

Cultural Resources Technical Report Honolulu High-Capacity Transit Corridor Project

August 15, 2008

Prepared for:
City and County of Honolulu

Preface

This technical report supports the Draft Environmental Impact Statement (EIS) prepared for the Honolulu High-Capacity Transit Corridor Project. It provides additional detail and information as it relates to:

- Methodology used for the analysis
- Applicable regulations
- Results of the technical analysis
- Proposed mitigation
- Coordination and consultation (as appropriate)
- References
- Model output (as appropriate)
- Other information/data

As described in the Draft EIS, the Locally Preferred Alternative, called the “Full Project,” is an approximate 30-mile corridor from Kapolei to the University of Hawai‘i at Mānoa with a connection to Waikīkī. However, currently available funding sources are not sufficient to fund the Full Project. Therefore, the focus of the Draft EIS is on the “First Project,” a fundable approximately 20-mile section between East Kapolei and Ala Moana Center. The First Project is identified as “the Project” for the purpose of the Draft EIS.

This technical report documents the detailed analysis completed for the Full Project, which includes the planned extensions, related transit stations, and construction phasing. The planned extensions and related construction planning have not been fully evaluated in the Draft EIS and are qualitatively discussed in the Cumulative Effects section of the Draft EIS as a foreseeable future project(s). Once funding is identified for these extensions, a full environmental evaluation will be completed in a separate environmental study (or studies), as appropriate.

Figure 1-3 through Figure 1-6 (in Chapter 1, Background) show the proposed Build Alternatives and transit stations, including the areas designated as planned extensions.

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Acronyms and Abbreviations

| | |
|-----------------------|--|
| APE | area of potential effects |
| CFR | Code of Federal Regulations |
| CIA | cultural impact assessment |
| DBEDT | City and County of Honolulu Department of Business, Economic Development, and Tourism |
| DLNR | City and County of Honolulu Department of Land and Natural Resources |
| DTS | City and County of Honolulu Department of Transportation Services |
| EIS | environmental impact statement |
| EPA | U.S. Environmental Protection Agency |
| `Ewa (direction) | toward the west (see also Wai`anae) |
| FTA | Federal Transit Administration |
| GIS | Geographical Information System |
| H.B. | House Bill |
| H-1 | Interstate Route H-1 (the H-1 Freeway) |
| HAR | Hawai`i Administrative Rules |
| HEISL | Hawai`i Environmental Impact Statement Law |
| HRS | Hawai`i Revised Statutes |
| Koko Head (direction) | toward the east |
| LCA | Land Commission Award |
| LUC | Land Use Commission |
| makai (direction) | toward the sea |
| mauka (direction) | toward the mountains |
| NEPA | National Environmental Policy Act |
| NHPA | National Historic Preservation Act |
| O`ahuMPO | O`ahu Metropolitan Planning Organization |
| OEQC | Office of Environmental Quality Control |
| RTD | City and County of Honolulu Department of Transportation Services Rapid Transit Division |
| SHPD | State Historic Preservation Division of DLNR |
| SHPO | State Historic Preservation Officer (head of DLNR) |
| TMK | tax map key |
| TPSS | traction power substation |
| UH | University of Hawai`i |
| Wai`anae | toward the west (see also `Ewa) |

Glossary of Hawaiian Terms

| | |
|----------------------|--|
| Ahupua`a: | traditional land division often delineated by physical features, containing within its boundaries resources necessary for sustainability |
| Ahu: | shrine, altar |
| Ali`i: | chief, chiefess, ruler, monarch |
| `Auwai: | traditional irrigation system |
| `E`epa: | extraordinary mythological characters |
| Heiau: | shrine, pre-Christian place of worship |
| Hō`i`o: | A large native fern (<i>Diplazium [Athyrium] arnottii</i>) with subdivided fronds. The young fronds are eaten raw |
| `Ili: | a smaller division of land within the ahupua`a |
| `Ili kūpono/`Ili kū: | an independent division of land within an ahupua`a, not governed by the ahupua`a konohiki or chief |
| Kalo: | taro (<i>Colocasia esculenta</i>) |
| Kauhale: | traditional groupings of houses comprising a Hawaiian home |
| Kīhāpai: | a small land division, smaller than a paukū |
| Koa: | The largest of native forest trees (<i>Acacia koa</i>), used for canoes, surfboards, calabashes |
| Kō`ele: | small farmland plots farmed by a tenant for a chief |
| Konohiki: | headman of an ahupua`a land division under a chief |
| Ko`oko`olau: | All kinds of beggar ticks (<i>Bidens</i> spp.), used medicinally |
| Kou: | a tree (<i>Cordia subcordata</i>), used for cups, dishes, and calabashes |
| Kukui: | Candlenut tree (<i>Aleurites moluccana</i>), bearing nuts containing white, oily kernels, which were formerly used for lights |
| Kula/kula moku: | plain, field, open country or pasture |
| Kula niu: | coconut farm |
| Kuleana: | a small piece of property within an ahupua`a, cared for by an individual or family |
| Lama: | All endemic kinds of ebony (<i>Diospyros</i> , synonym <i>Maba</i>) |
| Lauhala: | Pandanus (<i>Pandanus odoratissimus</i>) whose leaves were used for weaving baskets, mats, etc. |
| Lo`i/Lo`i kalo: | irrigated taro terraces |
| Loko: | freshwater pond |
| Loko i`a: | fishpond |
| Loko kuapā: | fishpond made using stone and coral seawalls |
| Loko pu`uone: | fishpond made using sand dunes |
| Lū`au: | Hawaiian feast, celebration |
| Maka`āinana: | commoner, literally: people that attend the land |

| | |
|-------------|---|
| Māmaki: | Small native trees (<i>Pipturus</i> spp.), used for kapa and medicine |
| Mō`ī: | king, sovereign, monarch |
| Moku: | a district of and island, usually encompassing several ahupua`a |
| Mo`o: | a narrow strip of land within an ahupua`a, smaller than an `ili |
| Mo`o: | lizard, reptile of any kind, water spirit |
| Mo`olelo: | story, tradition, history, legend |
| Muliwai: | river mouth or pool at a river mouth |
| `Ōhi`a: | Two kinds of trees: `ōhi`a `ai (mountain apple, (<i>Eugenia malaccensis</i>)), and `ōhi`a lehua (<i>Metrosideros macropus</i> , <i>M. collina</i> subsp. <i>polymorpha</i>) |
| `O`opu: | General name for fishes included in the families <i>Eleotridae</i> , <i>Gobiidae</i> , and <i>Blennidae</i> |
| `Opae: | general name for shrimp |
| Pā hale: | house enclosure |
| Pali: | cliffs |
| Paukū: | a section of land within an ahupua`a, smaller than a mo`o |
| Pili grass: | a type of grass (<i>Heteropogon contortus</i>) used traditionally for thatching house or for ceremonial use |
| Pō`alima: | weekly workdays on the chief's plantation, usually held on what is now considered Friday |
| Pōpolo: | The black nightshade (<i>Solanum nigrum</i>), with edible berries. Used for both ceremonies and medicine |
| Pu`uone: | sand dunes |
| `Uala: | native sweet potato (<i>Ipomoea batatas</i>) |
| `Ulu: | the breadfruit (<i>Artocarpus altilis</i>) |
| Wahi pana: | celebrated, noted or legendary place |
| Waina: | vineyards |
| Wauke: | paper mulberry (<i>Broussonetia papyrifera</i>) used traditionally to make kapa |
| Wī: | a type of fruit tree (<i>Spondias dulcis</i>) in the mango family, bearing fruits called wī apples |
| Wiliwili: | A Hawaiian leguminous tree (<i>Erythrina sandwicensis</i>) used for surfboards, canoe outriggers, net floats. |

Summary

The City and County of Honolulu Department of Transportation Services Rapid Transit Division (RTD), in coordination with the U.S. Department of Transportation Federal Transit Administration (FTA), is preparing a Draft Environmental Impact Statement (EIS) to evaluate alternatives that would provide high-capacity transit service on O`ahu. The *Honolulu High-Capacity Transit Corridor Project Alternatives Analysis Report* (Alternatives Analysis) study area is the travel corridor between Kapolei and the University of Hawai`i (UH) at Mānoa. Extensions for future phases of the Project are also covered in this report.

This report identifies the cultural resources, practices, and beliefs that may be affected by the Project. Because the Project is considered a Federal action, it must comply with Section 106 of the National Historic Preservation Act (NHPA); the National Environmental Policy Act (NEPA); the *Ka Pa`akai o Ka `Āina v. Land Use Commission* court's ruling (Ka Pa`akai); and the Hawai`i Environmental Impact Statement Law (HEISL).

The Hawai`i Legislature passed Act 50 in 2000, which amended the HEISL and its regulations to include a cultural impact assessment. Guidelines were later developed by the State of Hawai`i Office of Environmental Quality Control (OEQC), which provided the basis for cultural impact assessments (CIAs). These guidelines were followed in preparing this report. Table S-1 summarizes, by section, the cultural resources identified through this process and anticipated effects.

General mitigation measures are discussed in Section 6. Pursuant to the Hawai`i Supreme Court's ruling in *Ka Pa`akai*, the State and its agencies are obligated to protect the traditional rights of Hawaiians. This ruling and the analytical framework imposed by this court to protect identified cultural resources are discussed in Sections 2 and 3 and have been used to develop general mitigation recommendations.

Table S-1: Summary of Identification, Evaluation, and Effects—Cultural Resources

| Section | Number of Cultural Resources Identified | Number of Long-Term Impacts | Number of Short-Term Impacts |
|--|---|-----------------------------|------------------------------|
| I. Kapolei | | | |
| Kapolei - Fort Weaver Road | 9 | 6 | 3 |
| II. Western Part of the Project | | | |
| Fort Weaver Road - Aloha Stadium (Alignment on Farrington Highway and Kamehameha Highway) | 85 | 10 | 75 |
| III. Salt Lake Alignment (Middle Part of the Project) | | | |
| Alignment on Salt Lake Boulevard | 28 | 3 | 25 |
| IV. Airport Alignment (Alternative Middle Part of the Project) | | | |
| Alignment on Kamehameha Highway and makai of the Airport viaduct | 13 | 2 | 11 |
| V. Eastern Part of the Project | | | |
| Alignment on Dillingham Boulevard and various streets through Downtown and Kaka`ako | 136 | 9 | 127 |
| VI. University Extension | | | |
| Alignment on Kapi`olani Boulevard and University Avenue | 56 | 9 | 47 |
| VII. Waikiki Extension | | | |
| Alignment along Kalākaua Avenue and Kūhiō Avenue | 51 | 0 | 51 |
| TOTALS (with Salt Lake Alignment) | 365 | 37 | 328 |
| TOTALS (with Airport Alignment) | 350 | 36 | 314 |
| TOTALS (with both middle alignments) | 472 | 39 | 339 |

1.1 Introduction

The City and County of Honolulu Department of Transportation Services Rapid Transit Division (RTD), in cooperation with the U.S. Department of Transportation Federal Transit Administration (FTA), is evaluating fixed-guideway alternatives that would provide high-capacity transit service on O`ahu. The project study area is the travel corridor between Kapolei and the University of Hawai`i at Mānoa (UH Mānoa) (Figure 1-1). This corridor includes the majority of housing and employment on O`ahu. The east-west length of the corridor is approximately 23 miles. The north-south width is, at most, 4 miles because the Ko`olau and Wai`anae Mountain Ranges bound much of the corridor to the north and the Pacific Ocean to the south.

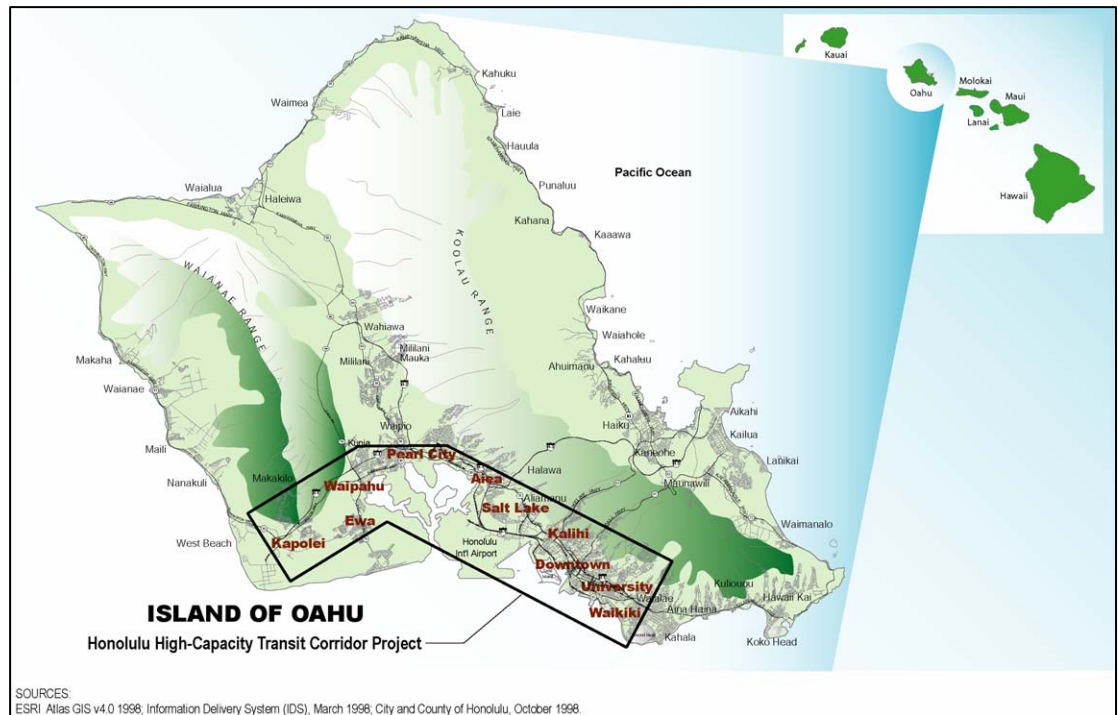


Figure 1-1: Project Vicinity

1.2 Description of the Study Corridor

The Honolulu High-Capacity Transit Corridor extends from Kapolei in the west (Wai`anae or `Ewa direction) to UH Mānoa in the east (Koko Head direction) and is confined by the Wai`anae and Ko`olau Mountain Ranges in the mauka direction (towards the mountains, generally to the north within the study corridor) and the Pacific Ocean in the makai direction (towards the sea, generally to the south within the study corridor). Between Pearl Harbor and the base of the Ko`olau Mountains (Figure 1-2).

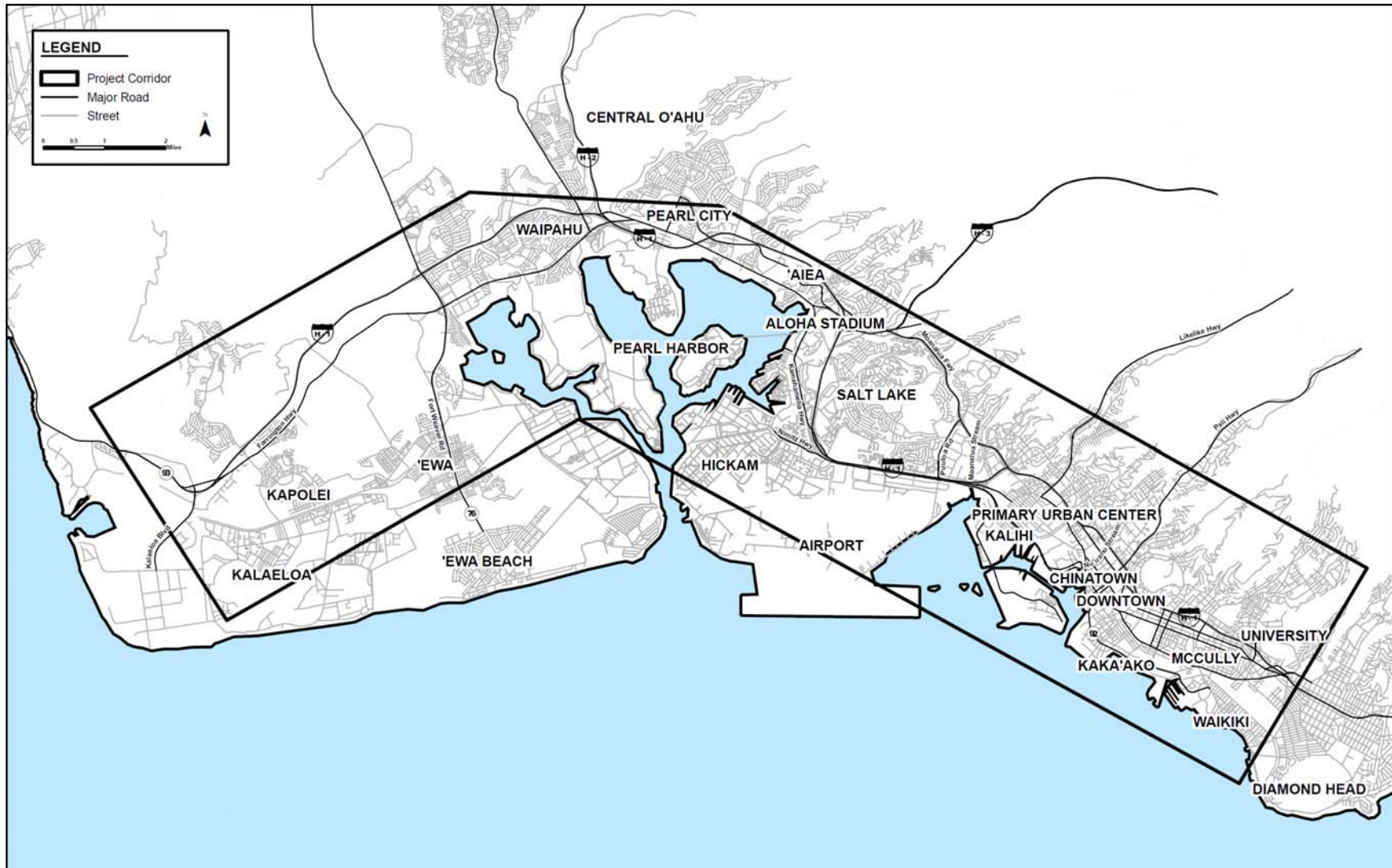


Figure 1-2: Areas and Districts in the Study Corridor

1.3 Alternatives

Four alternatives are being evaluated in the Environmental Impact Statement (EIS). They were developed through a screening process that considered alternatives identified through previous transit studies, a field review of the study corridor, an analysis of current and projected population and employment data for the corridor, a literature review of technology modes, work completed by the O`ahu Metropolitan Planning Organization (O`ahuMPO) for its *O`ahu Regional Transportation Plan 2030* (ORTP) (O`ahuMPO 2007), a rigorous Alternatives Analysis process, selection of a Locally Preferred Alternative by the City Council, and public and agency comments received during the separate formal project scoping processes held to satisfy National Environmental Policy Act (NEPA) (USC 1969) requirements and the Hawai`i EIS Law (Chapter 343) (HRS 2008). The alternatives evaluated are as follows:

1. No Build Alternative
2. Salt Lake Alternative
3. Airport Alternative
4. Airport & Salt Lake Alternative

1.3.1 *No Build Alternative*

The No Build Alternative includes existing transit and highway facilities and committed transportation projects anticipated to be operational by 2030. Committed transportation projects are those identified in the ORTP, as amended (O`ahuMPO 2007). Highway elements of the No Build Alternative also are included in the Build Alternatives. The No Build Alternative would include an increase in bus fleet size to accommodate growth, allowing service frequencies to remain the same as today.

1.3.2 *Build Alternatives*

The fixed guideway alternatives would include the construction and operation of a grade-separated fixed guideway transit system between East Kapolei and Ala Moana Center (Figure 1-3 to Figure 1-6). Planned extensions are anticipated to West Kapolei, UH Mānoa, and Waikīkī. The system evaluated a range of fixed-guideway transit technologies that met performance requirements, which could be either automated or employ drivers. All parts of the system would either be elevated or in exclusive right-of-way.

