported the development of the Multimodal Level of Service (LOS) analysis methodologies introduced in the Highway Capacity Manual (HCM) 2010 and subsequently refined in HCM 6. Multimodal LOS analyzes a roadway corridor comprised of street segments which are defined as a length of street between intersections where traffic may have to stop due to traffic control. Transit LOS can be directly compared to other transportation modes with LOS “A” representing the best quality of service and the letter “F” used to represent the worst quality of service. The assessment evaluates the quality of transit operations incorporating factors that bear all aspect of a transit trip including the pedestrian environment along the street, service frequency and reliability, and the availability of transit amenities at those stop locations.

2. Existing Conditions and Transit LOS

Transit service in the vicinity of the project is currently limited to routes along Farrington Highway. The nearest bus stop is located along the eastbound direction of that roadway approximately 2,000 feet from the project site (~ less than half a mile). That bus stop is served by “TheBus” which is operated by the Oahu Transit Service (OTS) for the City and County of Honolulu Department of Transportation Services. To verify the existing quality of service for the transit facilities in the project vicinity, an assessment of these facilities was conducted based on the methodology outlined by the TCQSM. The transit facility along this segment of Farrington Highway is rated at LOS “A” since it is served by several local and express bus routes with headways of 30 minutes or less. However, it should be noted that there are limited improved pedestrian facilities to and from this bus stop with minimal transit amenities provided. Figure 10 depicts the existing transit facilities and transit LOS in the vicinity of the project. Transit LOS calculations are included in Appendix F.



THE COVE REDEVELOPMENT

TRANSIT FACILITIES AND TRANSIT LOS

VII. RECOMMENDATIONS

Based on the analysis of the traffic data, the following are the recommendations of this study to be incorporated in the project design.

1. Maintain sufficient sight distance for motorists to safely enter and exit all project driveways.
2. Provide adequate on-site loading and off-loading service areas and prohibit off-site loading operations.
3. Provide adequate turn-around area for service, delivery, and refuse collection vehicles to maneuver on the project site to avoid vehicle-reversing maneuvers onto public roadways.
4. Maintain sufficient turning radii at all project driveways to avoid vehicle encroachments to oncoming traffic lanes.
5. Provide sufficient turning radii along the internal connections to accommodate all anticipated vehicle types for the proposed uses.
6. If access at the entrances to the parking areas are controlled, provide sufficient storage for entering vehicles at the parking area access controls (i.e. automatic gate, use of personnel, etc.) to ensure that queues do not extend onto the adjacent roadways. The layout and dimensions shall be determined during the design phase.
7. Maintain the existing one-way (southbound) traffic flow along the connection between the northern and southern driveways.
8. Provide sufficient passing areas within the main drop-off/arrival area to accommodate all anticipated vehicle types and minimize potential conflicts with vehicles accessing the adjacent parking stalls, facilitate through traffic flow and ensure queues do not extend onto the adjacent roadway.
9. Provide adequate wayfinding signs to direct visitors to their intended destinations.
10. Provide adequate space within the bus parking stalls to allow for loading and unloading activities to occur while parking in this area. The exact configurations and dimensions shall be determined during the design phase.
11. If valet operations are expected to be implemented, consider the location of the parking area designated for valet to minimize potential conflicts with other modes.
12. Provide adequate pedestrian connections to facilitate access between on-and off-site facilities. Pedestrian facilities should be made accessible in conformance with the Americans with Disabilities Act (ADA).

13. Incorporate on-site pedestrian improvements in the design of the project to provide adequate access between the parking areas and on-site uses, as well as to increase pedestrian visibility while traversing the project site. In particular, consideration should be given to ensure adequate access is provided between the designated ADA parking stalls within the staff lot and the uses on-site. These improvements may include marked or raised crosswalks at the internal intersections, bulb outs to reduce pedestrian crossing, and street lighting. Pedestrian facilities should be made accessible in conformance with the Americans with Disabilities Act.
14. Consider coordinating with the relevant stakeholders to explore the possibility of offering shuttle service to/from the project site to increase mobility, encourage the use of alternate modes of travel, and minimize internal trips.
15. Provide improved bicycle facilities within the project boundaries to encourage the use of this alternate mode of travel. Appropriate access and lighting should be taken into consideration in the design of these facilities. It should be noted that the current plans do not include secured bike parking facilities on-site. As such, consideration should be given to providing secured parking to further encourage the use of this mode. It should be noted that the project site plan includes bicycle facilities within the north and southeast ends of the site.
16. Provide adequate connections to and from the bike parking areas to ensure convenient and safe pedestrian and bicyclist access, as well as connections to the bike lanes along Aliinui Drive adjacent to the project site.
17. Prepare a Parking and Loading Management Plan that includes parking and loading strategies to address potential issues associated with conflicts between modes on site, parking for guests and employees, and loading operations.

VIII. CONCLUSION

The proposed project entails the replacement of the existing uses into the Cove redevelopment within the Ko Olina Resort. The redeveloped site is expected to include a new amphitheater to house luau events similar to existing uses, as well as restaurant and retail uses and ancillary spaces. In conjunction with the proposed redevelopment, the existing parking areas within the project site will be reconfigured to convert a portion of the stalls currently designated for bus parking as standard parking for passenger vehicles. Access to the project site will continue to be provided via existing driveways off Aliinui Drive with vehicles entering the project site via the northern driveway and exiting via the southern driveway. The proposed project is expected to be completed by Year 2027. Under with project conditions, traffic operations in the vicinity of the project are generally expected

to remain similar to baseline and without project conditions. The proposed amphitheater is expected to house luau/entertainment events similar to existing uses with a maximum capacity less than existing conditions. As such, the proposed amphitheater is not anticipated to generate additional new trips in the project vicinity. In addition, synergy between the existing and proposed uses within the surrounding resort area is anticipated with a portion of trips associated with the proposed restaurant and retail uses expected to be made via non-motorized modes given the availability of improved pedestrian facilities in the vicinity of the project. Although traffic operations are generally expected to remain similar to without project conditions, the preparation of a parking and loading management plan is recommended to identify management strategies to address potential issues with parking and loading operations. In addition, since a high portion of trips to the project site is expected to be made via non-motorized modes, consideration should also be given to incorporating pedestrian and bicycle improvements to increase pedestrian visibility while traversing the project site. With the implementation of the aforementioned recommendations, the proposed project is not expected to have a significant impact on the surrounding roadway network.

APPENDIX A

BASELINE TRAFFIC COUNT DATA

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Page 1

Site Code: Ali'inui Drive
Station ID: 30614

Start Time	05-Sep-18 Wed	Northbound Ali'inui Drive		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		*	134		
12:15		*	136		
12:30		*	100		
12:45		*	122	0	492
01:00		*	134		
01:15		*	121		
01:30		*	125		
01:45		*	138	0	518
02:00		*	116		
02:15		*	145		
02:30		*	141		
02:45		*	165	0	567
03:00		*	164		
03:15		*	205		
03:30		*	144		
03:45		*	185	0	698
04:00		*	154		
04:15		*	196		
04:30		*	176		
04:45		*	204	0	730
05:00		*	139		
05:15		*	166		
05:30		*	156		
05:45		*	124	0	585
06:00		*	106		
06:15		*	132		
06:30		*	112		
06:45		*	117	0	467
07:00		*	136		
07:15		*	112		
07:30		*	94		
07:45		*	78	0	420
08:00		*	63		
08:15		*	96		
08:30		*	98		
08:45		*	124	0	381
09:00		*	87		
09:15		*	106		
09:30		*	78		
09:45		*	81	0	352
10:00		*	76		
10:15		148	94		
10:30		139	49		
10:45		111	52	398	271
11:00		114	31		
11:15		105	67		
11:30		93	47		
11:45		106	27	418	172
Total		816	5653		
Percent		12.6%	87.4%		

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Page 2

Site Code: Ali'inui Drive
Station ID: 30614

Start Time	06-Sep-18 Thu	Northbound Ali'inui Drive		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		15	112		
12:15		34	108		
12:30		18	106		
12:45		4	110	71	436
01:00		22	134		
01:15		3	123		
01:30		6	138		
01:45		3	151	34	546
02:00		0	142		
02:15		9	158		
02:30		4	156		
02:45		2	177	15	633
03:00		0	134		
03:15		2	150		
03:30		4	155		
03:45		11	153	17	592
04:00		9	130		
04:15		10	169		
04:30		22	184		
04:45		32	200	73	683
05:00		30	120		
05:15		40	156		
05:30		44	110		
05:45		50	128	164	514
06:00		73	92		
06:15		65	92		
06:30		66	*		
06:45		78	*	282	184
07:00		93	*		
07:15		101	*		
07:30		116	*		
07:45		111	*	421	0
08:00		113	*		
08:15		140	*		
08:30		116	*		
08:45		122	*	491	0
09:00		114	*		
09:15		110	*		
09:30		124	*		
09:45		126	*	474	0
10:00		110	*		
10:15		117	*		
10:30		116	*		
10:45		109	*	452	0
11:00		127	*		
11:15		126	*		
11:30		121	*		
11:45		146	*	520	0
Total		3014	3588		
Percent		45.7%	54.3%		
Grand Total			3830	9241	
Percent			29.3%	70.7%	
ADT			ADT 8,468		AADT 8,468

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Page 1

Site Code: Ali'inui Drive
Station ID: 30616

Start Time	05-Sep-18 Wed	Southbound Ali'inui Drive		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		*	128		
12:15		*	122		
12:30		*	122		
12:45		*	132	0	504
01:00		*	123		
01:15		*	136		
01:30		*	165		
01:45		*	158	0	582
02:00		*	138		
02:15		*	159		
02:30		*	181		
02:45		*	177	0	655
03:00		*	181		
03:15		*	120		
03:30		*	199		
03:45		*	152	0	652
04:00		*	170		
04:15		*	140		
04:30		*	124		
04:45		*	160	0	594
05:00		*	150		
05:15		*	149		
05:30		*	128		
05:45		*	146	0	573
06:00		*	108		
06:15		*	118		
06:30		*	87		
06:45		*	97	0	410
07:00		*	106		
07:15		*	68		
07:30		*	68		
07:45		*	77	0	319
08:00		*	65		
08:15		*	81		
08:30		*	73		
08:45		*	72	0	291
09:00		*	60		
09:15		*	51		
09:30		*	64		
09:45		*	57	0	232
10:00		105	66		
10:15		100	51		
10:30		120	41		
10:45		92	25	417	183
11:00		80	24		
11:15		102	24		
11:30		110	13		
11:45		124	8	416	69
Total		833	5064		
Percent		14.1%	85.9%		

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1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Page 2

Site Code: Ali'inui Drive
Station ID: 30616

Start Time	06-Sep-18 Thu	Southbound Ali'inui Drive		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		2	130		
12:15		8	122		
12:30		6	128		
12:45		5	133	21	513
01:00		5	118		
01:15		3	134		
01:30		2	148		
01:45		1	164	11	564
02:00		4	152		
02:15		1	166		
02:30		3	138		
02:45		4	96	12	552
03:00		5	128		
03:15		9	104		
03:30		11	95		
03:45		14	131	39	458
04:00		14	150		
04:15		22	192		
04:30		40	157		
04:45		39	184	115	683
05:00		29	196		
05:15		55	159		
05:30		62	152		
05:45		80	134	226	641
06:00		84	103		
06:15		90	10		
06:30		125	*		
06:45		124	*	423	113
07:00		110	*		
07:15		136	*		
07:30		168	*		
07:45		174	*	588	0
08:00		206	*		
08:15		139	*		
08:30		130	*		
08:45		146	*	621	0
09:00		136	*		
09:15		114	*		
09:30		132	*		
09:45		134	*	516	0
10:00		109	*		
10:15		118	*		
10:30		114	*		
10:45		106	*	447	0
11:00		94	*		
11:15		104	*		
11:30		102	*		
11:45		122	*	422	0
Total		3441	3524		
Percent		49.4%	50.6%		
Grand Total			4274	8588	
Percent			33.2%	66.8%	
ADT			ADT 8,356		AADT 8,356

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1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted by:SS
Counters:D4-5674
Weather:CLEAR

File Name : ALI KAM AM - 2
Site Code : 00000002
Start Date : 9/6/2018
Page No : 1

Groups Printed- Unshifted

	Ali'inui Dr Westbound			Kamoana Pl Northbound				Ali'inui Dr Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	Peds	App. Total	Thru	Right	App. Total	Int. Total
06:00 AM	1	49	50	6	0	5	11	63	5	68	129
06:15 AM	2	47	49	8	4	11	23	50	15	65	137
06:30 AM	3	49	52	4	4	4	12	92	11	103	167
06:45 AM	3	60	63	10	4	10	24	79	19	98	185
Total	9	205	214	28	12	30	70	284	50	334	618
07:00 AM	1	64	65	11	2	12	25	74	15	89	179
07:15 AM	3	84	87	11	3	19	33	95	17	112	232
07:30 AM	3	93	96	15	3	17	35	108	13	121	252
07:45 AM	0	62	62	23	2	11	36	117	30	147	245
Total	7	303	310	60	10	59	129	394	75	469	908
08:00 AM	4	100	104	18	1	14	33	125	17	142	279
08:15 AM	2	84	86	16	5	11	32	87	12	99	217
08:30 AM	1	89	90	15	1	17	33	95	17	112	235
08:45 AM	1	71	72	10	0	10	20	93	11	104	196
Total	8	344	352	59	7	52	118	400	57	457	927
Grand Total	24	852	876	147	29	141	317	1078	182	1260	2453
Apprch %	2.7	97.3		46.4	9.1	44.5		85.6	14.4		
Total %	1	34.7	35.7	6	1.2	5.7	12.9	43.9	7.4	51.4	

	Ali'inui Dr Westbound			Kamoana Pl Northbound			Ali'inui Dr Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	3	84	87	11	3	14	95	17	112	213
07:30 AM	3	93	96	15	3	18	108	13	121	235
07:45 AM	0	62	62	23	2	25	117	30	147	234
08:00 AM	4	100	104	18	1	19	125	17	142	265
Total Volume	10	339	349	67	9	76	445	77	522	947
% App. Total	2.9	97.1		88.2	11.8		85.2	14.8		
PHF	.625	.848	.839	.728	.750	.760	.890	.642	.888	.893

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted by:SS
Counters:D4-5674
Weather:CLEAR

File Name : ALI KAM PM - 2
Site Code : 00000002
Start Date : 9/6/2018
Page No : 1

Groups Printed- Unshifted

	Ali'inui Dr Westbound			Kamoana Pl Northbound				Ali'inui Dr Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	Peds	App. Total	Thru	Right	App. Total	Int. Total
03:00 PM	1	79	80	14	2	1	17	79	2	81	178
03:15 PM	4	86	90	8	6	6	20	59	3	62	172
03:30 PM	5	133	138	9	1	3	13	79	10	89	240
03:45 PM	2	82	84	5	4	7	16	74	10	84	184
Total	12	380	392	36	13	17	66	291	25	316	774
04:00 PM	2	91	93	9	4	14	27	103	12	115	235
04:15 PM	4	130	134	13	1	9	23	100	13	113	270
04:30 PM	3	134	137	17	0	10	27	84	16	100	264
04:45 PM	4	121	125	18	2	12	32	100	21	121	278
Total	13	476	489	57	7	45	109	387	62	449	1047
05:00 PM	6	100	106	25	2	12	39	112	12	124	269
05:15 PM	1	94	95	10	3	8	21	87	10	97	213
05:30 PM	2	92	94	6	2	23	31	107	9	116	241
05:45 PM	2	79	81	10	3	7	20	86	8	94	195
Total	11	365	376	51	10	50	111	392	39	431	918
Grand Total	36	1221	1257	144	30	112	286	1070	126	1196	2739
Apprch %	2.9	97.1		50.3	10.5	39.2		89.5	10.5		
Total %	1.3	44.6	45.9	5.3	1.1	4.1	10.4	39.1	4.6	43.7	

	Ali'inui Dr Westbound			Kamoana Pl Northbound			Ali'inui Dr Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	4	130	134	13	1	14	100	13	113	261
04:30 PM	3	134	137	17	0	17	84	16	100	254
04:45 PM	4	121	125	18	2	20	100	21	121	266
05:00 PM	6	100	106	25	2	27	112	12	124	257
Total Volume	17	485	502	73	5	78	396	62	458	1038
% App. Total	3.4	96.6		93.6	6.4		86.5	13.5		
PHF	.708	.905	.916	.730	.625	.722	.884	.738	.923	.976

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted by: JT, SH
Counters: D4-3890, D4-5675
Weather: CLEAR

File Name : ALI OLA AM
Site Code : 00000001
Start Date : 9/6/2018
Page No : 1

Groups Printed- Unshifted

	Ali'inui Dr Southbound					Olani St Westbound					Ali'inui Dr Northbound					Olani St Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
06:00 AM	6	67	10	1	84	1	1	9	0	11	3	49	3	3	58	12	0	2	2	16	169
06:15 AM	17	64	19	7	107	3	0	15	0	18	1	49	8	6	64	7	0	1	0	8	197
06:30 AM	14	91	29	1	135	9	2	19	0	30	0	41	7	18	66	4	1	5	2	12	243
06:45 AM	6	83	21	1	111	12	3	18	0	33	3	59	8	12	82	2	0	2	1	5	231
Total	43	305	79	10	437	25	6	61	0	92	7	198	26	39	270	25	1	10	5	41	840
07:00 AM	11	79	13	2	105	4	1	10	0	15	8	62	7	30	107	9	2	4	9	24	251
07:15 AM	12	112	26	0	150	4	3	12	3	22	5	79	7	21	112	1	1	0	3	5	289
07:30 AM	10	112	34	3	159	10	3	19	2	34	6	83	9	46	144	5	1	2	4	12	349
07:45 AM	7	149	37	4	197	6	0	16	0	22	5	74	10	24	113	6	1	6	2	15	347
Total	40	452	110	9	611	24	7	57	5	93	24	298	33	121	476	21	5	12	18	56	1236
08:00 AM	25	126	19	3	173	4	3	16	3	26	9	91	11	58	169	21	1	6	4	32	400
08:15 AM	19	92	23	2	136	14	2	15	1	32	5	95	10	29	139	9	1	9	9	28	335
08:30 AM	20	83	12	2	117	17	1	13	0	31	8	82	10	47	147	14	1	6	10	31	326
08:45 AM	20	88	25	5	138	12	6	20	6	44	3	59	10	52	124	15	3	5	1	24	330
Total	84	389	79	12	564	47	12	64	10	133	25	327	41	186	579	59	6	26	24	115	1391
Grand Total	167	1146	268	31	1612	96	25	182	15	318	56	823	100	346	1325	105	12	48	47	212	3467
Apprch %	10.4	71.1	16.6	1.9		30.2	7.9	57.2	4.7		4.2	62.1	7.5	26.1		49.5	5.7	22.6	22.2		
Total %	4.8	33.1	7.7	0.9	46.5	2.8	0.7	5.2	0.4	9.2	1.6	23.7	2.9	10	38.2	3	0.3	1.4	1.4	6.1	

	Ali'inui Dr Southbound				Olani St Westbound				Ali'inui Dr Northbound				Olani St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	10	112	34	156	10	3	19	32	6	83	9	98	5	1	2	8	294
07:45 AM	7	149	37	193	6	0	16	22	5	74	10	89	6	1	6	13	317
08:00 AM	25	126	19	170	4	3	16	23	9	91	11	111	21	1	6	28	332
08:15 AM	19	92	23	134	14	2	15	31	5	95	10	110	9	1	9	19	294
Total Volume	61	479	113	653	34	8	66	108	25	343	40	408	41	4	23	68	1237
% App. Total	9.3	73.4	17.3		31.5	7.4	61.1		6.1	84.1	9.8		60.3	5.9	33.8		
PHF	.610	.804	.764	.846	.607	.667	.868	.844	.694	.903	.909	.919	.488	1.00	.639	.607	.931

Wilson Okamoto Corporation

1907 S. Beretania Street, Suite 400
Honolulu HI, 96826

Counted by: JT, SH
Counters: D4-3890, D4-5675
Weather: CLEAR

File Name : ALI OLA PM
Site Code : 00000001
Start Date : 9/6/2018
Page No : 1

Groups Printed- Unshifted

	Ali'inui Dr Southbound					Olani St Westbound					Ali'inui Dr Northbound					Olani St Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
03:00 PM	26	71	15	7	119	13	1	27	3	44	4	89	8	34	135	27	2	5	0	34	332
03:15 PM	18	57	12	2	89	7	0	11	2	20	3	79	10	29	121	27	1	4	0	32	262
03:30 PM	20	78	5	4	107	7	2	15	2	26	4	128	8	34	174	13	2	6	11	32	339
03:45 PM	24	87	12	10	133	10	2	21	3	36	2	82	7	35	126	19	2	4	13	38	333
Total	88	293	44	23	448	37	5	74	10	126	13	378	33	132	556	86	7	19	24	136	1266
04:00 PM	19	110	20	2	151	10	2	12	4	28	3	94	5	22	124	31	2	5	3	41	344
04:15 PM	30	116	19	6	171	7	1	19	6	33	5	124	13	62	204	26	5	8	7	46	454
04:30 PM	23	103	20	12	158	9	3	14	5	31	2	135	9	37	183	36	0	4	10	50	422
04:45 PM	36	131	17	7	191	12	2	19	1	34	7	124	14	43	188	22	0	4	2	28	441
Total	108	460	76	27	671	38	8	64	16	126	17	477	41	164	699	115	7	21	22	165	1661
05:00 PM	23	133	17	18	191	8	1	25	3	37	8	94	13	36	151	21	2	5	13	41	420
05:15 PM	33	100	11	11	155	11	3	13	3	30	6	89	12	25	132	18	2	2	3	25	342
05:30 PM	27	105	14	10	156	17	2	18	0	37	2	84	12	55	153	19	3	4	4	30	376
05:45 PM	12	90	2	11	115	13	0	9	0	22	4	78	2	49	133	15	0	2	8	25	295
Total	95	428	44	50	617	49	6	65	6	126	20	345	39	165	569	73	7	13	28	121	1433
Grand Total	291	1181	164	100	1736	124	19	203	32	378	50	1200	113	461	1824	274	21	53	74	422	4360
Apprch %	16.8	68	9.4	5.8		32.8	5	53.7	8.5		2.7	65.8	6.2	25.3		64.9	5	12.6	17.5		
Total %	6.7	27.1	3.8	2.3	39.8	2.8	0.4	4.7	0.7	8.7	1.1	27.5	2.6	10.6	41.8	6.3	0.5	1.2	1.7	9.7	

	Ali'inui Dr Southbound				Olani St Westbound				Ali'inui Dr Northbound				Olani St Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	30	116	19	165	7	1	19	27	5	124	13	142	26	5	8	39	373
04:30 PM	23	103	20	146	9	3	14	26	2	135	9	146	36	0	4	40	358
04:45 PM	36	131	17	184	12	2	19	33	7	124	14	145	22	0	4	26	388
05:00 PM	23	133	17	173	8	1	25	34	8	94	13	115	21	2	5	28	350
Total Volume	112	483	73	668	36	7	77	120	22	477	49	548	105	7	21	133	1469
% App. Total	16.8	72.3	10.9		30	5.8	64.2		4	87	8.9		78.9	5.3	15.8		
PHF	.778	.908	.913	.908	.750	.583	.770	.882	.688	.883	.875	.938	.729	.350	.656	.831	.947

APPENDIX B

LEVEL OF SERVICE DEFINITIONS

LEVEL OF SERVICE DEFINITIONS

LEVEL-OF-SERVICE CRITERIA FOR AUTOMOBILES AT SIGNALIZED INTERSECTIONS

LOS A describes operations with a control delay of 10s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and 35s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D describes operations with control delay between 35 and 55s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E describes operations with control delay between 55 and 80s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F describes operations with control delay exceeding 80s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most Cycles fail to clear the queue.

A lane group can incur a delay less than 80s/veh when the volume-to-capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicated that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80s/veh represents failure from a delay perspective).

LEVEL OF SERVICE DEFINITIONS

LEVEL-OF-SERVICE (LOS) CRITERIA FOR AUTOMOBILES AT A TWO-WAY STOP CONTROLLED (TWSC) INTERSECTIONS

LOS for a TWSC intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns by using criteria shown below. Major-street through vehicles are assumed to experience zero delay. LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The following lists the LOS criteria for a TWSC intersection:

LOS A describes operations with a control delay of 10s/veh or less and a volume-to-capacity ratio no greater than 1.0.

LOS B describes operations with a control delay between 10s/veh and 15s/veh and a volume-to-capacity ratio no greater than 1.0.

LOS C describes operations with a control delay between 15s/veh and 25s/veh and a volume-to-capacity ratio no greater than 1.0.

LOS D describes operations with a control delay between 25s/veh and 35s/veh and a volume-to-capacity ratio no greater than 1.0.

LOS E describes operations with a control delay between 35s/veh and 50s/veh and a volume-to-capacity ratio no greater than 1.0.

LOS F describes operations with a control exceeding 50s/veh and a volume-to-capacity ratio no greater than 1.0 or when the volume-to-capacity ratio exceeds 1.0, regardless of the measurement of the control delay.



















APPENDIX C

CAPACITY ANALYSIS CALCULATIONS BASELINE PEAK PERIOD TRAFFIC ANALYSIS

HCM 6th Signalized Intersection Summary

1: Aliinui Dr & Olani St



















02/14/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	4	23	34	8	66	25	343	40	61	479	113
Future Volume (veh/h)	41	4	23	34	8	66	25	343	40	61	479	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.91		0.89	0.90		0.89	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	4	25	37	9	71	27	369	43	66	515	122
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	645	82	509	599	131	571	309	1102	128	402	979	231
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1110	184	1150	1039	296	1289	787	3203	370	966	2843	670
Grp Volume(v), veh/h	44	0	29	46	0	71	27	204	208	66	321	316
Grp Sat Flow(s),veh/h/ln	1110	0	1334	1336	0	1289	787	1777	1796	966	1777	1736
Q Serve(g_s), s	1.1	0.0	0.6	0.3	0.0	1.5	1.3	4.0	4.0	2.6	6.8	6.9
Cycle Q Clear(g_c), s	2.6	0.0	0.6	0.8	0.0	1.5	8.2	4.0	4.0	6.6	6.8	6.9
Prop In Lane	1.00		0.86	0.80		1.00	1.00		0.21	1.00		0.39
Lane Grp Cap(c), veh/h	645	0	591	730	0	571	309	612	618	402	612	598
V/C Ratio(X)	0.07	0.00	0.05	0.06	0.00	0.12	0.09	0.33	0.34	0.16	0.52	0.53
Avail Cap(c_a), veh/h	980	0	964	1102	0	932	808	1738	1757	1015	1738	1699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.5	0.0	7.5	7.5	0.0	7.7	15.6	11.4	11.4	13.9	12.3	12.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.2	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	0.2	0.0	0.3	0.2	1.4	1.4	0.5	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.5	0.0	7.5	7.5	0.0	7.8	15.8	11.7	11.8	14.1	13.0	13.1
LnGrp LOS	A	A	A	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		73			117			439			703	
Approach Delay, s/veh		8.1			7.7			12.0			13.2	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.2		25.8		21.2		25.8				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		46.0		34.0		46.0		34.0				
Max Q Clear Time (g_c+I1), s		8.9		3.5		10.2		4.6				
Green Ext Time (p_c), s		4.9		0.7		2.9		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				12.0								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary







1: Aliinui Dr & Olani St







02/14/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	7	21	36	7	77	22	477	49	112	483	73
Future Volume (veh/h)	105	7	21	36	7	77	22	477	49	112	483	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.90		0.88	0.89		0.88	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	7	22	38	7	81	23	502	52	118	508	77
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	581	144	451	567	96	558	349	1327	137	363	1262	190
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1073	326	1025	1061	219	1267	823	3243	335	846	3085	465
Grp Volume(v), veh/h	111	0	29	45	0	81	23	274	280	118	292	293
Grp Sat Flow(s),veh/h/ln	1073	0	1351	1279	0	1267	823	1777	1801	846	1777	1773
Q Serve(g_s), s	4.1	0.0	0.8	0.8	0.0	2.5	1.4	7.2	7.2	7.5	7.7	7.8
Cycle Q Clear(g_c), s	6.7	0.0	0.8	1.6	0.0	2.5	9.1	7.2	7.2	14.8	7.7	7.8
Prop In Lane	1.00		0.76	0.84		1.00	1.00		0.19	1.00		0.26
Lane Grp Cap(c), veh/h	581	0	595	663	0	558	349	727	737	363	727	726
V/C Ratio(X)	0.19	0.00	0.05	0.07	0.00	0.15	0.07	0.38	0.38	0.33	0.40	0.40
Avail Cap(c_a), veh/h	629	0	650	716	0	610	606	1283	1300	627	1283	1280
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.1	0.0	10.6	10.9	0.0	11.1	17.1	13.7	13.7	18.9	13.9	13.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.2	0.4	0.0	0.7	0.2	2.7	2.7	1.4	2.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.3	0.0	10.7	10.9	0.0	11.2	17.2	14.0	14.1	19.4	14.2	14.3
LnGrp LOS	B	A	B	B	A	B	B	B	B	B	B	B
Approach Vol, veh/h		140			126			577			703	
Approach Delay, s/veh		12.7			11.1			14.2			15.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.2		34.3		32.2		34.3				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		48.0		32.0		48.0		32.0				
Max Q Clear Time (g_c+I1), s		11.1		8.7		16.8		4.5				
Green Ext Time (p_c), s		3.9		0.8		4.8		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				14.2								
HCM 6th LOS				B								

HCM 6th TWSC
2: Aliinui Dr & Kamoana PI

02/14/2024

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	72	11	9	339	437	72
Future Vol, veh/h	72	11	9	339	437	72
Conflicting Peds, #/hr	0	0	53	0	0	53
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	130	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	81	12	10	381	491	81
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	796	339	625	0	-	0
Stage 1	585	-	-	-	-	-
Stage 2	211	-	-	-	-	-
Critical Hdwy	5.8	5.9	4.14	-	-	-
Critical Hdwy Stg 1	4.8	-	-	-	-	-
Critical Hdwy Stg 2	4.8	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	408	724	952	-	-	-
Stage 1	616	-	-	-	-	-
Stage 2	854	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	364	687	904	-	-	-
Mov Cap-2 Maneuver	364	-	-	-	-	-
Stage 1	579	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	16.7	0.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	904	-	364	687	-	-
HCM Lane V/C Ratio	0.011	-	0.222	0.018	-	-
HCM Control Delay (s)	9	-	17.7	10.3	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.8	0.1	-	-

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	73	5	17	485	396	62
Future Vol, veh/h	73	5	17	485	396	62
Conflicting Peds, #/hr	0	0	43	0	0	43
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	130	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	74	5	17	495	404	63
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	761	277	510	0	-	0
Stage 1	479	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Critical Hdwy	5.8	5.9	4.14	-	-	-
Critical Hdwy Stg 1	4.8	-	-	-	-	-
Critical Hdwy Stg 2	4.8	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	425	780	1051	-	-	-
Stage 1	676	-	-	-	-	-
Stage 2	803	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	384	748	1008	-	-	-
Mov Cap-2 Maneuver	384	-	-	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	16.2	0.3		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1008	-	384	748	-	-
HCM Lane V/C Ratio	0.017	-	0.194	0.007	-	-
HCM Control Delay (s)	8.6	-	16.6	9.8	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	0	-	-



















APPENDIX D

CAPACITY ANALYSIS CALCULATIONS YEAR 2027 PEAK PERIOD TRAFFIC ANALYSIS WITHOUT PROJECT

HCM 6th Signalized Intersection Summary

1: Aliinui Dr & Olani St



















03/13/2024







												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	4	23	34	8	66	25	350	40	61	489	113
Future Volume (veh/h)	41	4	23	34	8	66	25	350	40	61	489	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.91		0.89	0.90		0.89	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	4	25	37	9	71	27	376	43	66	526	122
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	642	81	508	596	131	569	307	1114	126	401	991	229
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1109	184	1149	1039	296	1289	779	3210	365	960	2856	659
Grp Volume(v), veh/h	44	0	29	46	0	71	27	207	212	66	326	322
Grp Sat Flow(s),veh/h/ln	1109	0	1333	1335	0	1289	779	1777	1798	960	1777	1739
Q Serve(g_s), s	1.1	0.0	0.6	0.3	0.0	1.5	1.4	4.1	4.1	2.6	6.9	7.0
Cycle Q Clear(g_c), s	2.6	0.0	0.6	0.8	0.0	1.5	8.4	4.1	4.1	6.7	6.9	7.0
Prop In Lane	1.00		0.86	0.80		1.00	1.00		0.20	1.00		0.38
Lane Grp Cap(c), veh/h	642	0	589	727	0	569	307	617	624	401	617	603
V/C Ratio(X)	0.07	0.00	0.05	0.06	0.00	0.12	0.09	0.34	0.34	0.16	0.53	0.53
Avail Cap(c_a), veh/h	974	0	958	1095	0	926	794	1727	1748	1002	1727	1690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	0.0	7.5	7.6	0.0	7.8	15.7	11.4	11.4	13.9	12.4	12.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.2	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.1	0.2	0.0	0.4	0.2	1.4	1.4	0.5	2.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.6	0.0	7.6	7.6	0.0	7.9	15.9	11.7	11.8	14.1	13.1	13.1
LnGrp LOS	A	A	A	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		73			117			446			714	
Approach Delay, s/veh		8.2			7.8			12.0			13.2	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.4		25.9		21.4		25.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		46.0		34.0		46.0		34.0				
Max Q Clear Time (g_c+I1), s		9.0		3.5		10.4		4.6				
Green Ext Time (p_c), s		5.0		0.7		2.9		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				12.1								
HCM 6th LOS				B								







HCM 6th Signalized Intersection Summary

1: Aliinui Dr & Olani St

03/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	7	21	36	7	77	22	487	49	112	493	73
Future Volume (veh/h)	105	7	21	36	7	77	22	487	49	112	493	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.90		0.88	0.88		0.88	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	7	22	38	7	81	23	513	52	118	519	77
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	578	143	450	565	96	556	346	1336	135	360	1272	188
Arrive On Green	0.44	0.44	0.44	0.44	0.44	0.44	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1072	326	1024	1060	219	1267	815	3251	328	838	3095	457
Grp Volume(v), veh/h	111	0	29	45	0	81	23	280	285	118	297	299
Grp Sat Flow(s),veh/h/ln	1072	0	1350	1279	0	1267	815	1777	1802	838	1777	1775
Q Serve(g_s), s	4.2	0.0	0.8	0.8	0.0	2.6	1.4	7.3	7.4	7.7	7.9	8.0
Cycle Q Clear(g_c), s	6.7	0.0	0.8	1.6	0.0	2.6	9.3	7.3	7.4	15.0	7.9	8.0
Prop In Lane	1.00		0.76	0.84		1.00	1.00		0.18	1.00		0.26
Lane Grp Cap(c), veh/h	578	0	593	661	0	556	346	731	741	360	731	730
V/C Ratio(X)	0.19	0.00	0.05	0.07	0.00	0.15	0.07	0.38	0.39	0.33	0.41	0.41
Avail Cap(c_a), veh/h	626	0	648	713	0	608	597	1278	1296	618	1278	1277
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	0.0	10.7	11.0	0.0	11.2	17.2	13.7	13.7	19.0	13.9	13.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.5	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.2	0.4	0.0	0.7	0.2	2.7	2.8	1.4	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.4	0.0	10.8	11.0	0.0	11.3	17.3	14.1	14.1	19.5	14.3	14.3
LnGrp LOS	B	A	B	B	A	B	B	B	B	B	B	B
Approach Vol, veh/h		140			126			588			714	
Approach Delay, s/veh		12.8			11.2			14.2			15.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.4		34.3		32.4		34.3				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		48.0		32.0		48.0		32.0				
Max Q Clear Time (g_c+I1), s		11.3		8.7		17.0		4.6				
Green Ext Time (p_c), s		4.0		0.8		4.9		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				14.3								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	72	11	9	346	446	72
Future Vol, veh/h	72	11	9	346	446	72
Conflicting Peds, #/hr	0	0	53	0	0	53
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	130	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	81	12	10	389	501	81
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	810	344	635	0	-	0
Stage 1	595	-	-	-	-	-
Stage 2	215	-	-	-	-	-
Critical Hdwy	5.8	5.9	4.14	-	-	-
Critical Hdwy Stg 1	4.8	-	-	-	-	-
Critical Hdwy Stg 2	4.8	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	402	720	944	-	-	-
Stage 1	610	-	-	-	-	-
Stage 2	851	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	359	684	896	-	-	-
Mov Cap-2 Maneuver	359	-	-	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	16.9	0.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	896	-	359	684	-	-
HCM Lane V/C Ratio	0.011	-	0.225	0.018	-	-
HCM Control Delay (s)	9.1	-	17.9	10.4	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.9	0.1	-	-

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	73	5	17	495	404	62
Future Vol, veh/h	73	5	17	495	404	62
Conflicting Peds, #/hr	0	0	43	0	0	43
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	130	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	74	5	17	505	412	63
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	774	281	518	0	-	0
Stage 1	487	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Critical Hdwy	5.8	5.9	4.14	-	-	-
Critical Hdwy Stg 1	4.8	-	-	-	-	-
Critical Hdwy Stg 2	4.8	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	419	777	1044	-	-	-
Stage 1	672	-	-	-	-	-
Stage 2	800	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	379	745	1001	-	-	-
Mov Cap-2 Maneuver	379	-	-	-	-	-
Stage 1	634	-	-	-	-	-
Stage 2	767	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	16.4	0.3		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1001	-	379	745	-	-
HCM Lane V/C Ratio	0.017	-	0.197	0.007	-	-
HCM Control Delay (s)	8.7	-	16.8	9.9	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	0	-	-



















APPENDIX E

**CAPACITY ANALYSIS CALCULATIONS
YEAR 2027 PEAK PERIOD TRAFFIC
ANALYSIS WITH PROJECT**

HCM 6th Signalized Intersection Summary

1: Aliinui Dr & Olani St



















03/13/2024







												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	4	23	34	8	66	25	377	40	61	507	113
Future Volume (veh/h)	41	4	23	34	8	66	25	377	40	61	507	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.89		0.87	0.88		0.87	0.96		0.89	0.94		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	4	25	37	9	71	27	405	43	66	545	122
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	506	67	419	477	106	469	367	1511	159	463	1329	295
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	1058	180	1127	1010	284	1260	739	3199	336	889	2814	626
Grp Volume(v), veh/h	44	0	29	46	0	71	27	223	225	66	343	324
Grp Sat Flow(s),veh/h/ln	1058	0	1307	1294	0	1260	739	1777	1759	889	1777	1663
Q Serve(g_s), s	1.7	0.0	0.9	0.8	0.0	2.4	1.6	4.9	5.0	3.1	8.1	8.2
Cycle Q Clear(g_c), s	4.1	0.0	0.9	1.7	0.0	2.4	9.8	4.9	5.0	8.1	8.1	8.2
Prop In Lane	1.00		0.86	0.80		1.00	1.00		0.19	1.00		0.38
Lane Grp Cap(c), veh/h	506	0	487	583	0	469	367	839	831	463	839	785
V/C Ratio(X)	0.09	0.00	0.06	0.08	0.00	0.15	0.07	0.27	0.27	0.14	0.41	0.41
Avail Cap(c_a), veh/h	690	0	690	786	0	666	546	1270	1257	679	1270	1189
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.8	0.0	13.0	13.2	0.0	13.4	14.4	10.2	10.3	12.7	11.1	11.1
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.3	0.4	0.0	0.6	0.3	1.7	1.7	0.6	2.9	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	13.0	13.2	0.0	13.6	14.4	10.4	10.4	12.9	11.4	11.5
LnGrp LOS	B	A	B	B	A	B	B	B	B	B	B	B
Approach Vol, veh/h		73			117			475			733	
Approach Delay, s/veh		14.1			13.4			10.7			11.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.4		29.0		35.4		29.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		46.0		34.0		46.0		34.0				
Max Q Clear Time (g_c+I1), s		10.2		4.4		11.8		6.1				
Green Ext Time (p_c), s		5.3		0.7		3.2		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				11.6								
HCM 6th LOS				B								







HCM 6th Signalized Intersection Summary

1: Aliinui Dr & Olani St

03/13/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	7	21	36	7	77	22	542	49	112	535	73
Future Volume (veh/h)	105	7	21	36	7	77	22	542	49	112	535	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.89		0.87	0.87		0.87	0.93		0.82	0.93		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	7	22	38	7	81	23	571	52	118	563	77
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	517	130	407	510	87	502	348	1490	135	356	1409	191
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.46	0.46	0.46	0.46	0.46	0.46
Sat Flow, veh/h	1043	323	1014	1043	216	1251	737	3225	292	747	3048	414
Grp Volume(v), veh/h	111	0	29	45	0	81	23	313	310	118	327	313
Grp Sat Flow(s),veh/h/ln	1043	0	1336	1259	0	1251	737	1777	1740	747	1777	1685
Q Serve(g_s), s	5.0	0.0	1.0	1.1	0.0	3.0	1.6	8.5	8.6	9.0	8.9	9.0
Cycle Q Clear(g_c), s	8.0	0.0	1.0	2.1	0.0	3.0	10.6	8.5	8.6	17.6	8.9	9.0
Prop In Lane	1.00		0.76	0.84		1.00	1.00		0.17	1.00		0.25
Lane Grp Cap(c), veh/h	517	0	537	596	0	502	348	821	804	356	821	779
V/C Ratio(X)	0.21	0.00	0.05	0.08	0.00	0.16	0.07	0.38	0.39	0.33	0.40	0.40
Avail Cap(c_a), veh/h	540	0	564	622	0	527	499	1185	1160	509	1185	1124
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	13.4	13.8	0.0	14.1	16.6	12.9	12.9	18.7	13.0	13.1
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.1	0.1	0.3	0.3	0.5	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.3	0.4	0.0	0.8	0.3	3.1	3.1	1.5	3.3	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	0.0	13.5	13.9	0.0	14.2	16.6	13.2	13.2	19.2	13.3	13.4
LnGrp LOS	B	A	B	B	A	B	B	B	B	B	B	B
Approach Vol, veh/h		140			126			646			758	
Approach Delay, s/veh		16.1			14.1			13.3			14.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		39.0		34.5		39.0		34.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		49.0		31.0		49.0		31.0				
Max Q Clear Time (g_c+I1), s		12.6		10.0		19.6		5.0				
Green Ext Time (p_c), s		4.6		0.8		5.5		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				14.1								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	72	11	9	373	464	72
Future Vol, veh/h	72	11	9	373	464	72
Conflicting Peds, #/hr	0	0	53	0	0	53
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	130	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	81	12	10	419	521	81
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	845	354	655	0	-	0
Stage 1	615	-	-	-	-	-
Stage 2	230	-	-	-	-	-
Critical Hdwy	5.8	5.9	4.14	-	-	-
Critical Hdwy Stg 1	4.8	-	-	-	-	-
Critical Hdwy Stg 2	4.8	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	385	711	928	-	-	-
Stage 1	599	-	-	-	-	-
Stage 2	840	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	344	675	881	-	-	-
Mov Cap-2 Maneuver	344	-	-	-	-	-
Stage 1	563	-	-	-	-	-
Stage 2	798	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	17.6	0.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	881	-	344	675	-	-
HCM Lane V/C Ratio	0.011	-	0.235	0.018	-	-
HCM Control Delay (s)	9.1	-	18.7	10.4	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.9	0.1	-	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	73	5	17	550	446	62
Future Vol, veh/h	73	5	17	550	446	62
Conflicting Peds, #/hr	0	0	43	0	0	43
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	130	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	74	5	17	561	455	63
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	845	302	561	0	-	0
Stage 1	530	-	-	-	-	-
Stage 2	315	-	-	-	-	-
Critical Hdwy	5.8	5.9	4.14	-	-	-
Critical Hdwy Stg 1	4.8	-	-	-	-	-
Critical Hdwy Stg 2	4.8	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	385	757	1006	-	-	-
Stage 1	646	-	-	-	-	-
Stage 2	781	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	348	726	965	-	-	-
Mov Cap-2 Maneuver	348	-	-	-	-	-
Stage 1	609	-	-	-	-	-
Stage 2	749	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	17.6	0.3		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	965	-	348	726	-	-
HCM Lane V/C Ratio	0.018	-	0.214	0.007	-	-
HCM Control Delay (s)	8.8	-	18.1	10	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	0	-	-

APPENDIX F

TRANSIT LOS CALCULATIONS

Multimodal Transit LOS Calculation

Farrington Hwy

2000' West of

Aliinui Dr

Aliinui Dr

From

To

Inputs		1
TRANSIT OPERATIONS INFORMATION		
	Number of local buses on street segment per hour (bus/h)	2
	Number of express buses stopping in segment per hour (bus/h)	2
t_{ex}	Average excess wait time (min)	7.2
L_f	Average passenger load factor (p/seat)	0.5
S	Average transit travel speed (mi/h)	51.0
l_{pt}	Average passenger trip length (mi)	12.7
	Is the segment in the CBD of a metro area of 5 million or more?	No
TRANSIT AMENITY DATA		
p_{sh}	Percent stops in segment with a shelter	0%
p_{be}	Percent stops in segment with a bench	0%
PEDESTRIAN ENVIRONMENT DATA		
W_A	Sidewalk width (ft) (Enter 0 if no sidewalk)	0.0
W_{buf}	Buffer width from sidewalk to street (ft)	0.0
	Does a continuous barrier exist between the street and sidewalk?	No
	Is the street divided?	Yes
	Are parking spaces striped?	No
p_{pk}	Proportion of on-street parking occupied	0%
W_{bl}	Bicycle lane width (ft)	0.0
W_{os}	Shoulder/parking lane width (ft)	0.0
W_{ol}	Outside travel lane (closest to sidewalk) width (ft)	12.0
v_m	Outside lane demand flow rate at midsegment (veh/h)	1350
S_R	Average vehicle running speed, including intersection delay (mi/h)	45.0
Calculations		
f	Transit frequency (bus/h)	4
f_h	Headway factor	2.80
f_{pl}	Passenger load weighting factor	1.00
T_{at}	Perceived amenity time rate (min/mi)	0.0
T_{ex}	Excess wait time rate due to late arrivals (min/mi)	0.6
T_{ptt}	Perceived travel time rate (min/mi)	2.3
T_{btt}	Base travel time rate (min/mi)	4.0
f_{tt}	Perceived travel time factor	1.24
S_{w-r}	Transit wait-ride score	3.47
f_s	Motorized vehicle speed adjustment factor	0.81
f_v	Motorized vehicle volume adjustment factor	3.07
W_{aA}	Adjusted available sidewalk width (ft)	0.0
f_{sw}	Sidewalk width coefficient	6.00
f_b	Buffer area coefficient	1.00
W_t	Total width of outside lane, bike lane, and parking lane/shoulder (ft)	12.0
W_v	Effective total width as a function of traffic volume (ft)	12.0
W_1	Effective width of combined bike lane and shoulder (ft)	0.0
f_w	Cross-section adjustment factor	-3.05
I_p	Pedestrian environment score	6.88
	Pedestrian LOS	F
I_t	Transit LOS score	1.83
Output		
Transit LOS		A

Appendix E

Parking Management Plan for The Cove Redevelopment Project



MEMORANDUM

Date: November 18, 2024

To: Matt Caires, James Campbell Company
Tracy Camuso, G70

From: Spencer Reed, PE and Sohrab Rashid

Subject: Parking Management Plan for The Cove Redevelopment Project

SD23-0490

This memorandum presents the parking management plan for the proposed Cove Redevelopment Project (Project) located adjacent to the community of Ko Olina on the Leeward side of the island of Oahu. The proposed project includes redevelopment of the existing Paradise Cove Luau site to include a mix of restaurant and retail uses. This parking management plan was prepared based on discussions with the Project team, the current site plan, industry parking standards, and adjustments reflecting the local site context.

Study Background

The Project site proposed for redevelopment is located at 92-1089 Aliinui Drive, Kapole, Hawaii 96707. This site currently includes the Paradise Cove Luau and the Paradise Cove Crystal Chapel that periodically hosts small events that occur outside of the peak demand periods for the luau. A portion of the Project site that is currently used for parking will continue to be used for parking for the proposed Project site uses. Adjacent to the site is the Lanikuhonua Cultural Institute (LCI) which includes a 199-space parking lot, and a separate 15-space parking lot that provides free parking for beachgoers at any time of day. The LCI parking lot and the beach parking lot are not included as part of the Project. Access to the site is provided by two driveways on Aliinui Drive located south of the Ko Olina Resort security gate. Aliinui Drive includes bicycle lanes in both directions and a continuous sidewalk on the makai or west side of the street.

The luau is a daily occurrence and operates between 5:00 PM and 9:00 PM in the evening and the facility includes capacity for 1,200 seated attendees. Current attendance averages approximately 800 to 900 persons per night with roughly 25% of attendees arriving by bus and the rest traveling to and from the site via private vehicle (roughly 65%) or walking in from the adjacent properties



located south of the site (roughly 10%). Parking is provided in lots located on the north and east sides of the parcel, as well as in the adjacent parking lot located south of the site along Aliinui Drive. The north lot is designated for employee parking only.

We understand James Campbell Company plans to redevelop the site for a new luau venue with a reduced seating capacity, as well as a mixture of restaurants and retail stores extending the length of the site. The detailed Project description is included in the next section.

Because the Project is increasing the amount of development on the site and is expected to generate a commensurate increase in parking demand, it was necessary to review the parking characteristics of the existing site and develop future parking demand estimates to determine what, if any, parking management strategies would be necessary for operation of the site.

Existing Parking Characteristics

The parking demand at the existing Paradise Cove Luau facility was measured in June 2023 to: 1) determine the current demand of this use, and 2) provide data for adjusting this demand based on the planned reduction in luau seating capacity with the proposed Project.

Parking occupancy counts were conducted on Friday June 23, 2023 and Saturday June 24, 2023 to identify the peak parking demand by lot on the Project site (see **Figure 1** at right). The dates were selected in consultation with James Campbell Company as they represent days with the potential for highest visitors to the luau. The Project site is served by Lots 1 through 3. Counts were conducted between 3:00 PM or (two hours before the luau event begins) and 11:00 PM (or two hours after the luau show finishes).

Figure 1 - Existing Parking Areas





In addition to the total number of parked vehicles, we also made observations of traffic flows into and out of the lots, as well as counts of buses, and average occupancy counts (i.e., the number of people in each vehicle).

Existing Parking Supply

Land use entitlements for the Cove Property dating back to the early 1990s document 354 standard parking stalls and 30 bus stalls. Due to typical resurfacing and restriping maintenance, the existing number of parking stalls in use has changed over time. **Table 1** below illustrates the parking supply for the Project site. As shown below, the total available parking supply for the luau is 281 spaces in Lots 1, 2, and 3 exclusive of the 10 designated chapel parking spaces in Lot 1 and the 19 bus stalls in Lot 2.

Table 1: Existing Cove Property Parking

Parking Lot Area ²	Standard Spaces	ADA Spaces	Reserved Spaces	Total Private Vehicle Spaces	Bus Spaces
Lot 1 ¹	60	6	0	66	0
Lot 2	0	2	18	20	19
Lot 3	193	2	0	195	0
Existing Paradise Cove	253¹	10	18	281¹	19

Source: Fehr & Peers.

Notes:

Existing property parking supply was counted in June 2023 and reflects the available number of parking spaces in use.

¹ Lot 1 total excludes 10 chapel spaces.

² 13 standard spaces and 2 ADA spaces are provided for beach parking. 199 standard spaces are provided for LCI which are separated and controlled by a gate.

Existing Parking Demand

The results of the parking counts showed that the total demand for vehicle parking in Lots 1 through 3 on Friday ranged from 27% at 3:00 PM to a maximum of 78% at 6:00 PM and then reduced to 8% at 10:00 PM. The results for Lots 1 through 3 on Saturday were similar, albeit with slightly lower values of 18% at 3:00 PM to a maximum of 75% at 6:00 PM and then reduced to 4% at 10:00 PM. The vehicles remaining in the lot at 10:00 PM are assumed to be employees in Lots 1 and 2. Existing parking demand is illustrated graphically in **Figure 2** and **Figure 3** for Friday and Saturday, respectively.



Figure 2 - Friday Luau Parking Demand

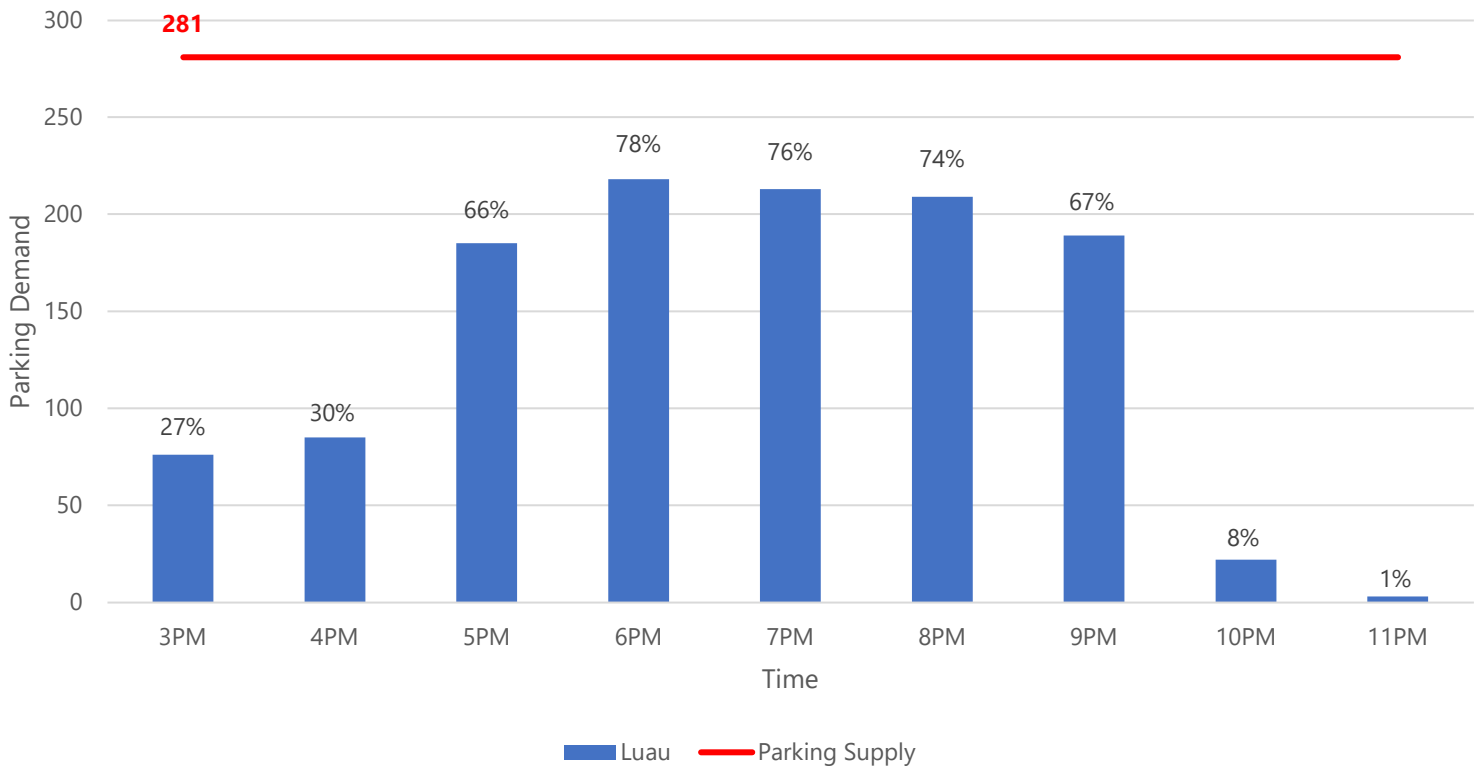
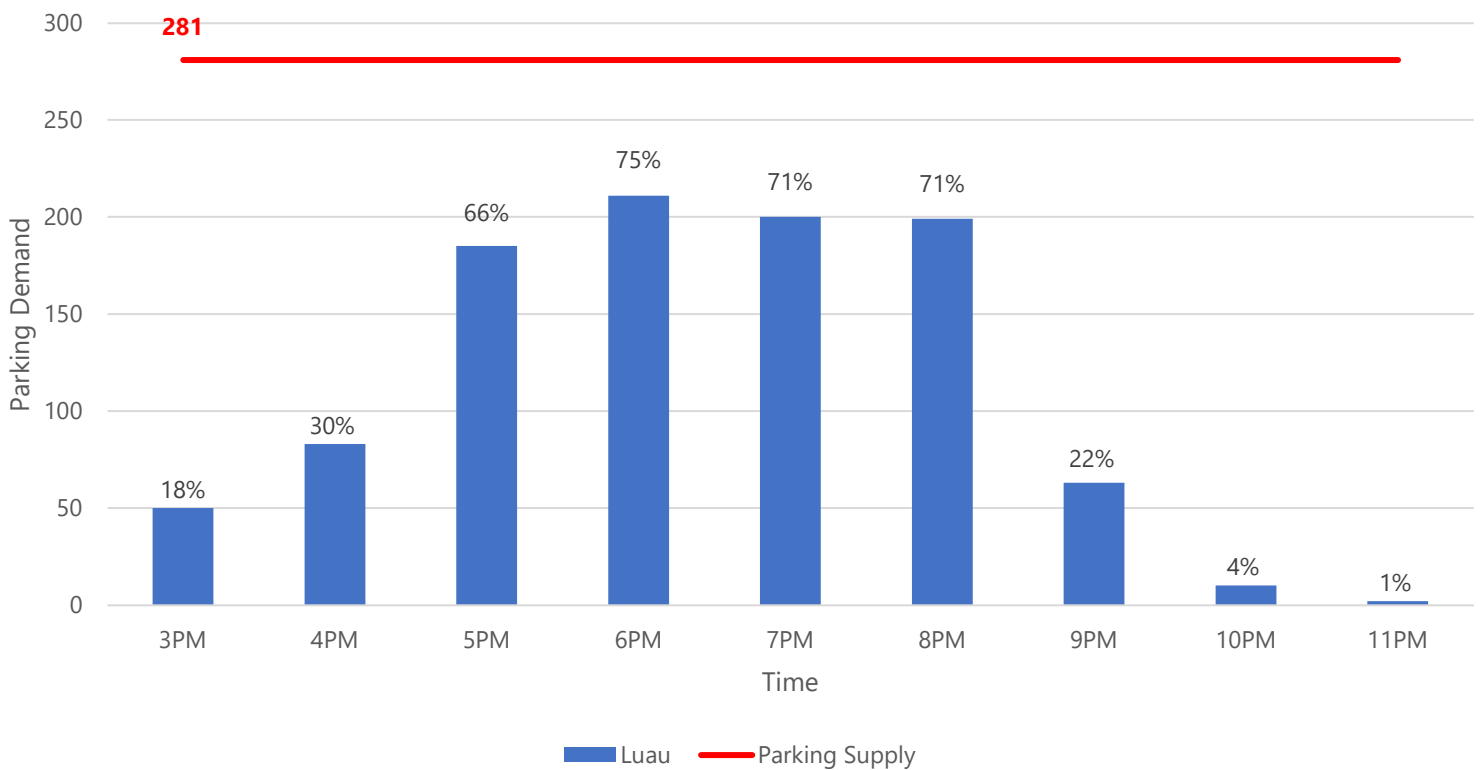


Figure 3 - Saturday Luau Parking Demand





It should be noted that Lot 1 includes 10 spaces designated for the Crystal Chapel, and the demand and supply for these spaces are excluded from this calculation. The demand in these spaces was up to three (3) vehicles on Friday and up to seven (7) vehicles on Sunday.

Peak bus parking demand within Lot 2 was five (5) and six (6) coaches on Friday and Saturday, respectively, within the 19 bus spaces provided in this lot. Some private cars and pick-up trucks parked in bus spaces during each afternoon/evening, but these volumes varied between one (1) and five (5) vehicles during the peak bus parking demand period of 5:00 PM to 9:00 PM. Access to 57 parking spaces in Lot 3 was blocked by chains across the drive aisles on both days.

Beach parking was full from 3:00 PM through 5:00 PM or 6:00 PM on both days, but dropped to less than 50% occupancy by 8:00 PM. The lot was empty by 10:00 PM on Friday and Saturday.

Other Existing Travel Characteristics

During field observations, the average vehicle occupancy (AVO) of private vehicles parking on site was estimated based on a sample count during Friday and Saturday evenings, and it was determined to be approximately 3.2. The AVO of buses was determined to be 45.5.

Given that on-site parking for the luau is free and cars are not required to stop as they enter the site, traffic congestion was very limited. Most vehicles experienced little or no delay as they entered the site, and the dispersed arrival pattern also contributed to the minimal congestion.

Project Description

The Cove Redevelopment Project will consist of a luau facility with supporting uses, retail spaces, restaurants, and a small administration building for a total of approximately 65,413 square feet (sf) of development. The Project will specifically include the following:

- 650-seat luau facility including 9,809 sf of support buildings
- 23,678 sf of retail shops
- 5,436 sf of fast casual/fast food restaurant
- 7,753 sf of family restaurant
- 13,400 sf of fine/casual dining
- 907 square feet of bar
- 845 sf of back of house/management space

The Project proposes no changes to the existing 3,585 sf chapel. **Figure 4** shows the preliminary site plan for the proposed Project including land uses and the adjacent parking areas. Some



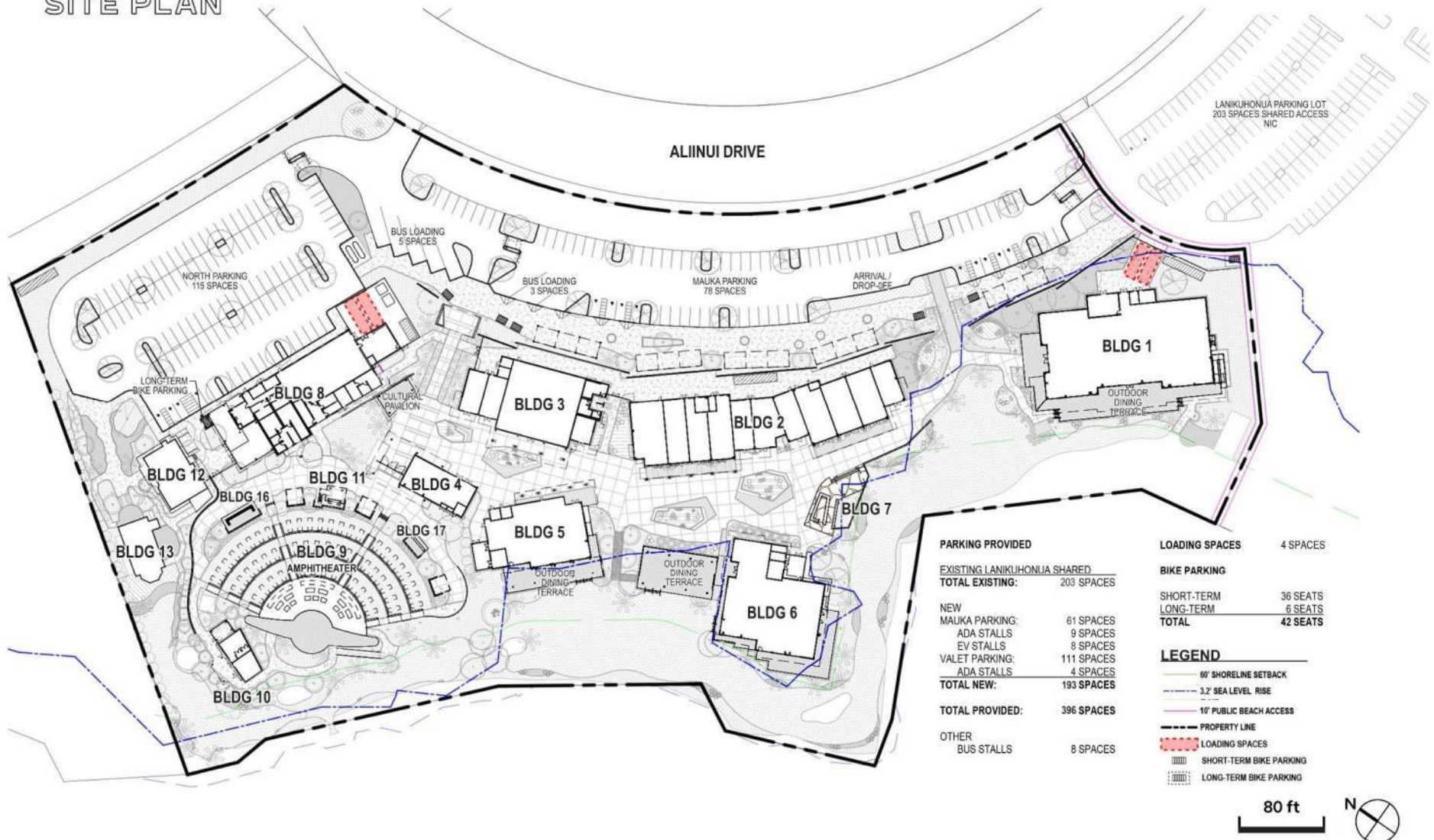
parking areas are proposed to be re-striped to maximize the available parking supply and better serve the anticipated increase in site demand. On-site parking for the Project will consist of 396 spaces located in the following areas:

- 115 spaces located in the north lot with parking for standard sized vehicles (Lot 1)
- 78 parking spaces in parking lot east of the building area, where this lot will be re-striped to include more standard sized vehicle spaces plus eight (8) dedicated spaces for full-size buses/coaches (Lot 2)
- 203 spaces located in the parking lot located just south of the southern driveway serving the site (Lot 3).



Figure 4 – Site Plan

SITE PLAN





Project Shared Parking Analysis Methodology

A shared parking analysis was conducted using methodologies and assumptions provided in *Shared Parking, 3rd Edition* (Urban Land Institute [ULI], 2020) and existing data obtained at the site. The ULI sponsored a national study in 1984 that established a basic methodology for analyzing parking demand in mixed-use developments and developed averages for parking rates by land use. The analysis presented in this memorandum utilizes the data from the updated *Shared Parking, 3rd Edition* report published in 2020.

The shared parking methodology establishes the base parking rate, parking demand reductions, and hourly/monthly demand patterns for each land use. The overall parking demand is calculated by considering the parking demand patterns and parking demand reductions (potential for non-auto modes and internal capture) for each component of the project being analyzed. Information regarding the parking rates, parking demand reductions, and parking demand patterns for the Project is provided below. The analysis of the luau and the effect of the reduced attendee capacity was analyzed separately using existing count data since this unique use is not included in the *Shared Parking* document.

Parking Rates

The shared parking analysis for the Project used base parking rates for visitors and employees as determined by ULI. **Table 2** presents the parking rates for both visitors/customers and employees and demonstrates the typical parking needs of the Project by land use.

Table 2: Parking Demand Rates by Land Use

ULI Land Use	Unit	Weekday		Weekend	
		Visitor	Employee	Visitor	Employee
Retail	ksf	2.90	0.70	3.20	0.80
Fine/Casual Dining	ksf	13.25	2.25	13.25	2.25
Family Restaurant	ksf	15.25	2.15	15.25	2.15
Fast Casual/Fast Food	ksf	12.40	2.00	12.40	2.00
Bar/Lounge	Ksf	15.25	1.25	17.50	1.50

Source: Shared Parking (Urban Land Institute, 3rd Edition) and Fehr & Peers (Luau only).

Notes:

Luau parking rates were not developed as the proportional reduction in luau seating capacity was applied to existing luau parking demand to determine future luau parking demand.



Separate rates were used for weekday and weekend and for each user. The derived rates use the daily/hourly/seasonal patterns for calculating the parking demand based on the unique travel characteristics of the project being analyzed. The back of house/management space was considered ancillary to the other land uses and would not generate a separate parking demand but rather support the other uses on the Project site.

As noted previously, the parking demand the luau was derived from the existing data, and the proportional reduction in seating capacity was applied to the existing parking demand to estimate future parking demand with redevelopment of the Project site.

Adjustments were made for two travel factors in accordance with the ULI shared parking methodology: the potential for non-auto modes, and estimated internal capture of parking between the land uses in the area.

Parking Demand Reductions

The shared parking analysis allows for adjustment in the base parking rate due to factors such as mode split/walk-in and non-captive ratio. These factors are based on the mix of uses in the project, size of the uses, and location of the project. Additional information regarding these factors is provided below.

- Mode Adjustment – One factor that affects the overall parking demand at a particular development is the number of visitors and employees that arrive by automobile. The alternatives considered in the analysis account for the effects of pedestrian, bicycle, drop-off, and transit access to the site.
- Noncaptive Ratio – Also known as trip internalization. Based on data from empirical studies through sources such as ULI, it is known that a certain percentage of trips in mixed-use developments (depending on the mix of land uses in the project) are trips moving between the land uses on site, i.e., they were internally captured on the site. Adjustments were made to the analysis to account for trip internalization.

Table 3 documents the adjustment percentages applied to each of the land uses for visitors and employees for different periods of the day. The non-captive ratio was applied based on the mix and size of the uses in the Project. It is assumed that some patrons will only park a vehicle once, but they will visit multiple components of the Project.



Table 3: Shared Parking Model Reductions

ULI Land Use	Mode Adjustment		Noncaptive Ratio	
	Daytime	Evening	Daytime	Evening
Retail				
- Visitor	0.6	0.6	0.94	0.89
- Employee	1.0	1.0	1.0	1.0
Fine/Casual Dining				
- Visitor	0.6	0.6	1.0	1.0
- Employee	1.0	1.0	1.0	1.0
Family Restaurant				
- Visitor	0.6	0.6	1.0	1.0
- Employee	1.0	1.0	1.0	1.0
Fast Casual/Fast Food				
- Visitor	0.6	0.6	0.76	0.74
- Employee	1.0	1.0	1.0	1.0
Family Restaurant				
- Visitor	0.6	0.6	1.0	1.0
- Employee	1.0	1.0	1.0	1.0

Source: Shared Parking (Urban Land Institute, 3rd Edition) and Fehr & Peers (Luau only).

Luau parking did not have a mode adjustment or noncaptive ratio reduction applied as the proportional reduction in luau seating capacity was applied to existing luau parking demand to determine future luau parking demand and the parking demand was based on locally collected empirical data and already reflective of the characteristics surrounding the Project site.

The mode split adjustment was applied based on the location of the Project and the ability of nearby residents, resort visitors and employees to travel to the Project by a mode other than automobile which they would have to park (i.e., walking or biking). The area mauka of Aliinui Drive across from the Project site along Olani Street includes a commercial development and a residential development, The Coconut Planation. While a limited interaction with the commercial uses is anticipated, most of the residential units are within a ½-mile walking distance.

In addition, two resort properties are located within a similar ½-mile walking distance: the Four Seasons and Aulani resorts. These two resorts include a total of 1,166 rooms or units with a population of nearly 2,500 persons assuming 85% occupancy and 2.5 persons per unit. Given the lack of current dining options in this area, it is not unreasonable to assume that a large number of restaurant seats and retail customers will originate from these resort properties. In addition, two other resorts (the Beach Villas at Ko Olina and Marriott's Ko Olina Beach Club) are expected to generate some visitor trips to the Project site, although most of these will likely be bicycle or TNC trips.



Overall, a mode adjustment of 40% was applied to the commercial components parking demand calculation to account for the proximity of a substantive visitor and resident population of potential patrons to the site in an area where there are very limited food options. Note that if 40% of the restaurant seats were occupied solely by resort visitors, this would equate to 20% of the resort population within a ½-mile walk including the Four Seasons and Aulani resorts only. This is considered a reasonable assumption and doesn't include any of the nearby residents in The Coconut Plantation development.

Parking Demand Patterns

The shared parking analysis uses monthly adjustment factors and time-of-day adjustment factors to account for the variation in parking demand for different land uses. Based on the anticipated land uses and parking demand reductions applied, monthly adjustment factors are applied based on the month that will result in the greatest parking demand (peak month). The time-of-day factors are applied to the peak month demand to determine the estimated parking demand throughout the day. **Table A-1** in the appendix documents the Project commercial components weekday and weekend peak month adjustment and time-of-day adjustment for visitors and employees and documents the estimated total parking demand. The parking demand for the luau was not incorporated in the shared parking calculations as the empirical data already considered the local parking characteristic for the luau.

Other Potential Parking Reductions or Supply Increases

After calculating the initial parking demand estimates, reductions in demand or increases in parking supply were considered to determine the final parking supply that would be needed to adequately serve the proposed Project. These adjustments include the following:

- Implementation of parking management strategies including but not limited to:
 - Increasing the parking supply by requiring valet operations on the entire Project site all day for an introductory period of at least two months and then review parking operations to determine if valet usage can be reduced to peak times if needed
 - Reducing parking demand by charging for parking or implementing maximum time limits
 - Reduce parking demand by incentivizing the use transportation network companies (TNCs) such as Uber and Lyft

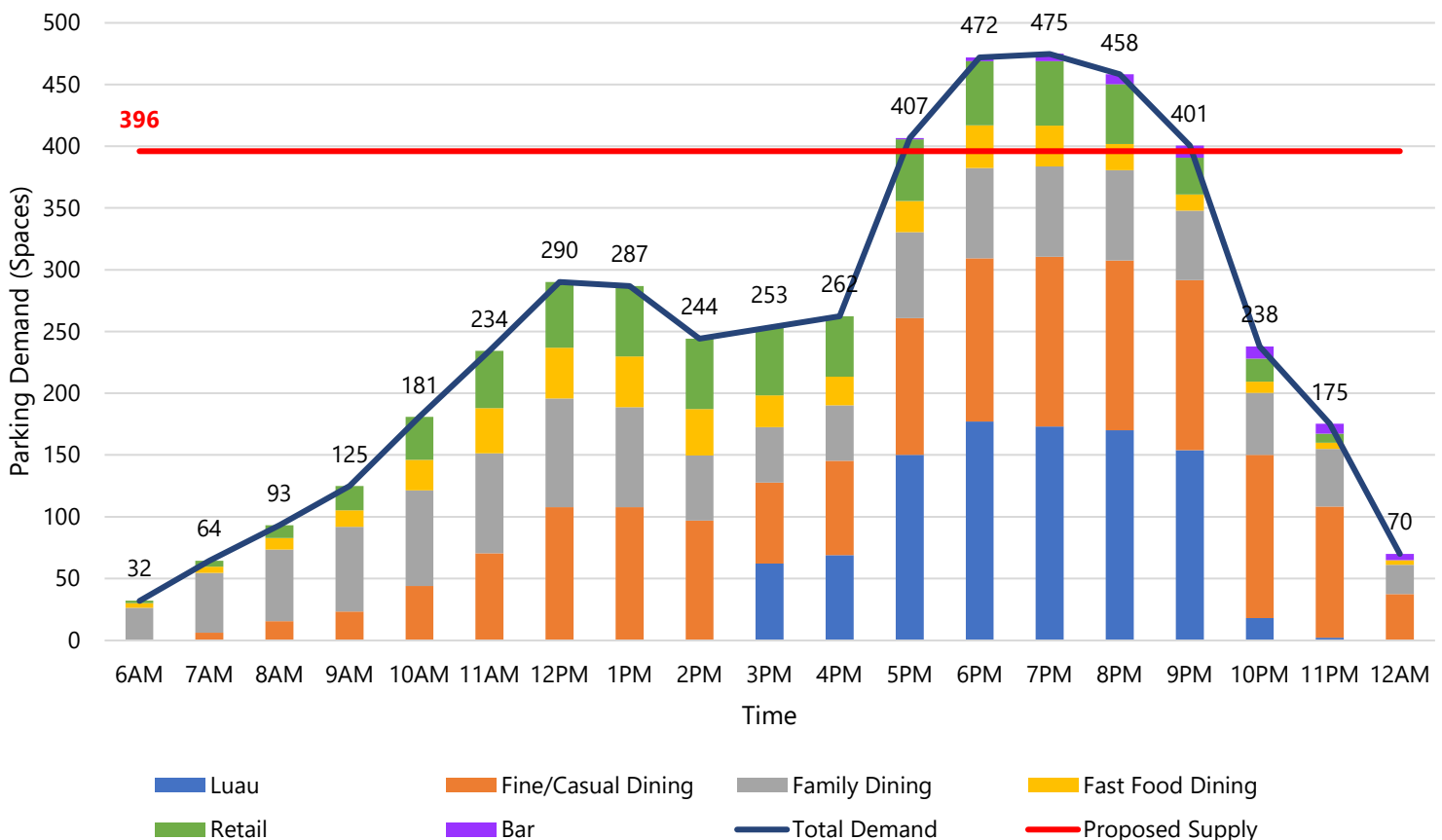


Project Shared Parking Demand

Figure 5 illustrates the gross parking demand for the proposed Project by land use by time of day for Friday evening. This demand was calculated using the shared parking analysis methodology and assumptions described in the previous section, and it presents the demand before applying any reductions for parking management strategies.

Although retail is but a small component of the overall Project, the peak month of demand was calculated as December, which is consistent with the uptick in visitor travel that occurs on Oahu during the winter holidays. It should be noted that total Saturday parking demand with the Project is estimated to be slightly lower than Friday, and accordingly the results for Friday are the focus of this analysis.

Figure 5 - Projected Friday Parking Demand (w/o Management Strategies)

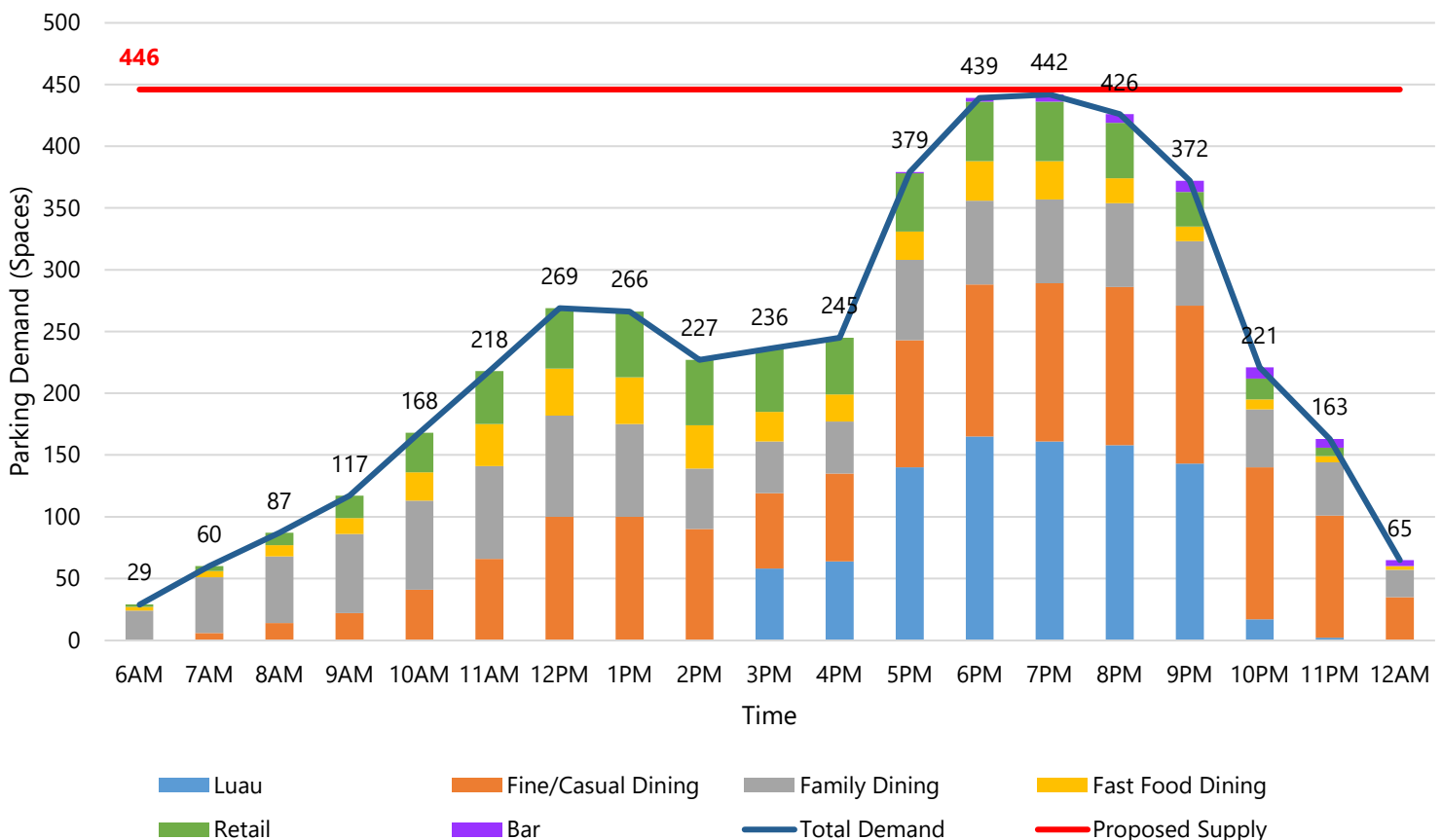




As shown on **Figure 5**, without any parking management strategies, the parking demand will exceed the available supply between 5:00 PM and 9:00 PM. The estimated peak parking demand of 475 spaces is projected to occur on a Friday at 6:00 PM and 7:00 PM, and the demand is not expected to drop below the capacity of 396 spaces until sometime between 9:00 PM and 10:00 PM. For the parking demand to not exceed the exiting parking supply, a combination of parking supply increases and parking demand decreases would need to lower the existing parking difference by approximately 19%.