Steel-wheel-on-steel-rail transit technology has been proposed through a comparative process based on the ability of various transit technologies to cost-effectively meet project requirements. As such, this technology is assumed in this analysis.

The guideway would follow the same alignment for all Build Alternatives through most of the study corridor. The Project would begin by following North-South Road

and other future roadways to Farrington Highway. Proposed station locations and other project features in this area are shown in Figure 1-3. The guideway would follow Farrington Highway Koko Head on an elevated structure and continue along Kamehameha Highway to the vicinity of Aloha Stadium (Figure 1-4).

Between Aloha Stadium and Kalihi, the alignment differs for each of the Build Alternatives, as detailed later in this section (Figure 1-5). Koko Head of Middle Street, the guideway would follow Dillingham Boulevard to the vicinity of Ka`aahi Street and then turn Koko Head to connect to Nimitz Highway in the vicinity of Iwilei Road.

The alignment would follow Nimitz Highway Koko Head to Halekauwila Street, then along Halekauwila Street past Ward Avenue, where it would transition to Queen Street and Kona Street. Property on the mauka side of Waimanu Street would be acquired to allow the alignment to cross over to Kona Street. The guideway would run above Kona Street through Ala Moana Center.

Planned extensions would connect at both ends of the corridor. At the Wai`anae end of the corridor, the alignment would follow Kapolei Parkway to Wākea Street and then turn makai to Saratoga Avenue. The guideway would continue on future extensions of Saratoga Avenue and North-South Road. At the Koko Head end of the corridor, the alignment would veer mauka from Ala Moana Center to follow Kapi`olani Boulevard to University Avenue, where it would again turn mauka to follow University Avenue over the H-1 Freeway to a proposed terminal facility in UH Mānoa's Lower Campus. A branch line with a transfer point at Ala Moana Center or the Hawai`i Convention Center into Waikīkī would follow Kalākaua Avenue to Kūhiō Avenue to end near Kapahulu Avenue (Figure 1-6).

Salt Lake Alternative

The Salt Lake Alternative would leave Kamehameha Highway immediately `Ewa of Aloha Stadium, cross the Aloha Stadium parking lot, and continue Koko Head along Salt Lake Boulevard (Figure 1-5). It would follow Pūkōloa Street through Māpunapuna before crossing Moanalua Stream, turning makai, crossing the H-1 Freeway and continuing to the Middle Street Transit Center. Stations would be constructed near Aloha Stadium and Ala Liliko`i. The total guideway length for this alternative would be approximately 19 miles and it would include 19 stations. The eventual guideway length, including planned extensions, for this alternative would be approximately 28 miles and it would include 31 stations.

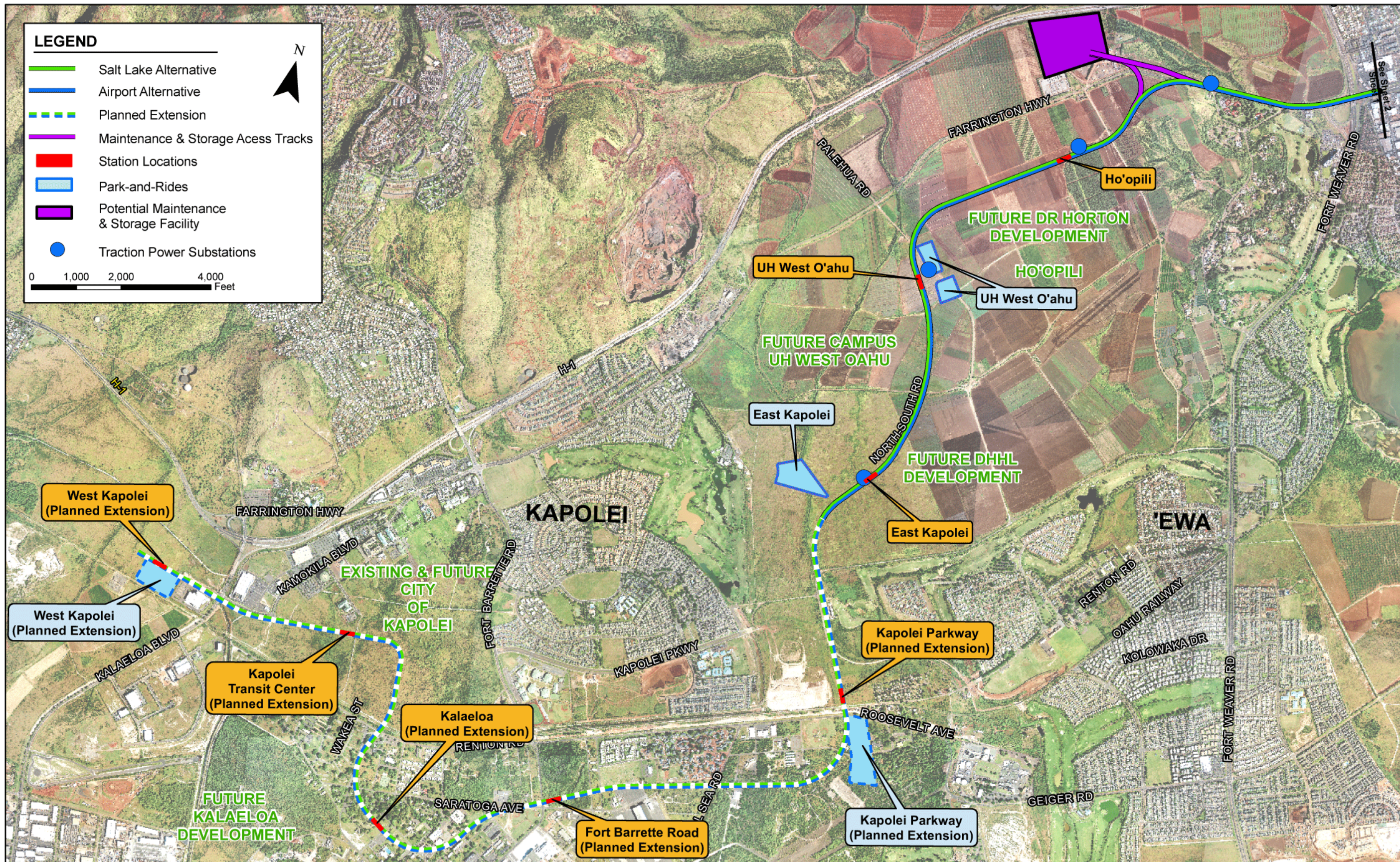


Figure 1-3: Fixed Guideway Transit Alternative Features (Kapolei to Fort Weaver Road)

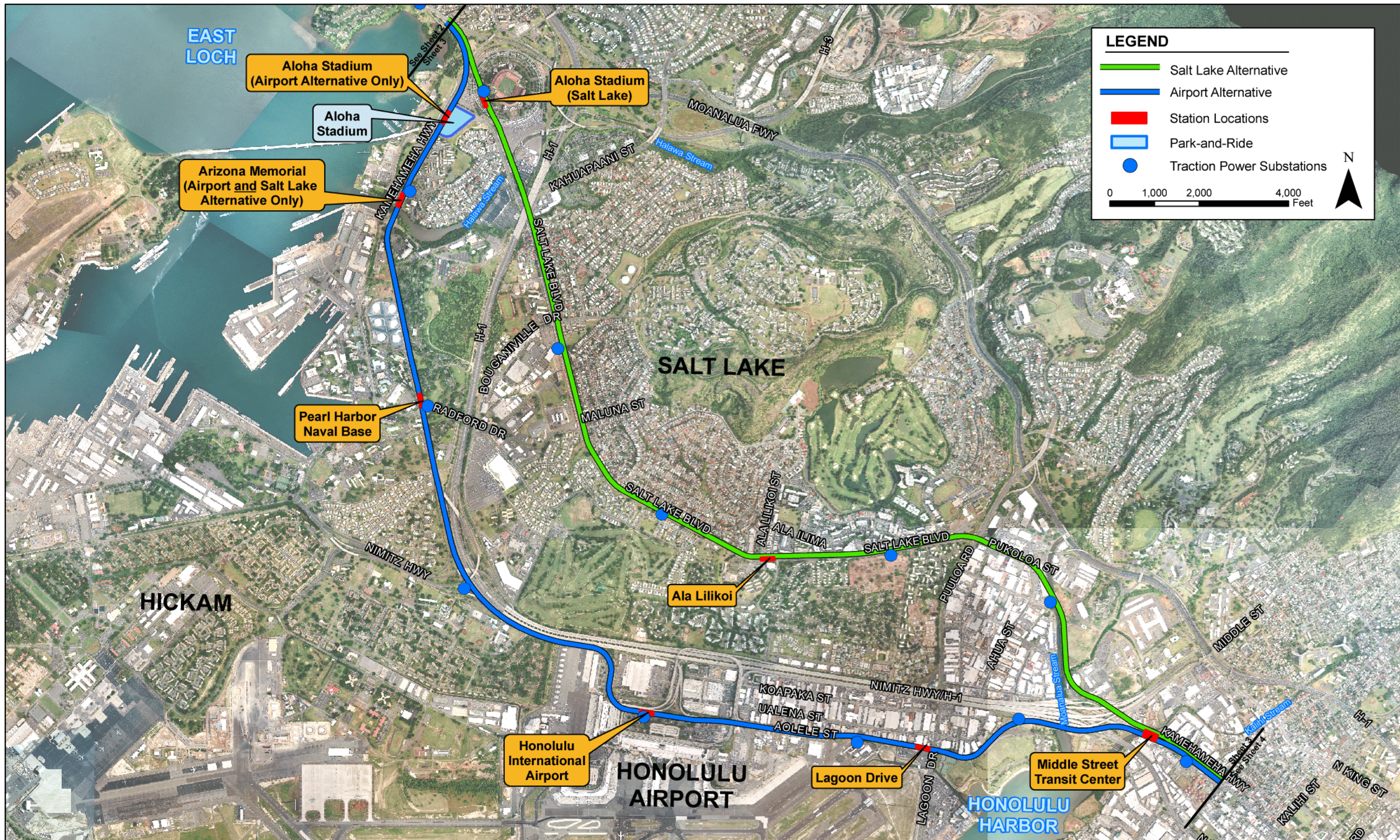


Figure 1-5: Fixed Guideway Transit Alternative Features (Aloha Stadium to Kalihi)



Figure 1-6: Fixed Guideway Transit Alternative Features (Kalihi to UH Mānoa)

Airport Alternative

The Airport Alternative would continue along Kamehameha Highway makai past Aloha Stadium to Nimitz Highway and turn makai onto Aolele Street and then follow Aolele Street Koko Head to reconnect to Nimitz Highway near Moanalua Stream and continuing to the Middle Street Transit Center (Figure 1-5). Stations would be constructed at Aloha Stadium, Pearl Harbor Naval Base, Honolulu International Airport, and Lagoon Drive. The total guideway length for this alternative would be approximately 20 miles and it would include 21 stations. The eventual guideway length, including planned extensions, for this alternative would be approximately 29 miles and it would include 33 stations.

Airport & Salt Lake Alternative

The Airport & Salt Lake Alternative is identical to the Salt Lake Alternative, with the exception of also including a future fork in the alignment following Kamehameha Highway and Aolele Street at Aloha Stadium that rejoins at Middle Street. The station locations discussed for the Salt Lake Alternative would all be provided as part of this alternative. Similarly, all the stations discussed for the Airport Alternative also would be constructed at a later phase of the project; however, the Aloha Stadium Station would be relocated makai to provide an Arizona Memorial Station instead of a second Aloha Stadium Station. At the Middle Street Transit Center Station, each line would have a separate platform with a mezzanine providing a pedestrian connection between them to allow passengers to transfer. The total guideway length for this alternative would be approximately 24 miles and it would include 23 stations. The eventual guideway length, including planned extensions, for this alternative would be approximately 34 miles and it would include 35 stations.

1.3.3 Features Common to All Build Alternatives

In addition to the guideway, the project will require the construction of stations and supporting facilities. Supporting facilities include a maintenance and storage facility, transit centers, park-and-ride lots, and traction power substations (TPSS). The maintenance and storage facility would either be located between North-South Road and Fort Weaver Road or near Leeward Community College (Figure 1-3 and Figure 1-4). Some bus service would be reconfigured to transport riders on local buses to nearby fixed guideway transit stations. To support this system, the bus fleet would be expanded.

This Cultural Resources Technical Report addresses pertinent Federal, State, and local historic preservation laws as well as State of Hawai'i constitutional and statutory protections for native Hawaiian customary traditions and practices. The specific cultural requirements, established by Act 50 and the Office of Environmental Quality Control (OEQC) guidelines, are addressed as referenced in Appendices B and C. The Section 106 process set forth in the National Historic Preservation Act (NHPA) is similar to the State historic review process and summarized below to provide context.

2.1 Historic Preservation Regulatory Framework

Several Federal, State, and local laws apply to the identification, treatment, and protection of cultural resources in the course of certain project-related actions. Because the Project would receive Federal funds and could involve use of Federal lands, the following laws and regulations would be applicable:

- NEPA was enacted in 1969. It is an authority for managing the impacts of Federal government actions on all aspects of the human environment, which is defined as the “natural and physical environment and the relationship of people with that environment” (40 CFR 1508.14). NEPA requires consideration of any potentially adverse environmental effects that could result from proposed Federal developments.
- The NHPA establishes a general policy for supporting and encouraging the preservation of prehistoric and historic resources for present and future generations. Under NHPA, Section 106 requires that Federal agencies take into account the effects of their actions on historic properties, including traditional cultural properties, which refers to the beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. Given this perspective, a historic property’s traditional cultural significance is derived from the role it plays in a community’s historically rooted beliefs, customs, and practices. (National Register Bulletin 38:1998:1).
- Hawai'i Environmental Impact Statement Law (HEISL), Chapter 343 Hawai'i Revised Statutes (HRS) includes a cultural component. This law is designed to ensure that environmental concerns are weighed along with economic and technical considerations in certain specific types of decision-making. Significant effects contemplated by HEISL include “actions that irrevocably commit a natural resource, curtail the range of beneficial uses of the environment ... or ... adversely affect the economic, welfare, social welfare, or cultural practices of the community and State.” House Bill (H.B.) No. 2895 H.D.1 was passed by the 20th Legislature and approved by the Governor on April 26, 2000, as Act 50 (Appendix B). The following excerpts illustrate Act 50’s intent and mandates:

The legislature also finds that native Hawaiian culture plays a vital role in preserving and advancing the unique quality of life and the “aloha spirit” in Hawai‘i. Articles IX and XII of the State constitution, other State laws, and the courts of the State impose on government agencies a duty to promote and protect cultural beliefs, practices, and resources of native Hawaiians as well as other ethnic groups.

Moreover, the past failure to require native Hawaiian cultural impact assessments has resulted in the loss and destruction of many important cultural resources and has interfered with the exercise of native Hawaiian culture. The legislature further finds that due consideration of the effects of human activities on native Hawaiian culture and the exercise thereof is necessary to ensure the continued existence, development, and exercise of native Hawaiian culture.

The purpose of this Act is to: (1) Require that environmental impact statements include the disclosure of the effects of a proposed action on the cultural practices of the community and State; and (2) Amend the definition of “significant effect” to include adverse effects on cultural practices.

Section 2. Section 343-2, Hawai‘i Revised Statutes, is amended by amending the definitions of “environmental impact statement” or “statement” and “significant effect,” to read as follows:

“Environmental impact statement” or “statement” means an informational document prepared in compliance with the rules adopted under Section 343-6 and which discloses the environmental effects of a proposed action, effects of a proposed action on the economic (and) welfare, social welfare, and cultural practices of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects...”

- State Historic Preservation Program, Chapter 6E, HRS and Hawai‘i Administrative Rules (HAR): in an effort to preserve significant historical sites of value to the people of Hawai‘i, Chapter 6E of the HRS was created in 1976. HRS § 6E-1 provides that:

The constitution of the State of Hawai‘i recognizes the value of conserving and developing the historic and cultural property within the State for the public good. The legislature declares that the historic and cultural heritage of the State is among its most important assets and that the rapid social and economic developments of contemporary society threaten to destroy the remaining vestiges of this heritage. The legislature further declares that it is in the public interest to engage in a comprehensive program of historic preservation at all levels of government to promote the use and conservation of such property for the education, inspiration, pleasure, and enrichment of its citizens. The

legislature further declares that it shall be the public policy of this State to provide leadership in preserving, restoring, and maintaining historic and cultural property, to ensure the administration of such historic and cultural property in a spirit of stewardship and trusteeship for future generations, and to conduct activities, plans, and programs in a manner consistent with the preservation and enhancement of historic and cultural property.

Chapter 6E sets preconditions to any State or county permit, certificate or license for land use change, subdivision, or other entitlement that may affect historic property. Developers cannot proceed without first considering the impact development would have on significant historic sites.

- Burial Program—HRS Chapter 6E-43 and HAR Chapter 13-300. In 1988, Act 265 amended Chapter 6E, to establish provisions pertaining to the discovery of historic burial sites found outside of established, maintained cemeteries on non-Federal lands within the State.

2.2 State Constitutional and Statutory Protection for Hawaiian Customary Traditions and Practices

Hawai'i's constitution and laws protect native Hawaiians' traditional and customary rights. Article XII, Section 7 of the Hawai'i Constitution places an affirmative duty on the State and its agencies to "protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua'a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778." This constitutional protection originated from the 1978 constitutional convention that recognized the need to "recognize and reaffirm native Hawaiian rights." The committee that was responsible for drafting this law also acknowledged that "sustenance, religious and cultural practices of native Hawaiians are an integral part of their culture, tradition, and heritage, with such practices forming the basis of Hawaiian identify and value systems."

Several statutes underscore and clarify Article XII's constitutional mandate to protect native Hawaiian cultural practices and properties. HRS Section 1-1 provides that the common law of England, as ascertained by English and American decisions, is declared to be the common law of Hawai'i, in all cases, except as otherwise expressly provided by the Constitution or laws of the United States, or by the laws of the State, or fixed by Hawaiian judicial precedent, or established by Hawaiian usage. Thus, even before Hawai'i had a State Constitution, when the common law of England was adopted as the governing law of Hawai'i in 1892, legislators recognized that Hawaiian usage or custom and tradition should prevail over English common law.

HRS Section 7-1 is another statute that protects native Hawaiian customary and traditional gathering rights. Enacted in 1850 when the Kuleana Act granted private property to commoners, it explicitly provides that "when the landlords have obtained...allodial titles to their lands, the people on each of their lands shall not be

deprived of the right to take firewood, house timber, aho cord, thatch, or kī leaf, from the land on which they live, for their own private use...the people shall also have the right to drinking water,,, and the right of way. The springs of water, running water, and roads shall be free to all, on all lands granted in fee simple, provided that this shall not be applicable to wells and watercourses, which individuals have made for their own use.”

This section provides the basis for native Hawaiian access rights to private property and waterways, in order to gather specific natural resources for customary uses. The Hawai`i Supreme Court has further shaped these areas of the law, clarifying the duties of the State and its agencies. The case discussed in the following section is the most recent in a long line of cases that established a precedent for the treatment and protection of native Hawaiian cultural resources.

2.3 Ka Pa`akai

Ka Pa`akai o Ka `Āina is an association of Ka Lāhui Hawai`i, a Hawaiian nation; the Kona Hawaiian Civic Club, a Hawai`i nonprofit corporation; and Protect Kohanaiki `Ohana, a Hawai`i nonprofit corporation. These groups were plaintiffs-appellants/appellants in a Hawai`i Supreme Court case (2000) against the State Land Use Commission in which Act 50 was cited. (Westlaw 94 Hawai`i 31, 7P.3d 1068). Section 3.5 provides a further assessment of how this ruling applies to the Project. A summary of the case follows:

The Hawai`i Supreme Court in *Ka Pa`akai O Ka `Āina v. Land Use Commission (Ka Pa`akai)* reviewed a decision by the State Land Use Commission (LUC) approving the reclassification of over 1,000 acres of land into the urban district to be used for a resort development. In evaluating the LUC’s administrative action approving the reclassification, the Court reiterated that the State and its agencies are obligated to protect the reasonable exercise of customarily and traditionally exercised rights of Hawaiians to the extent feasible. The Court further cited to Act 50’s amendments that altered definitions in Hawai`i’s EIS process and broadened the State’s obligation to consider not just native Hawaiian but cultural practices of the community and State in the EIS process. Ultimately, the Court held that the LUC’s determinations were insufficient to determine whether [the LUC] fulfilled its obligation to preserve and protect customary and traditional rights of native Hawaiians. Accordingly, the Court vacated the LUC’s grant for land boundary reclassification and remanded the petition back to the LUC for further fact-finding and conclusions about the petition area.

First, the LUC was directed to identify specific valued cultural, historical, or natural resources, including the extent to which traditional and customary native Hawaiian rights are exercised. Next, the LUC was directed to determine the extent to which those resources, including traditional and customary native Hawaiian rights, [would] be affected or impaired by the proposed luxury development. Finally, if native Hawaiian rights were found to exist, the LUC was directed to determine the feasible action, if any, to be

taken by the LUC to reasonably protect native Hawaiian rights” (Jarman, Bellatti, Mowrey 2004, emphasis added).

2.4 Federal and State Historic Preservation Review Process

The Federal and State historic preservation review processes are similar in that they require applicant agencies to:

- Gather information to decide which properties are listed on or eligible for the National Register of Historic Places;
- Determine how historic properties (i.e., traditional cultural properties) might be affected;
- Explore alternatives to avoid or reduce harm to these properties; and
- Reach agreement with the State Historic Preservation Officer (SHPO) and/or the Advisory Council on Historic Preservation on measures to deal with adverse effects.

To be considered eligible for listing on the Hawai`i and/or National Registers, a historic resource must possess integrity of location, design, setting, materials, workmanship, feeling, and association. It must also meet one or more of the following criteria in order to be eligible for historic preservation:

- Criterion A: Be associated with events that have made an important contribution to the broad patterns of Hawai`i’s history.
- Criterion B: Be associated with the lives of persons important in Hawai`i’s past.
- Criterion C: Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value.
- Criterion D: Have yielded, or be likely to yield information important for research on prehistory or history.
- Criterion E (Hawai`i Register only): Have an important historical cultural value to a Hawaiian ethnic group.

The analysis provided in this report is based on compliance requirements for:

- NEPA
- Section 106 of NHPA
- *Ka Pa`akai o Ka `Āina v. Land Use Commission*, 94 Haw. 31, 7 P.3d 1068 (2000); and
- HEISL

HEISL now contains a cultural component in the form of Act 50, (H.B. No. 2895, H.D.1, 20th Leg. (2000)). This amends the State of Hawai`i EIS law (Chapter 343, HRS) to include “effects on the cultural practices of the community and State--expanding the definition of ‘significant effect’ to include adverse effects on cultural practices.” This technical report also complies with the State of Hawai`i OEQC Guidelines for Assessing Cultural Impacts (1997) (Appendix C).

The analysis process has included coordinating and consulting with the State Historic Preservation Division (SHPD), OEQC, the Office of Hawaiian Affairs, and other parties.

3.1 Definition of Cultural Resources

The term “cultural resources” is used consistently throughout this report to include:

- **Historic Properties**—as defined in Section 106 of the NHPA, historic properties include sites associated with significant events and/or people important to the broad patterns of history (post-Western contact). These resources include native Hawaiian and other ethnic groups; may embody distinctive characteristics of an historic era or master; and/or are likely to yield information important for research on the history of Hawai`i. Historic properties also include traditional cultural properties, which refer to beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. Therefore, a historic property’s traditional cultural significance is derived from the role it plays in a community’s historically rooted beliefs, customs, and practices.
- **Cultural Practices**—under Act 50, traditional cultural practices, ethnic cultural practices, urban cultural practices, and pre-historic and historic cultural resources and practices that may be affected by implementation of a development project must be identified. Some practices the Project Team has identified include ethnic food shops, ethnic food factories, fishing, dance practices and performances, ethnic martial arts studios, canoe paddling, surfing, historical museums, flora resources, churches, religious ceremonies, memorials and statues, cemeteries, ethnic cultural organizations, language schools, festivals and ceremonies, parades, historical commemorations, gardens, and lo`i.

- **Cultural Resources**—The OEQC’s Guidelines for Assessing Cultural Impacts define cultural resources as “traditional cultural properties or other types of historic sites, both man made and natural, including submerged cultural resources, which support such cultural practices and beliefs.” Therefore, this category includes sites or places associated with significant events and/or people important to the native Hawaiian patterns of prehistory in the study area. It also includes sites or places that embody distinctive characteristics or are likely to yield information important for research on the prehistory of Hawai`i. These sites yield resources important for past and present native Hawaiian cultural practices, and include items that are part of a cultural place-based context. Wahi pana (sacred places) are important to native Hawaiians despite the fact that the original sites may no longer exist. Often it is not a lack of interest but a lack of knowledge of location, or more likely a lack of access, that prevents native Hawaiians from visiting and/or maintaining these sites. The practice may be reestablished as is the natural process of an evolving culture.

3.2 Area of Potential Effect

For this project, the area to be surveyed for historic and cultural resources was not decided until December 2007. After meetings and discussion with the State Historic Preservation Division, the FTA defined the Area of Potential Effects (APE) to be generally one parcel deep from the Project alignment, but larger around stations and in a few other instances. The APE also includes parcels immediately adjacent to all facilities associated with the proposed fixed guideway system, such as park-and-ride lots, traction power substations, and the maintenance and storage yard. The APE around transit stations has been defined to include entire blocks (or to extend 500 feet, where blocks are not discernable) around the facilities. The APE is shown in Appendix K.

3.3 Alternatives Analysis

The cultural resources identified in the DTS’s 2006 *Cultural Resources Technical Report*, which supported the Alternatives Analysis phase of the Project, included a substantial amount of cultural resource information about the study corridor. The Project Team also reviewed previous studies on file at the State Historic Preservation Division, the Hamilton Library at the University of Hawai`i, the Hawai`i State Archives, and the Hawai`i Public Library. Cultural and ethnic experts were consulted and extensive field surveys were conducted. This information is the basis of the cultural resources technical component of the Draft EIS.

3.4 Act 50 Cultural Impact Assessment

The purpose of a Cultural Impact Assessment (CIA) is to:

1. Gather information on traditional cultural practices, ethnic cultural practices, urban cultural practices, and pre-historic and historic cultural resources and practices that may be affected by implementing a development project;

2. Analyze the data;
3. Produce an impact assessment; and
4. Provide mitigation measures and suggestions.

For the Project's Alternatives Analysis, the cultural practices, values, and beliefs that would be affected (either beneficially or adversely) by the proposed actions and alternatives were assessed. It also demonstrated compliance with related environmental and cultural impact analyses of potential impacts that would result from construction and long-term operation of the Project and its alternatives. The extent to which access to the identified cultural practices would be affected during construction or implementation of the Project and the nature of the identified cultural practices affected by the Project were determined and documented by location.

The information-gathering process for this phase included:

1. Identifying individuals and groups with expertise on cultural resources, practices, and beliefs within the study corridor
2. Conducting field surveys by canvassing (ethnographic pedestrian surveys) selected areas of the corridor (Appendix E);
3. Conducting semi-focused interviews of cultural experts or people familiar with details of cultural practices that would be adversely impacted;
4. Making site visits; and
5. Reviewing pertinent archival documents.

A CIA study is based on a qualitative research approach in which "raw data" (transcripts, surveys, and literature) are analyzed for concepts, categories, or propositions generated by topic indicators (e.g., medicine, flora, burials). The OEQC guidelines require extensive background research that involves inspecting tax, geographical information system (GIS), and historic maps, especially if Land Commission Award (LCA) parcels are within or adjacent to the study area. These LCAs contain important information on burials, land use, and other activities within or adjacent to the study area. Historic resource and archaeology reports of studies done within the entire corridor or vicinity are also used to obtain data.

The selection criteria for the sample canvass (ethnographic pedestrian surveys) and interviews include but are not limited to individuals who:

1. Had/have ties to the selected area;
2. Are known cultural resource persons;
3. Are traditional practitioners; and/or
4. Were referred by a cultural/ethnic organization.

The study corridor data is organized by ahupua`a, then further identified by reference to commonly used place names. In areas such as Waikīkī, Kaka`ako, Mānoa, Downtown/Chinatown, `Aiea/Pearl City, Waipahu, and Kapolei/`Ewa, knowledgeable individuals from each area will be identified and asked to participate

in semi-focused interviews. This same system will be used to identify individuals who will be asked to participate in a survey. The survey will be conducted by a team that will work individually in one of the areas mentioned above.

The Act 50 CIA and the Draft EIS Cultural Assessment are cumulative and not duplicative of the Alternatives Analysis process. The Act 50 report has been updated with additional information gathered after the Alternatives Analysis cultural practices report was prepared.

3.5 Ka Pa`akai Analysis

The Hawai`i Supreme Court recently applied Act 50 and held in *Ka Pa`akai O Ka `Āina v. Land Use Commission*, 94 Haw. 31, 7 P.3d 1068 (2000), that the “State and its agencies are obligated to protect the reasonable exercise of customarily and traditionally exercised rights of Hawaiians to the extent feasible. The past failure to require native Hawaiian cultural impact assessments has resulted in the loss and destruction of many important cultural resources and has interfered with the exercise of native Hawaiian culture. The legislature further finds that due consideration of the effects of human activities on native Hawaiian culture and the exercise thereof is necessary to ensure the continued existence, development, and exercise of native Hawaiian culture [as codified in] Act 50, H.B. No. 2895, H.D.1, 20th Leg. (2000)” (emphasis added).

Accordingly, the Hawai`i Supreme Court provided an analytical framework in an effort to effectuate the State’s obligation to protect native Hawaiian customary and traditional practices while reasonably accommodating competing private interests. The agency must, “at a minimum,” make the following findings and conclusions:

1. Identify the specific “valued cultural, historical, or natural resources” in the study area, including the extent to which traditional and customary native Hawaiian rights are exercised in the study area;
2. Identify the extent to which those resources, including traditional and customary native Hawaiian rights, would be affected or impaired by the proposed action; and
3. If native Hawaiian rights are found to exist, determine the feasible action, if any, to be taken by the agency or proponent to reasonably protect those rights.

The Project Team has gathered sufficient information on cultural practices to permit an adequate analysis, in an effort to ensure that the State’s obligation to protect native Hawaiian customary and traditional practices is satisfied and reasonably accommodates competing private interests,. Although it primarily focuses on native Hawaiian cultural practices, this report is comprehensive and broad. It encompasses the practices and resources of numerous ethnic groups throughout the State, as required by Act 50. This report’s intent is to provide sufficient information on cultural practices located within the study corridor and to permit a well-reasoned analysis and informed decision on preserving and protecting native Hawaiian and other cultural rights to the extent feasible.

3.6 Consultation and Coordination

The extensive effort to contact, identify, and consult with various cultural and ethnic groups to identify traditional cultural properties and cultural practices during the Alternatives Analysis process will be documented as part of consultation efforts for Act 50 and the Section 106 consultation process. The purpose of consultation is to identify cultural resources and other concerns relating to the Project's potential effects on cultural resources. Information is being sought from individuals and organizations likely to have knowledge of potential resources in the study area.

A reasonable and good faith effort must be made to identify native Hawaiian organizations that might attach religious and cultural significance to historic properties in the APE, because they must be given an adequate opportunity to express their views. The Project Team sent Section 106 letters to native Hawaiian historic and cultural preservation organizations requesting that they identify any cultural concerns that require attention. Mitigation measures will be developed in consultation with the SHPO and other appropriate entities, resulting in a Memorandum of Agreement governing the Project.

Hawai`i has a long cultural history that is intimately tied to the land. The tools, structures, and record of the existence of native Hawaiians and those who came later constitute Hawai`i's historic and cultural resources, practices, and beliefs. This chapter summarizes the historical and cultural context and resources located within the study corridor. Where possible, pictures of identified resources are included. Sections 4.1 through 4.3 summarize the extensive research done to identify culturally significant historical resources. Section 4.4 includes tables summarizing present-day cultural resources located within the APE. Section 1.1 summarizes the oral history research conducted. Appendix A provides a broader background review of cultural resources.

The information gathered from the process discussed in Section 3 was mapped using a GIS system of landmark identification. These maps show ahupua`a demarcations and natural resources, pinpoint the locations of identified affected resources, and affected tax map key (TMK) parcels. The tables of identified cultural resources in Section 4.5 correspond to these maps, which are located in Appendix K. Resources are sorted by ahupua`a and route segment and are then classified. Definitions of the classifications used are included in Section 4.3, Summary of Cultural Resources and Practices

4.1 Historic References

Historic references pertain to events after 1778. These were generally in the form of ships' logs or journals, and diaries and other records of voyagers, whalers, missionaries, merchants, and journalists. In the mid-1800s and early 1900s, native historians were encouraged to recount the life and times of the Hawaiian people in the form of school papers and articles for Hawaiian and English newspapers. Other forms of historic references include government records, company reports, studies, letters, maps, business reports, and historical texts. Many of these references provide information on land use in the study area and vicinity.

4.1.1 History of Land Divisions

The land of Hawai`i was separated into what is now known as traditional land divisions sometime in the 1500s. Each island was portioned into districts (moku), sub-districts, and smaller divisions. Within each of the moku, the land was further divided into sustainable land divisions (ahupua`a) and controlled by land managers (konohiki). The boundaries of the ahupua`a were delineated by natural features such as shoreline, ridges, streams and peaks, usually from the mountain to the sea, and ranged in size from less than 10 acres to 180,000 acres (Moffat and Kirkpatrick 1995:24-29; see also Chinen 1958:3; Gay 1965:50). "The principal tax levied on an ahupua`a were hogs. Ahu (altar) is a place where things were brought in and stored or piled up, and pua`a is hog or pig; hence the name ahupua`a" (Gay 1965:49). Ahupua`a literally means "pig altar" and many of these altars were constructed on traditional land boundaries and used for tax collection purposes. Figure 4-1 illustrates the ahupua`a affected by the Project.

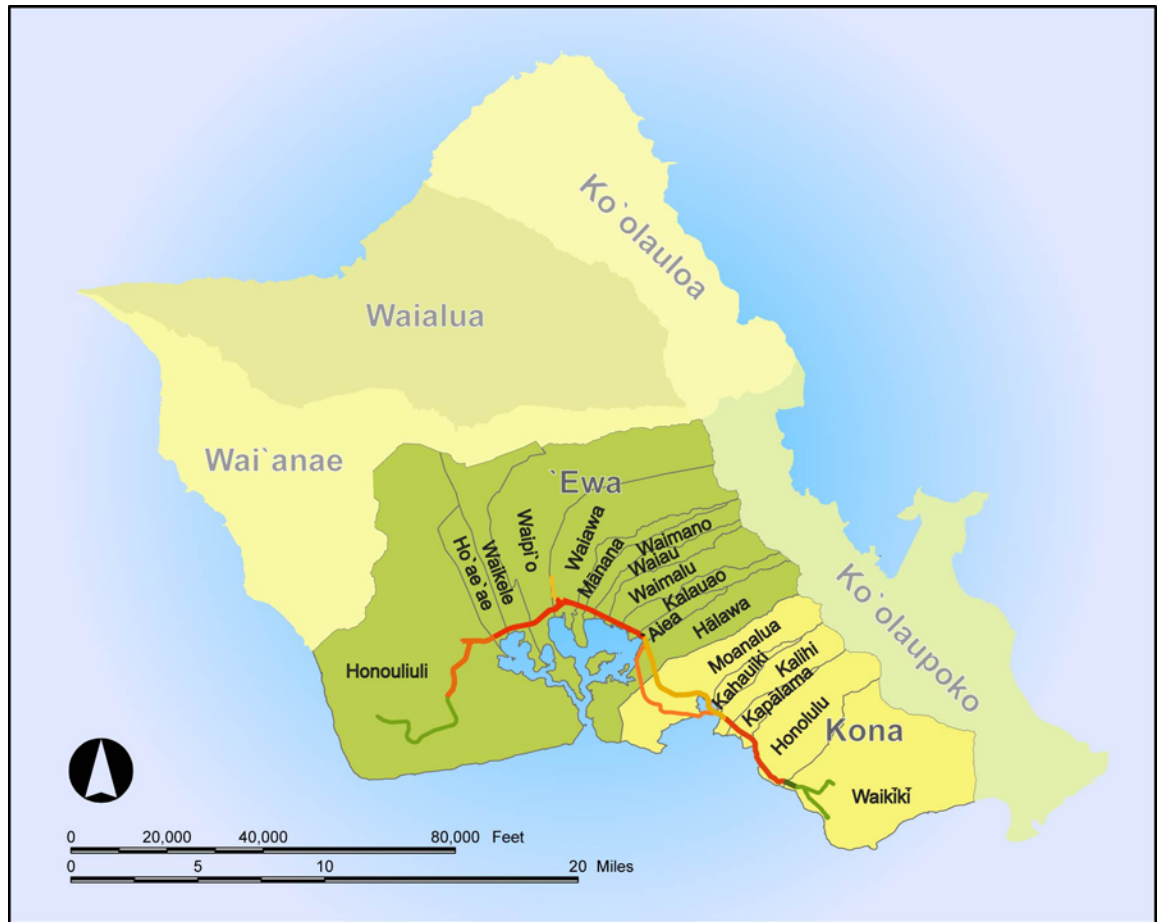


Figure 4-1: Ahupua`a Divisions Affected by Project

Each ahupua`a was often divided and sub-divided several times into variously sized smaller divisions (i.e., `ili, kuleana, mo`o, paukū, kō`ele, kīhāpai). These sub-divisions were governed by lesser land managers, accountable to the konohiki of the ahupua`a. One exception to this resource management hierarchy was the `ili kūpono or the ili kū, which was “completely independent of the ahupua`a in which it was situated... (and) tributes were paid directly to the king himself” (Chinen 1958:4). Rights to lands were mutable or revocable; a ruling chief or any “distributor” of lands could change these rights if displeased, or as favors—usually after a victorious battle, and after the death of the ali`i nui (ruling chief) (Chinen 1958:5).

Between 1839 and 1855, several legislative acts transformed the centuries-old traditional land management structure into the western system of fee simple or private land ownership. During this time, King Kamehameha III (Kauikeaouli) divided a portion of the kingdom lands among the highest-ranking ali`i (chiefs), konohiki (land managers), and favored haole (foreigners) (Chinen 1958:7-14; Moffat and Fitzpatrick, 1995:11, 17).

This historic transformation of the stewardship concepts that underpinned the traditional system of land management has been attributed to growing concerns about increasing foreign conquest and powerful western influence regarding land possession. King

Kamehameha III, in his mid-thirties, was persuaded by his kuhina nui (regent) and other advisors to transform the traditional communal system of land ownership into a system that would ensure personal rights to land. One-third of all lands in the kingdom were retained by the king; another third went to the chiefs as designated by the king; and the last third was set aside for the maka`āinana (literally “people who looked after the land”). In 1846, an appointed Board of Commissioners, commonly known as the Land Commissioners, was formed to confirm or reject all claims to land arising before December 10, 1845. Notices were frequently posted in *The Polynesian*, a widely distributed local newspaper (Moffat and Kirkpatrick 1995). The Legislature did not acknowledge this act until June 7, 1848 (Chinen 1958:16; Moffat and Kirkpatrick 1995:48-49). This act is known today as *The Mahele*.