A valet operator has reviewed the site plan and determined that an additional 50 parking spaces could be added with valet operations within the driveway aisles across the entire site. The use of valet parking is considered a parking management tool to increase the overall parking supply. The addition of 50 parking spaces with valet usage would result in a total parking supply of 446 parking spaces across the site as presented in **Figure 6**. For the Project to accommodate parking

Figure 6 - Projected Friday Parking Demand (w/ Management Strategies)





demand within the available land area on the Project site, additional parking demand reduction strategies will be needed. This reduction will need to equate to at least 7% of the 475 peak parking demand such that the demand at the peak time of 7:00 PM on a Friday will not exceed the proposed 446 vehicle supply. **Figure 6** illustrates the commensurate reduction in demand by hour that will be required to accommodate the demand on site within the available supply. The strategies to accomplish this reduction are described in the section entitled Parking Management Recommendations.

Project Parking Supply Required Per Ordinance

According to the City & County Revised Ordinances of Honolulu (ROH) Chapter 21 Article 6 Section 20: "No off-street parking is required in the Primary Urban Center Development Plan area and Ewa Development Plan area, except for those areas thereof located in the residential, agricultural, and preservation zoning districts." Because the Project site is in the Ewa Development Plan area and the current zoning is B-1 (Neighborhood Business), no minimum parking supply for the proposed redeveloped land uses is required.

However, it is helpful to understand the parking supply that would typically be required for a project of this type to compare to the demand estimates presented above. If we were to apply the minimum required parking supplies listed in *Table 21-6.1 Minimum Off-Street Parking Ratios* in the ROH, the Project would only be required to provide a total of 244 spaces as illustrated in **Table 4** below.

Table 4: Required Minimum Parking Supply Based on ROH Requirements¹

Use	Size ²	Parking Ratio ³	Number of Spaces
Luau	650 seats (17,000 sf)	1:5 seats or 1:125 sf (the lesser of these)	130
Retail Shops	23,678 sf	1:500 sf	47
Restaurants	26,589 sf	1:500 sf	53
Bar	907 sf	1:500 sf	2
Administrative Office	845 sf	1:500 sf	2
Chapel	50 seats (3,585 sf)	1:5 seats or 1:125 sf (the lesser of these)	10
Total			244



Source: Fehr & Peers, James Campbell Company and City & County Revised Ordinances of Honolulu, 2023.

Notes:

- 1 Per The Revised Ordinances of Honolulu (ROH) Chapter 21-6.20 regarding Off-Street Parking Requirements, the ratios in this table do not apply to land uses in the Ewa Development Plan area. Data in this table is provided for informational purposes only.
- 2 Land uses and sizes from The Cove Redevelopment: Zoning Summary provided by James Campbell Company.
- 3 Ratios from ROH Table 21-6.1 from Chapter 21-6.20 regarding Off-Street Parking Requirements.

As noted in the sections presented above, the anticipated peak parking demand of the Project without any parking management strategies in place is expected to be 475 spaces and would well exceed the required ROH supply between 6:00 PM and 8:00 PM by roughly 200%. Strategies to manage the demand and increase the on-site parking supply within the planned parking areas is presented in the next section.

Recommended Parking Management Strategies

To reasonably accommodate Project peak parking demand a combination of an increase in parking supply and a decrease in parking demand will need to be applied. We recommend implementation of the following strategies upon Project opening:

Mandatory Valet Parking

Operating valet parking will require visitors to drop off their vehicle with an attendant and allow for more efficient parking within Lots 1 through 3. Visitors will be given a ticket associated with their vehicle that the attendant will use to identify the appropriate vehicle when the visitor is ready to depart the site. A valet operator has reviewed the site plan and determined that an additional 50 parking spaces could be added with valet operations within the driveway aisles across the entire site. The addition of 50 parking spaces through valet usage would result in a total parking supply of 446 parking spaces across the site.

Due to the unique nature of the Project location, operations, and parking layout, the ability to increase parking supply can be a significant parking management strategy. To that end, we recommend that valet parking be implemented for the entire site during all hours of operation for an introductory period of at least two months. After the two-month period has ended the parking operations of the entire Project site should be reviewed to determine if valet usage can be reduced to periods of time when additional parking space supply is necessary to meet demand.



In coordination with charging for self-parking, valet parking should be charged to users as a measure to potentially reduce the overall parking demand. While the cost for valet usage will need to be determined based on market factors, a tiered pricing model with variation in price dependent on time of day or length of stay could be considered.

While the operations of the valet program will be at the discretion of the valet operator, employee vehicles should be parked in spaces located furthest from the valet stand given their low turnover rate and desire to have customer parking more accessible. Parking charges for employee spaces are at the discretion of the site operator.

Charging for Parking

A critical strategy to manage parking demand is to charge users an hourly fee. This strategy is currently in use at the shopping area on Olani Street east of the Project site that includes the Monkeypod restaurant and Island Market store and can be integrated with potential valet parking (as described above). The current fee at that shopping area is \$2.50 per hour. The amount of the hourly fee can be adjusted to manage demand, such that an initial fee of \$2.50, for example, can be increased to \$3.50 or \$5.00 per hour if demand exceeds available capacity. Charging for parking allows for cost recovery of the valet service described above, and it can also serve as an additional revenue source for the Project.

In addition, the rate per hour can be also adjusted to ensure that vehicles are not parked for an excessive amount of time. For example, the cost for each of the first two hours to park may be fixed at \$2.50 per hour, but the price for the third hour could be increased to \$7.50 or a level that will incentivize visitors to leave the site within a two-hour period. This benefits the site by increasing space availability for other visitors, and it helps to manage the number of people that may park at the site and solely visit the beach area nearby.

Luau Parking Management

While the current luau parking is free, to better manage future parking it is expected that luau visitors will also be charged for parking if they choose to drive themselves to the Project site. To better prepare for potential luau parking demand, the luau parking could be sold at the time of ticket purchase. This early parking purchase could provide a parking operator with an understanding of how much luau parking could be expected on a given day and allow them to determine if or how much valet parking or other parking management strategies may be necessary.



While the luau attendance will be reduced with development of the Project, it is understood that the luau bus operations will continue when the Project is opened. The current bus operations provide one-way and round-trip options to various hotels on Oahu at a price of \$35/person. To increase luau bus usage, and potentially reduce overall Project parking demand, we recommend reviewing the bus pricing to see if a reduction in the price per person is possible. The decrease in bus pricing along with charging for parking on-site could result in a reduction in parking demand for the luau which reduces overall parking demand.

Incentivizing Transportation Network Company (TNC) Use

Some visitors from nearby resorts and other origins including Kapolei and Makakilo may use Transportation Network Companies (TNCs) such as Uber and Lyft to access and depart the site. While this activity does increase the amount of vehicle traffic, it also has the benefit of reducing parking demand at the site. If other strategies are not effective in managing the demand, we recommend creating a financial incentive to encourage the use TNCs by visitors. This could take the form of a visitor showing a digital receipt for a TNC ride and receiving a coupon for use at one of the restaurants or retail establishments. In addition, we recommend a dedicated curb space for TNC loading and unloading to avoid conflicting with valet parking activities.

Promoting Other Modes of Transportation

Incentivizing the use of other modes of transportation such as bicycles, and walking would reduce parking demand. While the parking demand calculations already consider some parking demand reductions due to non-automobile modes of transportation, encouragement of these types of transportation options through providing secure bicycle parking and improving pedestrian connections to external sidewalks could result in visitors choosing not to drive and park a vehicle.

Beach Parking Management

It is expected that free beach parking will remain with development of the Project. Management of the beach parking will need to be considered with the more parking activity occurring at the site. Leaving the beach parking as is with no restrictions on time limits or cost could see misuse of those parking spaces to visit the commercial components of the Project.

To mitigate the concern of beach parking misuse, time limits could be considered for beach parking to limit the amount of time vehicles can be parked. The limiting of parking time could dissuade beach visitors from visiting the Project commercial components before or after their



beach visits. In addition, the beach parking supply could be incorporated within the total parking supply of the Project and managed through a ticketing system managed by the valet program. Beach visitors would be required to see the valet attendant to get a beach parking permit to utilize one of the existing 15 parking spaces. When beach visitors leave then those parking spaces become available for another visitor who has contacted the Project valet. These strategies can be utilized with the strategies above to ensure that beach parking is not misused for Project parking.

Chapel Parking Management

The existing Paradise Cove Crystal Chapel periodically hosts small events that occur outside of the peak demand periods for the luau. These events are typically 50 attendees or less and occur in set blocks of time that end by 4:30 PM. Some events can be hosted after 4:30 PM, however they are limited to Monday through Thursday operations. The management of the chapel events has resulted in chapel events and peak demand luau events not occurring at the same time.

With the development of the Project, enough parking supply should be available during non-peak demand luau time periods to accommodate chapel events. However, if it is determined that there is not enough parking to accommodate chapel event then parking management strategies such as valet usage should be considered.

Parking Management Effectiveness

The anticipated parking demand was estimated using industry best practices and available information. It is important to note that parking demand at the Project site will depend on the popularity of the establishments and visitor experiences. As such, demand could be theoretically lower or higher depending on a variety of factors. The benefit of applying the recommended strategies is that they provide a series of levers that can manage demand through parking charge modifications and supply management. Increasing hourly rates, dynamically adjusting hourly rates based on demand, and valet parking are some of the ways that strategies can be adjusted to manage demand. We anticipate that the Project sponsor will need to adjust the parking program after the introductory valet period and throughout the Project operations to strike a balance between demand and visitor satisfaction. Fortunately, because of the lack of on-street parking and access restrictions in the adjacent area, spillover into adjacent neighborhoods is not feasible given the security of gated communities and resort properties. With the implementation of the recommended parking management strategies, Project parking demand is expected to be accommodated within the proposed Project parking supply.



Appendix:

Shared Parking Calculations

Table A-1: Paradise Cove at Ko Olina Commerical Shared Parking Analysis

Shared Parking Demand Summary																		
Peak Month: DECEMBER -- Peak Period: 7 PM, WEEKDAY																		
Land Use	Project Data		Weekday					Weekend					Weekday			Weekend		
			Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Peak Hr Adj	Peak Mo Adj	Estimated Parking Demand	Peak Hr Adj	Peak Mo Adj	Estimated Parking Demand
	Quantity	Unit											7 PM	December		7 PM	December	
Retail																		
Retail (<400 ksf)	24,392	sf GLA	2.90	60%	94%	1.64	ksf GLA	3.20	60%	94%	1.81	ksf GLA	90%	100%	36	60%	100%	27
Employee			0.70	100%	100%	0.70		0.80	100%	100%	0.80		100%	100%	18	80%	100%	16
Food and Beverage																		
Fine/Casual Dining	13,400	sf GLA	13.25	60%	100%	7.93	ksf GLA	15.25	60%	100%	9.12	ksf GLA	100%	100%	107	95%	100%	117
Employee			2.25	100%	100%	2.25		2.50	100%	100%	2.50		100%	100%	31	100%	100%	34
Family Restaurant	7,753	sf GLA	15.25	60%	100%	9.12	ksf GLA	15.00	60%	100%	8.98	ksf GLA	80%	100%	57	70%	100%	49
Employee			2.15	100%	100%	2.15		2.10	100%	100%	2.10		95%	100%	16	95%	100%	16
Fast Casual/Fast Food	5,436	sf GLA	12.40	60%	74%	5.47	ksf GLA	12.70	60%	74%	5.65	ksf GLA	80%	96%	23	80%	96%	24
Employee			2.00	100%	100%	2.00		2.00	100%	100%	2.00		90%	100%	10	90%	100%	10
Bar/Lounge/Night Club	907	sf GLA	15.25	60%	100%	9.12	ksf GLA	17.50	60%	100%	10.47	ksf GLA	50%	96%	4	50%	96%	5
Employee			1.25	100%	100%	1.25		1.50	100%	100%	1.50		100%	100%	2	100%	100%	2
Entertainment and Institutions																		
Hotel and Residential																		
Office																		
Additional Land Uses																		
														Customer/Visitor	227	Customer		221
														Employee/Resident	77	Employee/Resident		78
														Reserved	-	Reserved		-
														Total	304	Total		299

Appendix F

The Cove Redevelopment Preliminary Engineering Report

The Cove Redevelopment

91-1089 Ali'inui Drive, Kapolei, O'ahu

Tax Map Key: (1) 9-1-057:027

Preliminary Engineering Report

Prepared for:

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Prepared by:

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November 2024

1 Introduction

1.1 Project Background and Description

Paradise Cove, owned by Campbell Hawaii Investor LLC, offers tourist-oriented cultural experiences and a nightly lū'au on a 10.85-acre Commercial-zoned property located at 92-1089 Ali'inui Drive in Kapolei, O'ahu. **See Figures 1, Vicinity Map, Figure 2, Location Map, and Figure 3, Existing Conditions.**

The proposed redevelopment ("Project") will demolish and remove twenty-two existing structures and replace them with new structures of similar uses. Concept level proposed new structures are depicted in **Figure 4, Concept Site & Utility Plan.**

1.2 Purpose

The purpose of this Preliminary Engineering Report is to evaluate the existing and proposed civil infrastructure including roads, water, sewer and drainage conditions at the Project.

1.3 Site Location and Surroundings

The Project is located along the shoreline at parcel tax map key (TMK) (1) 9-1-057:027) in the Honouliuli ahupua'a of the 'Ewa District on the island of O'ahu. It is bounded by Ali'inui Drive to the east (mauka), the ocean on the west, to the north by an undeveloped, 5.5-acre Preservation-zoned parcel owned by Ko 'Olina Development LLC, and on the south by a 10.8-acre parcel containing the Lanikūhonua Cultural Institute. The project is zoned Neighborhood Business District (B-1) and is within the State's Urban Use District. The parcel is within the Special Management Area (SMA), and an SMA Use Permit will be required for the Project.

2 Roads and Access

2.1 Existing Conditions

2.1.1 Vehicular Access

There are two main vehicle access points to the Project provided via Ali'inui Drive, a private roadway along the mauka edge of the property. Ali'inui Drive has a 90-foot right-of-way and a posted speed limit of 25 miles per hour. Ali'inui Drive is owned and maintained by Ko 'Olina Development Company and consists of two paved vehicular travel lanes in each direction separated by a vegetated median strip, concrete curbs, gutters and sidewalks.

2.1.2 Pedestrian Access

Concrete sidewalks are provided on both sides of Ali'inui Drive fronting the property.

2.1.3 Parking

Land use entitlements for the Cove property dating back to the 1990's document 151 vehicle stalls and 30 bus stalls on the north and east parking lots. The adjacent off-site parking lot on the Lanikuhonua property includes 412 parking stalls used by visitors of Lanikuhonua, the Cove

property, and public beachgoers. Of the 412 parking stalls, 203 are included in the easement tied specifically to the Cove property (DPP File No.'s 94/VAR-70 and 97/CUP1-69. Therefore, a total of 354 vehicle stalls and 30 bus stalls are documented as serving the Cove property.

Currently are two onsite parking lots that are accessible from Ali'inui Drive. A total of 69 parking stalls, 6 accessible stalls and 31 bus stalls are available for attendees within the Paradise Cove Site. Street parking is not allowed along Ali'inui Drive.

2.2 Proposed Roads, Access and Parking

Vehicular access to onsite parking will continue to be provided along Ali'inui Drive via the two existing access points.

Onsite parking will consist of a mix of vehicle stalls, accessible stalls and bus stalls generally located along the mauka edge of the property. The proposed site plan maintains the existing parking lots. The parking lot along Ali'inui drive will consist of eight bus stalls, 78 vehicle stalls, and five accessible stalls. The parking lot at the northern end of the site will provide 115 parking spaces and four handicap stalls. The agreement regarding use of the Lanikūhonua parking lot will remain in effect.

3 Water Infrastructure

3.1 Existing Conditions

3.1.1 Water System

Potable water service is provided from a 12-inch diameter Board of Water Supply (BWS) main in Ali'inui Drive. A 2-inch diameter lateral services the north portion of site and a second, 2-1/2-inch diameter lateral conveys water to the south end of the site.

According to BWS, there are five water meters that currently serve the existing site (**Table 1 - Existing Meter Information**):

Table 1 - Existing Meter Information			
Meter Number	Meter Size; Type	P/ID number	Average Daily Flow
98060120	1.5"; Domestic	3330060983	4,500 gpd
94070086	2"; Domestic	7204026459	9,000 gpd
02600954	1.5"; Irrigation	1626490277	--
13060163	1.5"; Irrigation	3793213808	--
3746624	8"; Fire	7627677333	--

Fire protection for the existing site is provided by three offsite fire hydrants along Ali'inui Drive (L4578, L4579, L4580) and an 8-inch diameter pipe near the north end of the site, which feeds building sprinkler systems and four onsite fire hydrants.

3.1.2 Existing Water Demand

According to BWS records, the existing average daily water demand is 13,500 gallons per day (gpd).

3.1.3 Pressure and Flow Data

Although BWS has suspended fire flow tests on fire hydrants as a water conservation measure, BWS reports that hydrant L4578 has a static pressure of 84 psi and that their hydraulic model indicates the hydrant can flow 1,000 gallons per minute (gpm) with a residual pressure of 71 psi. The pressures provided appear to be in the range that is favorable to the proposed development.

3.2 Proposed Water System

3.2.1 Water Availability

The Board of Water Supply (BWS) verified water availability in a letter dated July 3, 2024¹ and the adequacy of the existing potable water system to provide off-site fire protection and the anticipated domestic demands of the proposed development. It was clarified that no increase in non-potable water demand for the project was anticipated at this time, but water conservation measures were still required for non-potable irrigation systems. The letter(s) are attached for reference in **Appendix A**.

3.2.2 Water Demand

The projected water demand for the proposed Paradise Cove project have been separated in the table below (**Table 2 - Proposed Water Demand**):

Table 2 - Proposed Water Demand						
Use Description	Demand Rate		Area, sf	Qty	Units	Potable Demand, gpd
	Qty	Units				
PERFORMING ARTS VENUE & ASSOCIATED ACTIVITIES						
Makai Amphitheater	3,000	gpd/acre	17,000	0.39	acre	1,171
Pre-show area	3,000	gpd/acre	30,000	0.69	acre	2,066
Pre-show bars	3,000	gpd/acre	600	0.01	acre	41
Event Kitchen/Back of House	3,000	gpd/acre	9,120	0.21	acre	628
RETAIL & ASSOCIATED ACTIVITIES						
Building 2, 3, 4, & 7	3,000	gpd/acre	26,220	0.60	acre	1,806

¹ In its comments on the EISPN, BWS verified water availability in a letter dated July 28, 2021. At the time of this letter, BWS initially understood that water would need to be coordinated with the Ko Olina Community Association. However, further coordination with BWS following the EISPN publication clarified that the Project may seek review and approval directly from the agency. This understanding is reflected in BWS' most recent comments on the Draft EIS.

Table 2 - Proposed Water Demand						
Use Description	Demand Rate		Area, sf	Qty	Units	Potable Demand, gpd
	Qty	Units				
RESTAURANTS						
Building 5	60	gpd/seat	6,240	213	seat	12,780
Building 6	60	gpd/seat	9,000	363	seat	21,780
Building 1	60	gpd/seat	15,000	610	seat	36,600
COMMON AREAS						
Building 8 – Management Office Support	3,000	gpd/acre	2,880	0.07	acre	198
Entry Portal	3,000	gpd/acre	1,400	0.03	acre	96
Public Restroom Use	6	gpd/capita	--	400	Capita	2,400
Total water flow, gallons per day (gpd) =						79,567
Max Daily Flow, Gallons per Day (gpd) =						119,350

The water demand for restaurant and food and beverage (F&B) retail was estimated based on the State of Hawaii Administrative Rules (HAR) 11-62 Wastewater Systems, Appendix D, Table I, 50 gpd/seat plus 20% = 60 gpd/seat. Dry retail water consumption is based on BWS standards of 3,000 gpd/acre = 69 gpd/1000 sf. Restrooms within the Cove are anticipated to remain open for public use. The total domestic water demand is 79,567 gpd with the maximum daily flow being 119,350 gpd. This is an increase of 66,067 gpd. There are no significant changes anticipated in regards to the proposed non-potable water use from the existing or current development.

The existing 1-1/2-inch and 2-inch meters have rated maximum flows of 100 and 160 gpm, respectively. Meter adequacy needs to be verified during design however a new upsized meter will most likely be needed for the proposed project.

3.2.3 Fire Protection

The Water System Standards requires a fire flow of 2,000 gpm for two (2) hours for commercial developments, with hydrants spaced not less than 250 feet apart.

Due to the general similarity between the character of the existing and proposed development it is anticipated that offsite and onsite fire protection is adequate to accommodate the project, and onsite fire protection improvements are not needed. The locations of the existing onsite hydrants and fire access to the proposed buildings will be verified and reviewed for coverage adequacy during the design stage.

4 Wastewater

4.1 Existing Wastewater Infrastructure

4.1.1 Existing Wastewater System

The project site is served by two, 8-inch diameter sewer laterals connected to an 8-inch diameter municipal wastewater collection system main in Ali'inui Drive. An additional 8-inch diameter sewer main exits the site through the southeast boundary, into the Lanikūhonua site.

All sewer mains convey wastewater to the West Beach Resort #1 Pump Station. This pump station is within the Ko 'Olina resort and is owned by the City and County of Honolulu (CCH). This pump station conveys wastewater to the CCH Honouliuli Wastewater Treatment Plant.

According to the 2003 Kapolei Interceptor Sewer report done by Community Planning, parcels within the Ko 'Olina area were assigned wastewater flow capacities based on each parcel's size and land use. Flows already established from existing project sewer master plans at the time were also considered and tabulated in this report. Per the Kapolei Interceptor Sewer report, the Paradise Cove parcel was assigned 25,000 gallons per day based on 1,000 total capita at 25 gallons per day flow rate.

In accordance with the Kapolei Interceptor Sewer Assessment Agreement, Kapolei Properties LLC, an affiliate of the James Campbell Company LLC, exercised its assignment right under the agreement to reassign 52,000 gpd of unused and unneeded sewer allocation from another nearby parcel. Combined with the existing allocation of 25,000 gpd, the updated sewer allocation for the Cove now totals 77,000 gpd. Subsequently, a Sewer Connection Application for the project was submitted and approved by the City on November 14, 2024.

The Department of Health (DOH) has stated there are no cesspools or Individual Wastewater Systems within the Project TMK.

4.1.2 Existing Wastewater Flow

The estimated existing wastewater flow has been estimated based on the total water demand reported by BWS. It is assumed that the wastewater flow is 80% of the water demand, see **Table 3 - Existing Wastewater Flow**.

Table 3 - Existing Wastewater Flow				
Description	Unit	Unit of Measurement	Average Water (gpd)	Average Wastewater (gpd)
EXISTING USE				
Meter 98060120 (1-1/2" domestic)	1.00	LS	4,500	3,600
Meter 94070086 (2" domestic)	1.00	LS	9,000	7,200
Total Wastewater flow, gallons per day (gpd) = 10,800				

4.2 Proposed Wastewater Infrastructure

4.2.1 Design Parameters

Wastewater from the Project will continue to be disposed via the two existing sewer laterals.

Onsite wastewater infrastructure will be designed to meet the standards of Chapters 1 and 2 of the City and County of Honolulu, Department of Environmental Services, "Wastewater Design Standards" and the relevant sections of Chapter 14, Revised Ordinances of Honolulu.

4.2.2 Wastewater Flow Projection

Anticipated building uses, floor areas, seat count, number of employees and patron counts may be used to estimate wastewater flow, with load factors from Table I of HAR 11-62, Appendix D. The following flow rates were used to calculate the total wastewater flow, which is shown in **Table 4 - Proposed Wastewater Flow**:

- 20 gpd/employee,
- 50 gpd /seat in restaurants (a single seating is assumed),
- 5 gpd /person for retail customers,
- 5 gpd /person for theater space,
- 1 employee per 400 square feet (slightly higher than the minimum numbers listed for the Building Code occupancy) and
- 30 sf/seat restaurant seat density, equal to the customer load.

Table 4 - Proposed Wastewater Flow							
Building Name	Area, sf	# Empl.	# Cust.	Wastewater Generation Rate		Wastewater Flow	
				Per Empl.	Per Cust.	Empl.	Cust.
PERFORMING ARTS VENUE/RETAIL/ASSOCIATED ACTIVITIES							
Makai Amphitheater	17,000	43	650	20	5	860	3,250
Pre-show area	30,000	75	0	20	10	1,500	0
Pre-show bars	600	2	0	20	10	40	0
Event Kitchen/Back of House	9,120	23	0	20	10	460	0
PERFORMING ARTS VENUE/RETAIL/ASSOCIATED ACTIVITIES							
Buildings 2, 3, 4, & 7	26,220	66	213	20	5	1,320	1,065
RESTAURANTS							
Building 5	6,240	16	208	20	50	320	10,400
Building 6	9,000	23	300	20	50	460	15,000

Table 4 - Proposed Wastewater Flow							
Building Name	Area, sf	# Empl.	# Cust.	Wastewater Generation Rate		Wastewater Flow	
				Per Empl.	Per Cust.	Empl.	Cust.
Building 1	15,000	38	610	20	50	760	25,000
COMMON AREAS							
Building 8 – Management Office Support	2,880	7	6	20	10	140	60
Entry Portal	1,400	4	0	20	10	80	0
Public Restroom Use	300	0	400	20	10	0	4,000
Total wastewater flow (gpd) =							64,715

Based on the tabulated values above, the future wastewater flow is estimated at 64,715 gpd and falls within the allocated 77,000 gpd wastewater flow capacity previously discussed. The project can also consider several design factors to reduce the projected wastewater demand flows such as:

- Implement black water systems in accordance with State and City requirements
- Consider restaurant occupancy rate factor (current assumption is 100% restaurant occupancy rate)
- Establish restaurant dining times (breakfast, lunch, & dinner versus lunch & dinner only)
- Reduce restaurant seat density factor (i.e. increase square footage per seat)
- Reduce restaurant size
- Consider low flow fixtures to reduce wastewater generation rates (reduction rates as low as 40%)

4.2.3 Grease Interceptors

The Uniform Plumbing Code (UPC) and the City require grease interceptors at establishments where grease may be introduced into the drainage or sewage system.

The introduction of Fats, Oils and Greases (FOG) into a sewer system can lead to detrimental effects arising from higher Biochemical Oxygen Demand (BOD) levels in wastewater effluent, increased odor complaints due to decomposition of accumulated grease, and sewage spills caused by clogged pipes, pumps or disposal fields. These potential problems can be mitigated by installing grease interceptors that utilize settling chambers and baffled pipe connections to separate FOG from wastewater before it enters the sewer system.

Grease interceptors will be operated and maintained where FOG is anticipated to be generated, such as where kitchens are planned.

5 Drainage Infrastructure

5.1 Existing Conditions

5.1.1 Project Area Soils

Based on the United States Department of Agriculture (USDA) Web Soil Survey, several soil types are present onsite, **see Figure 5: Soils Map**.

The soil type occurring over the largest portion of the site is type KmA, Keaau clay, 0 to 2 percent slopes, described in the Web Soil Survey as derived from alluvium and composed mostly of clay, underlain by cemented material and sand. This soil is poorly drained and experiences occasional ponding and flooding. KmA soils are classified in Hydrologic Soil Group C.

CR, Coral Outcrop, occurs along the shoreline and beach. This soil type is described as coral rock at the ground surface, having very low available water capacity, excessively drained, with slopes ranging from 0 to 25 percent. The frequency of flooding is rare.

Soil type KmbA, Keaau clay, saline, 0 to 2 percent slopes, also occurs in the mauka center area of the site. It is described as clay overlying cemented material and sand. It is poorly drained but has only occasional to no ponding or flooding. This type is classified as Hydrologic Soil Group C.

A geotechnical study including percolation tests will be conducted during the design phase to assess soil percolation rates for onsite storm runoff disposal via infiltration and/or percolation.

5.1.2 Topography and Drainage

A topographic survey indicates elevations at the site range from approximately 19 feet at the highest elevation within the project site, to Mean Sea Level at the shoreline. The average overall slope is about 4%.

Generally, stormwater runoff from the parking lot along the north boundary of the site (Basin 1) and the lot parallel to Ali'inui Drive (Basin 2) is collected by catch basins and routed to the Ali'inui Drive storm drainage system that is privately maintained. The Ali'inui Drive storm drainage system eventually discharges to the ocean via an outlet structure. Stormwater runoff from the remainder of the site (Basin 3) generally flows overland to the ocean.

Existing runoff flows were calculated using the Rational Method as described in the City's "Storm Drainage Standards" August 2017 and are tabulated in **Table 5 - Existing Hydrology Conditions**.

Table 5 - Existing Hydrology Conditions					
Tributary Area	Discharge Point	C Value	1 ₁₀ (in/hr)	Area (acres)	Flow, Q (cfs)
1	Catch Basin	0.80	5.35	1.82	7.75
2	Drain Inlet	0.60	4.90	1.82	5.36
3	Catch Basin	0.81	5.14	1.58	6.59
4	Ocean	0.60	4.25	4.36	11.12

Table 5 - Existing Hydrology Conditions					
Tributary Area	Discharge Point	C Value	1 ₁₀ (in/hr)	Area (acres)	Flow, Q (cfs)
5	Adjacent property	0.60	4.83	0.90	2.61
Total Existing Condition Runoff =					33.43

5.1.3 Flood Hazards

The project site is located within Flood Zone VE, described on the Flood Hazard Assessment Report downloaded from the State of Hawaii, Department of Land and Natural Resources (DLNR) website www.hawaiiinfip.org as coastal flood zone with velocity hazard (wave action). The base flood elevation (BFE) is 12 feet. Inland of Zone VE, the property lies in Zone D “Unstudied areas where flood hazards are undetermined, but flooding is possible.” See **Figure 6: Flood Hazard Assessment Report**.

The flood hazard designations are also shown in **Figure 7 “National Flood Hazard Layer FIRMette”** although the flood depth over the south portion of the site is reduced from 12 to 8 feet.

5.1.4 Sea Level Rise

A portion of the site along the shoreline is within the year 2100 sea level rise predicted by the Hawaii Climate Change Mitigation and Adaptation Commission, 2021, as shown in **Figure 8: Year 2100 Sea Level Rise**. Proposed buildings near the shoreline will need to be constructed as post-and-beam, to accommodate possible high wave wash.

5.2 Proposed Grading and Drainage Conditions

5.2.1 Grading and Erosion Control

The existing topography will be altered for construction of the proposed improvements and a grading permit and bond will be required by the CCH, Department of Planning and Permitting (DPP). **Figure 9: Concept Grading & Drainage Plan** illustrates the proposed grading of the site.

Erosion control best management practices (BMP) will comply with the State, County and Federal regulations during all phases of construction. Applicable construction BMP's that may be used include phasing of construction activities, temporary silt fencing, screens, and filter socks, installing stabilized ground cover, gravel construction ingress/egress, inlet protection, and providing adequate water sources at the work site. A National Pollutant Discharge Elimination System (NPDES) general permit coverage authorizing discharges of storm water associated with construction activities will be required for the project from the DOH, Environmental Management Division, Clean Water Branch.

5.2.2 Drainage

Concept level redevelopment site grading defines three approximately equally sized drainage areas. Runoff from two impervious parking lots will continue to be collected at catch basins and discharge to the storm drainage system in Ali'inui Drive. Runoff from the third basin will sheet flow to the ocean. Future runoff flows calculated using the Rational Method as described in the City's

“Storm Drainage Standards” August 2017 are tabulated in **Table 6 - Proposed Hydrology Conditions**.

Table 6 - Proposed Hydrology Conditions					
Tributary Area	Discharge Point	C Value	1₁₀ (in/hr)	Area (acres)	Flow, Q (cfs)
1	Catch Basin	0.76	5.19	1.15	5.09
2	Catch Basin	0.59	5.14	1.58	7.32
3	Ocean	0.70	4.06	7.76	20.34
Total Future Condition Runoff =					32.75

It is seen that the total runoff decreases in the developed condition.

5.2.3 Low Impact Development

The total disturbed area will be greater than one acre and the project will be required to comply with the City’s drainage and storm water quality standards which include BMPs and Low Impact Development (LID) measures located throughout the site where practical and feasible to improve storm water runoff quality and minimize the effects on receiving waters. Stormwater runoff directed to BMP’s and LID measures promotes onsite percolation into the ground and filtration of contaminants prior to the runoff exiting the project property.

The project will maximize pervious and landscaped areas within the site including replacing existing impervious areas or pavements with landscape planters. LID measures such as bioswales, bioretention basins, planter boxes, sand filters, underground infiltration systems and permeable pavement will be considered and located where appropriate to treat the runoff generated from the project site, reduce direct outflow from the site and mitigate peak flows. Based on preliminary information, infiltration may be suitable for the site if a permeable coral layer is reached. The project’s implementation of LID measures and its stormwater management strategies will provide a benefit to downstream environments compared to existing conditions.

5.2.4 Sea Level Rise

Site strategies to account for sea level rise include:

- Raise site elevations around proposed buildings to 1-foot higher than the 3.2-foot sea level rise exposure area (includes passive flooding, annual high wave flooding, and coastal erosion).
- Grade the site to include green stormwater infrastructure to promote infiltration of surface runoff and lengthen the time of concentration of surface and coastal water runoff.
- Buildings will be set back 60-feet from the coastline. Areas along the coastline will be vegetated to function as a vegetated buffer.
- The site will be graded to allow runoff and coastal flooding to flow through the site.

6 Electrical and Telecommunications

6.1 Existing Services

Existing power and telephone service is provided from Ali'inui Drive. Within the site, there are two Hawaiian Electric Company (HECo) transformers for the north and south end of the site. Electrical services are provided throughout the site.

Onsite telecommunication services are provided from the vault located at the southern end of the site. The mauka buildings near the parking lot currently have service while the other structures throughout the site may not have service. Further research can be done to determine the extent of the current telecom service.

6.2 Proposed Services

The electrical and telecommunication systems shall be designed and coordinated with HECo for electrical services and Spectrum or Hawaiian Telcom for telecommunication services.

Based on the existing service, all electrical service will be provided from Ali'inui Drive and may utilize the existing onsite electrical system. The capacity of the existing transformers is unknown and necessary upgrades will be determined during design.

It is anticipated that nearly all proposed structures will need to have telecommunication services. Upgrades to the existing telecommunication service may be required to meet the proposed level of demand and will be determined during design.

APPENDIX A

BOARD OF WATER SUPPLY

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



July 28, 2021

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

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

Ms. Tracy Camuso, AICP
Group 70 International, Inc.
111 South King Street, Suite 170
Honolulu, Hawaii 96813



Dear Ms. Camuso:

Subject: Your Letter Dated June 23, 2021 Requesting Comments on the
Environmental Impact Statement Preparation Notice for The Cove at
Ko Olina Redevelopment Project in Kapolei - Tax Map Key: 9-1-057: 027

Thank you for your letter regarding the proposed redevelopment project at The Cove at Ko Olina.

The parcel has an existing nonpotable water meter. However, as of the submittal of this Environmental Impact Statement Preparation Notice, the Barbers Point Nonpotable Wells pumping exceeds State Permitted Use and could be in violation of the State Water Use Permit. We understand that Ko Olina Resort is planning an additional nonpotable well to accommodate future irrigation demands, however, the exploratory well has not been constructed to date. A commitment and schedule for the construction and connection of the nonpotable well is required before the Board of Water Supply (BWS) will approve building permits for the Ko Olina Resort. BWS Rules & Regulations require the use of nonpotable water for irrigation of large landscaped areas, if available. The developer of this project is required to coordinate with Ko Olina Resort for the development of the new nonpotable source. A source development plan should be submitted for BWS review. Confirmation on the adequacy of the wells yield and chloride content are also required before building permits will be approved.

The existing potable water system is adequate to provide off-site fire protection and accommodate the domestic demands of the proposed development. However, please be advised that this information is based upon current data, and therefore, the BWS 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.

Ms. Tracy Camuso
July 28, 2021
Page 2

The developer will need to obtain a potable water allocation from the Ko Olina Resort and Marina. A copy of the letter should be submitted to the BWS for documentation.

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

Water conservation measures are required for all proposed developments. These measures include the selection of Water Sense labeled ultra-low-flow plumbing fixtures and toilets, utilization of nonpotable water for irrigation using rain catchment and chiller/air handler condensate, cooling tower conductivity meters and water softening recycling systems, drought and salt tolerant plants, and xeriscaping principles in all landscaping. We recommend installing efficient irrigation systems, such as drip irrigation, and incorporating moisture sensors to avoid operating the irrigation system in the rain and/or if the ground has adequate moisture.

The proposed project is subject to BWS Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit Applications.

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

cc: Ko Olina Resort

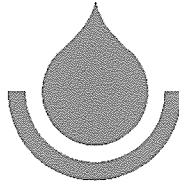
**BOARD OF WATER SUPPLY
KA 'OIHANA WAI
CITY AND COUNTY OF HONOLULU**

630 SOUTH BERETANIA STREET • HONOLULU, HAWAII 96843
Phone: (808) 748-5000 • www.boardofwatersupply.com

RICK BLANGIARDI
MAYOR
MEIA

ERNEST Y. W. LAU, P.E.
MANAGER AND CHIEF ENGINEER
MANAKIA A ME KAHU WILIKI

ERWIN KAWATA
DEPUTY MANAGER
HOPE MANAKIA



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July 3, 2024

RECEIVED

JUL 05 2024

G70

Ms. Tracy Camuso, AICP
G70
111 South King Street
Honolulu, Hawaii 96813

Dear Ms. Camuso:

Subject: Your Letter Dated May 8, 2024, Requesting Comments on the
Draft Environmental Impact Statement for The Cove at Ko Olina
Redevelopment Project in Kapolei – Tax Map Key: 9-1-057: 027

Thank you for your letter regarding the proposed redevelopment project at The Cove at Ko Olina.

The existing potable water system is adequate to accommodate the proposed development. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply (BWS) 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, 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.

BWS understands that the proposed development will not require additional nonpotable water from the BWS Barbers Point nonpotable water system. However, water conservation measures are still required for nonpotable irrigation systems. The proposed project is subject to BWS Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit Applications.