The Mahele did not actually convey title to the various ali`i and konohiki. It essentially gave them the right to claim the lands assigned to them—known as the *konohiki* lands. They were required to present formal claims to the Land Commission and pay a commutation fee, which could be accomplished by surrendering a portion of their land to the government (Chinen 1958:20). The government could later sell these lands to the public. Upon payment of the commutation fee, the Minister of Interior issued a Royal Patent to the chief or konohiki. The last third was originally designated to the maka`āinana, but few maka`āinana had the wherewithal to go through the steps needed to claim these lands. Instead, most of it was set aside for the government, “subject always to the rights of the tenants” (Moffat and Kirkpatrick 1995:41-43; see also Chinen 1958:15-21). `Ili kūpono were the only land divisions recognized as being distinct from the ahupa`a in this process. All other land divisions were absorbed into ahupua`a claims (Chinen 1958:20). In 1892, the Legislature authorized the Minister of the Interior to issue Royal Patents to all konohiki or to their heirs or assignees, where the konohiki failed to fulfill the requirements needed to obtain awards for their lands from the Land Commission. The Act further stipulated “that these Royal Patents were to be issued on surveys approved by the Surveyor General of the kingdom...” (Chinen 1958:24; Moffat and Fitzpatrick 1995:41-43).

Kamehameha III formalized the division of lands among himself (one-third) and 245 of the highest-ranking ali`i and konohiki (one-third) between January 27 and March 7, 1848. He acknowledged the rights of these individuals to various land divisions in what came to be known as the *Buke Mahele* or “sharing book.” Many ali`i were awarded portions of or entire ahupua`a. Many ali`i, especially direct descendants of the royal line, inherited very large land awards on all the islands, including Ni`ihau. Their lands were subsequently awarded to descendants from lesser lines.

4.1.2 Land Commission Awards

Land use information has come from native and foreign testimonies given by claimants and witnesses who, during the claims process, were required to describe to the Land Use Commission how the land was used and acquired. Appendix H includes a chart showing information collected during a review of 216 Land Commission Award (LCA) land claims within the study corridor and native testimonies on cultural resources and practices from Mahele claims made between 1847 and 1852. The land use documented through that process is summarized in Table 4-1 for each ahupua`a.

Table 4-1: Summary of Land Use Documented in LCA Testimonies

| Ahupua`a | Land Use |
|-------------------|---|
| <i>Honouliuli</i> | Houselots (kauhale), lo`i kalo (taro farming plots), kula (flat plains land often used for farming), pasture, |
| <i>Ho`ae`ae</i> | Taro, goats, cattle, horses, lo`i kalo, `auwai (irrigation), pasture, houselots, streams, kula, pali (cliff), vineyards (waina), weekly workdays on chief's plantation (pō`alima) |
| <i>Waikele</i> | Lo`i kalo, pā hale (gardens), seashore, kula moku (pasture), kauhale, yams, banana, watermelon, potato, sugar cane, wauke, animal enclosures, cultivated kula, salt pans, kula, pō`alima, fishponds (loko), Ka`alahina River, sea, kō`ele (small farmland farmed by a tenant for a chief) |
| <i>Waipi`o</i> | Pāhale (houses), kula, lo`i kalo, `auwai, fenced pasture |
| <i>Waiawa</i> | Houses, loko, lo`i kalo, pasture, Holoipiapia Stream, pāhale, `auwai, sand dune loko, fenced houselots, banana plantation, kauhale |
| <i>Mānana</i> | Lo`i kalo |
| <i>Waimano</i> | Lo`i kalo, walls, seashore, pō`alima |
| <i>Waiau</i> | Pō`alima, lo`i kalo (both fenced and unfenced), `auwai, kula, pasture, stream, kauhale, kō`ele |
| <i>Waimalu</i> | Houselots, farmland, loko, loko i`a (fishpond), pasture, sand dune, dry lo`i kalo, lo`i kalo, pō`alima |
| <i>Kalauao</i> | Muliwai (stream mouth), seashore, pali, lo`i kalo, loko pu`uone (sand dune pond), houselots, loko i`a, kula, kō`ele, pasture |
| <i>`Aiea</i> | Loko, dunes, muliwai, lo`i kalo, pasture, kula, houselots, loko i`a, loko pu`uone, pō`alima |
| <i>Hālawa</i> | Lo`i kalo, houselots, kula, loko, loko pu`uone |
| <i>Moanalua</i> | kō`ele, pō`alima, lo`i, loko, pasture, farmlands, dunes, muliwai, kula niu (coconut farm), `auwai, stream, coconut trees, Waiau River, stonewalls, road, lauhala (pandanus trees), loko i`a, pali |
| <i>Kalihi</i> | Taro, pasture, stream, farm/fishing grounds |
| <i>Pauoa</i> | Coconut trees, wī trees (type of fruit tree), lo`i |
| <i>Honolulu</i> | Vineyard, fenced lots, houselots, fishponds, `auwai, salt land, sea shore, roads, burials (Royal Cemetery), walls, muliwai, sand dunes, wharf, farms, wood and grass buildings, marketplace, streams, cow yard, pili grass fisherman hale (house), pili grass hale, bathing pool, loko, pigpens |
| <i>Kapālama</i> | Hog sty, `auwai, houselots, lo`i kalo, brick tombs, kauhale, fences, coconut trees, loko i`a, Fort land, pasture, sand dunes |
| <i>Waikīkī</i> | Fishponds, houselots, lo`i kalo, `auwai, salt beds, hala (pandanus), pasture, pō`alima, Fort land, kula |

4.1.3 Summary of Significant People and Events

According to historical and traditional material, the O`ahu districts of `Ewa and Kona were traversed by many historically significant people over the last 10 centuries. These people contributed significantly to the history of these districts, O`ahu Island, and the rest of the Hawaiian Islands. Many of these people and events were noted in historical mo`olelo and later recorded by explorers, missionaries, native Hawaiian scholars, and ethno-historians. Most spent time in areas along the study corridor, were responsible for defining shifts in policy and commerce, and were ancestors of Hawai`i's monarchs.

Mythical Entities

Research uncovered many references to mythical entities that either existed in or traveled through the study corridor. Some of these entities were later deified by their descendants or others who preserved their legacy through mo`olelo. They include illustrious figures of Hawai`i's history such as the fire goddess Pele, her beloved sisters Hi`iakaikapoliopole and Kapolei, her arch-enemy pig-god Kamapua`a, progenitors Wākea and Papanuihānaumoku (also known as Haumea), the shark goddess Ka`ahupāhau and her brothers; and the many mo`o (supernatural reptiles or water spirits) and `e`epa (extraordinary mythological characters) that inhabited the streams and surrounding areas.

Ali`i Nui and Historic People

The list of the many ali`i nui (ruling chiefs) who walked on and/or impacted the lands along the study corridor is extensive. A full list of those associated with lands within the study corridor is included in Appendix I. In addition to the dozens of members of traditional royalty, the study corridor was impacted by many notable historical figures, as shown in Appendix J.

Significant Ancient Events

According to mo`olelo research, the most significant ancient events pertinent to the corridor area include the travels of Pele and her sister Hi`iakaikapoliopole, their battles with Kamapua`a, shark battles in Pu`uloa, and the settlement of Papanuihānaumoku and Wākea on O`ahu. Areas on the study corridor are also mentioned in historical accounts of great voyages and migrations and the monumental building period of the heiau (traditional religious worship sites), fishponds, and taro lo`i. Other notable events include many battles between rivals, which often resulted in significant changes in leadership, sociopolitical policies, and resource management and distribution.

4.1.4 `Ōlelo No`eau

`Ōlelo no`eau (traditional sayings) were created by native Hawaiians to commemorate a particular place, event, aspect of the environment, or other notable part of their society. These proverbs usually had several layers of meaning and reflected the wisdom, observations, poetry, and humor of old Hawai`i. Some referenced specific people, events, and/or places. This way of documenting intimate parts of Hawaiian society in a poetic form sheds light on often otherwise unrecorded history. The following `ōlelo no`eau were selected because they refer to places located within the study corridor. These and other `ōlelo no`eau were compiled by Mary Kawena Pūku`i between 1910 and 1960, with literal translations and explanations of their meaning (Williamson, et al. in Pukui 1983: vii), which reveals the kaona (hidden or double meaning).

`Ōlelo no`eau referring to the `Ewa area:

- *`Āina koi `ula i ka lepo*
Translation: Land reddened by the rising dust.
Meaning: Said of `Ewa, O`ahu (p 11 #80).
- *Anu o `Ewa i ka i`a hāmau leo. E hāmau!*
Translation: `Ewa is made cold by the fish that silences the voice. Hush!
Meaning: A warning to keep still. First uttered by Hi`iaka to her friend Wahine`ōma`o to warn her not to speak to Lohi`au while they were in a canoe near `Ewa (p 16 #123).
- *`Ewa kai lumaluma`i*
Translation: `Ewa of the drowning sea.
Meaning: An epithet applied to `Ewa, where outcasts were drowned prior to offering their bodies in sacrifice (p 46 #385).
- *`Ewa nui a La`akona*
Translation: Great `Ewa of La`akona.
Meaning: La`akona was a chief of `Ewa, which was prosperous in his day (p 47 #386).
- *Haunāele `Ewa i ka Moa`e*
Translation: `Ewa is disturbed by the Moa`e wind.
Meaning: Used about something disturbing, like a violent argument. When the people of `Ewa went to gather the 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 (p 59 #493).
- *He lō`ihi o `Ewa: he pali o Nu`uanu; he kula a Kulaokahu`a; he hiki mai koe*
Translation: `Ewa is a long way off; Nu`uanu is a cliff; Kulaokahu`a is a dry plain; but all will be here before long.
Meaning: Said of an unkept promise of food, fish, etc. O`ahu was once peopled by evil beings who invited canoe travelers ashore with promises of food and other things. When the travelers asked when these things were coming, this was the reply. When the visitors were fast asleep at night, the evils ones would creep in and kill them (p 85 #768).
- *Ke kai he`e nehu o `Ewa*
Translation: The sea where the nehu come in schools to `Ewa.
Meaning: Nehu (anchovy) come by the millions into Pearl Harbor. They are used as bait for fishing or eaten dried or fresh (p 185 #1721).
- *He one kuilima laula o `Ewa*
Translation: The sand on which there was a linking of arms on the breadth of `Ewa.

Meaning: `Ewa, O`ahu. The chiefs of Waikīkī and Waikele were brothers. The former wished to destroy the latter and laid his plot. He went fishing and caught a large niuhi fish, whose skin he stretched over a framework. Then he sent a messenger to ask his brother if he would keep a fish for him. Having gained his consent, the chief left Waikīkī, hidden with his best warriors in the “fish”. Other warriors joined them along the way until there was a large army. They surrounded the residence of the chief of Waikele and linked arms to form a wall, while the Waikīkī warriors poured out of the “fish” and destroyed those of Waikele (p 191 #1776).

- *Kū a`e `Ewa; Noho iho `Ewa*

Translation: Stand up `Ewa; Sit-down `Ewa.

Meaning: The names of two stones, now destroyed, that once marked the boundary between the chief’s land (Kua` `Ewa) and that of the commoners (Noho iho `Ewa) in `Ewa, O`ahu (p 200 #1855).

- *O `Ewa, `āina kai `ula i ka lepo*

Translation: `Ewa, land of the sea reddened by earth.

Meaning: `Ewa was once noted for being dusty, and its sea reddened by mud in time of rain (p 257 #2357).

- *Ua `ai i ke kāi-koi o `Ewa*

Translation: He has eaten the kāi-koi taro of `Ewa.

Meaning: Kāi 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 kāi taro, is not easily forgotten (p 305 #2770).

`Ōlelo no`eau referring to the Honolulu area:

- *Hui aku na maka i Kou*

Translation: The faces will meet in Kou.

Meaning: We will meet there. Kou (now central Honolulu) was the place where the chiefs played games (konane) and people came from everywhere to watch (p 120 #1128).

- *Ke awa la`i lulu o Kou*

Translation: The peaceful harbor of Kou.

Meaning: Honolulu Harbor (p 182 #1685).

- *Ola ke awa o Kou i ka ua Wa`ahila*

Translation: Life comes to the harbor of Kou because of the Wa`ahila rain.

Meaning: It is the rain of Nu`uanu that gives water to Kou (now central Honolulu (p 272 #12486).

‘Ōlelo no`eau referring to the Moanalua area:

- *Pū`ali o Ka-hau-nui ia Ka-hau-iki*

Translation: Big-hau-tree has a grove worn into it by Little-hau-tree.

Meaning: Said when a child nearly wears out the patience of the adult in charge of him, or a large company of warriors discomfited by a small one. Kahaunui and Kahauiki are places just east of Moanalua, O`ahu (p 296 #2706).

- *Ka makani Ho`eo o Moanalua*

Translation: The Ho`eo, whistling wind of Moanalua.

Meaning: Moanalua is on O`ahu (p 158 #1460).

‘Ōlelo no`eau referring to the Kalihi area:

- *Ke kai nehe o Pu`uhale*

Translation: The murmuring sea of Pu`uhale.

Meaning: The sea at Pu`uhale in Kalihi, O`ahu was said to murmur softly as it washed ashore. There were once many fishponds there (p 186 #1732).

- *Alahula Pu`uloa, he alahela na Ka`ahupāhau*

Translation: Everywhere in Pu`uloa is the trail of Ka`ahupāhau.

Meaning: Said of a person who goes everywhere, looking, peering, seeing all, or of a person familiar with every nook and corner of a place. Ka`ahupāhau is the shark goddess of Pu`uloa (Pearl Harbor) who guarded the people from being molested by sharks. She moved about, constantly watching (p 14 #105).

- *Ke awa lau o Pu`uloa*

Translation: The many harbored sea of Pu`uloa.

Meaning: Pu`uloa is an early name for Pearl Harbor (p 182 #1686).

‘Ōlelo no`eau referring to the Waipi`o, Waikele, and Waiawa areas:

- *Pukana wai o Kahuku*

Translation: The water outlet of Kahuku.

Meaning: Refers to the outlet of an underground stream that once flowed from Kahuku to Waipahu, O`ahu (p 299 #2731).

- *Waipi`o o kīmopō*

Translation: Waipi`o of the secret rebellion.

Meaning: An epithet for the people of Waipi`o, O`ahu. After the death of Kahahana, the chiefs of Waipi`o plotted to murder the chiefs of Maui, who were then in `Ewa. Someone warned the Maui chiefs and all but one escaped. To throw off suspicion the Waipi`o chiefs claimed that the one chief was killed by someone from Kaua`i. Later Kahekili learned that Elani, chief of `Ewa, was in the plot, so he launched a massacre that choked the streams of Nuihelewai and Makāho in Pālama with the bodies of the dead (p 319 #2918).

4.1.5 Place Names and Stories

Cultural resources also include place names, stories, and knowledge of community history and experience. The Polynesian people of old were intimately connected with the land and sea and gave names to countless features and places that reflected their holistic thoughts, knowledge, relationships, and experiences with the cultural landscape. Each name contained information about the place, the quality of the water, plants and animals, and stories of their ancestors and relatives that refer to the importance and the role of the cultural landscape in ancient times. Over time, many of the stories and meanings of the names were lost; however, some were recorded in the land records of the 19th century and some were passed down over time.

Historical information, place names and legends associated with the `Ewa ahupua`a and `ili of Honouliuli, Hō`ae`ae, Pu`uloa, Waikele, Waipi`o, and others are still known and significant research about the place names along the study corridor has been done for various development projects, especially on the `Ewa plain where development has grown exponentially in the last decade. These cultural surveys of the resources and storied place names associated with these areas have been completed and are a useful tool in identifying the significant cultural history and related stories along the study corridor. This cultural heritage is an important and invaluable resource and can be used to provide public awareness through mitigation efforts described in Chapter 6, such as interpretive signage at stations.

Place names for the study corridor areas are summarized in Table 4-2. The following table is not meant to be exhaustive; however, it contains information that is evidence of prior land use and occupancy and is an important resource to perpetuate and preserve Hawaiian cultural heritage. See Appendix A, Cultural Resources Background Review, for more information.

In addition to those places identified and explained in Table 4-2, more specific research was conducted on the stories and places in the immediate vicinity of the proposed station sites. Such information will be useful in the mitigation process as it will aid in interpretive signage efforts recommended in Chapter 6. Table 4-3 is not meant to be an exhaustive list of place names and stories, but is meant to be used in combination with other existing resources.

Table 4-2: Corridor Place Names and Meanings

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning |
|-------------------|-----------|-------------|-----------|--|--|--|
| Honouliuli | | | | | | Named for the waters of Pearl Harbor, which mark the eastern boundary of this ahupua`a. Another explanation for this name is found in the Legend of Lepeamoa. Honouliuli is the husband of chiefess Kapālama, the grandparents of Lepeamoa. In this story of the chicken-girl of Pālama, Honouliuli gives his name to a land district west of Honolulu. Literally, "dark bay." |
| | | | Unulau | a wind associated with `Ewa and other places | | |
| | | | | | Kaupe`a | Name of the plains adjacent to Pearl Harbor associated with lost, wandering souls. It is said that these souls wandered these barren plains, catching moths and spiders for sustenance. |
| | | | | | Kalo`i | A gulch in this area. Literally, "the taro patch." |
| | | | | | Maunauna | Hill where two servant mo`o once lived who had no keepers to supply for their needs. Literally, "mountain sent (on errands)." Also mentioned in the Legend of Kahalaopuna and the Legend of Kelea. |
| | | | | | Pu`ukānehoa | Peak named for native shrubs. |
| | | | | | Pu`uku`ua | Hill where Pele's sister, Kapo, left her flying vagina (kohe lele). Literally, "relinquished hill." |
| | | | | | Pu`umakakilo | Hill near Honouliuli. Now known as Makakilo. Literally, "observing eyes hill." |
| | | | | | Pu`umo`opuna | Name of a peak above Honouliuli. Literally, "grandchild hill." |
| | | | | | Pu`uokapolei | Hill in Honouliuli. Kamapua`a established his grandmother here as queen after conquering most of O`ahu. Literally, "Hill of Kapolei." Location of the largest heiau in the region. |
| | | | | | Pu`upoulihale | Hill in Honouliuli. Literally, "dark house hill." |
| | | | | | Waihuna/Punahuna | A hidden spring somewhere in Kalo`i Gulch. Legend says that the spring was once the water source for the whole plain. Literally, "hidden water or spring." |
| | | | | | Hāpapa | Name of a peak above Honouliuli. Literally, "rock stratum." |
| | | | | | Pu`u Kauga | A peak above Honouliuli. Literally, "war hill." |
| | | | | Palikea | A peak above Honouliuli. Literally, "white cliff." | |

Table 4-2: Corridor Place Names and Meanings (continued)

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning |
|-------------------|-----------|-------------|-----------|-------------|----------------------|--|
| | | | | | Mauna Kapu | A peak above Honouliuli. Literally, "sacred mountain." |
| | | | | | Pu`u Manawahua | A peak above Honouliuli. Literally, "great grief hill." |
| | | | | | Pu`u Kapua`i | A hill in the central area of Honouliuli. Literally, "footprint hill." |
| | | | | | Pu`u Pālailai | A hill in the central area of Honouliuli. Likely named for the lai fish. |
| | | | | | Pōhākea Pass | A trail between Pu`u Kaula and Palikea peaks in the mountains above Honouliuli. This was one of the resting places of Hi`iakaikapoliopole when she was returning from her journey to bring Lohiau to her sister Pele. It was from this peak that Hi`iaka was able to see with her extrasensory vision that Pele had destroyed her friend Hōpoe and her beloved lehua groves. She was also able to see from this point that her traveling companion, Wahine`ōma`o was being seduced by Lohiau in their canoe along the coast. This is also the area where Kahalaopuna was killed by her jealous betrothed, Kauhi. Literally, "white stone." |
| | | | | | Keahumoa | Former home of the grandfather of the demi-god Maui. In the legend of Maui's Flying Expedition, his grandfather Kuolokele helped Maui to fly to defeat the chief Peapeamakawalu who was trying to kidnap his wife. |
| | | | | | LThu`e | Land division in central Honouliuli that extends into the ahupua`a of Waipi`o. Literally, "cold chill." Said to be named for the chilly winds of the area. |
| | | | | | Paupauwela/Popouwela | A land area in the heights of Honouliuli, which is mentioned in a chant for former O`ahu king, Kūali`i. |
| | | | | | Pukaua | A plain near Pu`uokapolei where there are several versions of a story about two supernatural women that turned to stone to hide. The stone on this plain is known as pe`e kāua (we are hidden). |
| Hō`ae`ae | | | | | | A stone called Pōhakupili, which belonged to the gods Kāne and Kanaloa, is on the edge of the cliff that borders Waikele. Literally, "to make soft or fine." |
| | | | | | Ka`ulu | Land section near Hō`ae`ae that was named for chief Ka`uluhuaikahāpapa from Puna, Hawai`i. |
| Waikele | | | | | | Land division. Literally, "muddy water." |