Ms. Tracy Camuso

July 3, 2024



Page 2

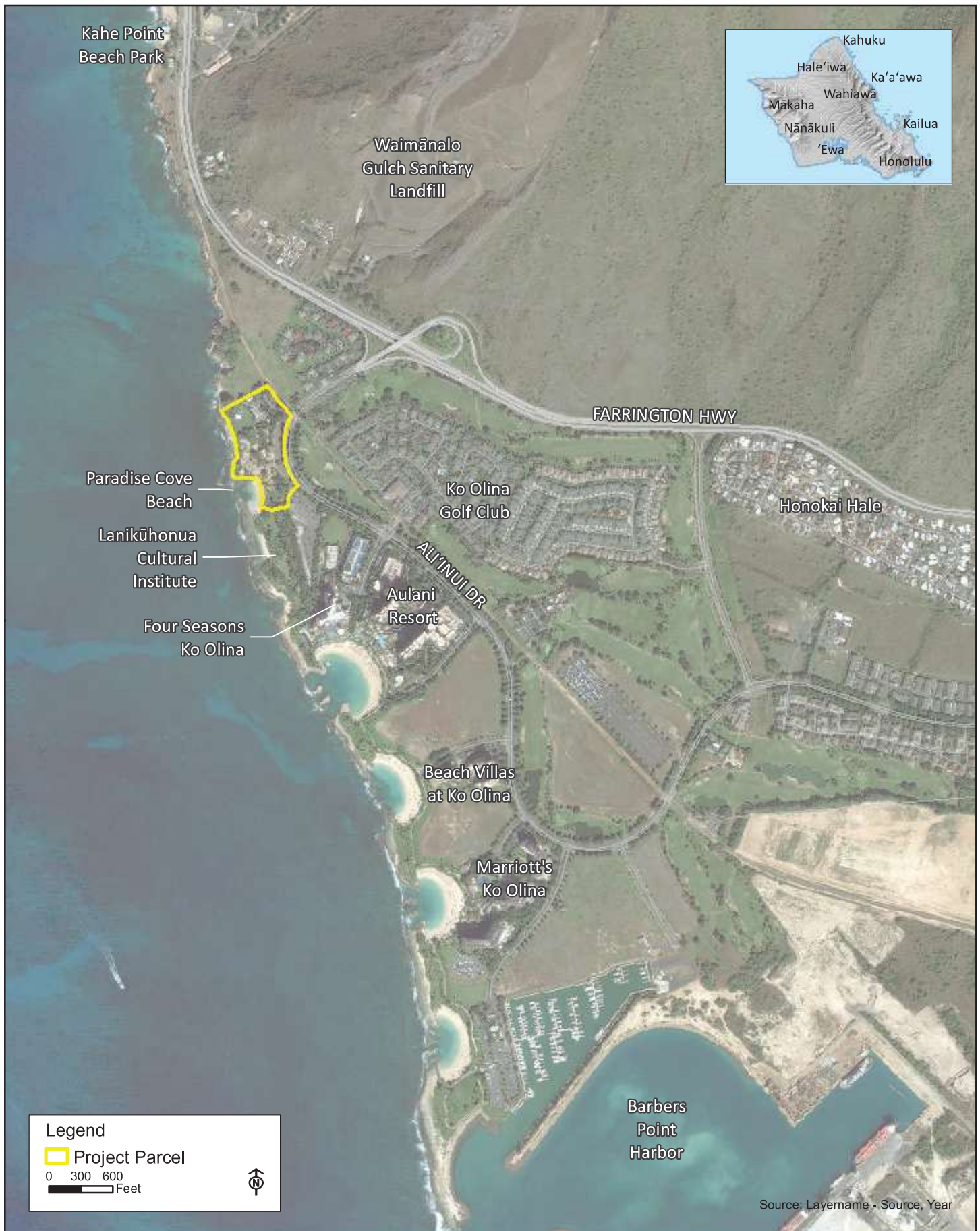
The construction drawings should be submitted for our approval, and the construction schedule should be coordinated to minimize impact to the water system.

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 Daniel Koge, Project Review Branch of our Water Resources Division at (808) 748-5444.

Very truly yours,


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




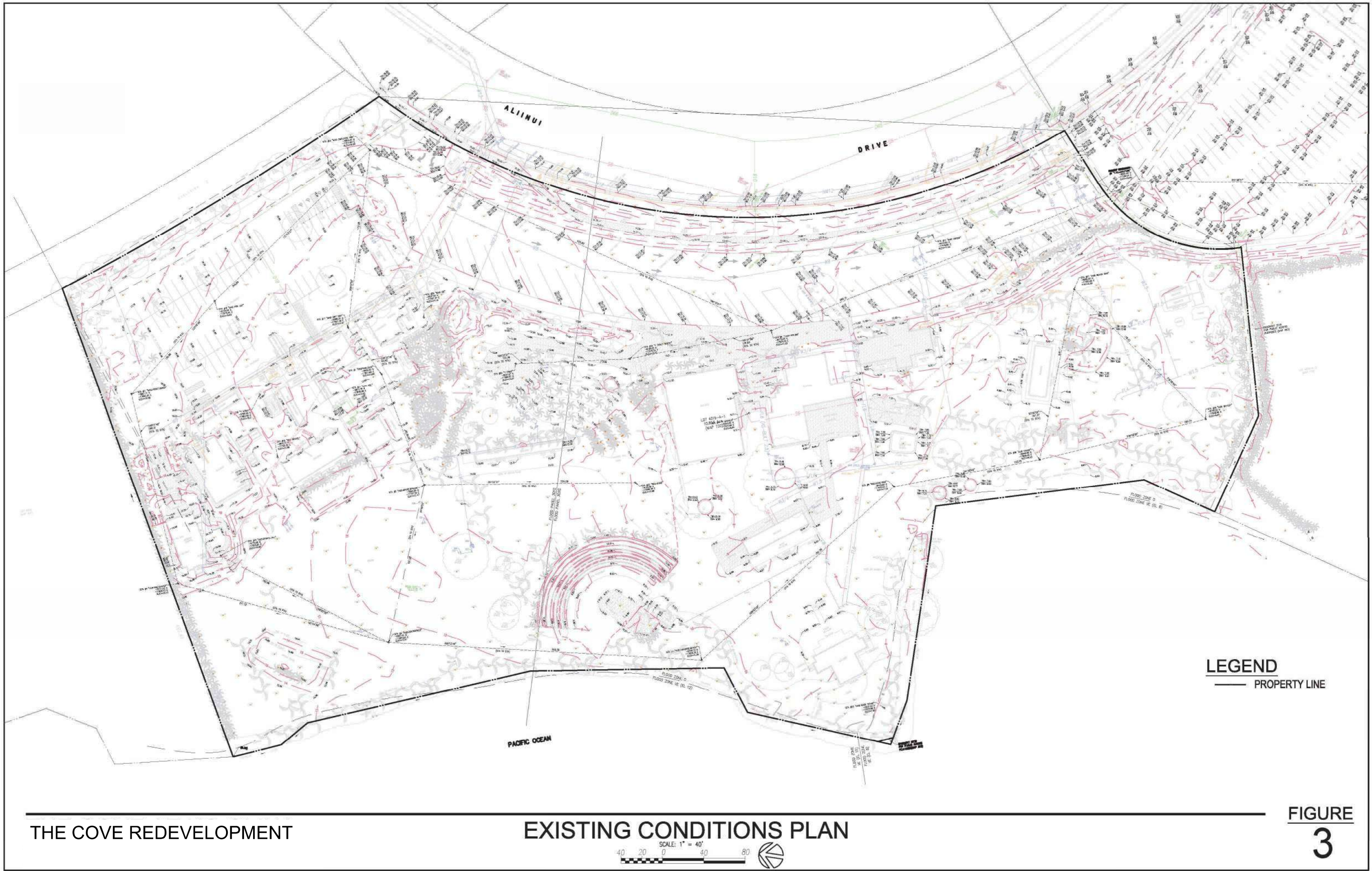
THE COVE REDEVELOPMENT

FIGURE 1 - VICINITY MAP



THE COVE REDEVELOPMENT

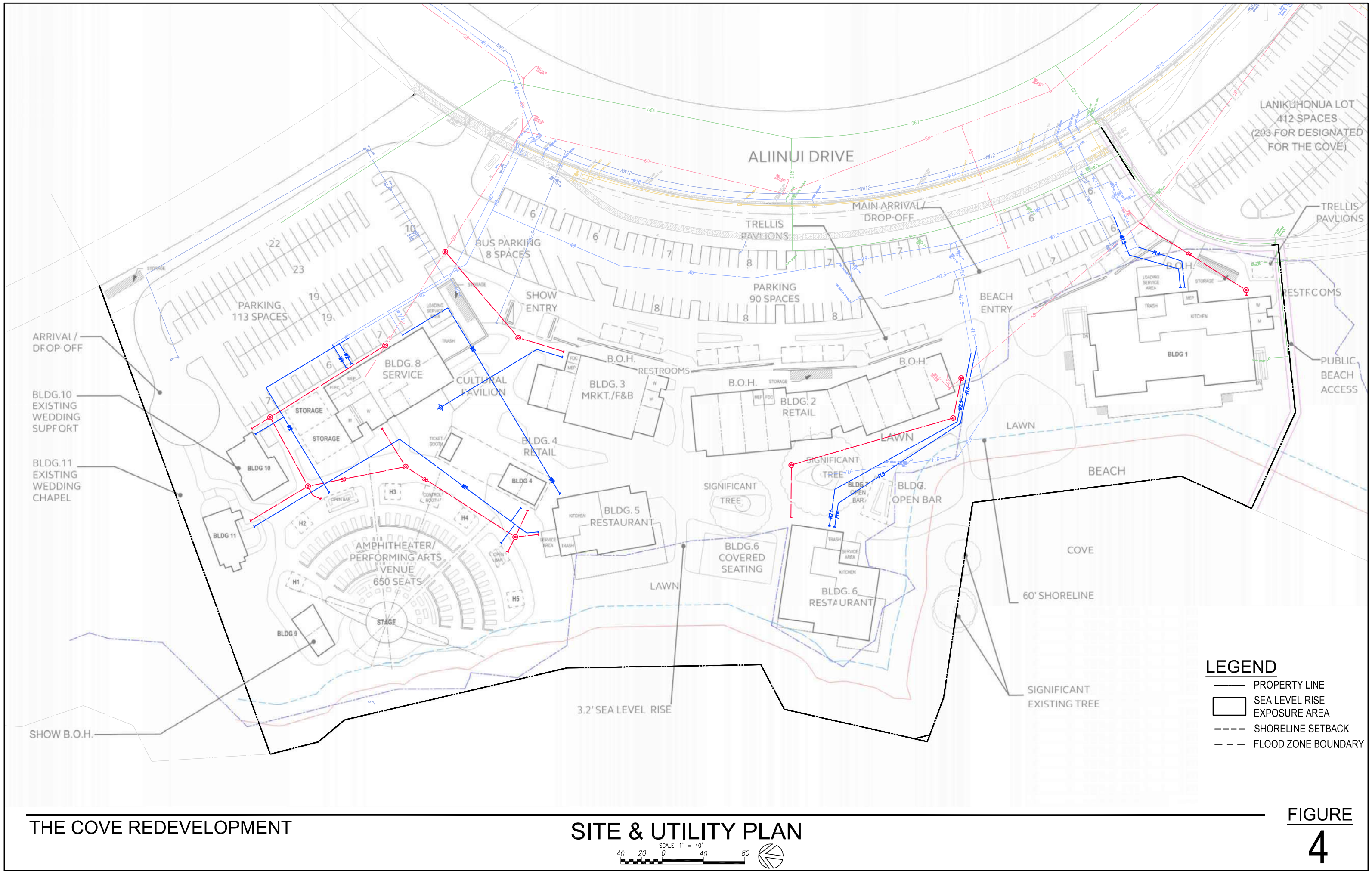
FIGURE 2 - LOCATION MAP

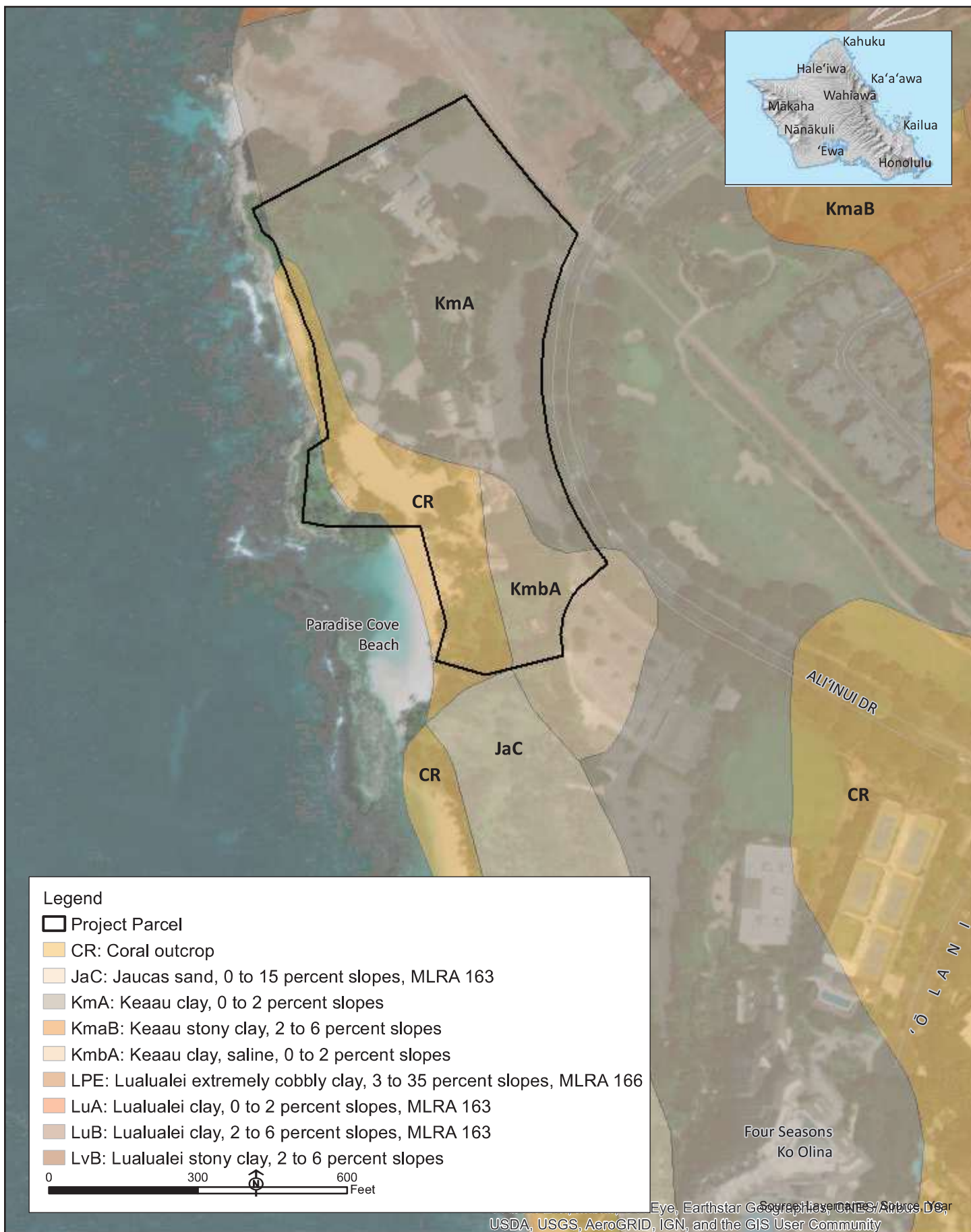


THE COVE REDEVELOPMENT

EXISTING CONDITIONS PLAN

FIGURE
3





THE COVE REDEVELOPMENT

FIGURE 5 - SOILS MAP



Flood Hazard Assessment Report

www.hawaiiinfip.org

Paradise Cove Redevelopmt FIGURE 6

Property Information

COUNTY: HONOLULU
 TMK NO: (1) 9-1-057:027
 WATERSHED: MAKAIWA
 PARCEL ADDRESS: 91-1089 ALIINUI DRIVE
 KAPOLEI, HI 96707

Notes:

Flood Hazard Information

FIRM INDEX DATE: NOVEMBER 05, 2014
 LETTER OF MAP CHANGE(S): NONE
 FEMA FIRM PANEL - EFFECTIVE DATE: 15003C0301G - JANUARY 19, 2011
 15003C0303G - 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.

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

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

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

OTHER FLOOD AREAS

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

National Flood Hazard Layer FIRMette FIGURE 7



158°7'55"W 21°21'3"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
		Cross Sections with 1% Annual Chance Water Surface Elevation
OTHER FEATURES		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
MAP PANELS		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/1/2021 at 9:37 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



THE COVE REDEVELOPMENT

FIGURE 8 - YEAR 2100 SEA LEVEL RISE MAP



Blackwater System Description Memo

Commercial Plumbing Inc.

1812 Colburn Street, Honolulu, HI 96819-3245

License C-13503

Phone (808) 845-4112 • FAX (808) 847-1865

October 04, 2024

To: Matthew Pennaz
Chief Operating Officer
Kobayashi Group

Project: The Cove - Koolina

Subject: Blackwater System Description

The proposed blackwater system for The Cove is intended to recycle water from all onsite plumbing fixtures to R1 level per the requirements of The State of Hawaii Department of Health. The R1 water would be reused on site to flush toilets, urinals and irrigation per 2021 UPC Chapter 16. The blackwater system diverts sewer waste from going into the City sewer system. Blackwater is sewer waste collected from toilets, lavatories, urinals, sinks and waste from kitchens after the grease interceptor. The system collects black water and runs through an initial filtration. From the initial filtration the water is pumped into an aeration tank where microbes can break down the organic material in the waste. After the aeration tank, the solids are separated from the water and stored in a separate tank. The solids will be diluted with process water at Da 2% solution and discharged into the City sewer system. The rest of the water is pumped through 0.04 micron membrane filters and a double dose of ultra violet disinfection which brings the treated water to R1 standard. The R1 water is stored in a separate tank, with a dose of chlorine, and pumped back to the site to supply toilets, urinals and irrigation. The R1 water is distributed through a separate piping system from the potable water. The blackwater system is connected to an emergency power source to keep processing R1 water, keep the microbes alive in the aeration tank and prevent the untreated water from becoming septic. We estimate collecting, processing and reusing 60,000 gallons of blackwater a day.

Mahalo,



Royce Rapozo, PE

Commercial Plumbing Inc.

1812 Colburn Street, Honolulu, HI 96819-3245

License C-13503

Phone (808) 845-4112 • FAX (808) 847-1865

Mechanical Engineer, Commercial Plumbing Inc.

Acoustic Study for The Cove Redevelopment, O‘ahu, Hawai‘i

ACOUSTIC STUDY FOR THE COVE REDEVELOPMENT OAHU, HAWAII

Prepared for:

G70

Prepared by:

**Y. EBISU & ASSOCIATES
1126 12th Avenue, Room 305
Honolulu, Hawaii 96816**

SEPTEMBER 2024

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CHAPTER I. SUMMARY

The existing and future traffic noise levels in the vicinity of the The Cove Redevelopment (or The Project) were evaluated for their potential impact along roadways which service the facility. The changes in future traffic noise levels associated with the project traffic following implementation of the The Cove Redevelopment Plan (see Figure I-1) are anticipated to be very low and range from 0 to 0.4 DNL (Day-Night Sound Level). Due to the very small increases in traffic noise anticipated to result from the project, risks of adverse noise impacts from project traffic noise are considered to be low, and the proposed project should not cause adverse noise impacts along the roadways servicing the project. For these reasons, special traffic noise mitigation measures are not considered necessary.

Risks of adverse noise impacts from entertainment events at the proposed new Amphitheater at The Cove Redevelopment may increase due to the reduced buffer distance to Kai Lani At Ko Olina residents, but the available buffer distance of approximately 718 feet should be adequate to allow the facility to remain within regulatory sound level limits while maintaining current sound system amplification levels. The design of the proposed Amphitheater's sound system will reduce sound spillover so as to not exceed current Luau Show sound levels at Kai Lani At Ko Olina, while maintaining current sound levels in the seated audience areas of the proposed Amphitheater. This design of the proposed Amphitheater's sound system should compensate for the reduced buffer distance between the Luau Show facility and Kai Lani At Ko Olina. Anticipated sound levels during entertainment events at the proposed new Amphitheater are predicted to be lower than existing levels at residents of The Coconut Plantation-Ko Olina and at receptors at the Lanikuhonua Cultural Institute due to increased buffer distances between the new Amphitheater and those locations.

Unavoidable, but temporary, noise impacts may occur during construction of the proposed project, particularly during the site preparation and earth work activities on the project site. Because construction activities are predicted to be audible at neighboring and properties and beyond, the quality of the acoustic environment may be degraded to levels exceeding 60 dBA (A-Weighted decibels) during periods of construction. Mitigation measures to reduce construction noise to inaudible levels will not be practical in all cases, but the use of quiet equipment and compliance with the State Department of Health (DOH) construction noise permit requirements are recommended for use as mitigation measures.



CHAPTER II. NOISE DESCRIPTORS AND THEIR RELATIONSHIP TO LAND USE COMPATIBILITY

The noise descriptor currently used by federal agencies to assess environmental noise is the Day-Night Average Sound Level (DNL or Ldn). This descriptor incorporates a 24-hour average of instantaneous A-Weighted sound levels as read on a standard Sound Level Meter. The maximum A-Weighted sound level occurring while a noise source such as a heavy truck or aircraft is moving past a listener (i.e., the maximum sound level from a "single event") is referred to as the "Lmax value". The mathematical product (or integral) of the instantaneous sound level times the duration of the event is known as the "Sound Exposure Level", or Lse, which is analogous to the energy of the time-varying sound levels associated with a single event.

By definition, the minimum averaging period for the DNL descriptor is 24 hours. Additionally, sound levels which occur during the nighttime hours of 10:00 PM to 7:00 AM are increased by 10 decibels (dB) prior to computing the 24-hour average by the DNL descriptor. Because of the averaging used, DNL values in urbanized areas typically range between 50 and 75 DNL. In comparison, the typical range of intermittent noise events may have maximum Sound Level Meter readings between 75 and 105 dBA. A more complete list of noise descriptors is provided in Appendix B to this report. In Appendix B, the Ldn descriptor symbol is used in place of the DNL descriptor symbol.

Table II-1, extracted from Reference 1, categorizes the various DNL levels of outdoor noise exposure with severity classifications. Table II-2, also extracted from Reference 1, presents the general effects of noise on people in residential use situations. Figure II-1 presents suggested land use compatibility guidelines for residential and nonresidential land uses. A general consensus among federal agencies has developed whereby residential housing development is considered acceptable in areas where exterior noise does not exceed 65 DNL. This value of 65 DNL is used as a federal regulatory threshold for determining the necessity for special noise abatement measures when applications for federal funding assistance are made.

As a general rule, noise levels of 55 DNL or less occur in rural areas, or in areas which are removed from high volume roadways. In urbanized areas which are shielded from high volume streets, DNL levels generally range from 55 to 65 DNL, and are usually controlled by motor vehicle traffic noise. Residences which front major roadways are generally exposed to levels of 65 DNL, and as high as 75 DNL when the roadway is a high speed freeway, such as H-1 Freeway. Due to noise shielding effects from intervening structures, interior lots are usually exposed to 3 to 10 DNL lower noise levels than the front lots which are not shielded from the traffic noise.

For the purposes of determining noise acceptability for funding assistance from federal agencies, an exterior noise level of 65 DNL or lower is considered acceptable. These federal agencies include the Federal Aviation Administration (FAA), Department

TABLE II-1**EXTERIOR NOISE EXPOSURE CLASSIFICATION
(RESIDENTIAL LAND USE)**

NOISE EXPOSURE CLASS	DAY-NIGHT SOUND LEVEL	EQUIVALENT SOUND LEVEL	FEDERAL (1) STANDARD
Minimal Exposure	Not Exceeding 55 DNL	Not Exceeding 55 Leq	Unconditionally Acceptable
Moderate Exposure	Above 55 DNL But Not Above 65 DNL	Above 55 Leq But Not Above 65 Leq	Acceptable(2)
Significant Exposure	Above 65 DNL But Not Above 75 DNL	Above 65 Leq But Not Above 75 Leq	Normally Unacceptable
Severe Exposure	Above 75 DNL	Above 75 Leq	Unacceptable

Notes: (1) Federal Housing Administration, Veterans Administration, Department of Defense, and Department of Transportation.

(2) FHWA uses the Leq instead of the Ldn descriptor. For planning purposes, both are equivalent if: (a) heavy trucks do not exceed 10 percent of total traffic flow in vehicles per 24 hours, and (b) traffic between 10:00 PM and 7:00 AM does not exceed 15 percent of average daily traffic flow in vehicles per 24 hours. The noise mitigation threshold used by FHWA for residences is 67 Leq.

TABLE II-2
EFFECTS OF NOISE ON PEOPLE
(Residential Land Uses Only)

EFFECTS ¹ DAY-NIGHT AVERAGE SOUND LEVEL IN DECIBELS	Hearing Loss	Speech Interference		Annoyance ²	Average Community Reaction ⁴	General Community Attitude Towards Area
	Qualitative Description	Indoor	Outdoor	% of Population Highly Annoyed ³		
		%Sentence Intelligibility	Distance In Meters for 95% Sentence Intelligibility			
75 and above	May Begin to Occur	98%	0.5	37%	Very Severe	Noise is likely to be the most important of all adverse aspects of the community environment.
70	Will Not Likely Occur	99%	0.9	25%	Severe	Noise is one of the most important adverse aspects of the community environment.
65	Will Not Occur	100%	1.5	15%	Significant	Noise is one of the important adverse aspects of the community environment.
60	Will Not Occur	100%	2.0	9%	Moderate to Slight	Noise may be considered an adverse aspect of the community environment.
55 and below	Will Not Occur	100%	3.5	4%		Noise considered no more important than various other environmental factors.

1. "Speech Interference" data are drawn from the following tables in EPA's "Levels Document": Table 3, Fig. D-1, Fig. D-2, Fig. D-3. All other data from National Academy of Science 1977 report "Guidelines for Preparing Environmental Impact Statements on Noise, Report of Working Group 69 on Evaluation of Environmental Impact of Noise."




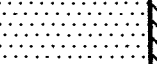


























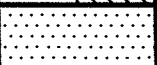


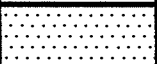



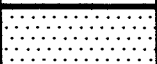




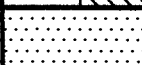






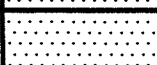
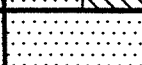



2. Depends on attitudes and other factors.

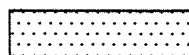
3. The percentages of people reporting annoyance to lesser extents are higher in each case. An unknown small percentage of people will report being "highly annoyed" even in the

quietest surroundings. One reason is the difficulty all people have in integrating annoyance over a very long time.

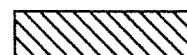
4. Attitudes or other non-acoustic factors can modify this. Noise at low levels can still be an important problem, particularly when it intrudes into a quiet environment.

NOTE: Research implicates noise as a factor producing stress-related health effects such as heart disease, high-blood pressure and stroke, ulcers and other digestive disorders. The relationships between noise and these effects, however, have not as yet been quantified.

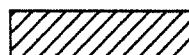
LAND USE	ADJUSTED YEARLY DAY - NIGHT AVERAGE SOUND LEVEL (DNL) IN DECIBELS				
	50	60	70	80	90
Residential - Single Family, Extensive Outdoor Use					
Residential - Multiple Family, Moderate Outdoor Use					
Residential - Multi - Story Limited Outdoor Use					
Hotels, Motels Transient Lodging					
School Classrooms, Libraries, Religious Facilities					
Hospitals, Clinics, Nursing Homes, Health Related Facilities					
Auditoriums, Concert Halls					
Music Shells					
Sports Arenas, Outdoor Spectator Sports					
Neighborhood Parks					
Playgrounds, Golf courses, Riding Stables, Water Rec., Cemeteries					
Office Buildings, Personal Services, Business and Professional					
Commercial - Retail, Movie Theaters, Restaurants					
Commercial - Wholesale, Some Retail, Ind., Mfg., Utilities					
Livestock Farming, Animal Breeding					
Agriculture (Except Livestock)					



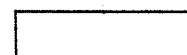
Compatible



Marginally
Compatible



With Insulation
per Section A.4



Incompatible

**LAND USE COMPATIBILITY WITH YEARLY AVERAGE DAY - NIGHT
SOUND LEVEL (DNL) AT A SITE FOR BUILDINGS AS COMMONLY
CONSTRUCTED.**
(Source: American National Standards Institute S12.9 - 1988/Part 5)

**FIGURE
II-1**

of Defense (DOD); Federal Housing Administration, Housing and Urban Development (FHA/HUD), and Veterans Administration (VA). This standard is applied nationally (see Reference 2), including Hawaii.

Because of our open-living conditions, the predominant use of naturally ventilated dwellings, and the relatively low exterior-to-interior sound attenuation afforded by these naturally ventilated structures, an exterior noise level of 65 DNL does not eliminate all risks of noise impacts. Because of these factors, a lower level of 55 DNL is considered as the "Unconditionally Acceptable" (or "Near-Zero Risk") level of exterior noise (see Reference 3). For typical, naturally ventilated structures in Hawaii, an exterior noise level of 55 DNL results in an interior level of approximately 45 DNL, which is considered to be the "Unconditionally Acceptable" (or "Near-Zero Risk") level of interior noise. However, after considering the cost and feasibility of applying the lower level of 55 DNL, government agencies such as FHA/HUD and VA have selected 65 DNL as a more appropriate regulatory standard.

For commercial, industrial, and other non-noise sensitive land uses, exterior noise levels as high as 75 DNL are generally considered acceptable. Exceptions to this occur when naturally ventilated office and other commercial establishments are exposed to exterior levels which exceed 65 DNL.

In the State of Hawaii, the State Department of Health (DOH) regulates noise from on-site activities. State DOH noise regulations are expressed in maximum allowable property line noise limits rather than DNL (see Reference 4). The noise limits apply on all islands of the State, including Hawaii. Although they are not directly comparable to noise criteria expressed in DNL, State DOH noise limits for preservation/residential, apartment/commercial, and agricultural/industrial lands equate to approximately 55, 60, and 76 DNL, respectively. However, the DOH noise regulations apply primarily to fixed machinery sources and not to crowd noise or public address systems.

The sound levels associated with entertainment events at establishments which require liquor licenses, such as may be required for luau dinner shows, are currently regulated by the Honolulu Liquor Commission (see Reference 5). The applicable noise limits are identical to those of the State DOH, and are 60 dBA during the daytime period of 7:00 AM to 10:00 PM, and 50 dBA during the nighttime period of 10:00 PM to 7:00 AM. The Honolulu Liquor Commission noise regulations are not limited to fixed machinery, and may be applied to crowd noise or public address systems.

CHAPTER III. GENERAL STUDY METHODOLOGY

The purposes of this noise study include predicting and evaluating the traffic noise increases associated with motor vehicle traffic to and from the Project following the improvements proposed in The Cove Redevelopment. Additionally, potential noise impacts from the entertainment events at the facility were also evaluated. The scope of the noise study included evaluations of potential noise impacts on existing noise sensitive receptors within the project environs. The Cove Redevelopment Plan replaces the current Luau Stage Show / Dining Area and Imu Amphitheater with a new Amphitheater at the northwest corner of the project. Sound level measurements of the existing entertainment programs at Paradise Cove were obtained to describe existing sound levels in the surrounding community, with predictions of potential sound levels from future entertainment programs following The Cove Redevelopment.

Existing traffic noise levels were measured at two locations in the project environs to provide a basis for developing the project's traffic noise contributions along Farrington Highway and Aliinui Drive, as well as for describing the existing noise environment at noise sensitive locations which are removed from roadway traffic. The locations of the two traffic noise measurement sites, "LOC A" and "LOC B", are shown in Figure I-1. Traffic noise measurements were performed during the AM and PM peak traffic hours in June 2021 on Farrington Highway and in August 2022 along Aliinui Drive. The results of the traffic noise measurements were also compared to calculations of existing traffic noise levels to validate the traffic noise computer model used. These traffic noise measurement results, and their comparisons with computer model predictions are summarized in Table III-1.

Traffic noise calculations for the existing conditions as well as noise predictions for the Year 2026 were performed using the Federal Highway Administration (FHWA) Noise Prediction Model (Reference 6). Traffic data entered into the noise prediction model were: hourly traffic volumes; average vehicle speeds; and estimates of traffic mix. The traffic study for the project (Reference 7), and Hawaii State DOT traffic counts at Ko Olina Interchange along Farrington Highway (Reference 8), were the primary sources of data inputs to the model. For existing and future traffic along Farrington Highway, it was assumed that the PM peak hour $Leq(h)$ was 2.4 dB less than the 24-hour DNL. This assumption was based on computations of the hourly Leq and 24-hour DNL of traffic noise along Farrington Highway at Ko Olina Interchange (see Figure III-1). Along Aliinui Drive, where Paradise Cove and other resort area traffic tends to dominate the PM peak hour traffic volume, it was assumed that the PM peak hour $Leq(h)$ was 1.5 dB less than the 24-hour DNL because of the lower distribution of AM commuter traffic during the nighttime DNL penalty hours prior to 7:00 am.

The predicted increases in traffic noise levels attributable to project related traffic were calculated, and noise impact risks evaluated. The relative contributions of non-project and project related traffic to the total noise levels were also calculated, and an evaluation of possible traffic noise impacts was made.

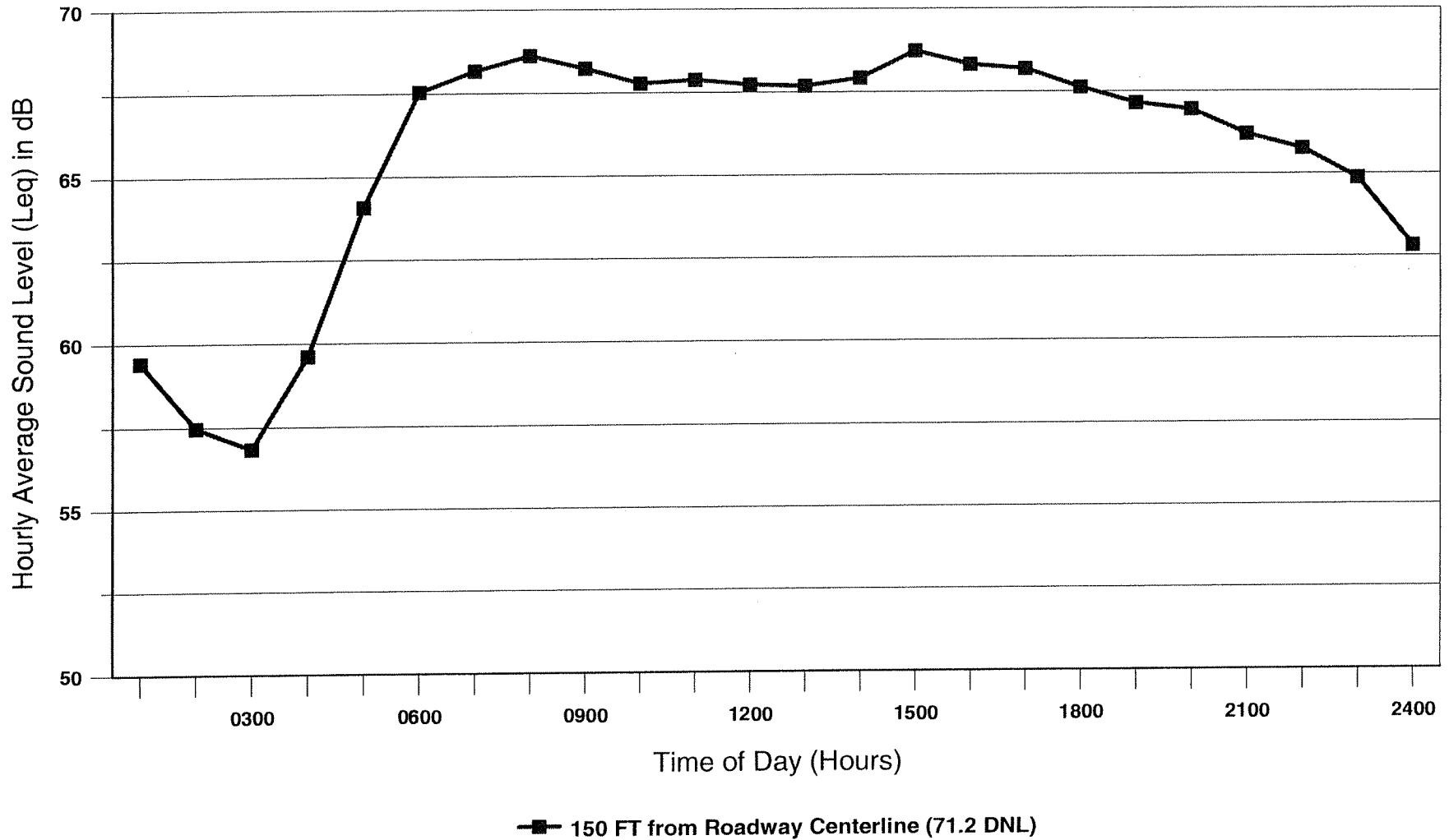
TABLE III-1
TRAFFIC AND BACKGROUND NOISE MEASUREMENT RESULTS

<u>LOCATION</u>	<u>Time of Day</u> <u>(HRS)</u>	<u>Ave. Speed</u> <u>(MPH)</u>	<u>Hourly Traffic Volume</u>			<u>Measured</u> <u>Leq (dB)</u>	<u>Predicted</u> <u>Leq (dB)</u>
			<u>AUTO</u>	<u>M.TRUCK</u>	<u>H.TRUCK</u>		
A. 150 FT from the centerline of Farrington Highway (6/2/21)	1531 TO 1631	55	4,192	33	32	67.5	68.0
A. 150 FT from the centerline of Farrington Highway (6/3/21)	0634 TO 0734	55	3,227	64	74	69.1	68.7
B. 77 FT from the centerline of Aliinui Drive (8/18 /22)	0720 TO 0829	32	970	29	3	63.4 (1)	60.6
B. 77 FT from the centerline of Aliinui Drive (8/18 /22)	1614 TO 1715	32	1,235	12	1	60.1	60.2

Notes:

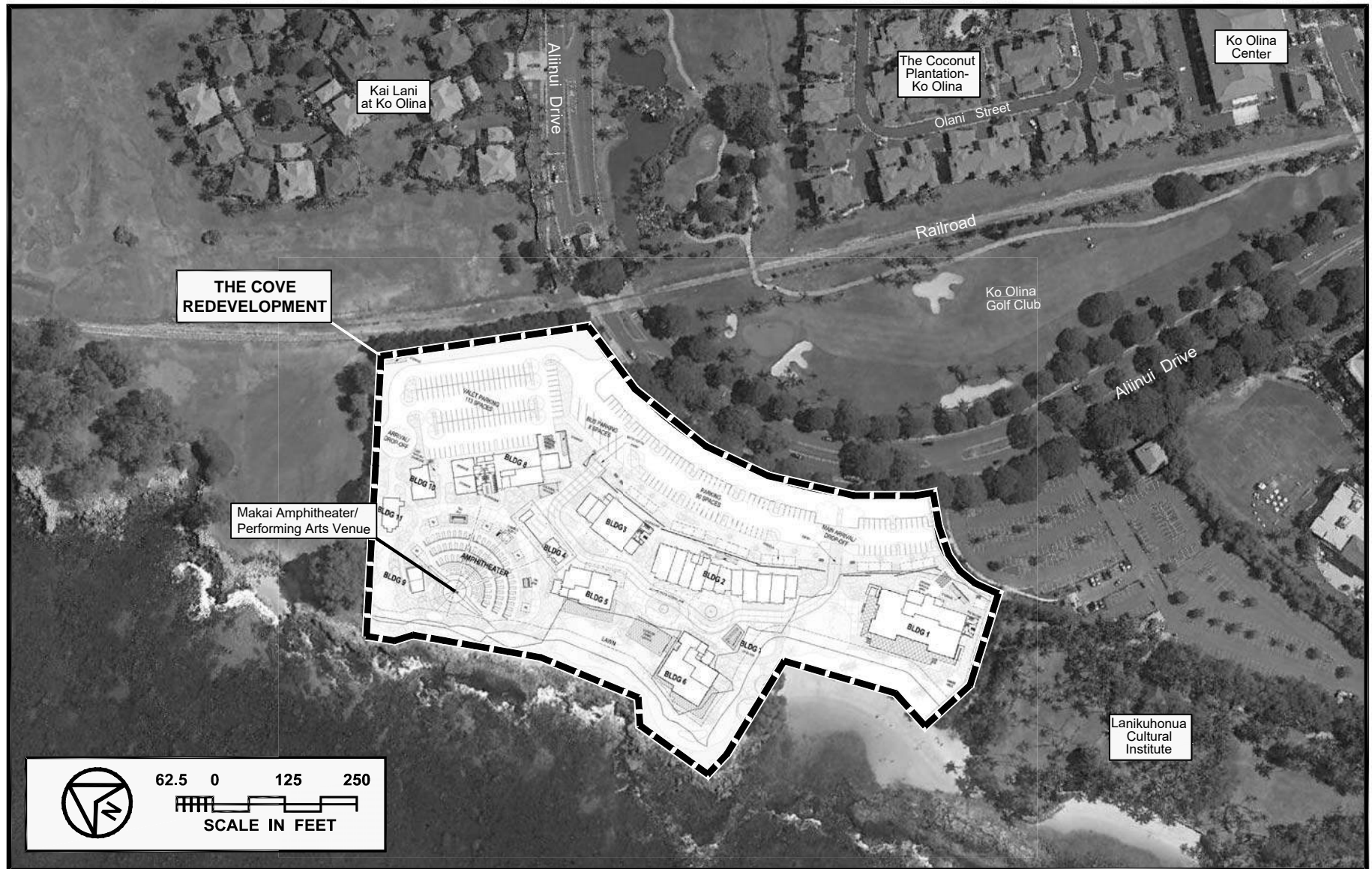
(1) Includes leaf blower noise from parking lot estimated to be 59.7 dBA (Leq).