Table 4-2: Corridor Place Names and Meanings (continued)

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning |
|-------------------|-----------|-------------|-----------|-------------------------|----------------|--|
| Waipi`o | | | | | | Land division encompassing Waipahu and Wahiawā. Literally, “curved water.” |
| | | | | | Hālaulani | Land division near the Pineapple Research Institute in Waipi`o that was the site of `Ahu`ena heiau. Literally, “high-born chiefs’ large house.” |
| Waipahu | | | | | | Land section and stream. Said to have originally been, Waipahū. The shark goddess Ka`ahupāhau lived here. Literally, “bursting water (from underground).” |
| Waiawa | | | | | | Land division and stream. Literally, “milkfish water.” |
| Waimalu | | | | | | Land section and stream exiting at Pearl Harbor. The Spanish explorer, Francisco de Paula Marin had a home here. Literally, “sheltered water.” |
| Waimano | | | | | | Land division near Pearl Harbor. The shark goddess, Ka`ahupāhau bathed here. Literally, “many waters.” |
| Kalauao | | | | | | Land section and stream. A battle was once fought in this area to `Aiea Heights from November 16-December 12, 1794. Kalanikūpule defeated and killed Maui, Moloka`i, Lāna`i and Kaua`i chief, Ka`eokūlani. Literally, “the multitude of clouds.” |
| | | | Māunuunu | a strong, blustery wind | | |
| | | | | | Kahuawai | A small waterfall in Kalauao Stream that was once a favorite resting place for chiefs. Also called Kahuewai, “the water gourd.” |
| Pu`uloa | | | | | | Old name for Pearl Harbor, name of land section east of the Harbor. It is said that breadfruit were brought here from Samoa. Literally, “long hill.” |
| | | | | | Kanukuopu`uloa | Old name for Iroquois Pt., near Pearl Harbor. Literally, “the entrance of Pu`uloa.” |
| | | | | | Kapākule | Old name for a fishpond built by menehune and dredged when Pearl Harbor was developed. Home of Ka`ahupāhau, the shark goddess. Literally, “the akule fish enclosure.” |
| | | | | | Keanapua`a | Cave near Pearl Harbor where Kamapua`a slept. Literally, “the pig’s cave.” |
| | | | | | Lokoamano | Name of a filled fishpond at Pearl Harbor Navy Yard. Literally, “Mano’s pond.” |
| | | | | | Lokowaiaho | Name of a fishpond near Pearl Harbor. Literally, “fishline water pond.” |

Table 4-2: Corridor Place Names and Meanings (continued)

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning |
|-------------------|-----------|-------------|-----------|-------------|--------------|---|
| | | | | | Moku`ume`ume | Old name for Ford Island. Water was brought for melons that were raised here. It was once famous for the sexual game, `ume, which was played often on the island. Literally, “ume game island.” |
| | | | | | Napehā | Deep pool and resting place on a trail to Kapūkakī. The chief Kūali`i is said to have leaned over this pool to drink. Literally, “bend over breath.” |
| | | | | | Oki`okiolepe | Name of a fishpond in this area. Name might have been `Oki`okiolepe. Literally, “cut strips.” |
| | | | | | Pouhala | Fishpond and land division near Pearl Harbor. Literally, “pandanus post.” |
| | | | | | Awawalei | An alternate name for Pu`uloa. Literally, “garland of harbors”. Pūku`i also uses the name Awalau, “the leaf-shaped lagoon.” |
| | | | | | Waimomi | A name for Pearl River or Pearl Harbor. At one time, oysters were abundant on the reefs in this are but were eventually fished out. The name Pearl Harbor is said to have been derived from this name. Literally, “pearl water.” |
| `Aiea | | | | | | Land section and stream. Literally, “ <i>Nothocestrum</i> tree.” |
| | | | | | Pu`u`ua`u | Hill in `Aiea. Literally, “dark rumped petrel hill.” |
| Hālawa | | | | | | Land section and stream. Literally, “curve.” |
| | | | | | Kapūkaī | Old name for Red Hill and Makalapa Crater near Pearl Harbor. |
| Moanalua | | | | | | Land division and stream said to be named for two encampments at taro patches where travelers bound for Honolulu from `Ewa could rest. Literally, “two encampments.” |
| | | | | | Āliamanu | A crater in Salt Lake. Literally, “bird salt pond.” Pele and her family once lived here when they were settling the Hawaiian Islands. When they left, Pele dropped some salt and the pet bird of Hi`iakaikapoliopole escaped here. |
| | | | | | Āliapa`akai | The old name of Salt Lake. The crater was dug by Pele during her settlement of the Hawaiian Islands. Some liquid dropped from her eyes and formed the salt in the lake. Some believe that the lake was salty because it was connected to the sea by a hole in the center of the lake. |

Table 4-2: Corridor Place Names and Meanings (continued)

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning |
|-------------------|-----------|-------------|-----------|-------------|-----------------|---|
| | | | | | `Īemi | Name of a spring and pond near the mouth of Moanalua Valley that fed the taro patches at the bottom of the lands. Literally, "less great." |
| | | | | | Kahaukomo | Hill above the sacred rock, Kapōhakuluahine, in Kamana Nui Valley in Moanalua. The Hill was named for a Kahuna, the grandfather of the famous chanter, Nāmakahelu, who died in 1940. A heiau might have been here. Kamokulaniāli`i, a young chief, was strangled in a stream near here because he refused to fight the invading Kamehameha I. Literally, "the hau trees begin." |
| | | | | | Kapōhakuluahine | Sacred boulder (11 x 8.7 x 3 feet) now on the edge of Moanalua Stream. A child cried during a sacred ceremony and to save the child from death, the mother hid with it by this stone. Several petroglyphs, including birds and a kōnane board are on the stone. Offerings are still placed here. Literally, "the stone of the old lady." |
| | | | | | Leilono | Land area that was once one of the leaping places for spirits into the nether world. Literally, "Lono's lei." |
| | | | | | Mailehahai | Name of the high point on the ridge between Kamana Nui and Kamana Iki valleys. Site of the former Damon home, "Top Gallant." |
| | | | | | Mapunapuna | Name of a land division that was perhaps named for the spring-fed fishpond formerly in the vicinity. Literally, "bubbling (as in water)." |
| | | | | | Paliuli | A heiau in lower Moanalua now believed to be destroyed. Literally, "green cliff." |
| | | | | | Pu`ukapu | Name of a hill where commoners and chiefs were said to have met to discuss important matters. Literally, "sacred hill." |
| | | | | | Pu`u`ōma`o | Hill on the Honolulu side of Moanalua Valley. Now the site of a cemetery. Literally, "green hill." |
| | | | | | Waiola | Name of a sacred pool, far inland in Kamana Nui Valley. Literally, "water of life." |
| | | | | | Waipuka | Pools near the mouth of Kamana Iki Valley where chiefs bathed after games and wrestling. Literally, "issuing water." |

Table 4-2: Corridor Place Names and Meanings (continued)

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning |
|-------------------|--------------|----------------------------------|------------|----------------|-------------|---|
| | | | | | Manō | Ridge in upper Kamana Nui Valley. A shark man lived in a cave here and both man and the cave were named Keanaokamanō (the cave of the shark). The man followed parties of swimmers to the sea and killed them but was finally killed. It is said that he cultivated `awa and yams in this area. Literally, “shark.” |
| Kalihi | | | | | | Land section, stream and valley. Literally, “edge.” |
| | Po`olipilipi | no translation | | | | |
| | | | | | Hāunapō | Land and former land area in Kalihi-Kai. Also the name of a heiau in Kalihi. Literally, “night striking” |
| | | | | | Ka`ie`ie | Name of an old heiau in this area. Literally, “the `ie`ie vine.” |
| | | | | | Māmala | Bay from Honolulu Harbor to Pearl Harbor. Named for a shark woman who lived at the entrance of Honolulu Harbor and often played kōnane. She left her shark husband `Ouha, for Honoka`upu. `Ouha then became the shark god of Waikīkī and of Koko Head. |
| | | | | | Mokauea | Island off of Sand Island. |
| | | | | | Umi | Former land section and now street in Kalihi-Kai. Probably named for strangling of a victim used as a human sacrifice at nearby heiau, Hāunapō. Literally, “strangle.” |
| | | | | | Waiakamilo | Road and former land section in Kalihi-Kai. Literally, “water of the milo tree.” |
| Kapālama | | | | | Waikoa`e | Street and former land section. Literally, “tropicbird water.” |
| | | | | | Mu`olaulani | Stream and land division where high chiefs were once protected. Literally, “the lama wood enclosure.” |
| Pālama | | | | | Mu`olaulani | Site of the current Queen Lili`uokalani Children’s Center. Lili`uokalani had a home here. Literally, “the innumerable royal buds.” |
| Pālama | | | | | | Literally, “the lama wood enclosure.” |
| Honolulu | | | | | | Old names for this harbor were Māmala and Kou. Now the capital of O`ahu. Literally, “protected bay.” |
| | Kui`ilima | to string/sew `ilima blossoms | `Aoa | a sea breeze | | |
| | Kūkalahale | no translation | Kūkalahale | no translation | | |
| | | | Kōmomona | no translation | | |

Table 4-2: Corridor Place Names and Meanings (continued)

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning | |
|-------------------|--------------|--|-----------|-------------------------|------------|---|---|
| | | | | | Niuhelawai | An old land division that was the site of a battle between Kahekili of Maui and Kahahana of O`ahu. Kahekili defeated Kahahana and the stream in this area was choked with corpses. Literally, "coconut traveling in water." | |
| Nu`uanu | | | | | | Name of a valley, land area, stream and cliff. In the famous Battle of Nu`uanu in 1795, Kamehameha I drove the O`ahu defenders up to the Pali and some accounts say, over 300 were driven over the cliff to their deaths. Others say the warriors chose to jump off the cliffs instead of surrendering to Kamehameha. Literally, "cool height." | |
| | Wa`ahila | name of a chiefess who excelled in dance and the name of a beneficent rain | Malailua | a strong, blustery wind | | | |
| | Ki`owao | no translation | | | | | |
| | Uamakalaukoa | no translation | | | | | |
| | | | | | | Ha`aliliamanu | Old section of Nu`uanu, near the Hotel Street Bridge over Nu`uanu Stream. Literally, "fluttering by birds." |
| | | | | | | Kaimuohema | Street in Nu`uanu and original name of this land section. Literally, "the oven of Hema." |
| | | | | | | Kaumakapili | Name of a church and land section. The current church is at Keone`ula but the original site was at Smith and Beretania Streets. Lowell Smith was the found and first pastor of services beginning in 1837. The favorite bird, Kamanuwai, of Kū`ula's son `Ai`ai perched here. The bird was fed on bonitos caught with a magic lure and when the bird was hungry, it closed its eyes. Literally, "perch with eyes closed." |
| | | | | | | Keōuahale | Home of Princess Ruth Ke`elikōlani, now the site of Central Intermediate School. The site was called Ke`akopua ("the plucked flower"). |
| | | | | | Kīkīhale | Old section of land bordered by Maunakea and King Streets to Nu`uanu Stream. Named for the daughter of the chief of Kou (Honolulu) in 1810. | |

Table 4-2: Corridor Place Names and Meanings (continued)

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning |
|-------------------|-----------|-------------|-----------|-------------|--------------|---|
| | | | | | Kou | Until 1800 the name for Honolulu Harbor and the area, including the area from Nu`uanu Avenue to Alakea Street and from Hotel Street to the sea. Noted for kōnane and ulu maika games and said to be named for the chief advisor to Kākuhihewa (famed chief of O`ahu). |
| | | | | | Liliha | Street and area along the western boarder of Nu`uanu. Named for Liliha, the wife of one-time Governor of O`ahu, Boki. When he disappeared in 1829, she became the governess of O`ahu and in 1831 tried unsuccessfully to organize a revolution against reigning king, Kamehameha III. |
| | | | | | Nioloa | Old land division in the valley. |
| | | | | | Pakalalē | The `Ewa side of Smith Street near Hotel Street, named for the British ship, Butterworth. |
| | | | | | Pōkele | Former name of the wharf at Queen and Nu`uanu Streets. Literally, "muddy night." |
| | | | | | Pūehuehu | Pool in Nu`uanu Stream near School and Liliha Streets, which used to be popular for diving. Papanuihānaumoku struck the earth with a rock here, creating the pool. Literally, "spray scattered." |
| | | | | | Ulakua | Shore area and ancient surfing area near the foot of Richards Street. Literally, "back red." |
| | | | | | Waikahalulu | Diving pool and waterfall in Nu`uanu Stream. Now the present waterfront area between Fort and Richards Streets. There was a reef that was filled in when the harbor was dredged in the early 1850s. Literally, "water of the roaring." |
| | | | | | Uluhaimalama | Name of Queen Lili`uokalani's garden in Nu`uanu, now called Lili`uokalani Gardens. Literally, "inspiring offering of enlightenment." |
| | | | | | Waipuhia | Name of Upside Down Falls, Nu`uanu Valley. Literally, "blown water." |

Table 4-2: Corridor Place Names and Meanings (continued)

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning |
|-------------------|-----------|--|-----------|-----------------------|------------|---|
| | | | | | Waolani | Land division and stream in upper Nu`uanu Valley. The first Hawaiian heiau was built here by the gods. Gods Kāne and Kanaloa were said to have lived here and the first man, Wākea was born here. In the story of Kūali`i, he is said to have crossed over the Ko`olau mountains through the Nu`uanu and Kalihi passes and assembled his men at Keanaokamanō ridge, which overlooks Waolani. He then descended to Kawaluna heiau to offer sacrifices and finally won a victory at Waolani. Literally, "heavenly mountain area." |
| Pālolo | | | | | | Literally, "clay." |
| | Līlīehua | a type of taro | | | | |
| Mānoa | | | | | | Land division that was once partly covered with a lava flow from Sugarloaf cone 10,000-20,000 years ago. The UH Mānoa is now built on this flow. Literally, "vast." |
| | Kuahine | Name of Kahalopuna's mother, who became a misty rain after her daughter was murdered | Kākea | a stormy wind | | |
| | Wa`ahila | name of a chiefess who excelled in dance and the name of a beneficent rain | Ala`eli | a wind of this valley | | Also a former land section in Mānoa and name of the ridge separating Mānoa and Pālolo valleys. |
| | | | | | Halelena | Street and former land section. Literally, "yellow house." |
| | | | | | Hipawai | Street and area in lower Mānoa where there was a heiau where human sacrifices were offered. Literally, "water foolishness." |
| | | | | | Pū`ahu`ula | Area in upper Mānoa near Pu`uluahine, the site of Queen Ka`ahumanu's home, Puka`ōma`o (green holes). She died here in 1832. Also the name of a spring in the area. The famous female mo`o Kihanuilūmoku (great island-shaking mo`o) who had lizard, eel and woman forms lived here. She made plants thrive in Wa`aloa ravine. Literally, "feather cloak spring." |

Table 4-2: Corridor Place Names and Meanings (continued)

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning |
|-------------------|-----------|-------------|-----------|-------------|------------|---|
| | | | | | Pu`u Kākea | Cinder cone on the Ko`olau range on the west side of the valley, named for a stormy wind associated with the area. Also called Sugarloaf. |
| | | | | | Waiakeakua | Waterfall and stream in the valley. Said to be on the east side of the valley. Kāne and Kanaloa, after making Punahou spring, came to this pool. A goddess, Kāmeha`ikana (Haumea) flirted with them. Her servant tried to stop her and was turned to stone. It is said that Kāne left his footprint on the edge of the pool. Literally, "water used by the god." |
| | | | | | Waihi | One of several streams originating in the Ko`olau mountains and feeding into Mānoa Falls. Literally, "trickling water." |
| Mō`ili`ili | | | | | | Land division makai of Mānoa where Kamapua`a chased two beautiful women. They vanished and he roamed in the earth in search of them until water burst forth, almost drowning him. The area was formerly called Kamō`ili`ili for the lizard that was destroyed by Hi`iakaikapoliopele. His body was cut into pieces and forms the hill across from the present-day Kūhiō School. Literally, "rock lizard." |
| | | | | | Piliamo`o | An area here. Literally, "cling, as a lizard." |
| Waikīki | | | | | | Land area named for the swamps that were later drained to form the Ala Wai canal and the name of a chiefess. Literally, "spouting water." |
| | | | | | `Āinahau | Site of the Princess Ka`iulani Hotel, former home and land of Princess Ka`iulani. |
| | | | | | `Aiwahi | Ancient surfing area |
| | | | | | `Āpuakēhau | The name of an old stream that existed where the current Moana Hotel is today. Probably named for a rain. Literally, "basket of dew." |
| | | | | | Halekūlani | Hotel dating back to 1917. Before that time, M/M Robert Lewers lived on the site and had a hotel called the Hau Tree. |
| | | | | | Hamohamo | Area near `Ōhua Avenue that once belonged to Queen Lili`uokalani. Literally, "to rub gently (as the sea on the beach)." |

Table 4-2: Corridor Place Names and Meanings (continued)

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning |
|-------------------|-----------|-------------|-----------|-------------|---------------|---|
| | | | | | Helumoa | Old land division near the present Royal Hawaiian Hotel and the site of a heiau where Kahahana was sacrificed. Chickens used to scratch at the sacrificed victims to find maggots. The supernatural chicken, Ka`auhele-moa flew here from Ka`au Crater in Pālolo. Literally, "chicken scratch." |
| | | | | | Kalehuawehe | An ancient surfing area now called Castle`s. Sick people were brought here for cleansing baths. Pīkoi, the rat killer, went to Waikīkī wearing a lehua lei. He asked a surfing chiefess for her board but she refused because the board was sacred. They surfed together and he gave her his lei. Literally, "the removed lehua lei." |
| | | | | | Kapuni | Ancient surfing area, street and former land area. Literally, "the surrounding" perhaps named for the banyan tree on the `Āinahau estate. |
| | | | | | Kawehewehe | Reef entrance and channel off Grey's Beach, east of Halekūlani Hotel. The sick were bathed here as treatment and a patient might wear limu kala and leave it in the water as a request that his sins be forgiven. Literally, "the removal." |
| | | | | | Kealohilani | Avenue and the name of Queen Lili`uokalani's seaside cottage in Waikīkī. The home may have been named for a mythical land in the heavens to which a girl traveled for four months and 10 days and where a house was build of clouds for Keaomelemele, a daughter of Kū and Hina. Literally, "the royal brightness." |
| | | | | | Maihiwa | Ancient surfing area in Waikīkī. |
| | | | | | Paemāhū | One of four stones that were once in the ocean off of this area, at the west end of Kūhiō Beach Park, believed to have been healing kahuna from Tahiti that guarded this area. Literally, "homosexual row." |
| | | | | | Pāwa`a | Old name of land division. The old Cinerama Theater was formerly called this. It is said canoes were brought here from the sea by canal. Literally, "canoe enclosure." |
| | | | | | Pua`ali`ili`i | Beach area near `Āpuakēhau (now the site of the Moana Hotel) and Helumoa (now the site of Royal Hawaiian Hotel). Kamehameha I had houses here. Literally, "little pig." |