FIGURE III-1
HOURLY TRAFFIC NOISE LEVELS VS. TIME OF DAY
STA. B7200000H1-1; MAINLINE FARRINGTON HWY AT KO OLINA I.C. APRIL 18, 2019



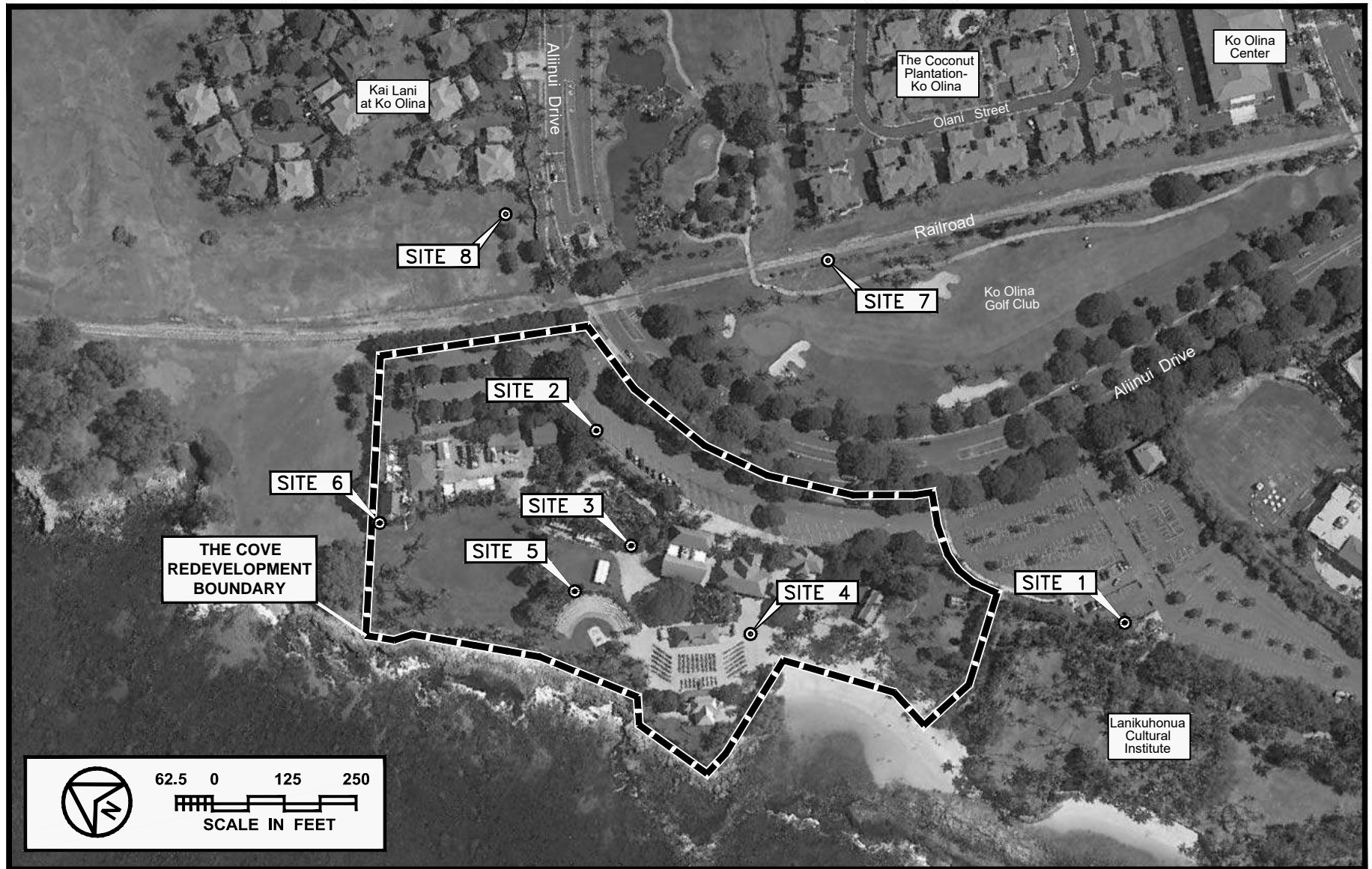
The possibility of adverse noise impacts from on-site entertainment events at the proposed Amphitheater were evaluated by comparing predicted sound levels from that facility with existing background ambient noise levels in the project environs. The Cove Redevelopment is shown in Figure III-2. Sound level measurements were obtained at Sites 1 through 8 where shown in Figure III-3, in order to quantify Base Year sound levels associated with entertainment events at the Imu Amphitheater and Luau Dinner Show Theater. These sound level measurements were obtained between 4:00 PM and 9:00 PM on June 29, 2022 and July 6, 2022. The measurement Sites 7 and 8 were also used to quantify existing background noise levels at the closest residences to Paradise Cove, and measurement Site 1 was used to simulate future sound levels from the proposed Amphitheater programs at approximately the same distance from the Luau Dinner Show Theater as would occur between the proposed Amphitheater and the closest residence at Kai Lani At Ko Olina. Using the sound measurements obtained at the locations shown in Figure III-3, predictions were made of anticipated future sound levels associated with possible similar entertainment events at the proposed Amphitheater following the completion of The Cove Redevelopment. The risks of adverse noise impacts at the closest existing residents mauka of The Cove Redevelopment were evaluated using these sound level predictions, the measured levels of existing background ambient noise levels, and existing State Department of Health and Honolulu Liquor Commission property line noise limits.

Calculations of average exterior and interior noise levels from construction activities were performed for typical naturally ventilated and air conditioned dwellings. Predicted noise levels were compared with existing background ambient noise levels, the potential for noise impacts was assessed, and mitigation measures recommended.



THE COVE REDEVELOPMENT PLAN

FIGURE
III-2



**PROJECT SITE AND BACKGROUND
NOISE MEASUREMENT LOCATIONS**

**FIGURE
III-3**

CHAPTER IV. BASE YEAR NOISE ENVIRONMENT

The existing background ambient noise levels in the project environs are controlled by traffic on Farrington Highway, local traffic on Aliinui Drive, Ko Olina Golf Course waterfalls, wind, and surf. The sounds of automobiles, heavy trucks, and buses, as well as the sounds of music and amplified voice announcements from the various activities at Paradise Cove control the background ambient noise levels on the project site between 4:30 PM and 9:45 PM. At locations in the immediate vicinity of the project site and which are removed from Farrington Highway, existing average background ambient noise levels range from 50 to 55 Leq, which are in the "Minimal Exposure, Unconditionally Acceptable" noise exposure category. On the grounds of Paradise Cove, average background noise levels rise to levels between 75 to 85 Leq in the immediate vicinity of the various entertainment events which occur in a programmed sequence during a typical day. The higher sound levels are audible at developed lands near the north, east, and south property boundaries of the complex.

Existing traffic noise levels were measured at Locations A and B where shown in Figure I-1 to determine the Base Year traffic noise levels along Farrington Highway and Aliinui Drive. Along Farrington Highway, at approximately 150 FT setback distance from the roadway's centerline, existing traffic noise levels are approximately 72 DNL, and are in the "Significant Exposure, Normally Unacceptable" noise exposure category. Along the section of Aliinui Drive northeast of Paradise Cove, existing traffic noise levels associated with traffic on Farrington Highway tend to mask the noise from local traffic on Aliinui Drive. Along the section of Aliinui Drive south of Paradise Cove, existing traffic noise levels are relatively low and less than 65 DNL, and are in the "Moderate Exposure, Acceptable" noise exposure category.

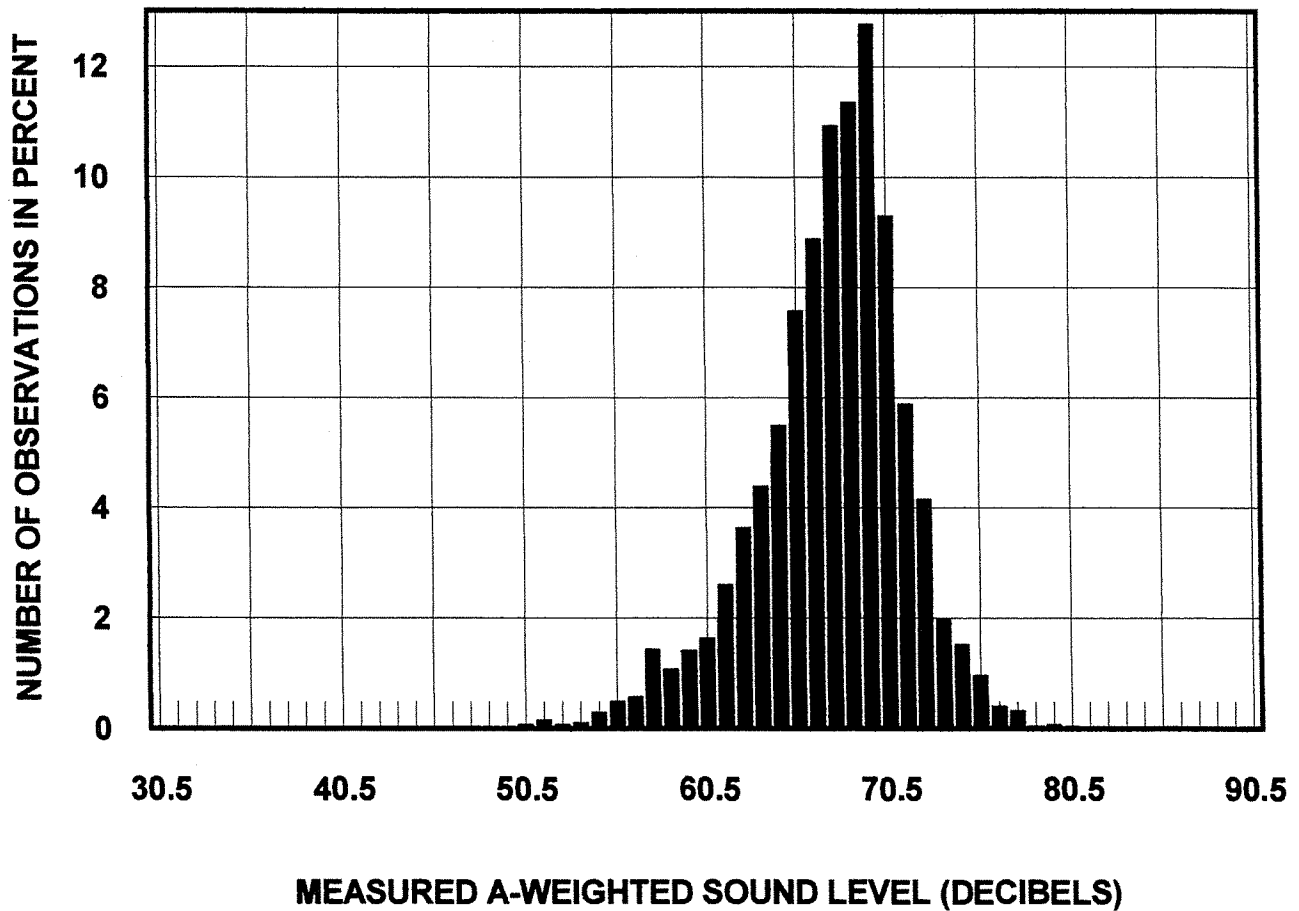
The existing traffic noise levels along Farrington Highway are high and are controlled by non-project traffic. Figures IV-1 through IV-4 are hourly histograms of measured traffic noise levels obtained at Location A in June 2021. At approximately 150 FT setback distance from the highway's centerline, maximum noise levels (Lmax) associated with the louder motorcycle and heavy truck traffic on the highway are in the order of 80 to 93 dB at this setback distance. Tour bus traffic along the highway are somewhat quieter and range from 73 to 80 dB at this setback distance. Base Year traffic volumes along Farrington Highway were not available for this project, so the traffic noise measurement data obtained in June 2021 were used to describe Base Year traffic noise levels along Farrington Highway in the project environs.

Base Year (CY 2022) traffic noise measurements at Location B were obtained in August 2022 during the AM and PM peak hours. The results of these measurements are shown in Table III-1 and Figures IV-5 and IV-6. These noise measurement results were used to validate the FHWA Traffic Noise Model as shown in Table III-1.

Results of calculations of Base Year traffic noise levels along Aliinui Drive, Olani Street, and Kamoana Place during the PM peak hour period are shown in Table IV-1.

**FIGURE IV-1
HISTOGRAM OF MEASURED SOUND LEVELS AT
LOC A; 150 FT FROM CENTERLINE OF FARRINGTON
HIGHWAY**

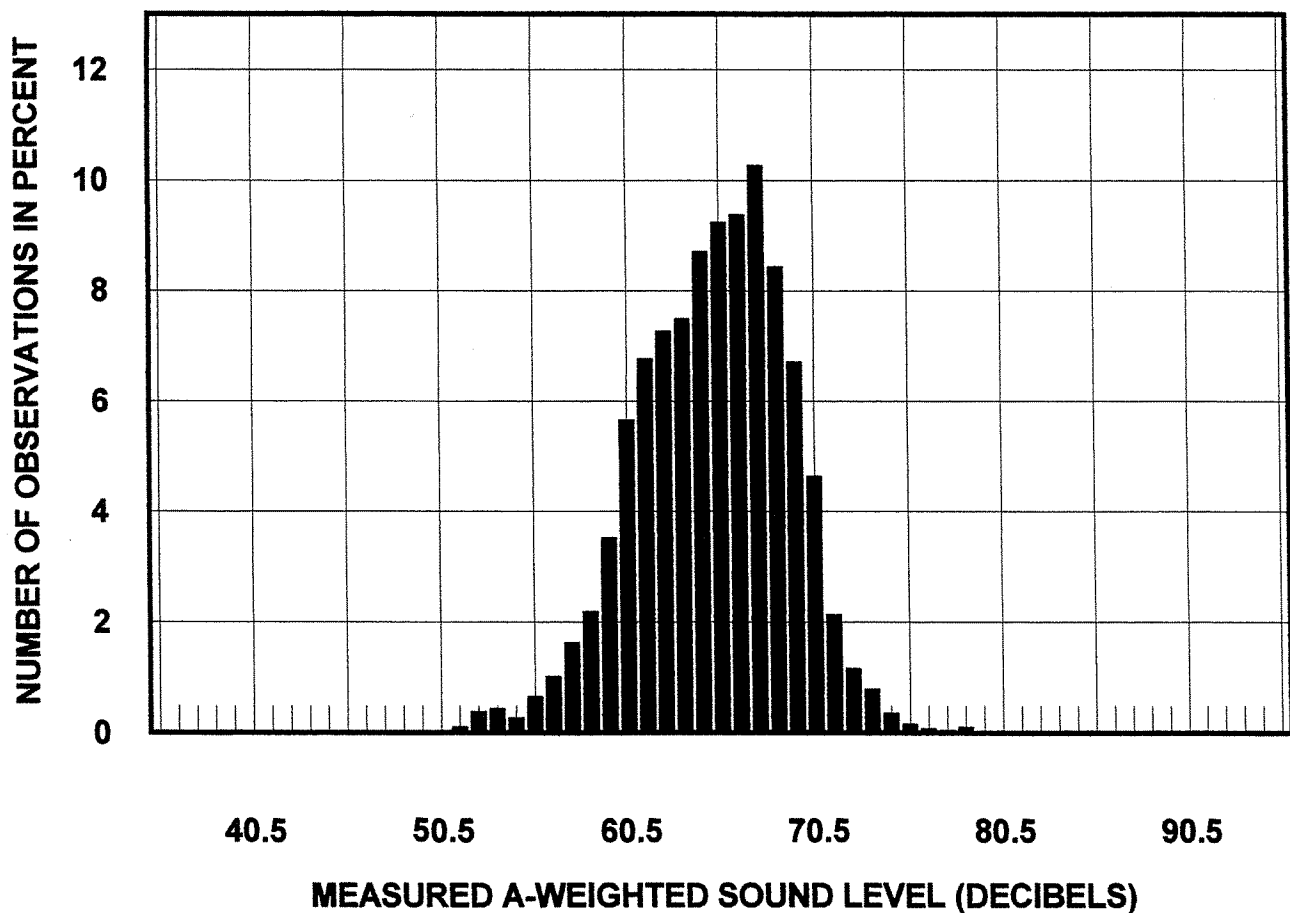
**DATE: JUNE 3, 2021
TIME: 0634 - 0734 HOURS
METER RESPONSE: LAEQ**



**Lmax: 84.2 dBA
L10: 71.9 dBA
L50: 67.9 dBA
Leq: 69.1 dBA
Lmin: 50.4 dBA**

FIGURE IV-2
HISTOGRAM OF MEASURED SOUND LEVELS AT
LOC A; 150 FT FROM CENTERLINE OF FARRINGTON
HIGHWAY

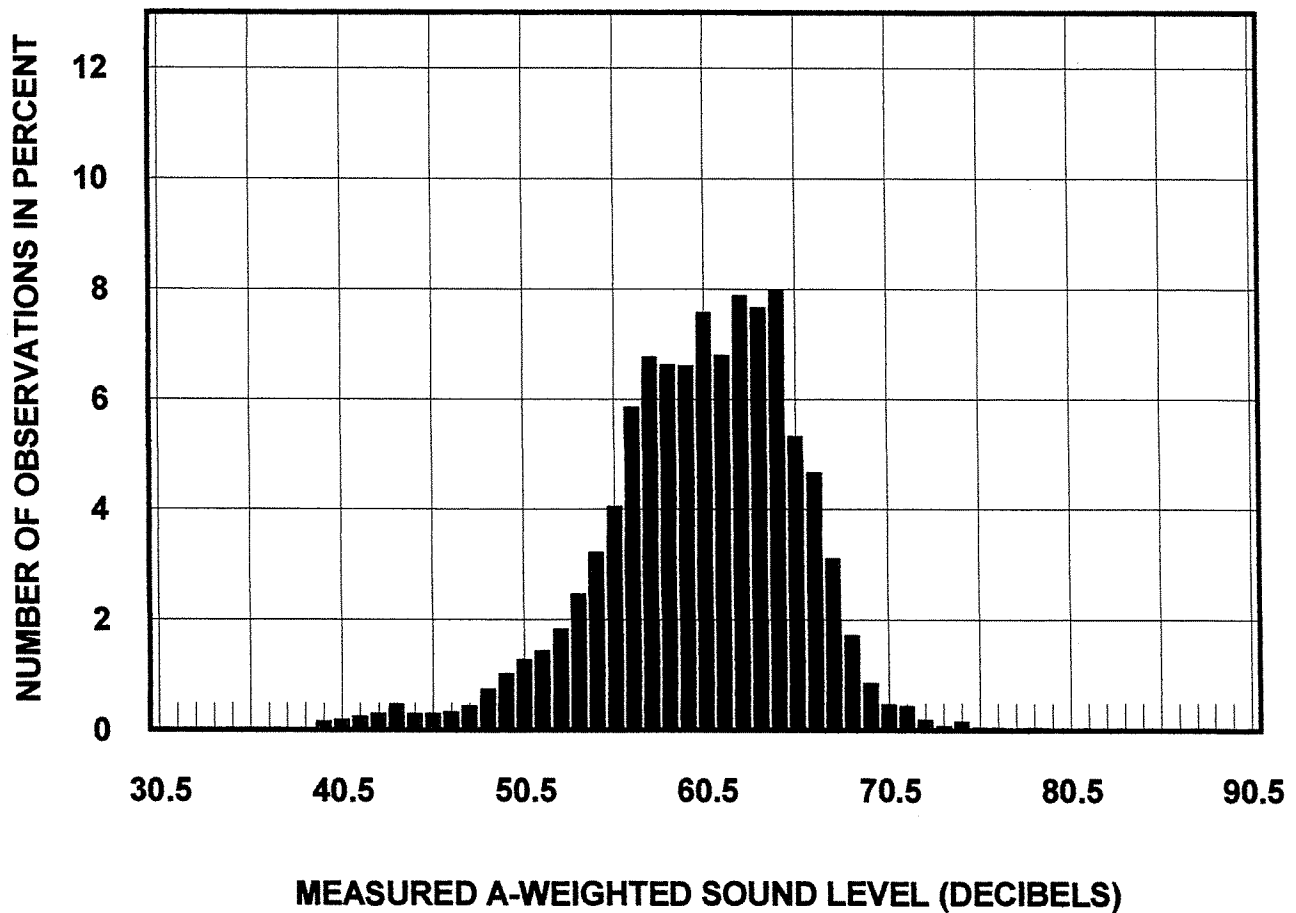
DATE: JUNE 2, 2021
TIME: 1531 - 1631 HOURS
METER RESPONSE: LAEQ



Lmax: 93.1 dBA
L10: 70.0 dBA
L50: 65.4 dBA
Leq: 67.5 dBA
Lmin: 51.1 dBA

FIGURE IV-3
HISTOGRAM OF MEASURED SOUND LEVELS AT
LOC A; 150 FT FROM CENTERLINE OF FARRINGTON
HIGHWAY

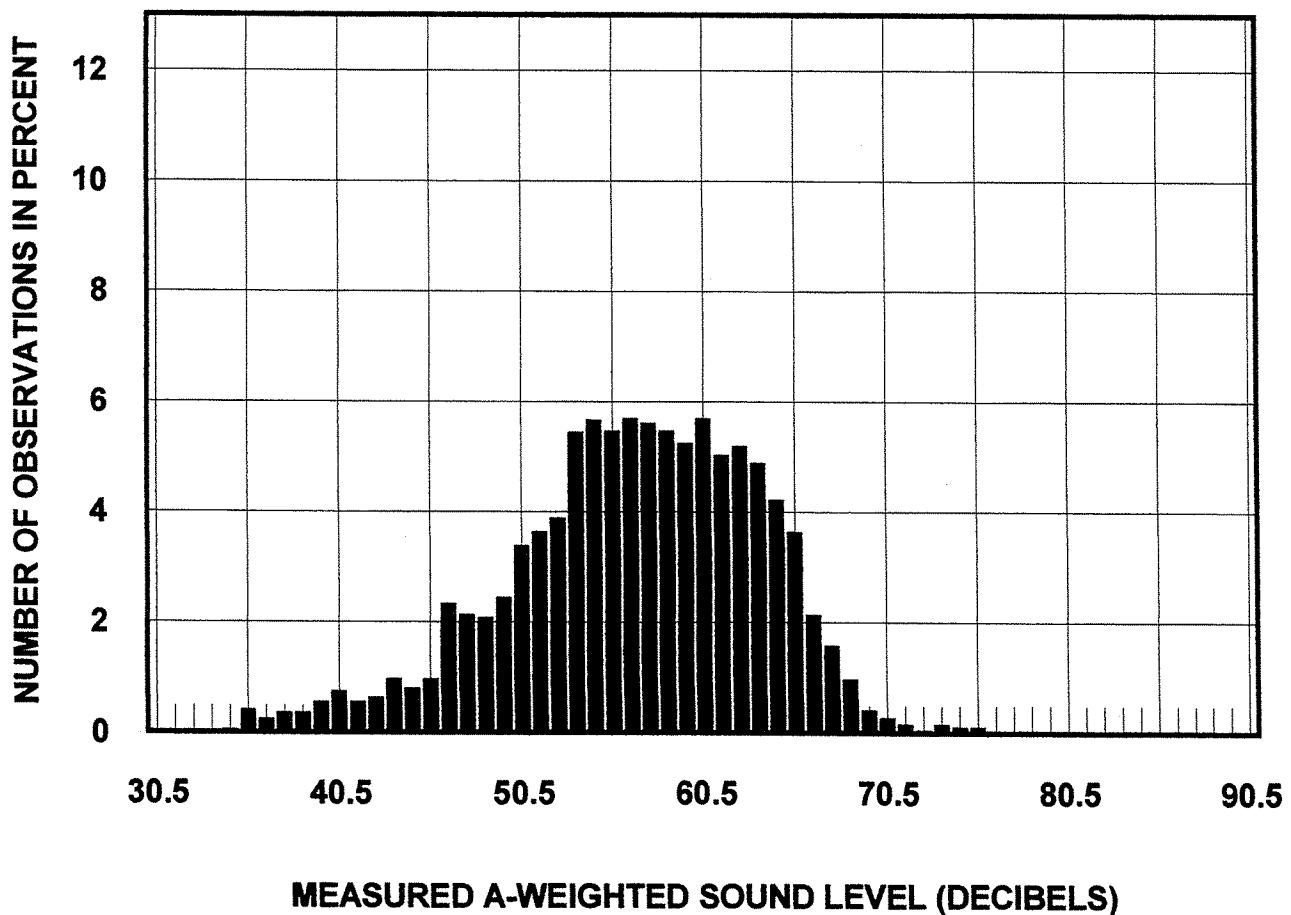
DATE: JUNE 2, 2021
TIME: 2149 - 2249 HOURS
METER RESPONSE: LAEQ



Lmax: 79.4 dBA
L10: 62.6 dBA
L50: 57.8 dBA
Leq: 63.0 dBA
Lmin: 38.7 dBA

FIGURE IV-4
HISTOGRAM OF MEASURED SOUND LEVELS AT
LOC A; 150 FT FROM CENTERLINE OF FARRINGTON
HIGHWAY

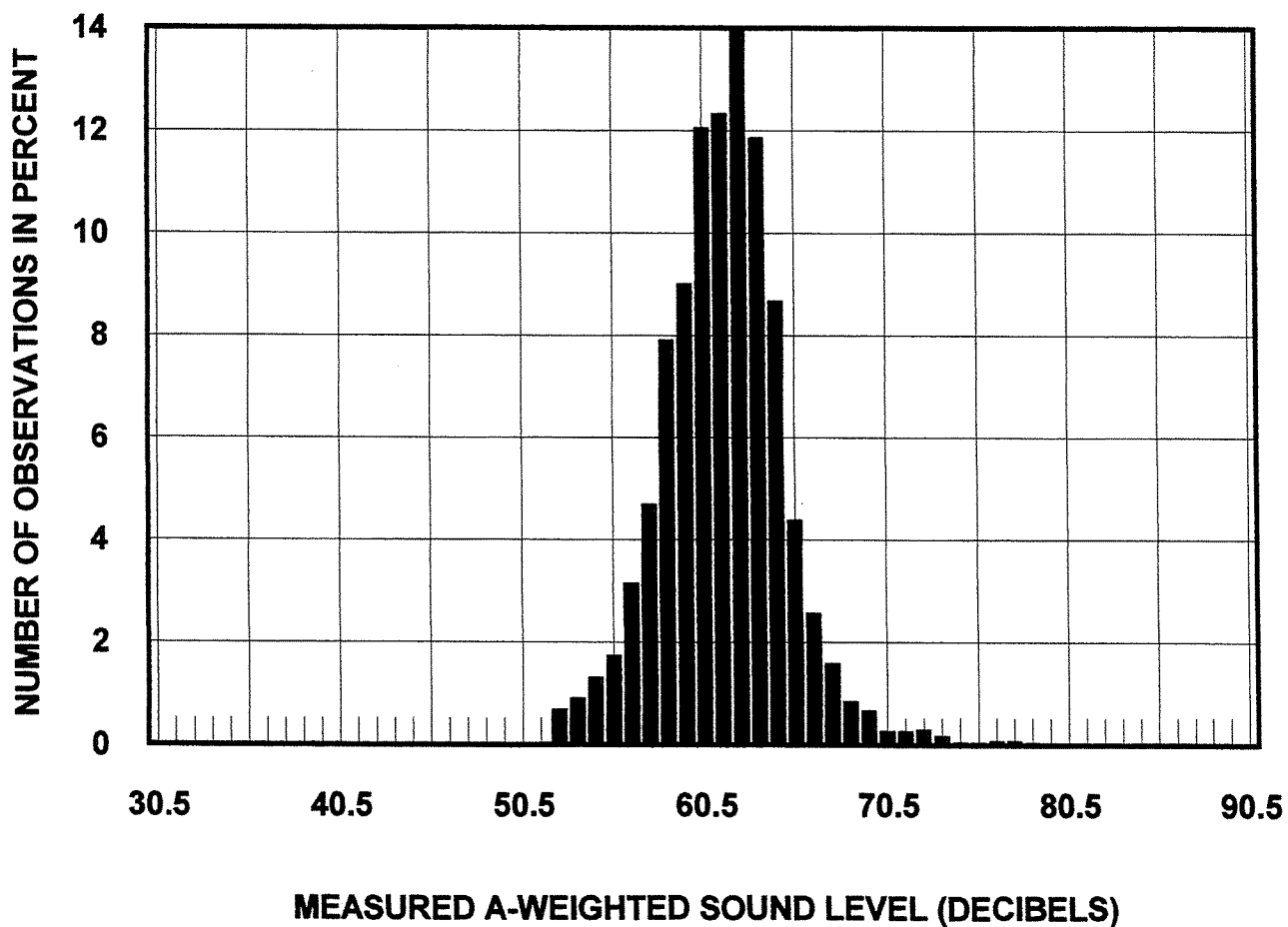
DATE: JUNE 2, 2021
TIME: 2250 - 2350 HOURS
METER RESPONSE: LAEQ



Lmax: 78.0 dBA
L10: 64.9 dBA
L50: 57.2 dBA
Leq: 61.1 dBA
Lmin: 34.9 dBA

FIGURE IV-5
HISTOGRAM OF MEASURED SOUND LEVELS AT
LOC B; 77 FT FROM CENTERLINE OF ALIINUI DRIVE

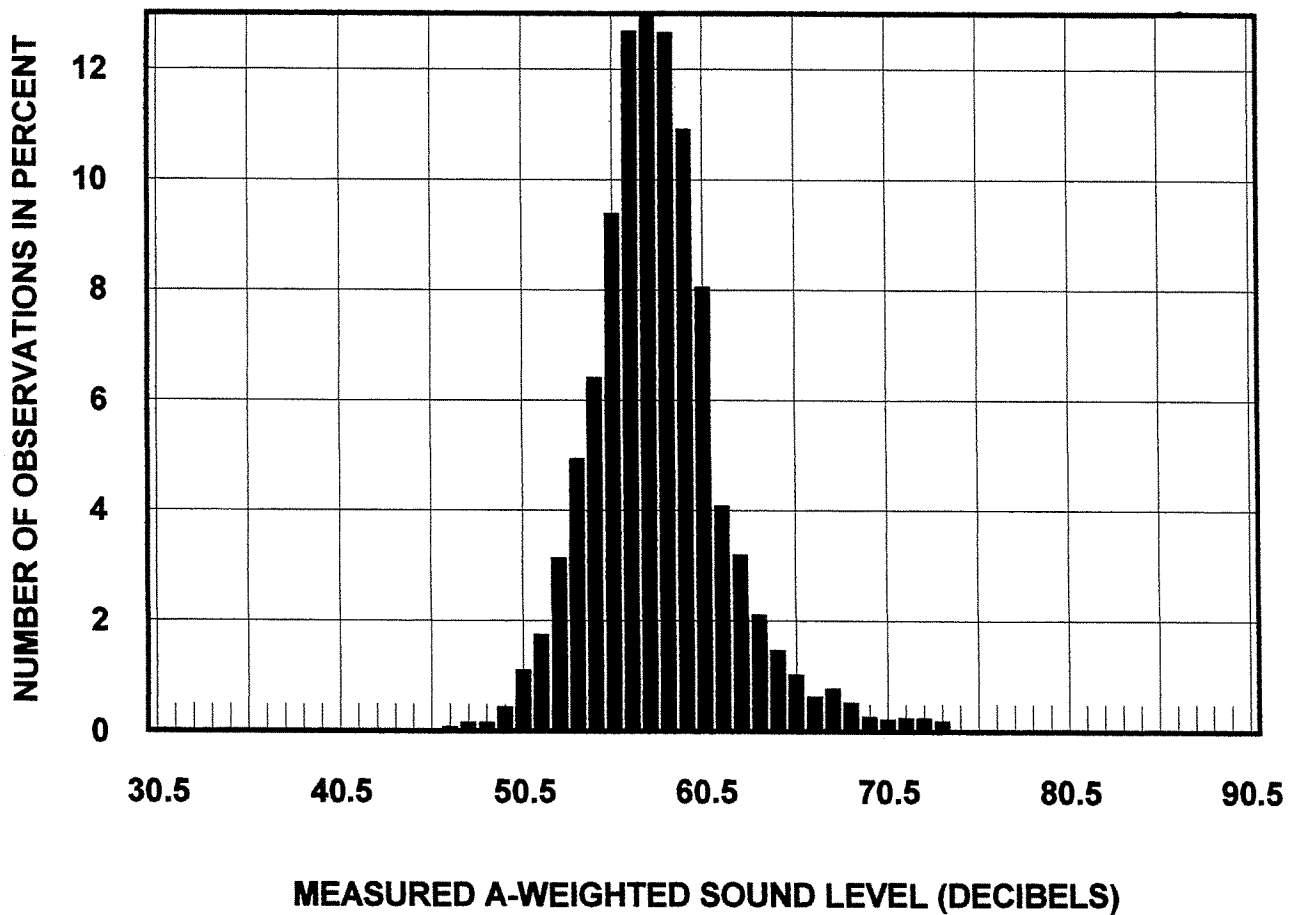
DATE: AUGUST 18, 2022
TIME: 0720 - 0827 HOURS
METER RESPONSE: LAEQ



Lmax: 79.3 dBA
L10: 65.3 dBA
L50: 61.7 dBA
Leq: 63.2 dBA
Lmin: 52.2 dBA

FIGURE IV-6
HISTOGRAM OF MEASURED SOUND LEVELS AT
LOC B; 77 FT FROM CENTERLINE OF ALIINUI DRIVE

DATE: AUGUST 18, 2022
TIME: 1615 - 1715 HOURS
METER RESPONSE: LAEQ



Lmax: 76.0 dBA
L10: 62.3 dBA
L50: 57.8 dBA
Leq: 60.1 dBA
Lmin: 46.7 dBA

TABLE IV-1

BASE YEAR (CY 2022) TRAFFIC VOLUMES AND NOISE LEVELS
ALONG VARIOUS SECTIONS OF ROADWAYS IN THE PROJECT AREA
(PM PEAK HOUR)

<u>LOCATION</u>	<u>SPEED</u>	<u>TOTAL</u>	***** VOLUMES (VPH) *****					
	<u>(MPH)</u>	<u>VPH</u>	<u>AUTOS</u>	<u>M TRUCKS</u>	<u>H TRUCKS</u>	<u>50' Leg</u>	<u>100' Leg</u>	<u>150' Leg</u>
Aliinui Drive W. of Olani Street	32	1,327	1,304	20	3	64.7	58.7	54.7
Aliinui Drive Between Olani Street and Kamoana Pl.	32	1,052	1,034	16	2	63.7	57.6	53.7
Aliinui Drive E. of Kamoana Pl.	32	903	887	14	2	63.1	57.0	53.0
Olani Street N. of Aliinui Dr.	25	288	262	26	0	57.2	51.2	48.3
Olani Street S. of Aliinui Dr.	25	235	223	12	0	55.1	49.2	46.2
Kamoana Place S. of Aliinui Dr.	25	157	149	8	0	53.4	47.4	44.5

The traffic volumes used for the peak hour periods were obtained from Reference 7, and are shown in Appendix C. Table IV-2 presents the calculated setback distances between the roadway centerlines and the iso-noise contours associated with the 65, 70, and 75 DNL levels of traffic noise during the Base Year. The traffic noise levels shown in the tables only apply when unobstructed line-of-sight conditions exist to the roadways. These conditions would generally occur along the Right-of-Way, within any open space fronting the roadway, or at the upper levels of any man-made structure or natural terrain feature. Based on the results shown in Tables IV-1 and IV-2, it was concluded that Base Year traffic noise levels from Aliinui Drive could exceed the 65 DNL FHA/HUD noise standard at Kai Lani At Ko Olina, but that Base Year traffic noise levels from Aliinui Drive at other developed locations shown in Figure I-1 do not exceed 65 DNL.

During the period from late afternoon until 8:30 to 9:00 PM, Paradise Cove hosts commercial entertainment events, which includes a luau dinner show. Sound levels during the louder venues are audible within the Paradise Cove property as well as beyond the property boundaries. Sound level measurements were obtained in the project area where shown in Figure III-3 at Sites 1 through 8, during entertainment events with live music at Paradise Cove on June 29, 2022 and July 6, 2022. Figures IV-7 through IV-14 present typical histograms of the measured sound levels (without adjustments for background noise levels) at Sites 1 through 8 during the indicated entertainment events at Paradise Cove on June 29, 2022 and July 6, 2022. Also included with each histogram are the measured maximum (Lmax), minimum (Lmin), and average (Leq) sound levels recorded during the measurement period. The median (L50, or level exceeded 50 percent of the time) and L10 (or level exceeded 10 percent of the time) are also included with each histogram. An L10 value of 60 dBA corresponds to the State Department of Health's and Honolulu Liquor Commission's daytime noise limit beyond the property line for lands zoned for business or apartment use, which applies to Paradise Cove (at receptors beyond its boundaries) due to its B-1 zoning designation. Sound level measurements at Site 2 were performed continuously from approximately 4:00 PM to 8:45 PM on both days, with simultaneous audio recording also performed for identifying and confirming the periods of the audible entertainment programs. Continuous sound level measurements were obtained during the entire Luau Dinner Show on July 6, 2022 at Site 1. The results obtained at Site 1 were used to simulate the anticipated future sound levels at Kai Lani At Ko Olina during a similar Luau Dinner Show performed at the proposed Amphitheater, at a common distance of approximately 718 feet from the main house speakers. Measured sound levels at Site 1 during the louder later portion of the dinner show were also examined in respect to exceedances of the 60 dBA threshold for 2 minutes in any 20-minute interval, which is the L10 noise metric used in the DOH rules (Reference 4).