Table 4-2: Corridor Place Names and Meanings (continued)

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning |
|-------------------|-----------|-------------|-----------|-------------|-------------|--|
| | | | | | Ulukou | Area where the Moana Hotel now stands. Known by this name until the 1860s. Literally, "kou tree grove." |
| Pauoa | | | | | | Land section and flats. |
| | | | | | `Auwaiolimu | An area near the mouth of Pauoa Valley. The long hair of a mo`o woman (some think it was Kahalaopuna) who bathed there in a ditch resembled moss. |
| Kewalo | | | | | | Basin and surrounding land area. Also a surfing area. The outcasts of traditional Hawaiian society (kauwā) who were intended for sacrifice were drowned here. Literally, "the calling" (as in echo). |
| | | | | | Halekauwila | A street in the Ward area named for the thatched house built of Kauwila wood in the 1820s. The wood was said to have come from the rafters of Līloa's sacred house in Waipi`o, Hawai`i. |
| | | | | | Honuakaha | This old section is located near Kawaiaha`o Cemetery. |
| | | | | | Kawaiaha`o | Church built of coral block in 1837 and dedicated in 1842. Rev. Hiram Bingham drew the plans for the church and it was built by over 1,000 people. Coral block was cut from the reef by men who dove 10-20 feet down, and carried to the site along with logs from Ko`olauloa. The name was first used to dedicate the church in 1853. In 1843, Kamehameha III spoke at a service here and first uttered the words that became the State's motto, "Ua mau ke ea o ka `āina i ka pono." Kamehameha IV's coronation was held here and his wedding to Queen Emma took place two years later, in 1856. King Kalākaua made important speeches here in 1874 and 1881 and Queen Lili`uokalani had a special pew here. Literally, "the water of Ha`o." Ha`o was a chiefess who lived in Mō`ili`ili that was often carried to the spring near the area for ceremonial bathing and purification. |
| | | | | | Kukuluāe`o | Land area formerly fronting Kewalo Basin, containing marshes, salt pans and small fishponds. Literally, "Hawaiian stilt." |
| | | | | | | Kuloloia |

Table 4-2: Corridor Place Names and Meanings (continued)

| Ahupua`a/Ili Name | Rain Name | Translation | Wind Name | Translation | Place Name | Explanation/Legend/Meaning |
|-------------------|-----------|-------------|-----------|-------------|---|---|
| Iwilei | | | | | | Area near the former pineapple cannery. Literally, "collarbone" or a unit of measurement. |
| | | | | | Kaholaloa | Former reef in Honolulu Harbor. Also the name of an island that built up on the reef that was enlarged and dredged and is now called Sand Island. Literally, "the long extension." |
| | | | | | Kapu`ukolo | Old section of Honolulu, bounded by Nu`uanu Stream and Honolulu Harbor. |
| | | | | | Kekaiomāmala | The surf in the outer entrance to Honolulu Harbor, named for the chiefess Māmala who loved to surf, play kōnane and drink `awa. |
| | | | | | Pākākā | An old cane landing in Honolulu Harbor. A wharf was built in 1827 at the same site. Literally, "to skim (as stones over water)." |
| Punahou | | | | | | Land area, formerly called Kapunahou. Legend says that the god Kāne thrust his staff into the ground here to get water. Another story says that an old couple lived near a hala tree (pandanus) in the area and each dreamed of a spring near them. The man made an offering and pulled up the hala tree and water from an underground spring oozed forth. Literally, "new spring." |
| | | | | | Kulaokahu`a | Old name of the section of land between Alapa`i and Punahou Streets, above King Street. Literally, "plain of the boundary." |
| | | | | | Ualaka`a | Old name for Round Top. One story says a rat bit a sweet potato, causing it to roll downhill and sprout. Kamehameha I planted many sweet potatoes here, which when harvested, rolled downhill. Literally, "rolling sweet potato." |
| Lanakila | | | | | Land division located makai of `Alewa and Pu`unui, between Kamehameha Heights and Nu`uanu. Named in honor of Kamehameha's victory in the Battle of Nu`uanu. Literally, "victory." | |
| Kaka`ako | | | | | | Land section between Kewalo and the makai portion of Nu`uanu. |
| | | | | | Manamana | Site of Queen's Hospital. Literally, "branching." |
| | | | | | Manu`a | Heiau that was once located on the current Queen's Hospital grounds. This name might relate to an area in American Samoa of the same name. |

Table 4-3: Significant Stories or Place Names in Proposed Station Areas

| Station | Ahupua`a | Resource | Type | Section | Related Stories |
|-------------------|------------|---|------------------------|---------|---|
| West Kapolei | Honouliuli | former sugar plantation lands | historic | 1 | See place names matrix for associated names and stories. Known for the blue poi, which satiated hunger (Fornander, V. IV, p. 400). |
| Kapolei Transit | Honouliuli | Kapolei Hale | practice | 1 | Maikohā's sister, Kaihuopālā`ai, met and fell in love with Kapapaapuhi who lived in this area. She changed into the fishpond in which mullet are kept and fattened (Fornander, V. V, p. 270). |
| Kalaeloa | Honouliuli | Barbers Point Naval Air Station Post Office | historic | 1 | At one time, the chief of the `Ewa and Wai`anae districts was Huapouleilei. In "the iron knife", he was defeated by Kalaunui and captured (Kalākaua, p. 188-89). |
| | | four sink holes | resource (land) | 1 | |
| Ft. Barrette Road | Honouliuli | stone cluster/linear formation | resource (land) | 1 | See place names matrix for associated names and stories. |
| | | irrigation ditch/`auwai | resource (land, water) | 1 | |
| | | ordnance/coral | resource (land) | 1 | |
| Kapolei Parkway | Honouliuli | O`ahu Railway and Land Company | historic | 1 | One famed chief of the area of Līhu`e was Lolale, who married Kelea of maui. She left him for his cousin Kalamakua who was from the coastal `Ewa areas. (Kalākaua, p. 232-33) |
| | | Varona Plantation Village | historic | 1 | |
| East Kapolei | Honouliuli | former sugar plantation lands | historic | 1 | See place names matrix for associated names and stories. |
| UH West O`ahu | Honouliuli | agricultural farms | practice | 1 | See place names matrix for associated names and stories. |
| Ho`opili | Honouliuli | agricultural farms | practice | 1 | See place names matrix for associated names and stories. |
| West Loch (Leokū) | Hō`ae`ae | Don Quijote Department Store | practice | 2 | There was an area in this ahupua`a that had fine salt, Kahuaike (Fornander, V. IV, p. 400). |
| | Hō`ae`ae | Kuni Restaurant | practice | 2 | There was a place near `Ewa, Kahuoi, that was the home of `Opelemoemoe (the man who slept for months on end) (Fornander, V. V, p. 170). |
| | | Tuli's Bakery & Grocery | practice | 2 | |
| | | Nanding's Bakery | practice | 2 | |
| | | Gina's B-B-Q | practice | 2 | |
| | | Far East Chop Suey | practice | 2 | |
| | | Jesus Cares Ministries | practice | 2 | |
| | | His Name is Jesus Tabernacle | practice | 2 | |

Table 4-3: Significant Stories or Place Names in Proposed Station Areas (continued)

| Station | Ahupua`a | Resource | Type | Section | Related Stories |
|---------------------------|-----------------|---|------------------|---------|--|
| | | Golden Coin Restaurant | practice | 2 | |
| | | Ohana Taekwondo | practice | 2 | |
| | | Lighthouse Outreach Center Assembly of God | practice | 2 | |
| | | Tammy's Polynesian Market | practice | 2 | |
| | | Kin Sin Restaurant | practice | 2 | |
| Waipahu Transit (Mokuola) | Waikele/Waipi`o | Paradise Island Concepts Inc (Fish & Dive) | practice | 2 | Waikele was known to have slippery fish (Fornander, V. IV, p. 400) |
| | | Waipahu Public Library | practice | 2 | Waipi`o was noted for an arched house at a place called Kauamoa. (Fornander, V. IV, p. 400) |
| | | Watanabe Floral | practice | 2 | Waipahu was briefly the home of Palila, man of super-strength. Here he battled Kamaika`ahui (the shark-man) and defeated him, winning a bet with then king of O`ahu, Ahuapau. (Fornander V. V, pp. 142, 372) |
| | | Laverne's Hawaiian & Local Foods | practice | 2 | |
| | | Elena's | practice | 2 | |
| | | Hawaiian Fellowship | practice | 2 | |
| | | Sunny D Ukulele | practice | 2 | |
| | | Jenny's Drive Inn | practice | 2 | |
| | | K's Bento-ya | practice | 2 | |
| | | Waipahu Market | practice | 2 | |
| | | Valerio's Tropical Bakeshop | practice | 2 | |
| | | Wong Kung Chop Suey | practice | 2 | Waiawa was also the place where Kawelo and his wife Kanewahineikiaoha resided when he was staying on O`ahu. From her father, Kawelo learned to use the javelin in warfare. (Fornander, V. V, pp. 698-700) |
| LCC | Waiawa | petroglyphs | resource (land) | 2 | Waiawa was noted for its awa (milkfish) fishponds. (Fornander V. IV, p. 400) |
| Pearl Highlands (Kuala) | Waiawa | Alpha & Omega Christian Church & Bible School | practice | 2 | Kumomoku and Lelewi are areas near Pu`uloa where land breezes were said to be very cold. (Fornander V. IV, p. 390) |
| | | Waiawa Stream | resource (water) | 2 | In the story of Pikoika`alalā, he is found by his sisters who lived in the Pu`uloa area and lives with them for a time. (Fornander, V. IV, p. 452) |

Table 4-3: Significant Stories or Place Names in Proposed Station Areas (continued)

| Station | Ahupua`a | Resource | Type | Section | Related Stories |
|--------------------------------------|-----------------|---|--------------------|---------|---|
| Pearl Ridge (Ka`ōnohi) | Waimalu/Kalauao | (no resources) | | 2 | Kelea and Kalamakua spent time here and this is where Kelea ended up living with Kalamakua after leaving her husband, Lolale, the ali`i of LThu`e. (Kalākaua, p. 244-46) |
| Aloha Stadium (Kamehameha Hwy) | Hālawā | Aloha Stadium | practice | 2 | Pu`uloa was also a place where Kawelo landed and met a famed fisherman of that area, Makuakeke, who took him fishing at Ka`ena. (Fornander, V. V, p. 696) |
| Aloha Stadium (Salt Lake) (H.Stream) | Hālawā | Aloha Stadium | practice | 3 | It is said that Mo`ikeha brought awa from Kaua`i and planted it in Hālawā on the land of Oilikukaheana without knowing what it was. It was believed that the plants were called paholei. When he harvested it, he brought the roots to a woman named `Ewa and she ate it and became intoxicated. She named the plant awa and it was called that from then on. (Fornander, V. V, pp. 606-08) |
| Āliamanu (Bougainville) | Hālawā | Āliamanu Playground | practice | 3 | Home of Pele and Hi`iaka when they were settling Hawai`i (first they landed on Kaua`i and then traveled down the island chain). Named this because they brought salt and alae (a kind of red dirt believed to have medicinal properties) with them and left them here. It was too shallow for Pele's fire pits so they went to Leahi (Diamond Head) but that was too shallow also so they left O`ahu. (Fornander, V. IV, p.104) |
| Ala Liliko`i (Arizona) | Moanalua | Āliamanu Elementary and Intermediate School | practice | 3 | See place names matrix for associated names and stories. |
| | | Soon's Kalbi | practice | 3 | |
| | | Salt Lake/Moanalua Public Library | practice | 3 | |
| Middle Street Transit (Kamehameha) | Moanalua/Kalihi | Kalihi Stream | resource (water) | 3 | See place names matrix for associated names and stories. |
| Middle Street Transit (Nimitz) | Moanalua/Kalihi | Kalihi Stream | resource (water) | 4 | See place names matrix for associated names and stories. |
| Kalihi (Mokauea) | Kalihi | Kamakua Mau Loa Church of the Living God | practice | 5 | See place names matrix for associated names and stories. |
| | | Pentecostal Faith Assembly Church | practice | 5 | |
| | | Koi Catering | practice | 5 | |
| | | Pu`uhale Market | practice | 5 | |
| | | The House of Love Hawaii Cedar Church | practice, historic | 5 | |
| | | Island Fresh Fruit & 5 Star Noodle Factory | practice | 5 | |

Table 4-3: Significant Stories or Place Names in Proposed Station Areas (continued)

| Station | Ahupua`a | Resource | Type | Section | Related Stories |
|------------------------------|-------------------|--|------------------|---------|---|
| Kapālama (Kapālama Stream) | Kapālama/Honolulu | Dee Lite Bakery | practice | 5 | |
| | | Sun Noodle | practice | 5 | |
| | | Kapalama Stream/Drainage Canal | resource (water) | 5 | Haumea lived at Niuhelewai (the Pālama cane field, between the fire and pumping stations) where Kaulu found her in the Legend of Kaulu. (Fornander, V. IV, p. 530) |
| | | Nisshodo | practice | 5 | Superhuman strongman Palila also ventured here and was introduced to the ali`i of that area, Ahuapau. (Fornander, V. V, p. 144) |
| | | Seoul Meet Co. | practice | 5 | |
| | | Yohei Sushi Restaurant | practice | 5 | |
| | | Kotobuki Foods | practice | 5 | |
| | | Ideta Restaurant | practice | 5 | |
| Iwilei (Ka`a`ahi/Ka`amahu) | Honolulu | Green Papaya | practice | 5 | See place names matrix for associated names and stories. |
| | | | | | |
| Chinatown (Nu`uanu Stream) | Honolulu | Nu`uanu Stream | resource (water) | 5 | This was the valley of the final stand of Ka`iana, deserter of Kamehameha I, who was killed in battle by musket fire. (Kalākaua, p. 407) |
| | | Waolani Stream | resource (water) | 5 | Mauka of here, at Nu`uanu pali, the famous Battle of Nu`uanu occurred, where Kamehameha I beat Kalanikupule (son of Kahekili) and took control of O`ahu. Prior to that famous battle, the troops of Kalanikupule battled Kamehameha's warrior Pihana and his men in Pauoa, Kaheiki and Waolani, finally defeating Kalanikupule. (Fornander, V. V, p. 474) |
| | | O`ahu Market | practice | 5 | |
| | | Viet Hoa Acupuncture & Chinese Herbs | practice | 5 | |
| | | Health and Wellness Center | practice | 5 | |
| | | Fook Sau Tong Chinese Herbal & Suen Hang Yee Acupuncture | practice | 5 | |
| Downtown (Irwin Park/Bishop) | Honolulu | Irwin Park | practice | 5 | See place names matrix for associated names and stories. |
| | | stones (2) | resource (land) | 5 | |
| | | Propeller Sculpture | historic | 5 | |

Table 4-3: Significant Stories or Place Names in Proposed Station Areas (continued)

| Station | Ahupua`a | Resource | Type | Section | Related Stories |
|---------------------------------|----------|--------------------------------------|----------------------------|---------|---|
| Civic Center (Keauhou) | Honolulu | Kamaka Ukulele | practice | 5 | See place names matrix for associated names and stories. |
| | | Wong's Produce | practice | 5 | |
| | | Kaka`ako Fire Station and Museum | historic | 5 | |
| Kaka`ako (Ward/Halekauwila) | Honolulu | Ba-Le Restaurant | practice | 5 | See the legend of Pumaï`a (Fornander, V. IV, p. 470) where Pumaï`a lives in a place called Pukoula, which is adjacent to Waiaha`o (Kawaiaha`o). |
| | | Marukai Wholesale Market | practice | 5 | The area below Queen St. was called Pakākā and Kamehameha I and Ka`ahumanu once resided there during the time of Kekuawahine. (Fornander V. V, p. 486) |
| | | Ward Farmer's Market | practice | 5 | |
| | | Rock N Roll Sushi | practice | 5 | |
| | | Tio Restaurant | practice | 5 | |
| Ala Moana Center (Konaiki/Kona) | Waikīkī | Shirokya | practice | 5 | Kakūhihewa, famed ruler of O`ahu, was said to have spent a lot of time in residence here (Fornander, multiple stories) |
| Convention Center (Kalākaua) | Waikīkī | Hawai`i Convention Center | practice | 7 | Ka`ihikapu, Kakūhihewa's son, spent much time here as well though he also had a residence in `Ewa. (Kalākaua, p.342) |
| | | Tai Chi For Health and Qi Guong | practice | 6 | Kauhiakama (of Maui) was defeated here in an attempted invasion of O`ahu. His body was taken to the heiau of `Apuakēhau and treated with such indignity that many generations later, Kahekili retaliated on then-ali`i of O`ahu in battle. (Kalākaua, p. 344) |
| | | Ala Wai Canal | resource (water), practice | 6 | |
| McCully (Pumehana/McCully) | Waikīkī | Piolani Shopping Center | practice | 6 | See place names matrix for associated names and stories. |
| | | McCully Street Mini Park | practice | 6 | |
| | | McCully Street Bridge | historic | 6 | |
| | | Curry House Coco Ichibanya | practice | 6 | |
| | | Fook Yuen Chinese Seafood Restaurant | practice | 6 | |
| | | Tudo De Bom | practice | 6 | |
| | | Phuket Thai | practice | 6 | |
| | | Bistro Ah Un | practice | 6 | |
| | | So Gong Dong Restaurant | practice | 6 | |
| | | Regal Diner | practice | 6 | |

Table 4-3: Significant Stories or Place Names in Proposed Station Areas (continued)

| Station | Ahupua`a | Resource | Type | Section | Related Stories |
|---------------------------|----------|----------------------------------|----------|---------|---|
| | | Yotteko-ya | practice | 6 | |
| | | Veterans of Foreign Wars | practice | 6 | |
| | | Frank C. Judd Park | practice | 6 | |
| | | Ala Wai Rec. Center | practice | 6 | |
| Date Street (Citron) | Waikīkī | Fire Station Number 29 | historic | 6 | See place names matrix for associated names and stories. |
| Kālaaimoku | Waikīkī | (no resources) | | | `Aikanaka, ruler of O`ahu at one time, lived in this area, at Ulukou. He sought the wife of Halemano, Kamalalawalu, for his own but she refused so he declared war upon Halemano. (Fornander, V. V, p. 238) |
| Lili`uokalani Ave. | Waikīkī | Damien Museum | historic | 7 | At a place called Luahenewai, Waikīkī-kai, one of Kamehameha's warriors, Makaiouolu resided. He was famous for his success during the Battle of Nu`uanu and for killing a slew of warriors in individual combat in Kalauao, `Ewa. (Fornander, V. V, p. 488) |
| | | Bethel Missionary Baptist Church | historic | 7 | |
| Mō`ili`ili (Puck's Alley) | Waikīkī | Church of the Crossroads | practice | 6 | See place names matrix for associated names and stories. |
| | | The Early School | practice | 6 | |
| | | Greek Corner | practice | 6 | |
| | | BiChuan Li Piano Studio | practice | 6 | |
| | | Hawaiian Tattoo Company | practice | 6 | |
| | | Mah Jong Club | practice | 6 | |
| | | Aruthaya Thai Restaurant | practice | 6 | |
| | | Ba-Le Sandwich Shop | practice | 6 | |
| | | Curry House Coco Ichibanya | practice | 6 | |
| | | Eastside Grill | practice | 6 | |
| | | Varsity Theater | historic | 6 | |
| | | Araki Hiroya Soroban School | practice | 6 | |
| | | Aki-No-No Restaurant | practice | 6 | |
| | | Well Bento | practice | 6 | |
| | | Ezogiku | practice | 6 | |

Table 4-3: Significant Stories or Place Names in Proposed Station Areas (continued)

| Station | Ahupua`a | Resource | Type | Section | Related Stories |
|-----------------------------------|----------|----------------------------|----------|---------|---|
| | | India Market | practice | 6 | |
| | | Kit-N-Kitchen | practice | 6 | |
| | | Treasures of Thailand | practice | 6 | |
| | | Mō`ili`ili Triangle | practice | 6 | |
| | | Le Flowers | practice | 6 | |
| | | Kohnotori | practice | 6 | |
| | | Imanas Japanese Restaurant | practice | 6 | |
| UH Mānoa | Waikīkī | Stan Sheriff Center | practice | 6 | The story of Kahalaopuna takes place in this valley, using the wind and rain names of the area as the names of her parents. (Kalākaua, pp. 511-522, also Fornander, V. V, pp. 188-192) |
| | | | | | Also in Mānoa, the story of `Ualaka`a, the home of two men, Kupihe and Kapanaiia who were `uala farmers. The former planted a potato on the slope while the other planted his on the flat. The potato in the flat seemed to be growing but later, it disappeared and reappeared on the slope. After that, it rolled down the hill again and reattached itself to the vine in the flat. Thus the area was named `Ualaka`a (rolling sweet potato). There are many versions of this story. (Fornander, V. V, p. 532) |
| Pearl Harbor Naval Base (Radford) | Hālawā | (no resources) | | 4 | See place names matrix for associated names and stories. |
| Honolulu International Airport | Moanalua | lei stands | practice | 4 | See place names matrix for associated names and stories. |
| Lagoon Drive (Aolele) | Moanalua | (no resources) | | 4 | See place names matrix for associated names and stories. |

4.2 Summary of Land, Water, and Marine Resources and Use

Various resource-use patterns are physically evident and recounted in the literature reviewed. Ancient physical evidence may remain in the form of stone ruins that are sometimes preserved relatively intact. Clues on their function and use can sometimes be extrapolated from recorded stories, songs, chants, ethno-historical observations, and cultural remains identified during surface and sub-surface studies.

4.2.1 Ancient Land Use, Water and Marine Resources and Use (Pre-Contact)

The presence of numerous taro lands and fishponds in the study area illustrate that the Project lands and vicinity were once rich with land, water, and marine resources. Pre-contact Hawaiians inhabited and planted on most of the Project lands and surrounding vicinity, and fished/gathered in the streams and ocean waters. Evidence was found to support the belief that the traditional ahupua`a system of mountain-to-sea resource gathering and planting in the various zones was followed. Traditional residents also took advantage of historically resource-limited places such as the Kapolei/`Ewa plains by planting in sinkholes, fishing, and gathering (birds, seaweed, etc.).

4.2.2 Historic Land Use, Water and Marine Resources and Use (Post-Contact)

Native and foreign testimonies and registers of the Mahele land claims from the mid-1800s provide historical evidence that some lands were already in transition by this time. Since first contact by Captain Cook in 1778, 70 years had passed and 28 years had passed since missionaries arrived in 1820. The devastating sandalwood era (Appendix A) was winding down, leaving in its wake a heavily modified landscape stripped of much of the upper forests and kula (flat planting areas) lands. According to testimonies recorded in these documents, much of the kula lands were already being converted to pasture to house the great influx of cattle that arrived with foreign ships. This was followed by mono-crop agricultural practices such as cultivating sisal and sugar cane, which required extensive infrastructure (i.e. roads, railways, ditches, and tunnels) that radically modified the undeveloped land.

Surviving traditional practices on kula lands during this time period included traditional house structures (kauhale), family shrines (ahu), family burials near kauhale, gathering practices on mauka lands, and trading practices with extended `ohana and friends from coastal areas. Ancient sites (heiau, petroglyphs, and burials) were respected, although the kuleana claimants were not necessarily generationally tied to these lands because Kamehameha I gave some lands as rewards for support during his war campaigns. Others were given lands by assigned konohiki. Therefore, these claimants or their families may have originally come from islands other than O`ahu.

Although traditional practices continued to be utilized in much of the Project lands after western contact, western culture slowly infiltrated and forever altered the

traditional lifestyle. Events such as warfare and disease epidemics took a great toll on native and non-native Hawai`i residents, some of who resided on the Project lands. The United States' monarchial overthrow, annexation of Hawai`i, and subsequent control of Pearl Harbor and its surrounding lands had an even greater effect on traditional lands and lifestyle. Over time, the abundant cultural resources disappeared and gave way to military encampments, modern roadways, and other urban structures. The change in governing structure that resulted from the annexation of Hawai`i also brought forth political change. Lands were redistributed, fishing grounds were destroyed, and gathering rights were interrupted or abolished.

The traditional practice of stream-based resource management continued, but at some point most streams were diverted and channeled into man-made irrigation ditches to make way for increasing development. Hawai`i's gulches and valleys, once full of endemic and traditional plants, are now mostly overrun by alien species.

4.3 Summary of Cultural Resources and Practices

4.3.1 Cultural Resources

This section summarizes sites or places in the study area associated with significant events and people in the study area important to the native Hawaiian patterns of prehistory. It also includes sites or places that embody distinctive characteristics or are likely to yield information important for research on the prehistory of Hawai`i. Sites that yield resources important for past and present native Hawaiian cultural practices, and items that are part of a cultural place-based context are also identified.

According to the literature reviewed, the Project lands were once part of the traditional native Hawaiian ahupua`a lifestyle and managed to support the ali`i and maka`ainana who lived there. Limited physical evidence of multi-use ancient or traditional cultural practices still exists in places like Kapolei and `Ewa, but this physical evidence in all of the Project lands has generally been obliterated by agricultural or urban development.

4.3.2 Cultural Practices

This section identifies items that are essential to the cultural practices of either native Hawaiians or other ethnic groups. These practices may overlap with cultural resources, because the Project may affect the practice of gathering land and ocean resources.

It is a Hawaiian tradition to gather and use flora from gulches, valleys and mountains (e.g., kukui, `ohia, fungus, ferns, and lama) for lei-making, hula, medicines, food, crafts, and lumber. These traditions still survive today and resources are still sought. People continue the cultural practice of gathering food such as kalo (taro), `uala (sweet potato), hō`i`o (fern shoot), and `ulu (breadfruit). They also gather ceremonial plants (e.g., lama, `ohia, koa, kukui), medicinal herbs (e.g., pōpolo, māmaki, ko`oko`olau), and other assorted natural resources for use in perpetuating cultural

practices such as traditional medicine, lei-making, hālau (hula schools and groups), and lū`au in various places on O`ahu. Hunting was also a traditional practice for native Hawaiians who hunted in gulches and mountain areas for feral pigs and birds. Although many of these resources are now scarce or non-existent in the study area, their temporary absence does not destroy the right that practitioners have to hunt and gather.

At one time, vast areas of the Project lands were occupied by extensive wetland kalo (taro) networks. Kalo was a staple in the traditional diet in Hawai`i, and also a genealogical ancestor of the Hawaiian people. In one creation story, Wākea (Sky Father and father of the Hawaiian race) had a child with his first daughter by Papanuihānaumoku (Earth Mother), named Ho`ohōkūkalani. This first child was a still-born fetus, Hāloanakalaukapalili, who was buried. From that grave, a plant blossomed that was the first kalo plant in Hawai`i. The second child of this union produced a male named Hāloa, from whom the first ali`i families descended. Because of this, the practice of kalo farming is far more significant than farming for sustenance—it was and is the cultivation and preservation of a familial relationship. Additional farming practices in the study area included growing bananas, hala (pandanus), wauke (paper mulberry), `ōhia, koa, wiliwili, kukui, kou, `uala (sweet potatoes), and yams.

The cultural practice of catching fish and other marine life continued through historic times. Due to stream diversions and many species of endemic gobi fish species being placed on the endangered species list, this practice has not continued in many areas because of resource scarcity or laws that make harvesting illegal.

The traditional Hawaiian lifestyle also included the practice of burying family members on the family compound. The undeveloped areas located within the APE of the study corridor are especially likely to have burial sites. Since these sites were often burial places for generations of entire families, they are likely to contain many bodies.

4.3.3 Historic Resources

As discussed in Section 3.1, cultural resources include historic properties, which are sites associated with significant events and/or people important to the broad patterns of history. These resources are discussed in the *Honolulu High-Capacity Transit Corridor Project Historic Resources Technical Report* (RTD 2008d).

4.4 Pedestrian Ethnographic Surveys

The Project Team recorded cultural, ethnic, and historic resources for the study corridor sections listed below. Comprehensive field notes are included in Appendix G, and cultural, ethnic and historic data is included in the following tables. Cultural resources and practices identified within the APE are shown by ahupua`a in Table 4-4 through Table 4-20. These tables are based on information gathered for the *Cultural Resources Technical Report* developed for the Alternatives Analysis (DTS 2006) and on subsequently-conducted pedestrian surveys. Table 5-2

summarizes resources located within the 500-foot APE around the proposed stations. These resources are also categorized by ahupua`a, and identified by type and section of the proposed route.

Resources identified in other studies conducted for the Project (e.g., in the Historic Resources and Archeological Resources Technical Reports) may not be identified in these tables, to prevent redundancy. Resources that can be classified as both cultural and historic, or cultural and archeological are listed in those corresponding reports, unless their cultural significance and/or use differ substantially from their historic or archeological use. Maps in Appendix K show the placement of each of the identified resources in relation to the study corridor and proposed stations. The following sections of the study corridor are consistent with earlier definitions:

1. Section 1: Kapolei—Kapolei to Fort Weaver Road
2. Section 2: Western part of proposed route—Fort Weaver Road to Aloha Stadium
3. Section 3: Salt Lake Alignment—Alignment on Salt Lake Boulevard
4. Section 4: Airport Alignment—Alignment on Kamehameha Highway and makai of the airport viaduct
5. Section 5: Koko Head part of the Project—Alignment on Dillingham Boulevard and various streets through Downtown Honolulu and Kaka`ako to Ala Moana Center
6. Section 6: UH Extension—Alignment on Kapi`olani Boulevard and University Avenue
7. Section 7: Waikīkī Extension—Alignment along Kalākaua Avenue and Kūhiō Avenue

Table 4-4: Summary of Resources in Honouliuli Ahupua`a

| Area | Resource | Type | Section |
|----------------|--------------------------------------|------------------------|---------|
| <i>Kapolei</i> | brick cesspool/well | historic | 1 |
| | ordnance/coral | historic | 1 |
| | barbed-wire fence | historic | 1 |
| | Varona Plantation Village | historic | 1 |
| | Youth Challenge Alternative School | practice | 1 |
| | Honouliuli Gulch | resource (land, water) | 1 |
| | Ribbons N Rainbows shop (lei making) | practice | 1 |
| <i>`Ewa</i> | irrigation canal | resource (land, water) | 1 |
| | metal flume | resource (land, water) | 1 |

Table 4-5: Summary of Resources in Ho`ae`ae Ahupua`a

| Area | Resource | Type | Section |
|---------|--|----------|---------|
| Waipahu | Ohana Taekwondo | practice | 2 |
| | Tammy's Polynesian Market | practice | 2 |
| | Don Quiote Department Store | practice | 2 |
| | Nanding's Bakery | practice | 2 |
| | Gina's BBQ | practice | 2 |
| | Max's of Manila | practice | 2 |
| | Kin Sin Restaurant | practice | 2 |
| | New Hope Leeward | practice | 2 |
| | Lighthouse Outreach Center Assembly of God | practice | 2 |
| | Jesus Cares Ministries | practice | 2 |
| | His Name is Jesus Tabernacle | practice | 2 |
| | Far East Chop Suey (Chinese Restaurant) | practice | 2 |
| | Golden Coin (Filipino Restaurant) | practice | 2 |
| | Kuni Restaurant (Japanese Restaurant) | practice | 2 |
| | Tasty BBQ (Korean Restaurant) | practice | 2 |
| | Tuli's Bakery & Grocery (Samoan Market) | practice | 2 |
| | Leeward Florist | practice | 2 |

Table 4-6: Summary of Resources in Waikele Ahupua`a

| Area | Resource | Type | Section |
|--------------------------|--|-----------------------------|----------|
| Waikele | Kabingyan Filipino Express Restaurant & Banquet | practice | 2 |
| | West O`ahu Christian Church | practice | 2 |
| | St. Joseph's Church | practice | 2 |
| | Kingdom Hall of Jehovah's Witness | practice | 2 |
| | Hawai'i's Plantation Villages (replicated cultural villages, plantation photos, cannery) | historic | 2 |
| | Kapakahi Stream | resource (water) | 2 |
| | Shiro's | practice | 2 |
| | Paradise Island Concepts, Inc. (Fish & Dive) | practice | 2 |
| | Bible Baptist Church | practice | 2 |
| | Hawaiian Fellowship | practice | 2 |
| | Waipahu | Waipahu Intermediate School | practice |
| St. Joseph's School | | practice | 2 |
| Iglesia Ni Cristo Church | | practice | 2 |
| Waikele Stream | | resource (water) | 2 |

Table 4-7: Summary of Resources in Waipi`o Ahupua`a

| Area | Resource | Type | Section |
|---------|--|------------------------|---------|
| Waipahu | drainage canal | resource (land, water) | 2 |
| | Waipahu District Park | practice | 2 |
| | Sara's Bar-B-Q | practice | 2 |
| | Waipahu Market | practice | 2 |
| | Valerio's Tropical Bakeshop | practice | 2 |
| | Jenny's Drive Inn | practice | 2 |
| | Tammy's Polynesian Market | practice | 2 |
| | Sunny D Ukulele | practice | 2 |
| | K's Bento-ya | practice | 2 |
| | Watanabe Floral | practice | 2 |
| | Wong Kung Chop Suey | practice | 2 |
| | Lavern's (Hawaiian & Local Foods) | practice | 2 |
| | Ola Mai Kakou | practice | 2 |
| | Church of God Prophecy | practice | 2 |
| | Church of Jesus Christ Latter Day Saints | practice | 2 |
| | Waipahu Church of Christ | practice | 2 |
| | Waipahu High School | practice | 2 |
| | Waipahu Public Library | practice, historic | 2 |
| | Tanioka's (Poke, Hawaiian and Japanese Market) | practice | 2 |
| Elena's | practice | 2 | |

Table 4-8: Summary of Resources in Waiawa Ahupua`a

| Area | Resource | Type | Section |
|---------|---|------------------|---------|
| Waipahu | Waiawa Stream | resource (water) | 2 |
| | Waiawa Stream | resource (water) | 2 |
| | Waiawa Stream | resource (water) | 2 |
| | Alpha & Omega Christian Church & Bible School | practice | 2 |
| | Leeward Community College and petroglyphs | resource (land) | 2 |

Table 4-9: Summary of Resources in Mānana Ahupua`a

| Area | Resource | Type | Section |
|------------|------------------------------------|----------|---------|
| Pearl City | Pearl City Elementary School | practice | 2 |
| | Pacheco Neighborhood Park | practice | 2 |
| | House of Dragon Seafood Restaurant | practice | 2 |
| | Ezogiku | practice | 2 |
| | Pearl City Chinese Restaurant | practice | 2 |
| | Pearl's Chinese Restaurant | practice | 2 |
| | Pearl City Florist | practice | 2 |
| | Prayer Center of the Pacific | practice | 2 |

Table 4-10: Summary of Resources in Waimano Ahupua`a

| Area | Resource | Type | Section |
|------------|-------------------------------|---------------------------|---------|
| Pearl City | Joy of Christ Lutheran Church | practice | 2 |
| | Leeward Cemetery | historic, resource (land) | 2 |
| | Hale Mohalu Hospital | practice | 2 |
| | Iglesia Ni Christo | practice | 2 |
| | La Luz Del Mundo | practice | 2 |

Table 4-11: Summary of Resources in Waiau Ahupua`a

| Area | Resource | Type | Section |
|------------|-----------------------------|---|---------|
| Pearl City | Waiau Spring | resource (water) | 2 |
| | Genki Sushi | practice | 2 |
| | Kobashigawa Watercress Farm | resource (land, water), practice, historic | 2 |

Table 4-12: Summary of Resources in Waimalu Ahupua`a

| Area | Resource | Type | Section |
|------------|---------------------------|------------------|---------|
| Pearl City | Blaisdell Park | practice | 2 |
| Waimalu | Waimalu Stream | resource (water) | 2 |
| | Jin Joo Korean Restaurant | practice | 2 |
| | Ming's Canton Food | practice | 2 |
| | O`ahu Taekwondo Center | practice | 2 |
| | Flowers & Gifts | practice | 2 |

Table 4-13: Summary of Resources in Kalauao Ahupua`a

| Area | Resource | Type | Section |
|------------|------------------------------|---|---------|
| Pearl City | Sumida Watercress Farm | historic, resource (water, land), practice | 2 |
| | Kalauao Stream | resource (water) | 2 |
| | Bale Vietnamese Restaurant | practice | 2 |
| | Champa Thai Restaurant | practice | 2 |
| | Ricardo's Italian Restaurant | practice | 2 |

Table 4-14: Summary of Resources in `Aiea Ahupua`a

| Area | Resource | Type | Section |
|-------|------------------|------------------|---------|
| `Aiea | `Aiea Bay | resource (water) | 2 |
| | Aiea Stream | resource (water) | 2 |
| | Flowers by Carol | practice | 2 |
| | `Aiea Cemetery | Practice | 2 |

Table 4-15: Summary of Resources in Hālawā Ahupua`a

| Area | Resource | Type | Section |
|-----------|---|------------------|---------|
| Salt Lake | Makalapa Park | practice | 3 |
| | Waiāu Fish Market | practice | 3 |
| | Royal Palace Restaurant | practice | 3 |
| | Hālawā Stream | resource (water) | 4 |
| | Pearl Harbor Kai Elementary School | practice | 4 |
| | Richardson Park & Pool | practice | 4 |
| | Arizona Memorial Access & Bowfin Museum | historic | 4 |
| | Cincpac Command Headquarters | practice | 4 |
| | Makalapa Elementary School | practice | 3 |
| | Radford High School | practice | 3 |
| | Aliamanu Playground | practice | 3 |
| | Aloha Stadium | practice | 3 |

Table 4-16: Summary of Resources in Moanalua Ahupua`a

| Area | Resource | Type | Section |
|----------|---|------------------|---------|
| Moanalua | Moanalua High School | practice | 3 |
| | Salt Lake-Moanalua Public Library | practice | 3 |
| | Soon's Kalbi | practice | 3 |
| | Island Family Christian Church | practice | 3 |
| | Yum Yum Thai Chinese | practice | 3 |
| | Sushi | practice | 3 |
| | Young's Ramen | practice | 3 |
| | Bethel Temple of the First Samoan Full Gospel | practice | 3 |
| | Family BBQ | practice | 3 |
| | Ninja Sushi | practice | 3 |
| | Fresh Foods Hawaii, Inc. | practice | 3 |
| | Pacific Seafood | practice | 3 |
| | Island Manapua | practice | 3 |
| | Hawaii Candy | practice | 3 |
| | Holy Family Catholic Academy | practice | 4 |
| | Ke`ehi Lagoon Park | practice | 4 |
| | Disabled American Veterans' Halls | practice | 4 |
| | Ke`ehi Lagoon Park Canoe Facility | practice | 4 |
| | Assets School | practice | 4 |
| | Nimitz Elementary School | practice | 4 |
| | Pearl Harbor Elementary School | practice | 4 |
| | Aliamanu Elementary and Intermediate School | practice | 3 |
| | Moanalua Stream | resource (water) | 3 |