Based on the measurements obtained at Sites 1, 2, and 5, it was concluded that existing sound levels associated with the current entertainment events at Paradise Cove do not exceed the 60 dBA Liquor Commission limit at the closest residences at The Coconut Plantation-Ko Olina or Kai Lani At Ko Olina during both the Imu

TABLE IV-2

**YEAR 2022 AND 2026 DISTANCES TO 65, 70, AND 75 DNL
CONTOURS**

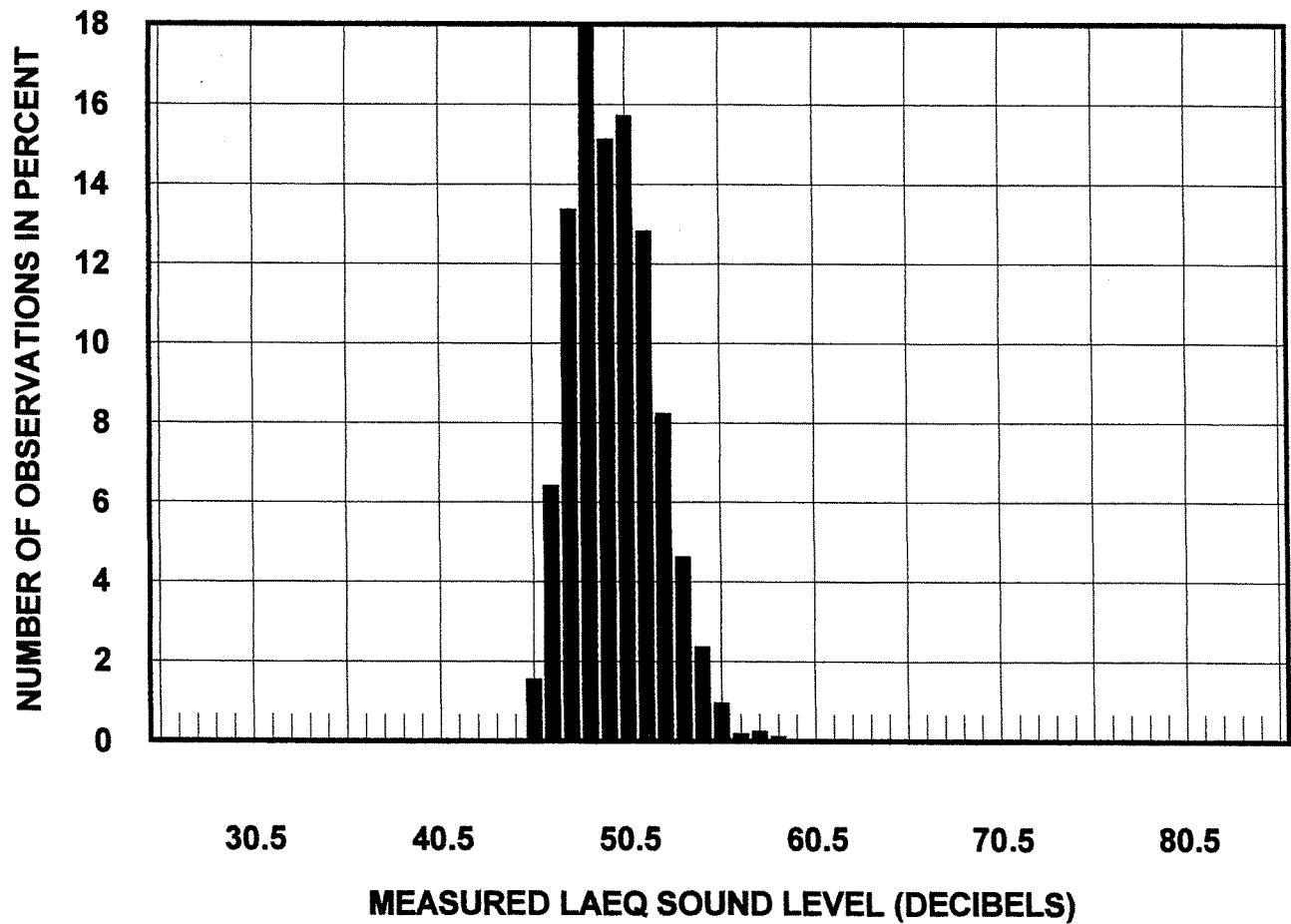
<u>STREET SECTION</u>	<u>65 DNL SETBACK (FT)</u>		<u>70 DNL SETBACK (FT)</u>		<u>75 DNL SETBACK (FT)</u>	
	<u>EXISTING</u>	<u>CY 2026</u>	<u>EXISTING</u>	<u>CY 2026</u>	<u>EXISTING</u>	<u>CY 2026</u>
Aliinui Drive W. of Olani Street	57	59	32	33	18	19
Aliinui Drive Between Olani Street and Kamoana P	51	54	29	30	16	17
Aliinui Drive E. of Kamoana Pl.	48	50	27	28	15	16
Olani Street N. of Aliinui Dr.	24	24	14	14	<12	<12
Olani Street S. of Aliinui Dr.	19	19	<12	<12	<12	<12
Kamoana Place S. of Aliinui Dr.	16	16	<12	<12	<12	<12

Notes:

- (1) All setback distances are from the roadways' centerlines.
- (2) See Tables IV-1 and V-1 for traffic volume, speed, and mix assumptions.
- (3) Setback distances are for unobstructed line-of-sight conditions.
- (4) Loose Soil conditions assumed along all roadways.

FIGURE IV-7 **HISTOGRAM OF MEASURED SOUND LEVELS** **DURING LUAU DINNER SHOW; SITE 1**

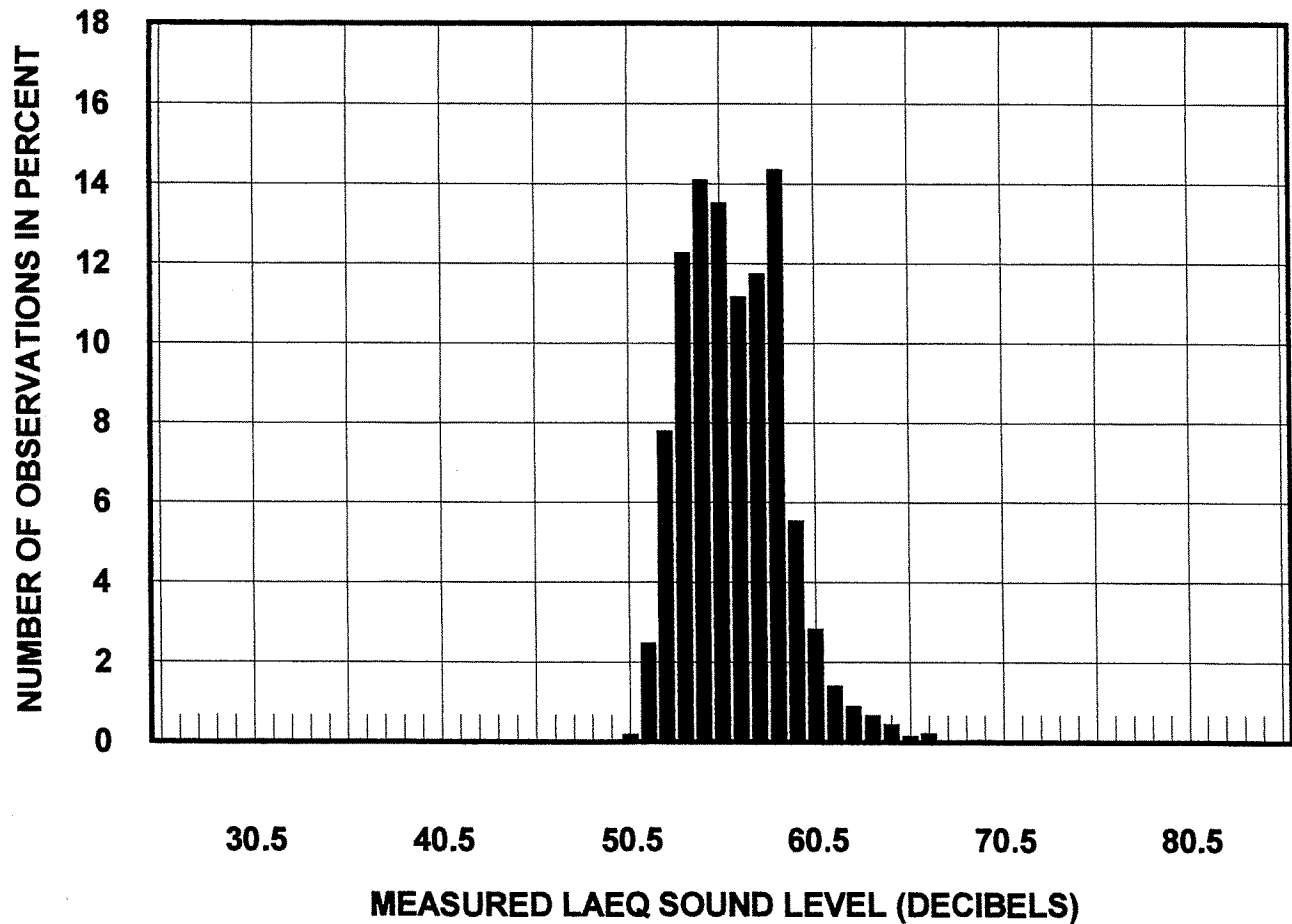
DATE: JULY 6, 2022
TIME: 1940 - 2032 HOURS
METER RESPONSE: SLOW



Lmax: 62.4 dBA
L10: 52.8 dBA
L50: 49.7 dBA
Leq: 50.5 dBA
Lmin: 44.9 dBA

FIGURE IV-8 **HISTOGRAM OF MEASURED SOUND LEVELS** **DURING LUAU DINNER SHOW; SITE 2**

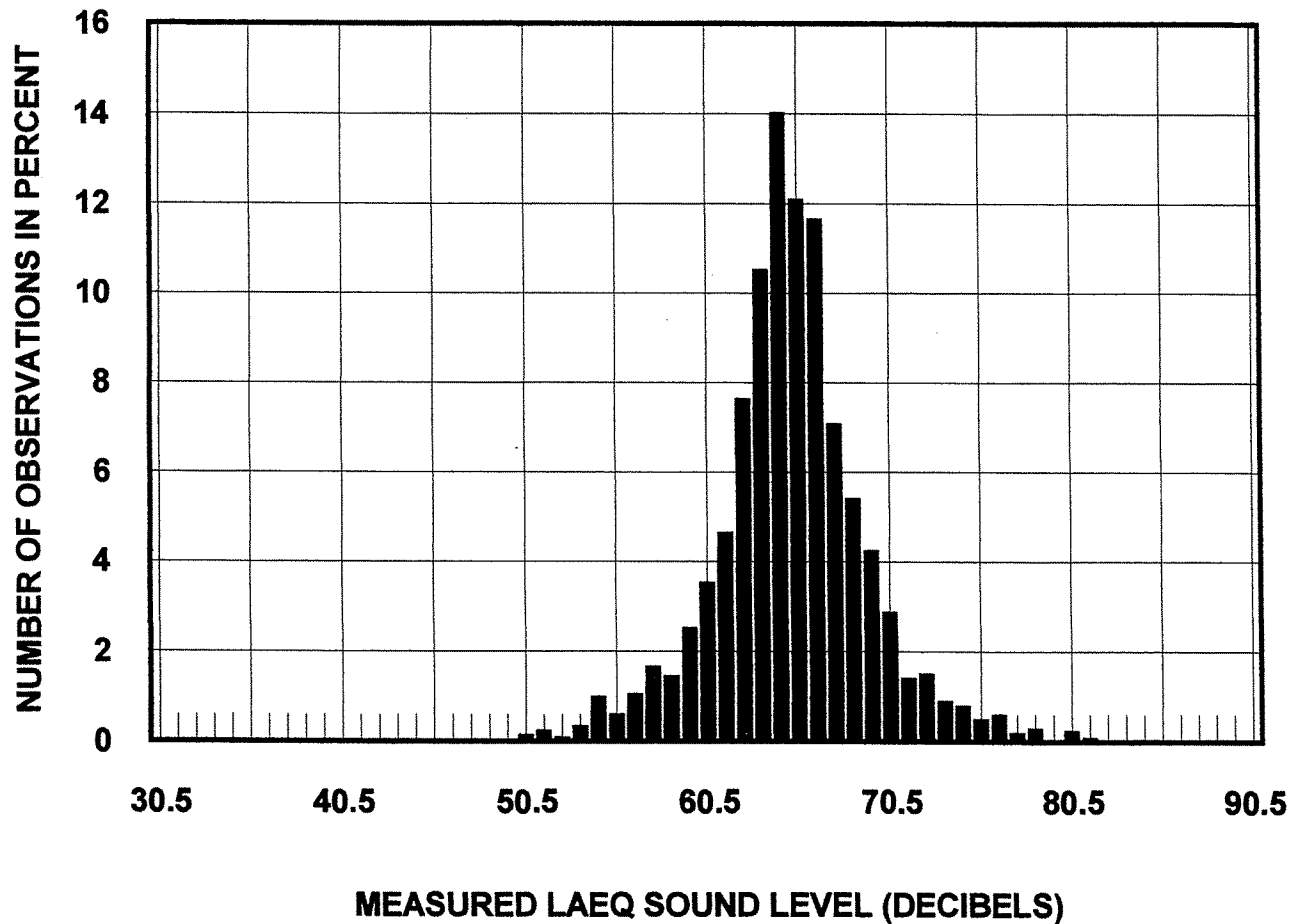
DATE: JULY 6, 2022
TIME: 1940 - 2032 HOURS
METER RESPONSE: SLOW



Lmax: 69.9 dBA
L10: 59.3 dBA
L50: 55.9 dBA
Leq: 57.1 dBA
Lmin: 50.7 dBA

FIGURE IV-9
HISTOGRAM OF MEASURED SOUND LEVELS
DURING LUAU DINNER SHOW; SITE 3

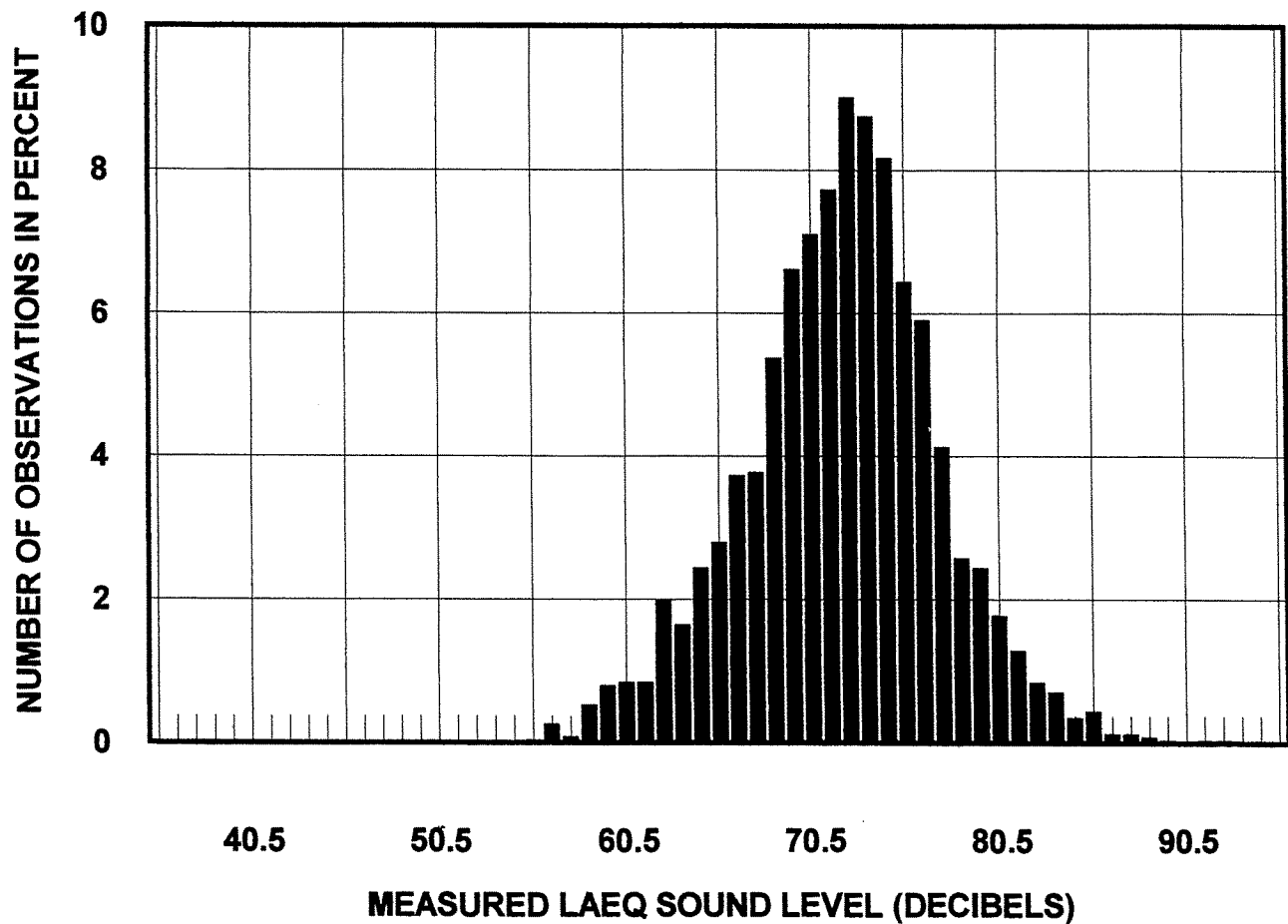
DATE: JUNE 29, 2022
TIME: 1908 - 1931 AND 2021 - 2037 HOURS
METER RESPONSE: SLOW



Lmax: 86.7 dBA
L10: 69.8 dBA
L50: 65.0 dBA
Leq: 67.7 dBA
Lmin: 49.9 dBA

FIGURE IV-10
HISTOGRAM OF MEASURED SOUND LEVELS
DURING LUAU DINNER SHOW; SITE 4

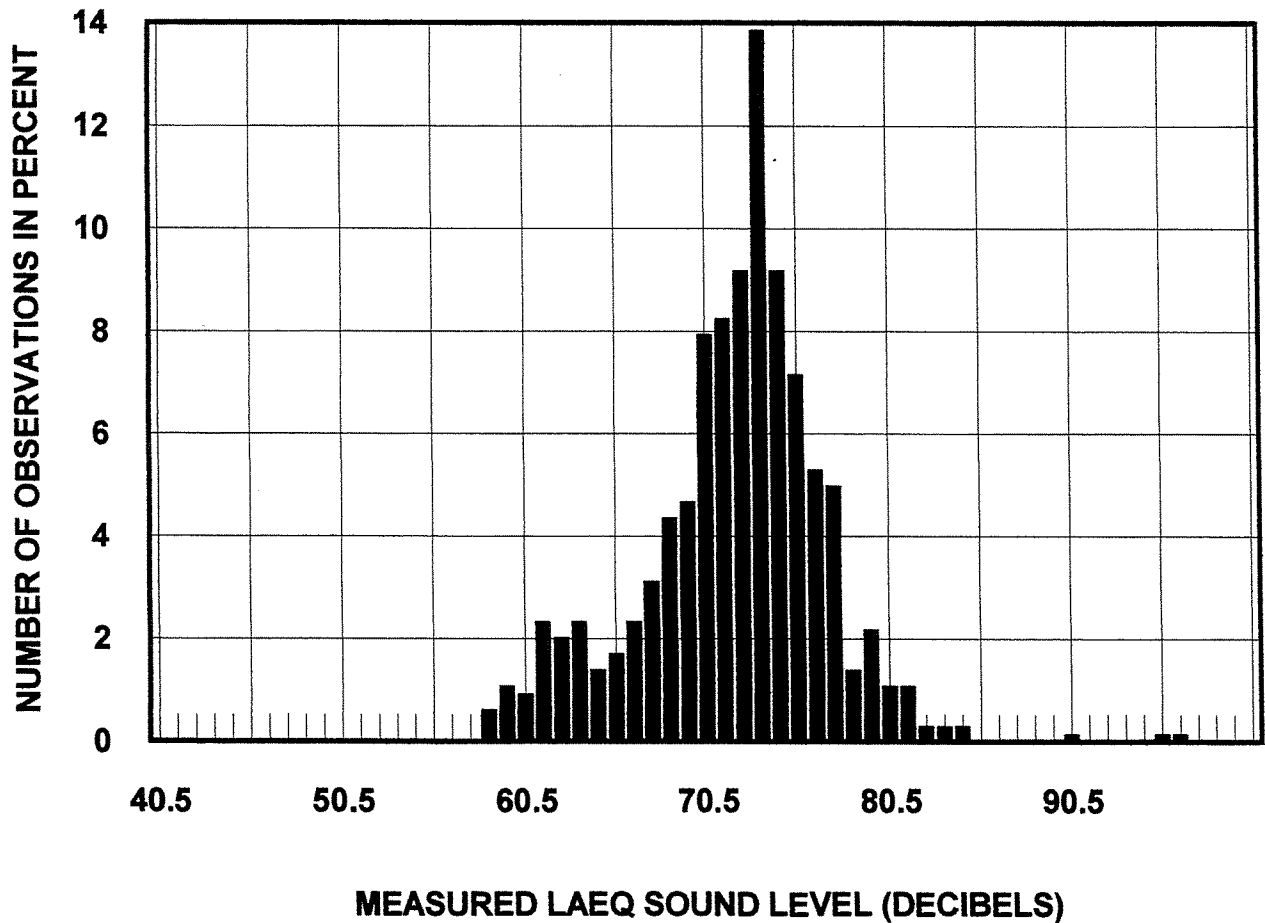
DATE: JUNE 29, 2022
TIME: 1933 - 1942 AND 1948 - 2018 HOURS
METER RESPONSE: SLOW



Lmax: 92.7 dBA
L10: 78.3 dBA
L50: 72.3 dBA
Leq: 75.3 dBA
Lmin: 55.8 dBA

FIGURE IV-11 **HISTOGRAM OF MEASURED SOUND LEVELS AT** **IMU AMPHITHEATER; SITE 5**

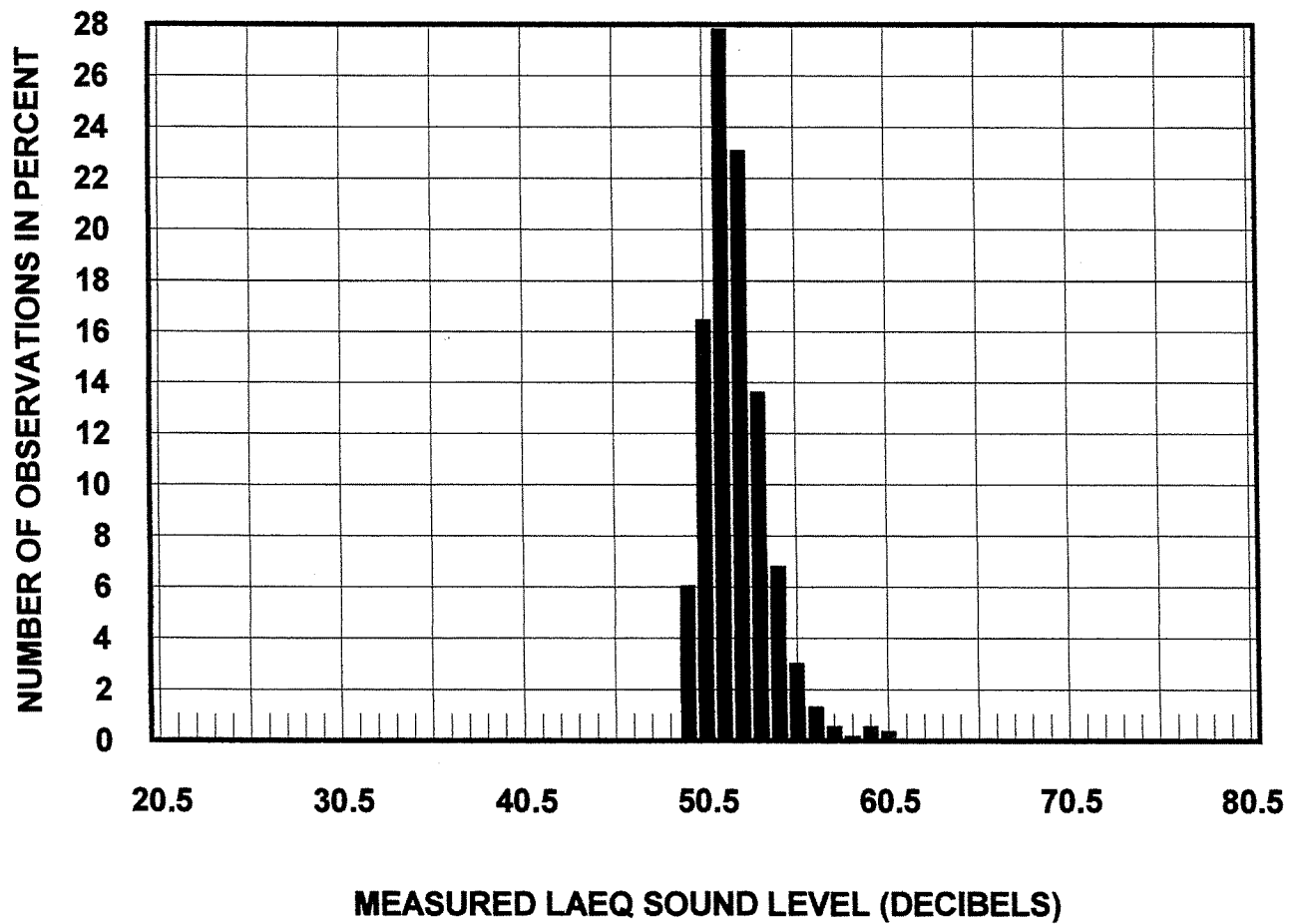
DATE: JUNE 29, 2022
TIME: 1816 - 1827 HOURS
METER RESPONSE: SLOW



Lmax: 96.8 dBA
L10: 77.2 dBA
L50: 72.8 dBA
Leq: 76.1 dBA
Lmin: 58.0 dBA

FIGURE IV-12
HISTOGRAM OF MEASURED SOUND LEVELS AT
PARADISE COVE; SITE 6

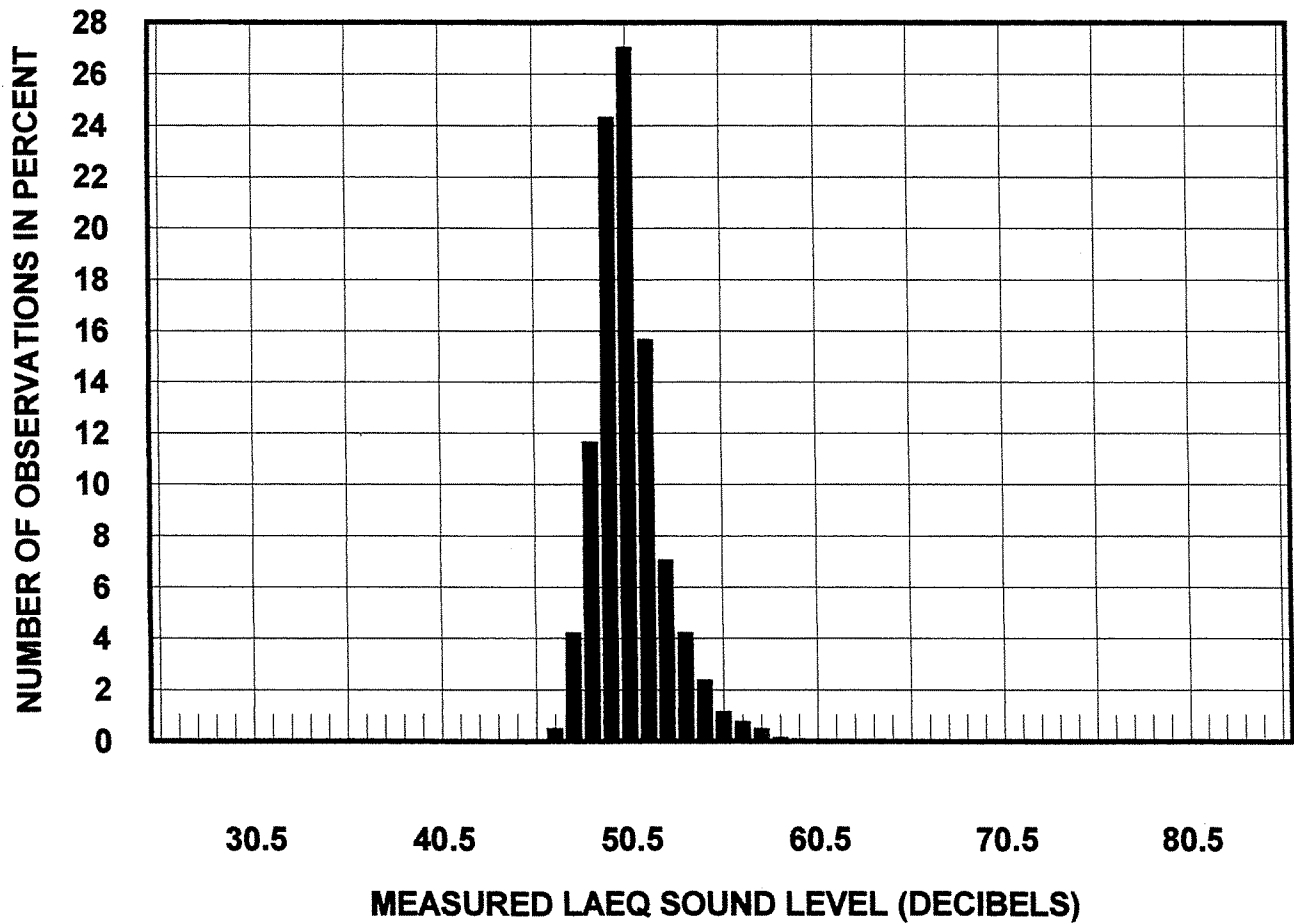
DATE: JUNE 29, 2022
TIME: 1752 - 1802 HOURS
METER RESPONSE: SLOW



Lmax: 60.8 dBA
L10: 54.5 dBA
L50: 52.0 dBA
Leq: 52.6 dBA
Lmin: 49.2 dBA

FIGURE IV-13 **HISTOGRAM OF MEASURED SOUND LEVELS AT** **THE COCONUT PLANTATION; SITE 7**

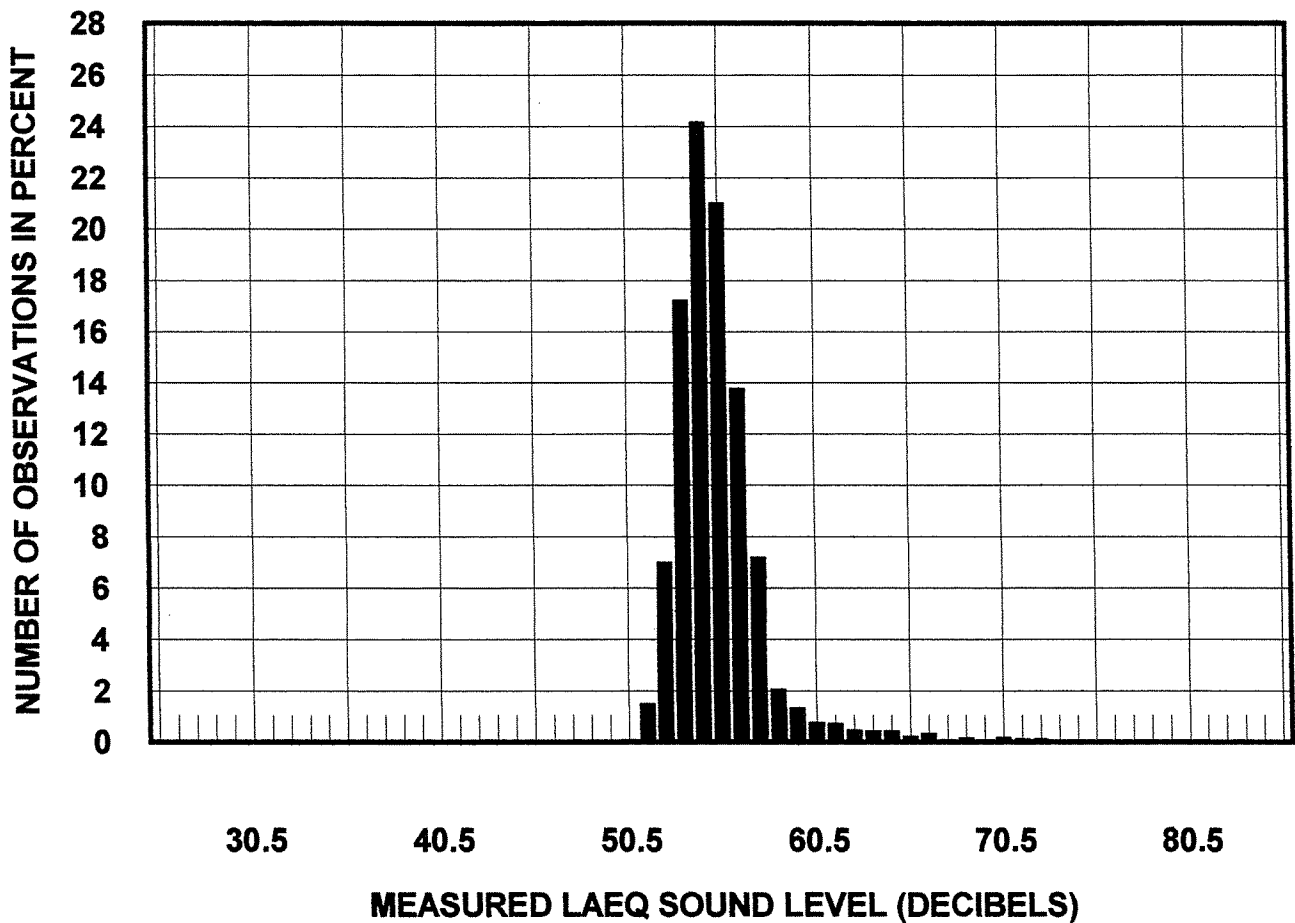
DATE: JULY 6, 2022
TIME: 1622 - 1652 HOURS
METER RESPONSE: SLOW



Lmax: 64.8 dBA
L10: 52.9 dBA
L50: 50.3 dBA
Leq: 51.1 dBA
Lmin: 46.4 dBA

FIGURE IV-14 **HISTOGRAM OF MEASURED SOUND LEVELS AT** **KAI LANI; SITE 8**

DATE: JULY 6, 2022
TIME: 1704 - 1735 AND 1805 - 1822 HOURS
METER RESPONSE: SLOW



Lmax: 73.6 dBA
L10: 57.6 dBA
L50: 55.0 dBA
Leq: 57.1 dBA
Lmin: 50.9 dBA

Amphitheater Show and the Luau Dinner Show. Sound level measurement results between 6:15 and 6:27 PM at Sites 5 and 2 on June 29, 2022 were used to estimate the sound levels associated with the Imu Amphitheater Show at The Coconut Plantation-Ko Olina and Kai Lani At Ko Olina. Figures IV-11 and IV-15 depict histograms of the measured sound levels associated with the Imu Amphitheater Show at Sites 5 and 2, respectively. Sound levels measured at Site 2 were at least 18 dBA lower than those measured at Site 5, and much lower than the 11 dBA difference which would be expected from only distance effects between the two measurement locations and the Imu Amphitheater's floor mounted speakers. The measured excess attenuation of at least 7 dBA was attributed to the sound shielding effects from the depressed stage floor of the Imu Amphitheater plus the presence of existing buildings between the Imu Amphitheater and Site 2. With these additional sound shielding effects, plus the added 23 dBA attributable to increased buffer distances between Site 5 and the closest existing residences, existing sound levels during the Imu Amphitheater Show were estimated to be 30 dBA lower than those measured during the Imu Amphitheater Show shown in Figure IV-11, with L10 and Leq sound levels of 47 dBA and 46 dBA, respectively. These predicted sound levels from the Imu Amphitheater show are well below the 60 dBA DOH and Liquor Commission noise threshold, and are lower than the early evening, existing background noise levels measured at Sites 7 and 8 as shown in Figures IV-13 and IV-14, respectively.

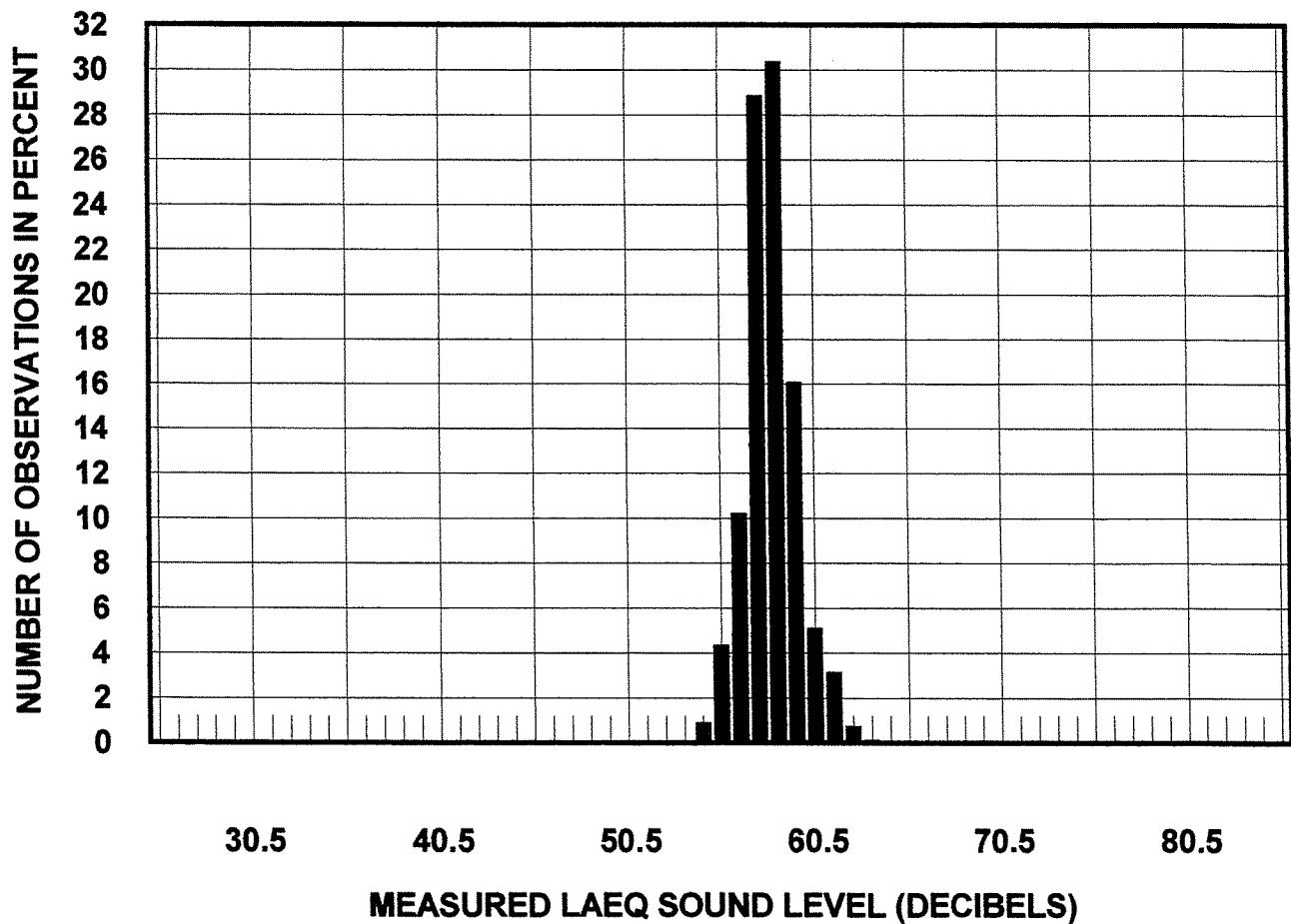
Sound measurement results obtained at Sites 1, 2, 3, and 4 during the Luau Dinner Shows on June 29, 2022 and July 6, 2022 were used to estimate existing sound levels from the dinner show at the closest mauka residences. Figures IV-9, IV-10, IV-16, IV-17, and IV-18 depict the histograms obtained at these measurement locations during these two nights. Sound level measurements obtained at Site 2 during the Luau Dinner Show were higher than those measured during the Imu Amphitheater Show, even though the Imu Amphitheater was at a shorter distance from Site 2 than was the Luau Dinner Stage. The primary reason for this was the depressed elevation of the Imu Amphitheater's speakers and the much higher elevation of the pole-mounted Luau Dinner Show's speaker clusters, which would result in reduced sound shielding effects from the Luau Dinner Show's speaker clusters.

Figures IV-19 and IV-20 depict the dBA vs. time history of the measured levels at Sites 1 and 2 during the July 6, 2022 Luau Dinner Show. Site 1 was selected because it was approximately 744 feet from the Luau Dinner Show stage, and at the assumed future buffer distance between the proposed Amphitheater and the closest mauka residences of Kai Lani At Ko Olina. The measured difference in dinner show sound levels at Sites 1 and 2 was approximately 6.4 dBA (after correction for background noise), which was attributed to distance effects.

The closest Kai Lani At Ko Olina and The Coconut Plantation-Ko Olina residences are approximately 977 feet and 873 feet from the Luau Dinner Show stage, respectively, and the estimated existing sound levels at these residences at Kai Lani and The Coconut Plantation are approximately 10 dBA and 9 dBA less, respectively,

FIGURE IV-15 **HISTOGRAM OF MEASURED SOUND LEVELS DURING** **IMU AMPHITHEATER SHOW; SITE 2**

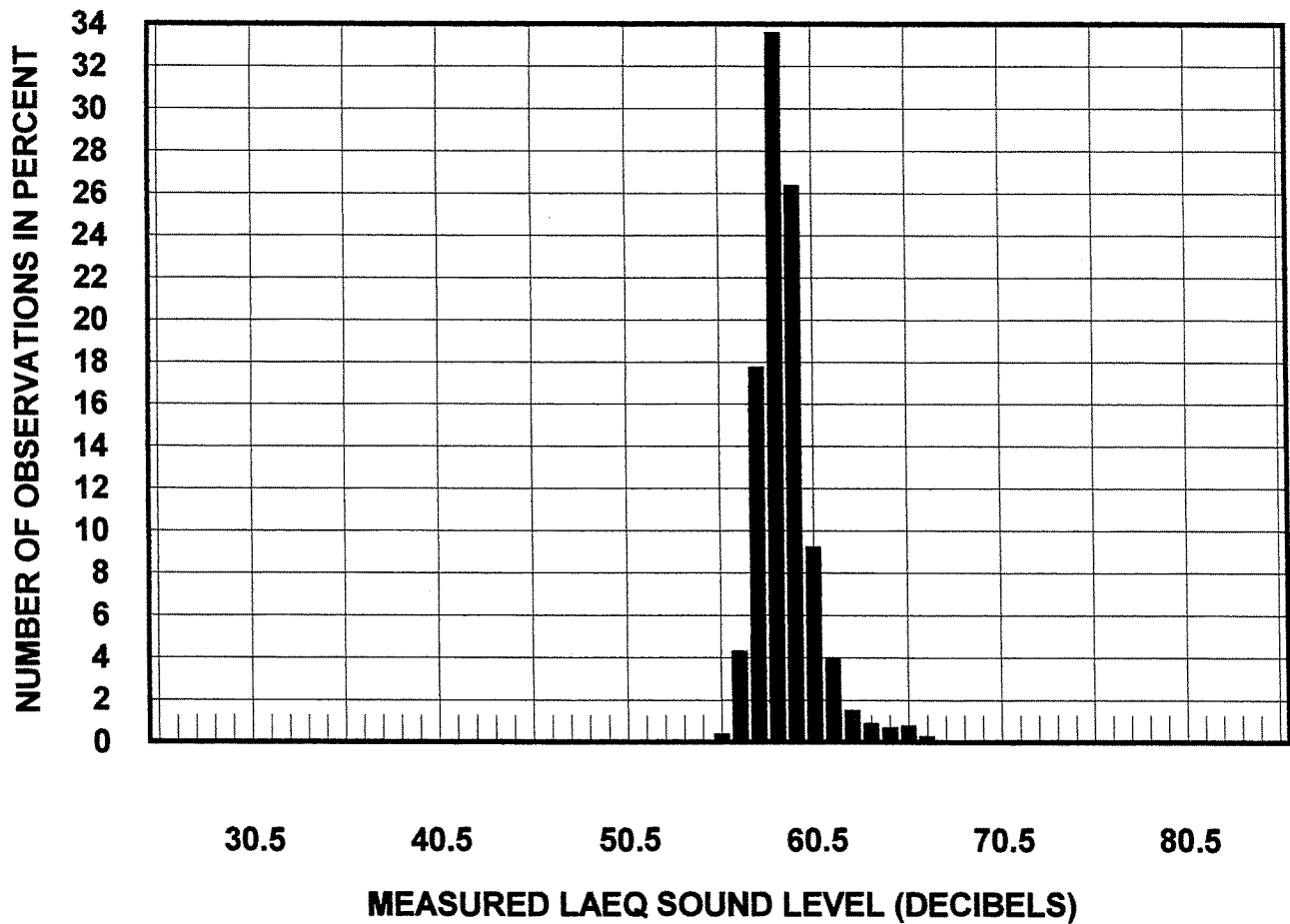
DATE: JUNE 29, 2022
TIME: 1816 - 1827 HOURS
METER RESPONSE: SLOW



Lmax: 63.1 dBA
L10: 59.9 dBA
L50: 58.2 dBA
Leq: 58.5 dBA
Lmin: 54.3 dBA

FIGURE IV-16 **HISTOGRAM OF MEASURED SOUND LEVELS** **DURING LUAU DINNER SHOW; SITE 2**

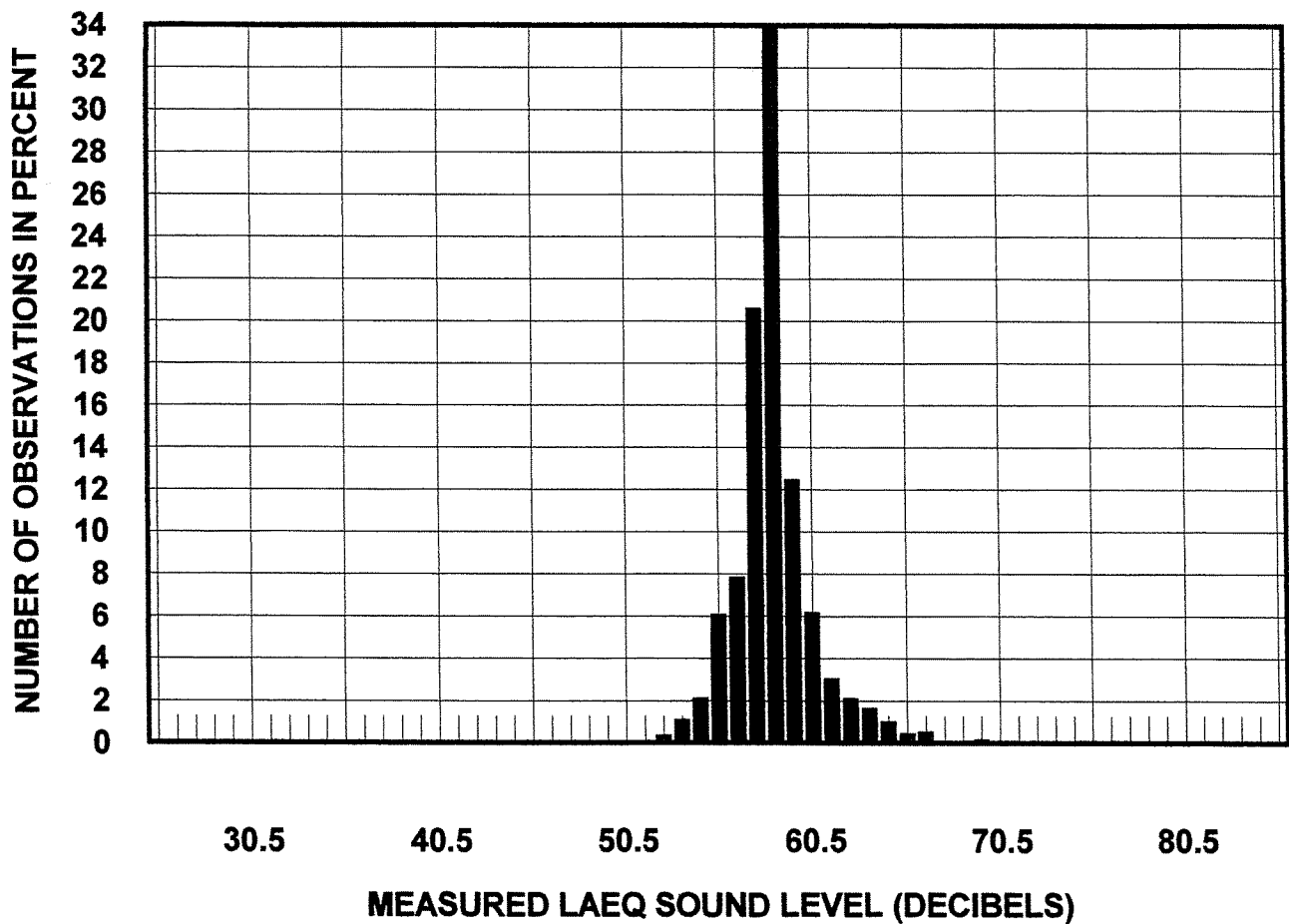
DATE: JUNE 29, 2022
TIME: 2018 - 2036 HOURS
METER RESPONSE: SLOW



Lmax: 66.6 dBA
L10: 60.7 dBA
L50: 58.8 dBA
Leq: 59.3 dBA
Lmin: 55.6 dBA

FIGURE IV-17 **HISTOGRAM OF MEASURED SOUND LEVELS** **DURING LUAU DINNER SHOW; SITE 2**

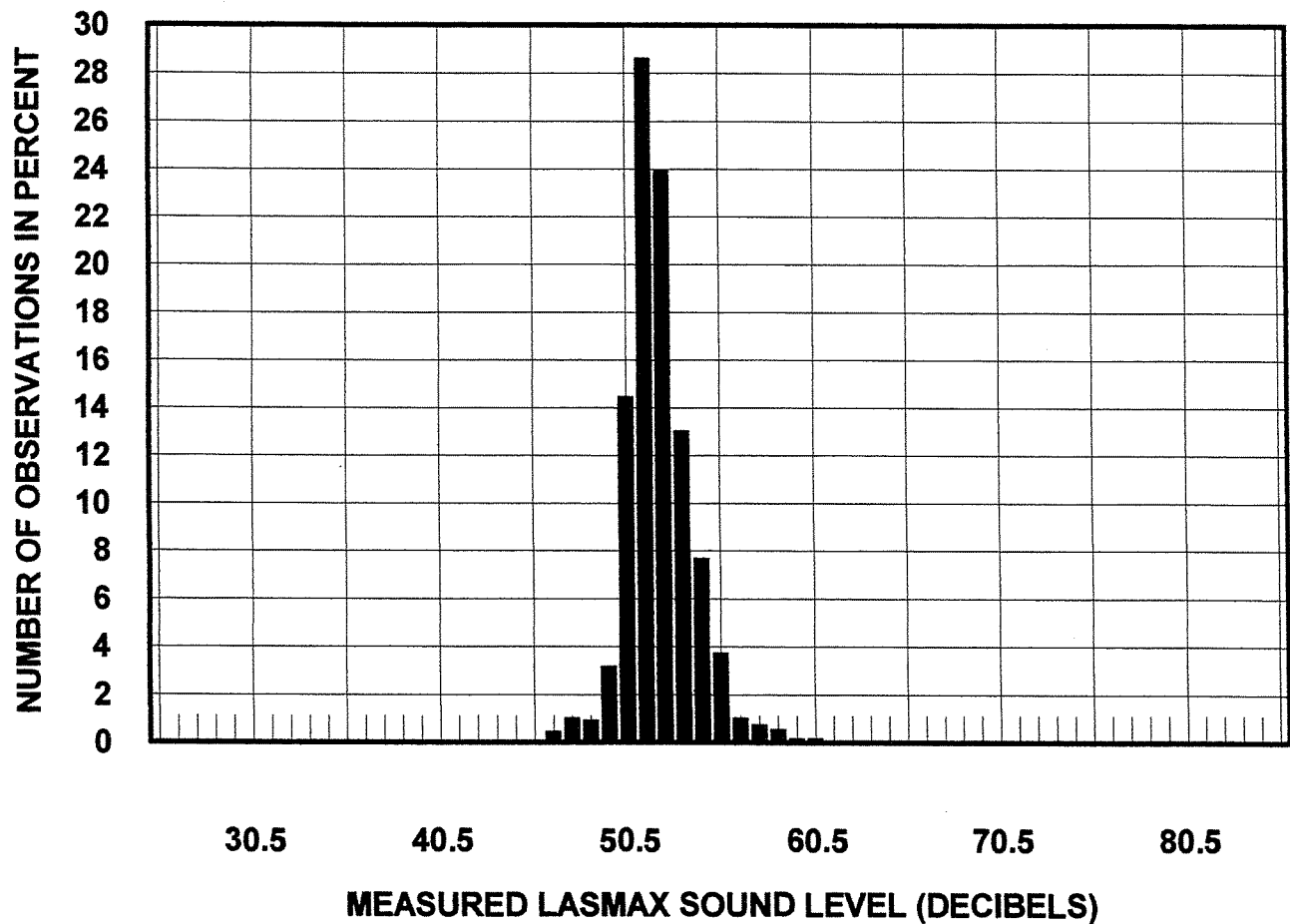
DATE: JULY 6, 2022
 TIME: 2014 - 2032 HOURS
 METER RESPONSE: SLOW



Lmax: 69.9 dBA
 L10: 60.7 dBA
 L50: 58.4 dBA
 Leq: 59.1 dBA
 Lmin: 52.5 dBA

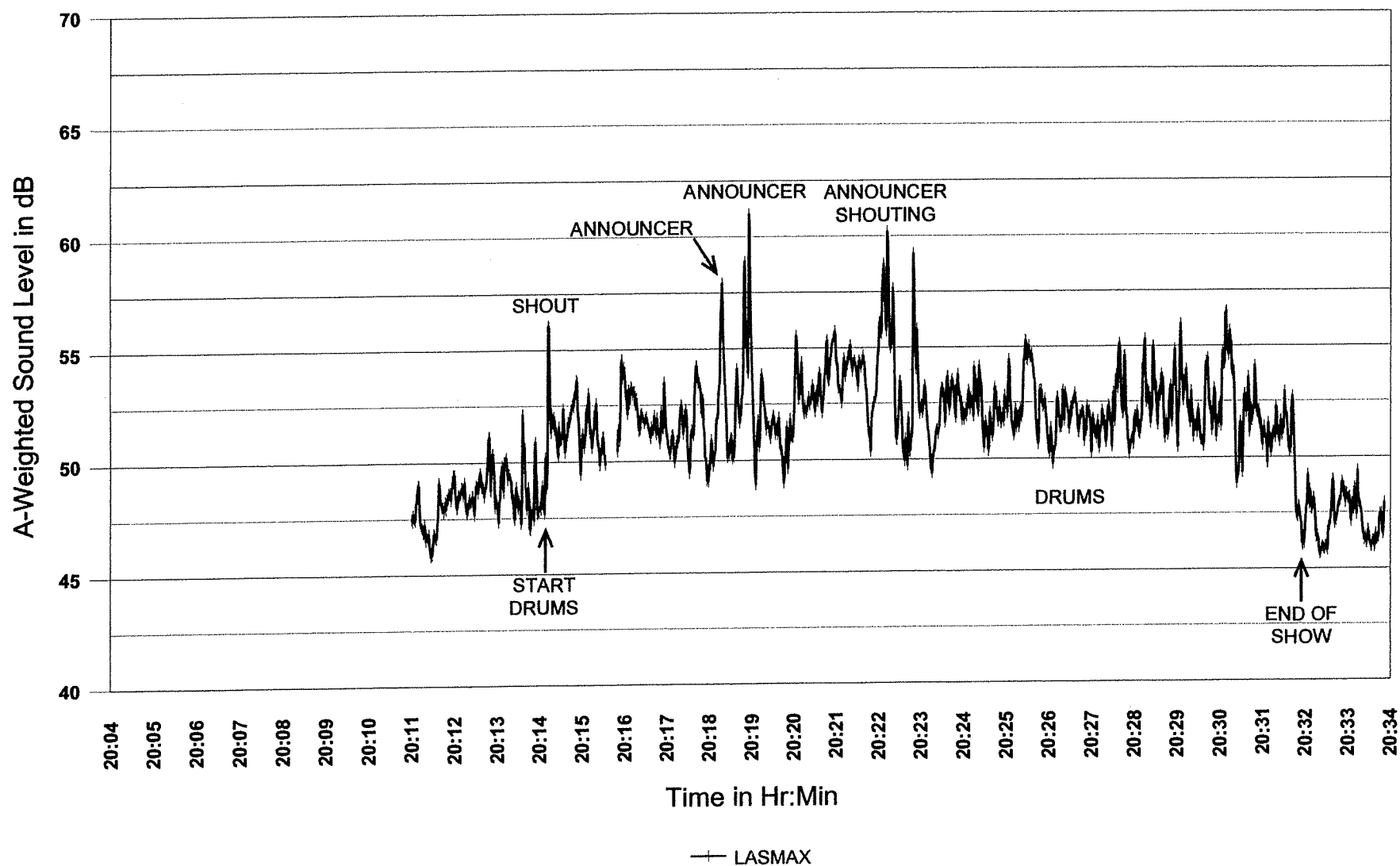
FIGURE IV-18
HISTOGRAM OF MEASURED SOUND LEVELS
DURING LUAU DINNER SHOW; SITE 1

DATE: JULY 6, 2022
 TIME: 2014 - 2032 HOURS
 METER RESPONSE: SLOW

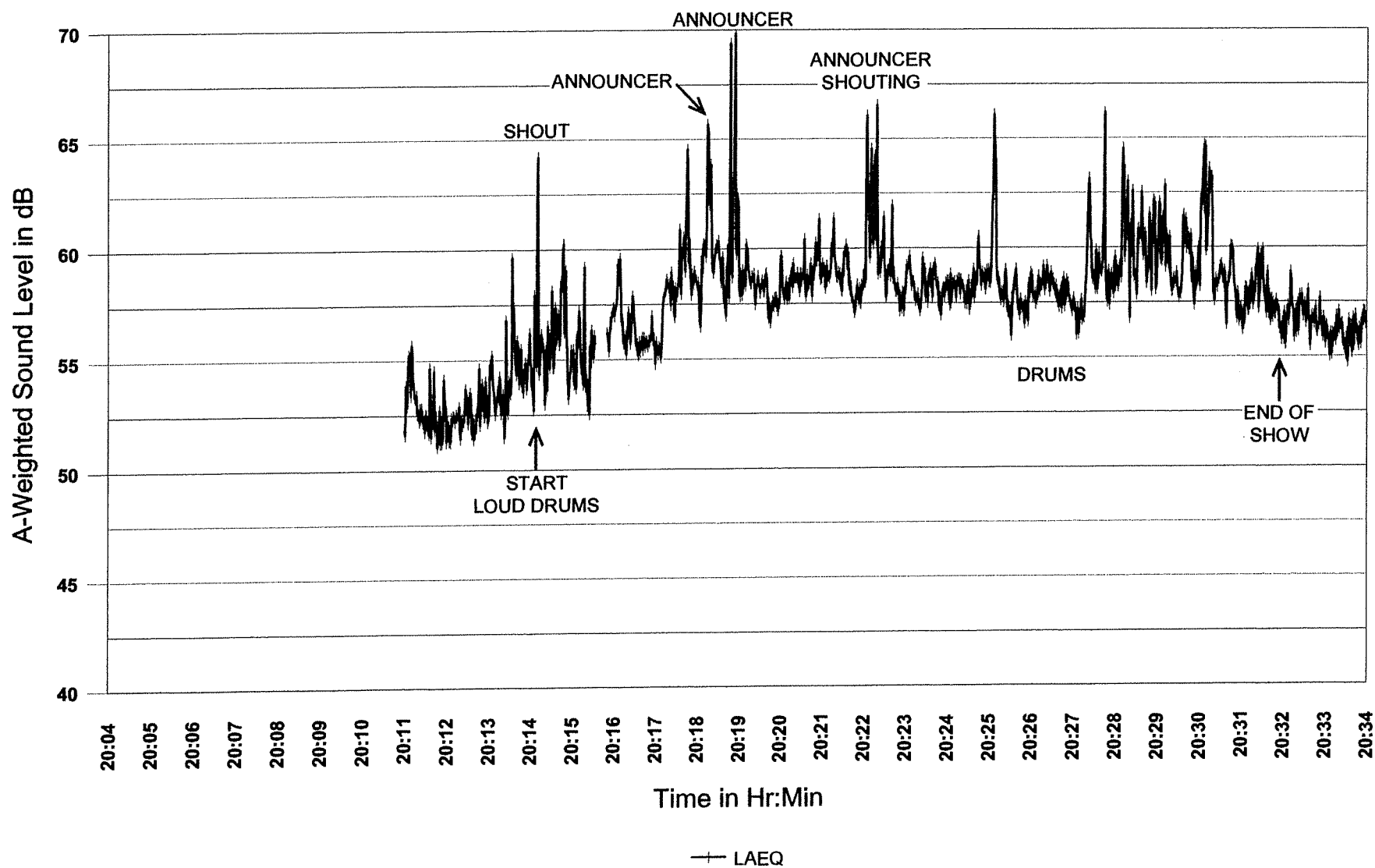


Lmax: 61.0 dBA
 L10: 54.4 dBA
 L50: 52.0 dBA
 Leq: 52.7 dBA
 Lmin: 46.1 dBA

**FIGURE IV-19. 30 MINUTE DBA VS. TIME RECORD DURING LUAU DINNER SHOW; SITE 1
(2011 TO 2034 HOURS; JULY 6, 2022)**



**FIGURE IV-20. 30 MINUTE DBA VS. TIME RECORD DURING LUAU DINNER SHOW; SITE 2
(2011 TO 2034 HOURS; JULY 6, 2022)**



than those shown at Site 2 in Figure IV-17. It was concluded that existing sound levels associated with the Dinner Luau Show are in the 48 dBA to 52 dBA range, and do not exceed the 60 dBA DOH and Liquor Commission limit at the closest residences at The Coconut Plantation-Ko Olina or Kai Lani At Ko Olina during the Luau Dinner Show.

Table IV-3 summarizes the existing sound levels associated with the Imu Amphitheater and Luau Dinner Show events at various receptor locations at the Paradise Cove property lines (P.L.) and closest residences mauka of Paradise Cove. From the results shown in the table, it was concluded that exceedances of the 60 dBA (L10) threshold may occur during the Dinner Luau Show at the closest points on the mauka and south property lines, but are probably not occurring at the closest residences mauka of Paradise Cove. At the existing Lanikuhonua Cultural Institute to the south, existing sound levels during the Dinner Luau Show are probably similar to those measured at Site 1 (see Figure IV-18), where L10 levels were less than 60 dBA.

TABLE IV - 3
EXISTING AND FUTURE DISTANCES TO AND SOUND LEVELS AT
VARIOUS LOCATIONS; THE COVE REDEVELOPMENT

30-May-24 LOCATION	REF. MEAS. SITE	REF. SITE FIGURE	NORTH P.L.	MAUKA P.L.	SOUTH P.L.	KAI LANI	COCONUT PLANTA- TION
<u>Existing / Future Entertainment Events:</u>							
Buffer Distance (feet)		340	400	367	654	795	816
Imu Amphitheater, LA10	Site 2	Figure IV-15	56.6 dBA	57.6 dBA	50.5 dBA	47.8 dBA	47.4 dBA
Imu Amphitheater, LA50	Site 2	Figure IV-15	54.0 dBA	55.0 dBA	47.9 dBA	45.2 dBA	44.8 dBA
Imu Amphitheater, LAeq	Site 2	Figure IV-15	54.5 dBA	55.5 dBA	48.4 dBA	45.7 dBA	45.3 dBA
Buffer Distance (feet)		508	606	413	460	977	873
Dinner Luau Show, LA10	Site 2	Figure IV-17	57.6 dBA	62.7 dBA	61.3 dBA	50.5 dBA	52.3 dBA
Dinner Luau Show, LA50	Site 2	Figure IV-17	54.7 dBA	59.8 dBA	58.4 dBA	47.6 dBA	49.4 dBA
Dinner Luau Show, LAeq	Site 2	Figure IV-17	55.6 dBA	60.7 dBA	59.3 dBA	48.5 dBA	50.3 dBA
Buffer Distance (feet)		744	150	420	907	718	913
New Amphitheater, LA10	Site 1	Figure IV-18	72.6dBA	61.1 dBA	50.2 dBA	53.8 dBA	50.1 dBA
New Amphitheater, LA50	Site 1	Figure IV-18	70.0 dBA	58.5 dBA	47.6 dBA	51.2 dBA	47.5 dBA
New Amphitheater, LAeq	Site 1	Figure IV-18	70.9 dBA	59.4 dBA	48.5 dBA	52.1 dBA	48.4 dBA

Notes:

1. Buffer distances shown are between event stage and reference measurement site or receptor location shown in table columns.
2. "P.L." are receptor locations at applicable Paradise Cove property line.
3. "Kai Lani" and "Coconut Plantation" are receptor locations at the closest residence of each residential area.
4. dBA values shown are A-Weighted, L10, L50, and Leq values based on measured levels at the Reference Sites indicated.
5. "New Amphitheater" represent potential future events at the proposed Amphitheater.

CHAPTER V. FUTURE NOISE ENVIRONMENT

Predictions of future traffic noise levels along Aliinui Drive, Olani Street, and Kamoana Place were made using the traffic volume assignments of Reference 7. The future predictions of project plus non-project traffic on the roadway sections which would service the project are shown in Table V-1 for the PM peak hour of traffic in CY 2026. Table IV-2 summarizes the predicted increases in setback distances to the 65, 70, and 75 DNL traffic noise contour lines along the roadways servicing the project and attributable to increases in project plus non-project traffic by CY 2026.

Table V-2 presents the calculated increases in traffic noise attributable to project and non-project traffic by CY 2026. From Table V-2, small project plus non-project traffic noise increase of 0.3 to 0.4 DNL are predicted to occur by CY 2026 along sections of Aliinui Drive in the vicinity of The Cove Redevelopment. The increases in traffic noise levels associated with The Cove Redevelopment Plan along Aliinui Drive will be difficult to measure. Insignificant increases of traffic noise along Olani Street and Kamoana Place are expected with or without the project by CY 2026. The future traffic noise environment in the project environs will not be significantly changed by the proposed project due to the relatively low volumes of traffic expected to be generated by the project.

The Site Plan associated with The Cove Redevelopment is shown in Figure V-1, and its relationship to the existing land uses is shown in Figure V-2. The most significant acoustical change is anticipated to be the replacement of the existing Imu Amphitheater and Luau Dinner Show stage by the proposed Amphitheater at the northwest corner of the project site. Table IV-3 includes the predicted sound levels associated with entertainment events, which may occur in the future at the proposed Amphitheater and are similar to those presently held at the Imu Amphitheater and the Luau Dinner Show Theater. The anticipated buffer distances between the proposed Amphitheater and Kai Lani At Ko Olina and The Coconut Plantation-Ko Olina are 718 feet and 913 feet, respectively. Due to changes in buffer distances, sound levels in the future during the Luau Dinner Show may increase by 3.6 dBA at Kai Lani At Ko Olina and decrease by 1.9 dBA at The Coconut Plantation-Ko Olina. Because the Main House Speaker throw distance to the farthest seated guest at the new facility may be shorter than that at the existing facility (90 feet in the future vs. 117 feet presently), the future amplified sound levels from the Main House Speaker system at the Amphitheater may be adjusted to be 2.3 dBA less than current volume levels set at the Luau Dinner Show Theater, while producing similar amplified program sound levels within the proposed Amphitheater audience seating area.

If the June/July 2022 Luau Dinner Show is performed at the new Amphitheater, resulting program sound levels during the show at the closest residence of Kai Lani At Ko Olina are anticipated to be similar to those shown in Figures IV-7, IV-18, and IV-19. The higher background traffic noise levels at Kai Lani At Ko Olina will tend to increase the total sound levels above those shown in Figures IV-7, IV-18 and IV-18, and make the dinner show program more difficult to hear due to sound masking effects from the

TABLE V-1

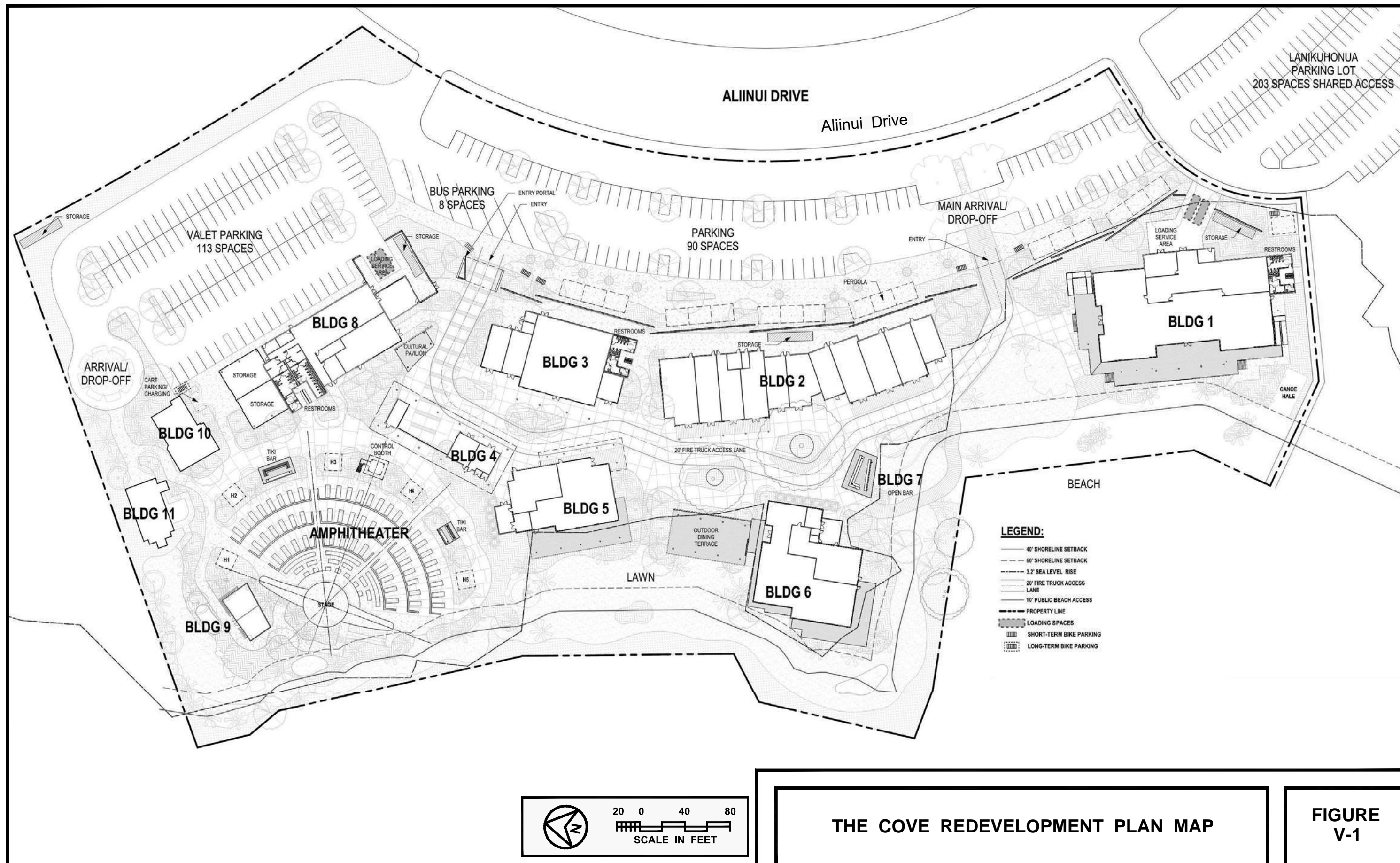
FUTURE TRAFFIC VOLUMES AND NOISE LEVELS
ALONG VARIOUS SECTIONS OF ROADWAYS IN THE PROJECT AREA
(PM PEAK HOUR, WITH THE PROJECT)

<u>LOCATION</u>	<u>SPEED</u>	<u>TOTAL</u>	***** VOLUMES (VPH) *****					
	<u>(MPH)</u>	<u>VPH</u>	<u>AUTOS</u>	<u>M TRUCKS</u>	<u>H TRUCKS</u>	<u>50' Leq</u>	<u>100' Leq</u>	<u>150' Leq</u>
Aliinui Drive W. of Olani Street	32	1,440	1,415	22	3	65.0	59.0	55.0
Aliinui Drive Between Olani Street and Kamoana Pl.	32	1,164	1,145	17	2	64.1	58.1	54.1
Aliinui Drive E. of Kamoana Pl.	32	1,014	997	15	2	63.5	57.5	53.5
Olani Street N. of Aliinui Dr.	25	288	262	26	0	57.2	51.2	48.3
Olani Street S. of Aliinui Dr.	25	235	223	12	0	55.1	49.2	46.2
Kamoana Place S. of Aliinui Dr.	25	157	149	8	0	53.4	47.4	44.5

TABLE V-2

**CALCULATIONS OF PROJECT AND NON-PROJECT
FUTURE TRAFFIC NOISE CONTRIBUTIONS
(LEQ OR DNL)**

<u>ROADWAY SECTION</u>	NOISE LEVEL (DB) INCREASE DUE TO:	
	<u>NON-PROJECT TRAFFIC</u>	<u>PROJECT TRAFFIC</u>
Aliinui Drive W. of Olani Street	0.00	0.30
Aliinui Drive Between Olani Street and Kamoana Pl.	0.10	0.30
Aliinui Drive E. of Kamoana Pl.	0.00	0.40
Olani Street N. of Aliinui Dr.	0.00	0.00
Olani Street S. of Aliinui Dr.	0.00	0.00
Kamoana Place S. of Aliinui Dr.	0.00	0.00





**LOCATION OF THE COVE
REDEVELOPMENT**

**FIGURE
V-2**

background traffic noise levels. The future Luau Dinner Show program's sound levels from the proposed Amphitheater facility should not exceed the 60 dBA(L10) threshold of the DOH or the Liquor Commission at Kai Lani At Ko Olina or at The Coconut Plantation-Ko Olina under The Cove Redevelopment Plan.

CHAPTER VI. DISCUSSION OF PROJECT RELATED NOISE IMPACTS AND POSSIBLE NOISE MITIGATION MEASURES

Traffic Noise. The increases in traffic noise levels attributable to the project are predicted to be approximately equal to or less than 0.4 dB (or DNL) along Aliinui Drive. An increase in traffic noise of 0.4 dB will be difficult to perceive, and is not considered to be significant. For this reason, traffic noise impacts associated with The Cove Redevelopment Plan are not considered to be significant.

In absolute terms, forecasted noise levels along Aliinui Drive are not expected to exceed the 65 DNL FHA/HUD standard at 59 FT setback distance from the roadway's centerline. Existing and future dwelling units along Aliinui Drive which are not shielded from traffic noise by walls, buildings, or natural terrain features but are at setback distances greater than 59 FT from the roadway's centerline can be expected to be exposed to "Moderate, Acceptable" traffic noise levels based on traffic projections to CY 2026. Along Olani Street and Kamoana Place, future traffic noise level increases are not expected to occur with or without the project.

Along Farrington Highway, where traffic volumes, speeds, and noise levels are significantly higher, the additive noise contributions from project traffic should be even less significant when compared to non-project traffic contributions. Project related traffic noise impacts along Farrington Highway are not anticipated because of the dominating influence of non-project traffic noise over project traffic noise levels.

Sound Levels During Entertainment Events. The on-site facility with the highest potential for causing future noise impacts on noise sensitive receptors in the project environs is the proposed new Amphitheater. A map of the existing land uses in relation to The Cove Redevelopment Plan is shown in Figure V-2. Preservation (P-2) zoned lands currently exist between The Project and the residential areas of Kai Lani At Ko Olina and The Coconut Plantation-Ko Olina. Because the proposed Amphitheater will tend to project amplified sound toward the mauka direction, sound spillover into these apartment zoned areas are expected to continue. It is assumed that the P-2 Zoned buffer spaces between The Project and the existing residences will continue to remain. As such, it is anticipated that current mitigation measures to minimize sound spillover can continue to be implemented following completion of the new Amphitheater.

Noise impacts at the existing residences mauka of The Project can be minimized by limiting sound spillover to 60 dB (A-Weighted) or less and to periods between the hours of 7:00 AM to 10:00 PM. The amount of the sound spillover in the future will depend upon the design of the new sound system for the proposed Amphitheater, and the noise shielding effects of intervening building structures within The Project complex. The audibility of the sound spillover will depend upon the background ambient noise levels at the residences, as well as the sound levels of the amplified music and voice from The Project. Conflicts between neighboring residents and The Project should be avoidable as long as spillover sound is controlled and amplified sound levels from the entertainment events do not increase significantly from current levels.

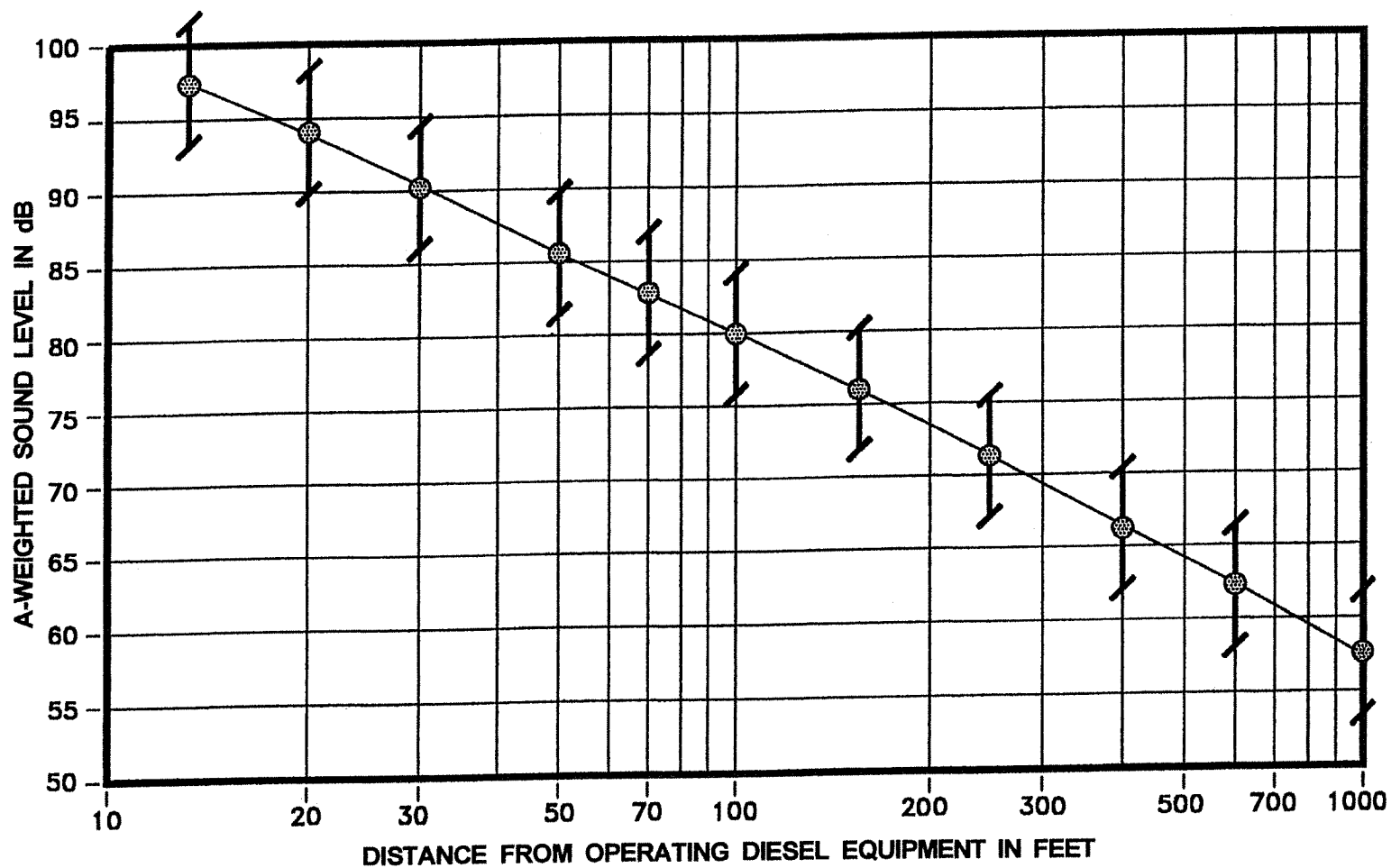
Based on measurements during Luau Dinner Shows at the existing Paradise Cove obtained at Sites 1, 2 and 4 (see Figure III-3), and calculations performed of potential increases in Luau Show sound levels at Kai Lani due to shorter buffer distances between the planned Amphitheater and Kai Lani residents, a 3 to 4 dBA reduction of spillover sound levels will be required to mitigate the potential noise impacts associated with the decrease in buffer distance between Kai Lani and the Luau Shows. It is possible to design the proposed Amphitheater's sound amplification system (or Public Address System) to achieve this 3 to 4 dBA reduction in Luau Dinner Show sound spillover sound levels at Kai Lani while maintaining current maximum program sound levels to 90 dBA within the Amphitheater's audience seating area. The applicant is insuring that current PA System design efforts for the proposed Amphitheater include this mitigation measure to maintain Luau Show sound levels from the proposed Amphitheater at existing Luau Show sound levels from the Paradise Cove theater. The final design of the sound system will be determined as the Project progresses.

At the present time, scheduling conflicts between entertainment events at Paradise Cove and activities at Lanikuhonua Cultural Institute to the south are rare and spillover sound from the present entertainment events do not adversely impact Lanikuhonua. Under The Cove Redevelopment Plan, Luau Dinner Shows similar to those presently performed at the existing stage should be approximately 11 dBA quieter along the south property line due to the increased separation distance of the proposed Amphitheater from the south property line.

Construction Noise. Audible construction noise will probably be unavoidable during the construction at The Cove Redevelopment site. Short term noise impacts associated with construction at the project site may occur at the adjacent Lanikuhonua Cultural Institute and at the existing residences at Kai Lani At Ko Olina and The Coconut Plantation-Ko Olina. Typical levels of exterior noise from construction activity (excluding pile driving activity) at various distances from the job site are shown in Figure VI-1.

Figure VI-1 is useful for predicting exterior noise levels at short distances (within 500 FT) from the work when visual line of sight exists between the construction equipment and the receptor. Direct line-of-sight distances from the construction equipment to the closest existing residential and educational buildings could range from 450 FT to 550 FT, with corresponding average noise levels of 65 to 64 dBA (plus or minus 5 dBA). For receptors along a cross-street, the construction noise level vs. distance curve of Figure VI-1 should be reduced by approximately 8 dBA when the work is occurring at the intersection with the cross street, and should be reduced by 15 dBA when work is occurring at least 100 FT from the intersection (and the visual line-of-sight is blocked by intervening buildings). Typical levels of construction noise inside naturally ventilated and air conditioned structures are approximately 10 and 20 dB less, respectively, than the levels shown in Figure VI-1.

The occupants in the existing buildings at the Lanikuhonua Cultural Institute and



**ANTICIPATED RANGE OF CONSTRUCTION
NOISE LEVELS VS. DISTANCE**

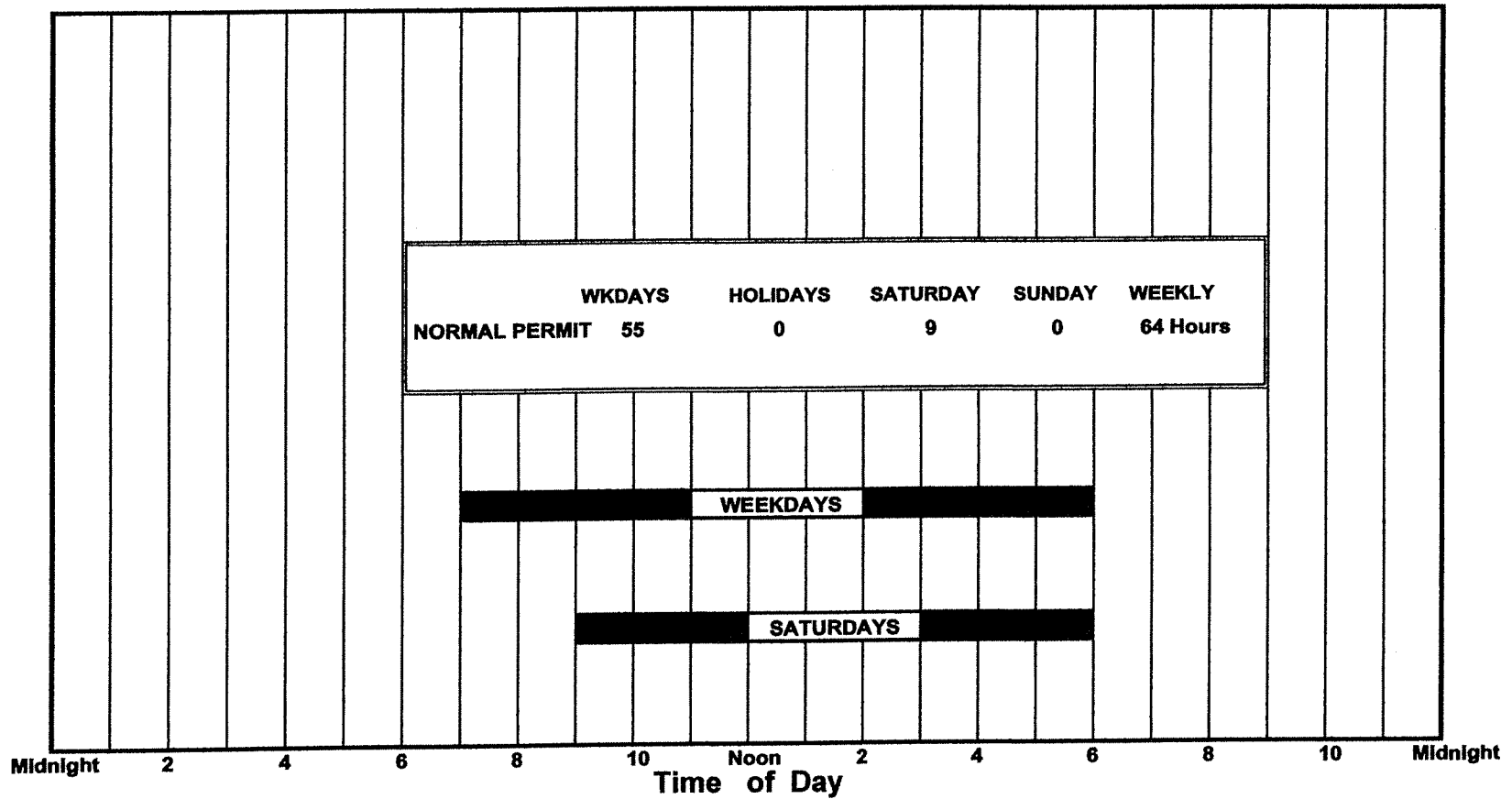
**FIGURE
VI-1**

residents at Kai Lani At Ko Olina and The Coconut Plantation-Ko Olina are predicted to experience the highest average noise levels (between 65 and 64 dBA) during construction activities. Predicted construction noise levels may intermittently exceed 70 dBA during earthwork activities and exceed 51 dBA during building erection activities. The closest residence is located approximately 450 feet mauka of the anticipated construction work, with construction noise levels as high as 65 dBA possible during the site preparation phase and as high as 51 dBA possible during the building erection phase. These anticipated construction noise levels are not extreme and are similar to existing background noise levels measured at Site 7 and Site 8 (see Figures IV-13 and IV-14).

Severe noise impacts are not expected to occur inside air conditioned structures which are beyond 450 FT of the project construction site. Inside naturally ventilated structures, interior noise levels (with windows or doors opened) are estimated to range between 56 to 55 dBA at 450 FT distance from the construction site. Closure of all doors and windows facing the construction site would generally reduce interior noise levels by an additional 5 to 10 dBA. With windows and doors closed, the highest construction noise levels of 65 dBA at 450 FT outdoors should decrease to approximately 50 to 45 dBA indoors.

Adverse impacts from construction noise are not expected to be in the "public health and welfare" category due to the temporary nature of the work, and the regulation of construction noise by the State Department of Health (DOH). Instead, these impacts will probably be limited to the temporary degradation of the quality of the acoustic environment in the immediate vicinity of the project site. Because of the relatively high noise levels associated with construction activities (75 to 85+ dBA at 100 FT distance), and due to the exterior nature of the work (grading and earth moving, trenching, concrete pouring, hammering, etc.), mitigation of construction noise to inaudible levels will not be practical in all cases. The use of properly muffled and maintained construction equipment should be required on the job site.

Permissible noise levels during construction are regulated by the State Department of Health under the permit procedures of Reference 4. The incorporation of State Department of Health construction noise limits and curfew times, which are applicable throughout the State of Hawaii (Reference 4), is a noise mitigation measure which is normally applied to construction activities. Figure VI-2 depicts the normally permitted hours of construction. Noisy construction activities are not allowed on Sundays and holidays, during the early morning, and during the late evening and nighttime periods under the DOH permit procedures.



**AVAILABLE WORK HOURS UNDER DOH PERMIT
PROCEDURES FOR CONSTRUCTION NOISE**

**FIGURE
VI-2**

APPENDIX A. REFERENCES

- (1) "Guidelines for Considering Noise in Land Use Planning and Control;" Federal Interagency Committee on Urban Noise; June 1980.
- (2) "Environmental Criteria and Standards, Noise Abatement and Control, 24 FR, Part 51, Subpart B;" U.S. Department of Housing and Urban Development; July 12, 1979.
- (3) "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety;" Environmental Protection Agency (EPA 550/9-74-004); March 1974.
- (4) "Title 11, Administrative Rules, Chapter 46, Community Noise Control;" Hawaii State Department of Health; September 23, 1996.
- (5) Rules of the Liquor Commission; Para. 3-82-38.23, Compliance with Allowable Noise Levels; City and County of Honolulu, November 2018.
- (6) "FHWA Traffic Noise Model User's Guide;" FHWA-PD-96-009, Federal Highway Administration; Washington, D.C.; January 1998 and Version 2.5 Upgrade (April 14, 2004).
- (7) Base Year and 2026 Traffic Turning Movement Diagrams; The Cove Redevelopment Project; Wilson Okamoto Corporation; August 2022.
- (8) 24-Hour Traffic Counts At Station B7200000H1-1, Mainline Farrington Highway At Ko Olina Interchange; Hawaii State Department of Transportation, Highways Division; April 18, 2019.

APPENDIX B

EXCERPTS FROM EPA'S ACOUSTIC TERMINOLOGY GUIDE

Descriptor Symbol Usage

The recommended symbols for the commonly used acoustic descriptors based on A-weighting are contained in Table I. As most acoustic criteria and standards used by EPA are derived from the A-weighted sound level, almost all descriptor symbol usage guidance is contained in Table I.

Since acoustic nomenclature includes weighting networks other than "A" and measurements other than pressure, an expansion of Table I was developed (Table II). The group adopted the ANSI descriptor-symbol scheme which is structured into three stages. The first stage indicates that the descriptor is a level (i.e., based upon the logarithm of a ratio), the second stage indicates the type of quantity (power, pressure, or sound exposure), and the third stage indicates the weighting network (A, B, C, D, E.....). If no weighting network is specified, "A" weighting is understood. Exceptions are the A-weighted sound level and the A-weighted peak sound level which require that the "A" be specified. For convenience in those situations in which an A-weighted descriptor is being compared to that of another weighting, the alternative column in Table II permits the inclusion of the "A". For example, a report on blast noise might wish to contrast the LCdn with the LAdn.

Although not included in the tables, it is also recommended that "Lpn" and "LepN" be used as symbols for perceived noise levels and effective perceived noise levels, respectively.

It is recommended that in their initial use within a report, such terms be written in full, rather than abbreviated. An example of preferred usage is as follows:

The A-weighted sound level (LA) was measured before and after the installation of acoustical treatment. The measured LA values were 85 and 75 dB respectively.

Descriptor Nomenclature

With regard to energy averaging over time, the term "average" should be discouraged in favor of the term "equivalent". Hence, Leq, is designated the "equivalent sound level". For Ld, Ln, and Ldn, "equivalent" need not be stated since the concept of day, night, or day-night averaging is by definition understood. Therefore, the designations are "day sound level", "night sound level", and "day-night sound level", respectively.

The peak sound level is the logarithmic ratio of peak sound pressure to a reference pressure and not the maximum root mean square pressure. While the latter is the maximum sound pressure level, it is often incorrectly labelled peak. In that sound level meters have "peak" settings, this distinction is most important.

"Background ambient" should be used in lieu of "background", "ambient", "residual", or "indigenous" to describe the level characteristics of the general background noise due to the contribution of many unidentifiable noise sources near and far.

With regard to units, it is recommended that the unit decibel (abbreviated dB) be used without modification. Hence, DBA, PNdB, and EPNdB are not to be used. Examples of this preferred usage are: the Perceived Noise Level (Lpn was found to be 75 dB. Lpn = 75 dB). This decision was based upon the recommendation of the National Bureau of Standards, and the policies of ANSI and the Acoustical Society of America, all of which disallow any modification of bel except for prefixes indicating its multiples or submultiples (e.g., deci).

Noise Impact

In discussing noise impact, it is recommended that "Level Weighted Population" (LWP) replace "Equivalent Noise Impact" (ENI). The term "Relative Change of Impact" (RCI) shall be used for comparing the relative differences in LWP between two alternatives.

Further, when appropriate, "Noise Impact Index" (NII) and "Population Weighed Loss of Hearing" (PHL) shall be used consistent with CHABA Working Group 69 Report Guidelines for Preparing Environmental Impact Statements (1977).

APPENDIX B (CONTINUED)

TABLE I
A-WEIGHTED RECOMMENDED DESCRIPTOR LIST

<u>TERM</u>	<u>SYMBOL</u>
1. A-Weighted Sound Level	L_A
2. A-Weighted Sound Power Level	L_{WA}
3. Maximum A-Weighted Sound Level	L_{max}
4. Peak A-Weighted Sound Level	L_{Apk}
5. Level Exceeded x% of the Time	L_x
6. Equivalent Sound Level	L_{eq}
7. Equivalent Sound Level Over Time (T) ⁽¹⁾	$L_{eq(T)}$
8. Day Sound Level	L_d
9. Night Sound Level	L_n
10. Day-Night Sound Level	L_{dn}
11. Yearly Day-Night Sound Level	$L_{dn(Y)}$
12. Sound Exposure Level	L_{SE}

(1) Unless otherwise specified, time is in hours (e.g. the hourly equivalent level is $L_{eq(1)}$). Time may be specified in non-quantitative terms (e.g., could be specified as $L_{eq(WASH)}$ to mean the washing cycle noise for a washing machine).

SOURCE: EPA ACOUSTIC TERMINOLOGY GUIDE, BNA 8-14-78,

APPENDIX B (CONTINUED)

TABLE II
RECOMMENDED DESCRIPTOR LIST

<u>TERM</u>	<u>A-WEIGHTING</u>	<u>ALTERNATIVE⁽¹⁾</u> <u>A-WEIGHTING</u>	<u>OTHER⁽²⁾</u> <u>WEIGHTING</u>	<u>UNWEIGHTED</u>
1. Sound (Pressure) ⁽³⁾ Level	L_A	L_{pA}	L_B, L_{pB}	L_p
2. Sound Power Level	L_{WA}		L_{WB}	L_W
3. Max. Sound Level	L_{max}	L_{Amax}	L_{Bmax}	L_{pmax}
4. Peak Sound (Pressure) Level	L_{Apk}		L_{Bpk}	L_{pk}
5. Level Exceeded x% of the Time	L_x	L_{Ax}	L_{Bx}	L_{px}
6. Equivalent Sound Level	L_{eq}	L_{Aeq}	L_{Beq}	L_{peq}
7. Equivalent Sound Level ⁽⁴⁾ Over Time(T)	$L_{eq(T)}$	$L_{Aeq(T)}$	$L_{Beq(T)}$	$L_{peq(T)}$
8. Day Sound Level	L_d	L_{Ad}	L_{Bd}	L_{pd}
9. Night Sound Level	L_n	L_{An}	L_{Bn}	L_{pn}
10. Day-Night Sound Level	L_{dn}	L_{Adn}	L_{Bdn}	L_{pdn}
11. Yearly Day-Night Sound Level	$L_{dn(Y)}$	$L_{Adn(Y)}$	$L_{Bdn(Y)}$	$L_{pdn(Y)}$
12. Sound Exposure Level	L_S	L_{SA}	L_{SB}	L_{Sp}
13. Energy Average Value Over (Non-Time Domain) Set of Observations	$L_{eq(e)}$	$L_{Aeq(e)}$	$L_{Beq(e)}$	$L_{peq(e)}$
14. Level Exceeded x% of the Total Set of (Non-Time Domain) Observations	$L_{x(e)}$	$L_{Ax(e)}$	$L_{Bx(e)}$	$L_{px(e)}$
15. Average L_x Value	L_x	L_{Ax}	L_{Bx}	L_{px}

(1) "Alternative" symbols may be used to assure clarity or consistency.

(2) Only B-weighting shown. Applies also to C,D,E,.....weighting.

(3) The term "pressure" is used only for the unweighted level.

(4) Unless otherwise specified, time is in hours (e.g., the hourly equivalent level is $L_{eq(1)}$). Time may be specified in non-quantitative terms (e.g., could be specified as $L_{eq(WASH)}$ to mean the washing cycle noise for a washing machine.

APPENDIX C

SUMMARY OF BASE YEAR AND FUTURE YEAR WITH AND WITHOUT THE PROJECT

ROADWAY LANES	**** CY 2022 ****		CY 2026 (NO BUILD)		CY 2026 (BUILD)	
	AM VPH	PM VPH	AM VPH	PM VPH	AM VPH	PM VPH
Aliinui Drive W. of Olani Street (WB)	450	659	457	669	492	723
Aliinui Drive W. of Olani Street (EB)	653	668	663	678	689	717
Two-Way	1,103	1,327	1,120	1,347	1,181	1,440
Aliinui Drive Between Olani Street and Kamoana Pl. (WB)	410	553	417	563	452	617
Aliinui Drive Between Olani Street and Kamoana Pl. (EB)	523	499	532	508	558	547
Two-Way	932	1,052	949	1,071	1,010	1,164
Aliinui Drive E. of Kamoana Pl. (WB)	348	502	355	512	390	566
Aliinui Drive E. of Kamoana Pl. (EB)	448	401	457	409	483	448
Two-Way	796	903	812	921	873	1,014
Olani Street N. of Aliinui Dr. (NB)	105	168	105	168	105	168
Olani Street N. of Aliinui Dr. (SB)	108	120	108	120	108	120
Two-Way	213	288	213	288	213	288
Olani Street S. of Aliinui Dr. (NB)	68	133	68	133	68	133
Olani Street S. of Aliinui Dr. (SB)	146	102	146	102	146	102
Two-Way	214	235	214	235	214	235
Kamoana Place S. of Aliinui Dr. (NB)	83	78	83	78	83	78
Kamoana Place S. of Aliinui Dr. (SB)	81	79	81	79	81	79
Two-Way	164	157	164	157	164	157

Appendix I

Final Economic Impact Report for the Cove Redevelopment

Economic Impact Report for the Cove Redevelopment
Updated August 2024

EXECUTIVE SUMMARY

This Economic Impact Report (EIR) was conducted to assess the economic impacts that the proposed Cove Redevelopment project would have on the economy of the City and County of Honolulu (C&C of Honolulu) and the fiscal revenue of the State of Hawaii and C&C of Honolulu governments. Potential economic and fiscal impacts are assessed for the construction phase and operations phase of the project.

Table ES-1 shows that over the course of the 24-month construction phase of the project, a total of 1,429 jobs would be generated or sustained, which equates to 1,386 full-time equivalent (FTE) jobs. Approximately \$114.4 million in labor income would be generated through that employment, and total economic output over the 24-month construction phase would be approximately \$247.0 million.

Table ES-1. Economic Impacts, Short-term (24-month Construction Phase), 2024 \$s

Impact Type	Total Jobs	FTE Jobs	Labor Income	Economic Output
Direct	900	873	\$79,789,032	\$135,637,819
Indirect and Induced	529	513	\$34,647,427	\$111,317,473
Totals	1,429	1,386	\$114,436,459	\$246,955,292

Table ES-2 shows that, on an annual basis, for the life of the project, a total of 817 jobs would be generated or sustained, which equates to 678 full-time equivalent jobs. An estimated 484 FTE would be direct, on-site, jobs. Approximately \$34.5 million in labor income would be generated through that employment and total economic output, on an annual basis, would be approximately \$100.0 million.

Table ES-2. Economic Impacts, Long-term (Annual Operations), 2024 \$s

Impact Type	Total Jobs	FTE Jobs	Labor Income	Economic Output
Direct	583	484	\$20,379,543	\$53,779,740
Indirect and Induced	234	194	\$14,115,633	\$46,173,174
Totals	817	678	\$34,495,176	\$99,952,914

Table ES-3 shows estimated fiscal impacts, for both phases of the project, in terms of revenue to the State of Hawaii and C&C of Honolulu governments. The State of Hawaii would accrue approximately \$10.2 million in revenue due to project construction over the course of 24-months while the C&C of Honolulu would accrue about \$3.3 million. On an annual basis, from project operations, the State of Hawaii would accrue approximately \$4.6 million per year, while the C&C of Honolulu would accrue approximately \$2.1 million per year.

Table ES-3. Fiscal Impacts, 2024 \$s

Project Phase	State of Hawaii Government Revenue	C&C of Honolulu Government Revenue
Short-term (Construction)	\$10,170,535	\$3,309,537
Long-term (Annual Operations)	\$4,591,378	\$2,062,228

Economic Impact Report for the Cove Redevelopment Project

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Abbreviations and Acronyms

Acronym	Definition
%	percent
\$s	dollars
CCD	Census County Division
CCK	Cove Campbell Kobayashi LLC
C&C	City and County
DBEDT	Department of Business Economic Development & Tourism
EIR	Economic Impact Report
FTE	Full-time Equivalent
GET	General Excise Tax
IMPLAN	Impact Analysis for Planning
ROI	Region of Influence

1 Introduction

Cove Campbell Kobayashi LLC (CCK) plans to improve the 10.85-acre property located between Aliʻinui Drive and the shoreline makai of the entrance to the Ko Olina Resort. The site is currently occupied by the Paradise Cove lūʻau/entertainment operations. The redevelopment of the site as The Cove Redevelopment (also referred to as the “project”) will be the first major improvement of the property in over 25 years. Proposed improvements will update the existing property and create an authentic, welcoming, and enjoyable experience for the public that recognizes the unique setting and the history of the ʻEwa region. Redevelopment of the site includes a new entertainment/performing arts venue capable of housing a daily-run entertainment experience focused on Hawaiian culture. The property will also serve as a landscaped gathering area where educational or interactive experiences could occur during the daytime hours. Other planned improvements to modernize the property include the addition of small-scale retail shops, as well as restaurants highlighting local cuisine and agricultural products, and engaging common areas. This Economic Impact Report (EIR) was conducted to assess and report on the impacts that the proposed Cove Redevelopment would have on the C&C of Honolulu economy where project construction and operations would take place. Additionally, fiscal benefits to both the C&C of Honolulu and State of Hawaii governments are presented.

Estimates are provided for the two major phases of the project: 1) construction, and 2) operations. For purposes of analysis, the construction phase is assumed to take place over an approximate 24-month period while operations would be expected to begin just after construction is complete and continue for the foreseeable future. Given these timeframes, economic and fiscal impacts for construction are presented on a total basis (to include all impacts over the 24-month period) and impacts for operations are presented on an annual basis and are assumed to be consistent on an ongoing basis for the life of the project.

Impacts are presented in terms of jobs, labor income, economic output, State of Hawaii government revenue, and C&C of Honolulu government revenue. Input data and results are presented in a year 2024 constant dollar basis. Primary input data for the analysis were provided by CCK and estimated impacts were calculated using the Impact Analysis for Planning (IMPLAN) economic model.

2 Approach to Analysis

2.1 Region of Influence

The Region of Influence (ROI) considered in this EIR is the C&C of Honolulu, which is the location of the proposed project. All fiscal impacts that would accrue to the State of Hawaii government are those that would be generated by economic activity that would take place within the C&C of Honolulu. Some economic benefits may spill over into locations outside of the ROI, as workers are likely to spend portions of their income elsewhere, such as Maui, Hawaii, and Kauai Counties but these potential spill-over effects would likely be minimal and are not captured in this report.

2.2 Input Data and Modeling Procedures

Primary data on construction expenditures and operations revenue by industry were provided by CCK and represent the best available information as of May 2024. Input data are based on planning estimates and may be subject to change. These data were input into appropriate sectors of the IMPLAN model, which was fitted with year 2022 data (the most recent available) for the C&C of Honolulu to calculate estimated economic and fiscal impacts of the proposed project. The IMPLAN model is an economic input-output modeling application, which develops detailed data sets at various levels of geography on an annual basis (IMPLAN, 2024a); it is the current industry standard for economic modeling. The data that were input into the IMPLAN model are presented below in Section 2.2.1 and Section 2.2.2.

2.2.1 Construction Inputs

Table 2-1 shows how estimated Cove Redevelopment construction expenditures were applied to the IMPLAN model, as Industry Output, to calculate economic impacts for construction, which is anticipated to take place over an approximate 24-month period. Table 2-1 shows combined inputs for construction related management, administration, and insurance expenditures with specific detailed spending in those respective industry sectors withheld in this report due to disclosure issues.

Table 2-1. Construction Inputs, 2024 \$s

IMPLAN Sector Description	IMPLAN Code(s)	Estimated Expenditure
Construction of new commercial structures	55	\$97,665,081
Management, Administration, and Insurance	462, 444, & 470	\$10,191,500
Architectural, Engineering, and Related Services	457	\$27,781,238

2.2.2 Operations Inputs

As shown in Table 2-2, anticipated Cove Redevelopment revenues, by industry, were applied to the IMPLAN model, as Industry Output, to calculate estimates of operations impacts. The inputs shown below, and the subsequent economic impact results, described in Sections 4.2 and 5.2, are presented on an annual basis and would be expected to recur, annually, for the life of the proposed project.

Table 2-2. Operations Inputs, 2024 \$s

IMPLAN Sector Description	IMPLAN Code	Estimated Revenue
Performing Arts Companies	496	\$31,595,872
Full-service Restaurants	509	\$15,458,811
Miscellaneous Store Retailers	412	\$11,258,717
Other Amusement & Recreation	504	\$284,431

2.3 Economic Result Variables

Economic variables that are presented as results include jobs, labor income, and economic output. Each of these variables consists of a direct, indirect, and induced element. Estimated results for the variables were calculated by the IMPLAN model using the input data described above in Section 2.2. Increases in the result variables are considered beneficial as they tend to be associated with higher living standards.

Direct impacts are associated with the proposed project itself and include workers directly associated with initial project-related expenditures, the incomes earned by those workers, and the economic output generated by these initial project-related expenditures.

Indirect impacts are generated by the businesses that would supply goods and services that would facilitate various aspects of the project. Indirect jobs include jobs at companies that supply goods and services that support direct activities. Indirect jobs extend to include jobs related to the manufacture of products, to the extent that activity may occur in the C&C of Honolulu. Indirect labor income includes the income earned by people working indirect jobs. Indirect economic output includes the total sales volume related to the supply of goods and services net intermediate purchases.

Induced impacts are the result of spending of the wages and salaries of the direct and indirect workers on items such as food, housing, transportation, and medical services. This spending creates induced employment, labor income, and economic output in nearly all sectors of the economy, especially service sectors.

2.3.1 Jobs

Job impacts represent the number of jobs that would be created or sustained within the ROI as a result of the proposed project. The IMPLAN model generates job numbers that include both full-time and part-time jobs including jobs that may be short-term. Short-term jobs may include, for example, construction trades specialists such as carpenters that may only conduct part of the construction work. Additionally, Full-time Equivalent (FTE) jobs are presented – FTE jobs numbers provide a different perspective on jobs estimates by approximating what the total jobs number would look like if each of those jobs were a full-time, 40-hour per week, job. The IMPLAN model provides results for total jobs and those total jobs were converted to FTE using a bridge-table developed by IMPLAN (IMPLAN 2024b). For construction, total jobs were converted to FTE at a rate of approximately 0.97 (i.e., one construction job is equivalent to 0.97 FTE). For operations, total jobs were converted to FTE at a rate of approximately 0.83 (i.e., one operations job is equivalent to 0.83 FTE).

2.3.2 Labor Income

Labor income impacts represent the income generated through the jobs that would be created or sustained as a result of the construction, operations, and other related economic activity in the ROI. All labor income estimates were calculated by the IMPLAN model based on either planned expenditures (for construction) or anticipated revenues (for operations). Results were calculated in 2024 \$s.

2.3.3 Economic Output

Economic output equals the total value of production, by industry, in a calendar year. It can also be described as annual revenues plus net change in inventory. Results were calculated in 2024 \$s.

2.4 Fiscal Result Variables

Fiscal variables that are presented as results include State of Hawaii government revenue and C&C of Honolulu government revenue. Each of these consists of multiple sources of revenue as described below in Section 2.4.1 and Section 2.4.2. Increases in government revenue are generally considered beneficial as revenue can be used by governments to fund public services and capital expenditures. Also, when governments spend the revenue that they receive from the project, additional jobs, labor income, and economic output would be generated; however, effects of government expenditures are not captured in this EIR.

2.4.1 State of Hawaii Government Revenue

Revenue that would be accrued by the State of Hawaii government as a result of construction and operations are presented in four categories: 1) General Excise Tax (GET) and Use Tax, 2) Corporate Profits Tax, 3) Personal Income Tax, and 4) Other. Estimates were calculated by the IMPLAN model based on incomes, spending of incomes, and industry expenditures. Results were calculated in 2024 \$s.

2.4.2 City and County of Honolulu Revenue

Revenue that would be accrued by the C&C of Honolulu government as a result of construction and operations of the project are presented in two categories: 1) Property Tax, and 2) Other. Estimated property tax was calculated by the IMPLAN model based on additional property tax revenue associated with income from project-related jobs. Other revenue to the C&C of Honolulu calculated by the IMPLAN model include, but are not limited to, sales tax revenue and revenue from licenses and fees. Property tax revenue associated with the Cove Redevelopment site itself were estimated based on a commercial property tax rate of 1.24%, historical land values, and, for future payments that include new construction, the value of new construction. Results were calculated in 2024 \$s.

3 Economic Background

Table 3-1 provides population data for 2010, 2015, and 2021 for the State of Hawaii, the C&C of Honolulu, and each of the Census County Divisions (CCDs) on Oahu, along with average annual growth rates from 2010 to 2015 and 2015 to 2021. As of 2021, the population for the State of Hawaii was about 1.44 million, with about 1 million of that population residing in the C&C of Honolulu (about 70% of the State population). The Ewa CCD, where the proposed project would be located, had a 2021 population of about 360,000, making up about 35% of the C&C of Honolulu population.

Population growth rates statewide, countywide, and through most CCDs were lower from 2015 to 2021 than they were from 2010 to 2015. The Ewa CCD grew at an average annual rate of 1.1% from 2010-2015 matching the State rate, and maintained that growth rate from 2015-2020 while the state rate slowed (1.1% in Ewa compared to 0.4% statewide).

More recent population estimates for 2022 indicate that the population has grown to 1,440,196 for the State of Hawaii and 995,638 for the C&C of Honolulu (U.S. Census 2024).

Table 3-1. Population and Annual Growth Rates by Area, 2010-2021

	2010	2015	2021	Average Annual Growth Rate 2010-2015	Average Annual Growth Rate 2015-2021
State of Hawaii	1,333,591	1,406,299	1,441,553	1.1%	0.4%
C&C of Honolulu	936,984	984,178	1,015,167	1.0%	0.5%
Honolulu CCD	382,622	400,823	406,004	1.0%	0.2%
Ewa CCD	320,373	338,521	360,178	1.1%	1.1%
Koolaupoko CCD	118,083	115,873	119,225	-0.4%	0.5%
Waianae CCD	46,482	48,350	52,829	0.8%	1.5%
Wahiawa CCD	36,724	46,707	42,608	5.4%	-1.5%
Koolauloa CCD	19,634	20,837	21,079	1.2%	0.2%
Waiialua CCD	13,066	13,067	13,244	0.0%	0.2%

Source: U.S. Census, 2010, 2015, and 2021

Table 3-2 provides labor statistics for the State of Hawaii and C&C of Honolulu for the years 2017 to 2023. The labor statistics include the size of the labor force, the total number of employed individuals, the total number of unemployed individuals, and the unemployment rate. Unemployment rates for both the State and C&C were generally very low from 2017 to 2019 but surged in 2020 due to business closures and travel restrictions associated with the COVID-19 pandemic.

From 2019 to 2020, the unemployment rate for the both the State and C&C more than quadrupled, with the State unemployment rate in 2020 being 4.64 times the rate in 2019, and the 2020 rate being 4.43 times the 2019 rate for the C&C. Data for 2021 through 2023 indicate that unemployment rates are in decline, falling statewide from 11.7% in 2020 to 3.0% in 2023 and from 10.3% to 2.7% for the C&C. The size of the labor forces and the number employed in the State and C&C have not yet returned to 2019 levels.

Table 3-2. State of Hawaii and C&C of Honolulu Labor Statistics, 2017-2023

	2017	2018	2019	2020	2021	2022	2023
State of Hawaii							
Labor force	695,303	692,457	686,123	664,085	669,987	676,299	676,335
Employment	679,865	675,849	668,774	586,179	629,626	652,677	656,336
Unemployment	15,438	16,608	17,349	77,906	40,361	23,622	20,019
Unemployment Rate	2.2%	2.4%	2.5%	11.7%	6.0%	3.5%	3.0%
C&C of Honolulu							
Labor force	472,592	469,787	464,847	450,653	452,578	458,128	465,989
Employment	462,531	458,947	453,660	404,352	427,310	442,291	444,454
Unemployment	10,061	10,840	11,187	46,311	25,268	15,837	12,534
Unemployment Rate	2.1%	2.3%	2.4%	10.3%	5.6%	3.5%	2.7%

Source: U.S. Bureau of Labor Statistics, 2024

Table 3-3 shows data on visitor arrivals to the State of Hawaii and Oahu from 2010 to 2023 along with year-over-year rates of change and the Oahu proportion of total arrivals. The State and Oahu saw increases in visitor arrivals every year from 2010 to 2019, with the largest year-over-year growth being experienced from 2011 to 2012 (9.7% and 11.4% increases respectively). From 2017 to 2019 there was steady growth in visitor arrivals that hovered around 5.0% per year. Travel restrictions in 2020 led to massive declines in visitor arrivals, down 73.8% and 75.5% respectively from 2019. Visitor arrivals have surged from 2020 to 2023 but have yet to reach the levels seen in 2019.

Table 3-3. Statewide & Oahu Visitor Arrivals, 2010-2023

Year	Statewide Visitor Arrivals (by Air)	Statewide Year over Year Change	Oahu Visitor Arrivals (by Air)	Oahu Year over Year Change	Oahu % of Statewide Total
2010	6,916,894		4,273,658		61.8%
2011	7,174,397	3.7%	4,401,624	3.0%	61.4%
2012	7,867,143	9.7%	4,904,046	11.4%	62.3%
2013	8,003,474	1.7%	5,044,276	2.9%	63.0%
2014	8,196,342	2.4%	5,192,621	2.9%	63.4%
2015	8,563,018	4.5%	5,339,912	2.8%	62.4%
2016	8,821,802	3.0%	5,447,229	2.0%	61.7%
2017	9,277,613	5.2%	5,683,344	4.3%	61.3%
2018	9,761,448	5.2%	5,862,358	3.1%	60.1%
2019	10,243,165	4.9%	6,154,248	5.0%	60.1%
2020	2,686,403	-73.8%	1,506,316	-75.5%	56.1%
2021	6,777,761	152.3%	3,326,622	120.8%	49.1%
2022	9,138,674	34.8%	4,858,170	46.0%	53.2%
2023	9,488,477	3.8%	5,614,956	15.6%	59.2%

Source: DBEDT, 2024

4 Economic Impact Results

4.1 Construction

4.1.1 Jobs

Table 4-1 shows that over the 24-month construction period there would be an estimated total of 1,429 jobs (1,386 FTE) generated or sustained from project construction – 900 (873 FTE) of the jobs would be direct, 152 (148 FTE) indirect, and 377 (366 FTE) induced.

Table 4-1. Jobs, 24-month Total

	Total Jobs	FTE Jobs ¹
Direct	900	873
Indirect	152	148
Induced	377	366
Total²	1,429	1,386

Notes: ¹FTE calculated at a rate of 0.97 using IMPLAN employment to FTE ratios.

²Some totals may not appear to sum from their parts due to rounding.

4.1.2 Labor Income

Table 4-2 shows that over the 24-month construction period there would be an estimated total of \$114.4 million in labor income generated or sustained from project construction – \$79.8 million would be direct, \$11.3 million indirect, and \$23.4 million induced.

Table 4-2. Labor Income, 24-month Total (2024 \$s)

	Total
Direct	\$79,789,032
Indirect	\$11,254,773
Induced	\$23,392,655
Total	\$114,436,459

Note: Some totals may not appear to sum from their parts due to rounding.

4.1.3 Economic Output

Table 4-3 shows that over the 24-month construction period, there would be an estimated total of \$247.0 million in economic output generated or sustained from project construction – \$135.6 million would be direct, \$35.4 million indirect, and \$75.9 million induced.

Table 4-3. Economic Output, 24-month Total (2024 \$s)

	Total
Direct	\$135,637,819
Indirect	\$35,417,259
Induced	\$75,900,214
Total	\$246,955,292

Note: ¹Some totals may not appear to sum from their parts due to rounding.

4.2 Operations

4.2.1 Jobs

Table 4-4 shows that there would be an estimated total of 817 jobs (678 FTE) generated or sustained from project operations annually – 583 (484 FTE) of the jobs would be direct, 121 (100 FTE) indirect, and 113 (94 FTE) induced.

Table 4-4. Jobs, Annual

	Total Jobs	FTE Jobs ¹
Direct	583	484
Indirect	121	100
Induced	113	94
Total²	817	678

Notes: ¹FTE calculated at a rate of 0.83 using IMPLAN employment to FTE ratios.

²Some totals may not appear to sum from their parts due to rounding.

4.2.2 Labor Income

Table 4-5 shows that there would be a total increase of \$34.5 million in labor income generated or sustained from project operations annually – \$20.4 million of the labor income would be direct, \$7.1 million indirect, and another \$7.0 million induced.

Table 4-5. Labor Income, Annual (2024 \$s)

	Annual Total
Direct	\$20,379,543
Indirect	\$7,081,787
Induced	\$7,033,846
Total	\$34,495,176

Note: Some totals may not appear to sum from their parts due to rounding.

4.2.3 Economic Output

Table 4-6 shows that there would be a total increase of \$100.0 million in economic output generated or sustained from project operations annually – \$53.8 million of the economic output would be direct, \$23.4 million indirect, and another \$22.8 million induced.

Table 4-6. Economic Output, Annual (2024 \$s)

	Annual Total
Direct	\$53,779,740
Indirect	\$23,350,764
Induced	\$22,822,409
Total	\$99,952,914

Note: Some totals may not appear to sum from their parts due to rounding.

5 Fiscal Impact Results

5.1 Construction

Table 5-1 shows that over the 24-month construction period there would be a total of approximately \$10.2 million in State of Hawaii government revenue generated or sustained from project construction. The majority of this revenue would be generated through GET & Use taxes and personal income taxes.

Table 5-1. State of Hawaii Government Revenue, 24-month Total (2024 \$s)

Tax Category	Total
GET & Use	\$5,205,067
Corporate Profit	\$292,067
Personal Income	\$4,177,300
Other	\$496,101
Total	\$10,170,535

Note: Some totals may not appear to sum from their parts due to rounding.

Table 5-2 shows that over the 24-month construction period there would be a total of approximately \$3.3 million in C&C of Honolulu government revenue generated or sustained from project construction. The majority of this revenue (\$2.4 million) would be generated through property taxes, including two annual on-site property tax payments of \$115,000 (a total of \$230,000).

Table 5-2. C&C of Honolulu Government Revenue, 24-month Total (2024 \$s)

Tax Category	Total
Property ¹	\$2,426,065
Other	\$883,472
Total²	\$3,309,537

Note: ¹Includes two annual on-site property tax payments of \$115,000.

²Some totals may not appear to sum from their parts due to rounding.

5.2 Operations

Table 5-3 shows that there would be a total of approximately \$4.6 million in State of Hawaii government revenue generated or sustained from project operations, annually. The majority of this revenue (\$3.1 million) would be generated through GET and Use taxes.

Table 5-3. State of Hawaii Government Revenue, Annual (2024 \$s)

Tax Category	Annual Total
GET & Use	\$3,073,521
Corporate Profit	\$202,166
Personal Income	\$1,272,425
Other	\$43,266
Total	\$4,591,378

Note: Some totals may not appear to sum from their parts due to rounding.

Table 5-4 shows that there would be a total of approximately \$2.1 million in C&C of Honolulu government revenue generated or sustained project operations, annually. The majority of this revenue (\$1.6 million) would be generated through property taxes, including annual payments of approximately \$1.2 million for the site itself.

Table 5-4. C&C of Honolulu Government Revenue, Annual (2024 \$s)

Tax Category	Annual Total
Property ¹	\$1,620,748
Other	\$441,480
Total²	\$2,062,228

Notes: ¹Includes estimated annual on-site property tax payments of \$1.2 million.

²Some totals may not appear to sum from their parts due to rounding.

6 References

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