Table 4-17: Summary of Resources in Kalihi Ahupua`a

| Area | Resource | Type | Section |
|--------|--|--------------------|---------|
| Kalihi | Ba-Le Sandwich Shop & Bakery | practice | 3 |
| | St. Anthony School | practice | 3 |
| | Seafarer's International Union | practice | 5 |
| | Golden Coin | practice | 5 |
| | The House of Love Hawaii Cedar Church | practice, historic | 5 |
| | Island Fresh Fruit & 5 Star Noodle Factory | practice | 5 |
| | Pu`uhale Market | practice | 5 |
| | Dee Lite Bakery | practice | 5 |
| | Koi Catering | practice | 5 |
| | Kalihi Stream | resource (water) | 3 |
| | Marukai Wholesale | practice | 3 |
| | O`ahu Community Correction Center | practice | 3 |
| | Kamakua Mau Loa Church of the Living God | practice | 5 |
| | Sun Noodle | practice | 5 |
| | Hanapa`a Hawai`i | practice | 5 |
| | Pentecostal Faith Assembly Church | practice | 5 |

Table 4-18: Summary of Resources in Kapālama Ahupua`a

| Area | Resource | Type | Section |
|-------------------|---------------------------------|------------------|---------|
| Kapālama | Crabtank | practice | 5 |
| | Young's Fishmarket | practice | 5 |
| | Utage Restaurant | practice | 5 |
| | Chong's BBQ | practice | 5 |
| | Sugoi's | practice | 5 |
| | Fujiya Ltd. | practice | 5 |
| | Ko`olau Farmer's | practice | 5 |
| | Kealoha Clothing Company | practice | 5 |
| | Yohei Sushi Restaurant | practice | 5 |
| | Ideta | practice | 5 |
| | Child Evangelism Fellowship | practice | 5 |
| | Barrio Fiesta Restaurant | practice | 5 |
| | Full Gospel Glory Saloam Church | practice | 5 |
| | Elvin's Bakery | practice | 5 |
| | Fritz European Bakery | practice | 5 |
| | Wang's Waiakamilo Restaurant | practice | 5 |
| | Boulevard Saimin | practice | 5 |
| | Kalihi Kai Elementary School | practice | 5 |
| | Kapālama Stream/Drainage Canal | resource (water) | 5 |
| | Palama Supermarket | practice | 5 |
| | Nisshodo | practice | 5 |
| | Taro Brand | practice | 5 |
| | Halla Huhm | practice | 5 |
| Dillingham Bonsai | practice | 5 | |

Table 4-19: Summary of Resources in Waikīkī Ahupua`a

| Area | Resource | Type | Section |
|---------------------------------|--------------------------------------|------------------|---------|
| McCully/Mō`ili`ili | Ala Wai Canal | resource (water) | 6 |
| | Mō`ili`ili Hongwanji Buddhist Temple | practice | 6 |
| | Hui o Kamalei | practice | 6 |
| | Tae Kwon Do & Jujitsu | practice | 6 |
| | Ala Wai Park | practice | 6 |
| | Curry House Coco Ichibanya | practice | 6 |
| | Fook Yuen Chinese Seafood Restaurant | practice | 6 |
| | Tudo De Bom | practice | 6 |
| | Phuket Thai | practice | 6 |
| | Bistro Ah Un | practice | 6 |
| | So Gong Dong Restaurant | practice | 6 |
| | Yotteko-ya | practice | 6 |
| | Church of the Crossroads | practice | 6 |
| | The Early School | practice | 6 |
| | Greek Corner | practice | 6 |
| | Tai Chi for Health & Qi Guong | practice | 6 |
| | Hawaiian Tattoo Company | practice | 6 |
| | Mah Jong Club | practice | 6 |
| | Aruthaya Thai Restaurant | practice | 6 |
| | Ba-Le Sandwich Shop | practice | 6 |
| | Curry House Coco Ichibanya | practice | 6 |
| | Eastside Grill | practice | 6 |
| | Mō`ili`ili Community Center | practice | 6 |
| | Buddhist Study Center | practice | 6 |
| | Japanese Cultural Center | practice | 6 |
| | Hawaii Tokai International College | practice | 6 |
| | Hakubundo | practice | 6 |
| | Varsity Theater | historic | 6 |
| | Shirokiya | practice | 6 |
| | Ala Moana Hotel | practice | 6 |
| | Shokudo Restaurant | practice | 6 |
| | Pho One Vietnamese Restaurant | practice | 6 |
| | Yakiniku Korea House | practice | 6 |
| | Akasaka Sushi Restaurant | practice | 6 |
| | Seoul Garden Yakiniku | practice | 6 |
| | Ojiya Restaurant | practice | 6 |
| | Yakiniku Migawan | practice | 6 |
| | Kyoto Ramen | practice | 6 |
| | Frank C. Judd Park | practice | 6 |
| | Ala Wai Recreation Center | practice | 6 |
| Ala Wai Canoe Paddling Facility | practice | 6 | |
| Happy Family Market | practice | 6 | |
| Araki Hiroya Soroban School | practice | 6 | |
| Aki-No-No Restaurant | practice | 6 | |
| Imanas Japanese Restaurant | practice | 6 | |
| Kohnotori | practice | 6 | |

Table 4-19: Summary of Resources in Waikīkī Ahupua`a (continued)

| Area | Resource | Type | Section |
|--|---|----------|---------|
| | Mō`ili`ili Japanese School | practice | 6 |
| | Treasures of Thailand | practice | 6 |
| | Le Flowers | practice | 6 |
| | Mō`ili`ili Triangle | practice | 6 |
| | Well Bento | practice | 6 |
| | India Market | practice | 6 |
| | Ezogiku | practice | 6 |
| | Kit-N-Kitchen | practice | 6 |
| | Veterans of Foreign Wars | practice | 6 |
| <i>Mānoa</i> | UH Mānoa | practice | 6 |
| <i>Waikīkī</i> | Ainahau Triangle | practice | 7 |
| | Lucoral Museum | historic | 7 |
| | King Kalakaua Plaza Shopping Center | practice | 7 |
| | International Marketplace Shopping Center | practice | 7 |
| | Bethel Missionary Baptist Church | historic | 7 |
| | Damien Museum | historic | 7 |
| | Waikiki Community Center | practice | 7 |
| | St. Augustine Parish Convent | historic | 7 |
| | Jefferson School | practice | 7 |
| | St. Augustine Church | practice | 7 |
| | Ala Moana Shopping Center | practice | 7 |
| | Waikiki Gateway Hotel and facilities | practice | 7 |
| | `Ohana Waikiki Malia and facilities | practice | 7 |
| | Iko'i Massage Room | practice | 7 |
| | A Tiki Tattoo | practice | 7 |
| | Matteo's Italian Restaurant | practice | 7 |
| | Marina Surf Waikiki and facilities | practice | 7 |
| | Legend Seafood Restaurant | practice | 7 |
| | Aqua Waikiki Wave Hotel and facilities | practice | 7 |
| | Miramar at Waikiki and facilities | practice | 7 |
| | Keoni by Keo's | practice | 7 |
| | `Ohana East and facilities | practice | 7 |
| | Ka`iulani Statute | historic | 7 |
| | Pacific Soul Tattoo | practice | 7 |
| | Aqua Bamboo & Spa and facilities | practice | 7 |
| | Me BBQ | practice | 7 |
| | Pacific Beach Hotel and facilities | practice | 7 |
| | Waikiki Beach Marriott and facilities | practice | 7 |
| | Ocean Resort Hotel Waikiki and facilities | practice | 7 |
| | Christian Science Reading Room | practice | 7 |
| | Aloha Sushi | practice | 7 |
| | Hawai`i Convention Center | practice | 7 |
| | Fort DeRussy Armed Forces Recreation Center | practice | 7 |
| Kalakaua Statue | historic | 7 | |
| Outrigger Luana Waikiki | practice | 7 | |
| Waikiki Banyan and facilities | practice | 7 | |
| Hilton Waikiki Prince Kuhio and facilities | practice | 7 | |

Table 4-19: Summary of Resources in Waikīkī Ahupua`a (continued)

| Area | Resource | Type | Section |
|------|-------------------------------------|----------|---------|
| | Waikiki Park Heights and facilities | practice | 7 |
| | Continental Surf and facilities | practice | 7 |
| | `Ohana Waikiki West and facilities | practice | 7 |
| | Kuhio Banyan and facilities | practice | 7 |
| | Mangiama Italian Restaurant | practice | 7 |
| | Takoyaki Samurai | practice | 7 |
| | The `Ohi`a and facilities | practice | 7 |
| | Pho Old Saigon | practice | 7 |
| | Royal Kuhio and facilities | practice | 7 |
| | The Wyland Waikiki and facilities | practice | 7 |
| | Four Paddle and facilities | practice | 7 |
| | Maile Sky Court and facilities | practice | 7 |
| | Keo's Thai Cuisine | practice | 7 |
| | Lamb of God | practice | 7 |

Table 4-20: Summary of Resources in Honolulu Ahupua`a

| Area | Resource | Type | Section |
|----------------------|--|--------------------|---------|
| <i>Nu`uanu</i> | Nu`uanu Stream | resource (water) | 5 |
| | Pho Baci Viet Restaurant | practice | 5 |
| | Hou Ren Tong Chinese Herbs & Acupuncture | practice | 5 |
| | Song Huong Vietnamese Restaurant | practice | 5 |
| | Quan Song Ngoc Vietnamese Food | practice | 5 |
| | Association of Chinese from Vietnam, Cambodia and Laos | practice | 5 |
| | Irwin Park | historic | 5 |
| | Honolulu Community College | practice | 5 |
| | Mother Waldron Playground | historic, practice | 5 |
| <i>Liliha/Iwilei</i> | Kotobuki Foods | practice | 5 |
| | Nisshodo | practice | 5 |
| | Seoul Meet Company | practice | 5 |
| | K Kaya Fishing Supply | practice | 5 |
| | Lanakila Marine | practice | 5 |
| | Dole Cannery | practice | 5 |
| <i>Downtown</i> | Hawai`i Maritime Center | historic | 5 |
| | Ilda | practice | 5 |
| | Reneux Med & Day Spa | practice | 5 |
| | Hoaka Sculpture | historic | 5 |
| | Kukui Tree and Plaque | historic | 5 |
| | Propeller sculpture | historic | 5 |
| | Pohukaina School | practice | 5 |
| | Muriel School | practice | 5 |
| | Downtown Galleries at FHB | practice | 5 |
| | Star of Sea Process (Religious) | practice | 5 |
| | Aloha Tower | historic | 5 |
| | Downtown Ho`olaule`a | practice | 5 |

Table 4-20: Summary of Resources in Honolulu Ahupua`a (continued)

| Area | Resource | Type | Section |
|----------------------|--|-------------------|---------|
| | Honolulu Marathon | practice | 5 |
| | Kamehameha Day Parade & Celebration | practice | 5 |
| | Chinatown Marketplace | practice | 5 |
| <i>Kaka`ako/Ward</i> | Aku Bone Lounge & Grill | practice | 5 |
| | Hawai`i International Child | practice | 5 |
| | Makana Aesthetics Wellness Academy | practice | 5 |
| | Phuket Thai | practice | 5 |
| | KCAA Muriel Preschool | practice | 5 |
| | Ba-Le Restaurant | practice | 5 |
| | Ward Farmers Market | practice | 5 |
| | Marukai Wholesale Market | practice | 5 |
| | Tio Restaurant | practice | 5 |
| | Rock-N-Roll Sushi | practice | 5 |
| | Kieselback Woodwork | practice | 5 |
| | Stepping Stones Academy | practice | 5 |
| | Ola Nui | practice | 5 |
| | Hale Kupuna | practice | 5 |
| | Care Hawaii | practice | 5 |
| | Hardwood Hawai`i | practice | 5 |
| | His Highest Praise Worship Center | practice | 5 |
| | The Orchid Room, Therapeutic & Wellness Center | practice | 5 |
| | Keo's Thai Cuisine | practice | 5 |
| | Wong's Produce | practice | 5 |
| | NBC-World Festival of Hula | practice | 5 |
| | Queen Lili`uokalani Keiki Competition | practice | 5 |
| | Smuin Ballet | practice | 5 |
| | Neal Blaisdell Center | practice | 5 |
| | NBC Plant and Craft sale | practice | 5 |
| | Honolulu Symphony (NBC) | practice | 5 |
| | Hawai`i International Taiko Festival | practice | 5 |
| | Cherry Blossom Festival (NBC) | practice | 5 |
| | shoreline | resource (marine) | 5 |
| | Queen St. Burial Mound | historic | 5 |
| | Halekauwila St. Burial Mound | historic | 5 |
| | Kaka`ako Fire Station and Museum | historic | 5 |
| | Kamaka `Ukulele | practice | 5 |
| <i>Chinatown</i> | Saigon Market | practice | 5 |
| | Kekaulike Market | practice | 5 |
| | Lita's Philippine Produce | practice | 5 |
| | O`ahu Market | practice | 5 |
| | Open Market | practice | 5 |
| | Thanh Tuan Market | practice | 5 |
| | Tak Wah Tong | practice | 5 |
| | Fook Sau Tay | practice | 5 |
| | Chinese Art Exhibition | practice | 5 |
| | Chinatown Open House (Religious) | practice | 5 |
| | Sun Yat Sen Statute | practice | 5 |

Table 4-20: Summary of Resources in Honolulu Ahupua`a (continued)

| Area | Resource | Type | Section |
|------|--|-----------------|---------|
| | Buddhist Compassion Relief Tzn Chi Foundation | practice | 5 |
| | Chinese American Club | practice | 5 |
| | Hawai'i Chao Chow Association | practice | 5 |
| | Hawai'i Senior Citizen Chinese Social Club | practice | 5 |
| | United Chinese Society, Chinese Chamber of Commerce | practice | 5 |
| | Sun Yat-Sen Hall | practice | 5 |
| | United Chinese Press | practice | 5 |
| | Chinese Lutheran Church/Chinese Language Church | practice | 5 |
| | First Fridays (Night in Chinatown) | practice | 5 |
| | Night in Chinatown Festival Parade | practice | 5 |
| | Double Ten Parade | practice | 5 |
| | Bon Religious Lantern Motorcade | practice | 5 |
| | Lum Sai Ho Tong Parade | practice | 5 |
| | Buddha's Light International Hawai'i Parade | practice | 5 |
| | Buddha's Birthday Celebration | practice | 5 |
| | King Kamehameha Hula Competition | practice | 5 |
| | Green Papaya | practice | 5 |
| | Akyth, Inc. | practice | 5 |
| | Aloha Tofu Factory | practice | 5 |
| | Walker Park | practice | 5 |
| | Stones (two) at Irwin Park | resource (land) | 5 |
| | Golden Palace Restaurant | practice | 5 |
| | Yi Xuan Stamp Carving | practice | 5 |
| | Acupuncture and Pain Relief Clinic | practice | 5 |
| | Ching Wan Music Club | practice | 5 |
| | Dong Guong Societies of Hawaii | practice | 5 |
| | Fook Sau Tong Chinese Herbal & Suen Hang Yee Acupuncture | practice | 5 |
| | Viet Hoa Acupuncture & Chinese Herbs | practice | 5 |

4.5 Ethnographic Survey: Oral History

The ethnographic survey (oral history interviews) is an essential part of the CIA because it helps determine whether an undertaking or development project would have an adverse impact on cultural practices or access to cultural practices. The following initial criteria were used to select consultants:

- Had/has ties to project location(s)
- Referred by the Office of Hawaiian Affairs
- Known Hawaiian cultural resource person
- Known Hawaiian traditional practitioner
- Referred by other cultural resource people

Consultants for this CIA were selected because they met the following criteria: (1) they grew up, currently live, or lived in the study corridor; (2) they were familiar

with the history and mo`olelo of the study area; or (3) they were referred by research assistants. Copies of consent and release forms are provided in Appendix D.

4.5.1 Research Themes or Categories

To comply with this CIA's scope of work, the ethnographic survey was designed so that information from the interviews would help determine whether any cultural sites or practices (or access to them) would be impacted by implementing the Project. The following basic research categories or themes were used to gather this information:

- Consultant background
- Land resources and use
- Water resources and use
- Marine resources and use
- Cultural resources and use
- Anecdotal stories and project concerns

Except for the consultant background category, these categories all have sub-categories or sub-themes that were developed based on ethnographic raw data (oral histories) and consultant responses. These responses or clusters of information become supporting evidence for making any determinations on impacts to cultural resources and/or practices.

4.5.2 Consultant Background and Demographics

Each consultant was asked to talk about their background; where they were born and raised, where they went to school and worked, and their parents and grandparents. This information helped establish the consultant's connection to the study area, their area and extent of expertise, and how they acquired their knowledge, which illustrates how the consultant fulfilled the required criteria.

It is important to allow each consultant's voice to be heard and avoid leading them or drawing conclusions for them. To this end, the "talk story" method was used, which allows a dialogue to take place and consultants to talk about a general topic in their own way, with their own words. Table 4-21 summarizes the oral history interviews that were conducted, describes the individuals interviewed, and lists specific areas along the study corridor that they are associated with. Full transcripts of the interviews will be included in Appendix F.

Table 4-21: Summary of Oral History Interviewees

| Name | Description | Area(s) of Association |
|----------------------------|--------------------|---|
| Mr. Louis Agard, Jr. | Kupuna (elder) | Ala Moana, Kewalo, Pālama, Kaka`ako, Honolulu (Ward area) |
| Mr. Poni E. Kamauu | Kupuna | Iwilei, Kaka`ako, Kewalo, Kō`ula, Fort Armstrong, Kawaiaha`o, Downtown, fishponds |
| Mr. Joe Recca | Kupuna | Kaka`ako |
| Mr. Melvin Kalahiki, Sr. | Kupuna | Kalihi, Iwilei, Sand Island, Kaka`ako |
| Mr. George Kahumoku Flores | Kupuna | Ke`eaumoku, Mānoa, Kaka`ako |
| Ms. Claire Pruet | Kupuna | Honolulu, Kaimukī, Waikīkī, Kekaulike |
| Mr. Helemano Lee | Kupuna | Honolulu, Kaimukī, Waikīkī, Kekaulike |
| Ms. Toni Lee | Kupuna | Pearl City |
| Ms. Karen Motosue | Kupuna | Chinatown |
| Mr. Tin Hu Young | Kupuna | Pearl City, Pearl Harbor, Waikīkī |
| Ms. Rosa Lou Garcia Cadiz | Kupuna | Chinatown |
| Ms. Margaret Pang | Kupuna | Chinatown |
| Mr. Shad Kane | Kupuna | Kapolei, Wahiawa, Kalihi, Kaupe`a, Kalaeloa |

These findings are based on the information available from this technical report. As additional information becomes available through continuing consultation efforts, supplemental and updated information will be added. This section describes the resources, practices, and beliefs that could be affected by the Project.

Two types of effects on cultural resources, practices, and beliefs are discussed in this section: short-term or construction-related effects and long-term or operations-related effects. Short-term effects are related to site work or construction-related activity and usually only temporarily affect access or operation of identified resources. They are generally easy to mitigate. Mitigation recommendations are discussed according to the type of resource in Section 6.

Long-term effects are the result of permanent modifications to the land and could result in modification, damage, and/or destruction of cultural resources. These effects can be but are not necessarily adverse. Recommended mitigation measures are discussed in Section 6.

Act 50 requires an EIS to “include the disclosure of the effects of a proposed action on the cultural practices of the community and State” and “amend(s) the definition of “significant effect” to include adverse effects on cultural practices” (H.B. No. 2895, H.D.1, 20th Leg. (2000)). The Act goes on to redefine “significant effects” to mean “the sum of effects on the quality of the environment, including actions that irrevocably commit a natural resource, curtail the range of beneficial uses of the environment, are contrary to the State’s environmental policies or long-term environmental goals as established by law, or adversely affect the economic welfare, social welfare, or cultural practices of the community and State” (H.B. No. 2895, H.D.1, 20th Leg. (2000)).

Section 106 defines adverse impacts as impacts “found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish workmanship, feeling or association” (36 CFR 800.5). Some identified long-term effects would modify an identified resource, but would not do so in a way that significantly affects access to or practices associated with that resource, for example the route may cross a stream but the stream will still be accessible in other areas. This section identifies resources present in each ahupua`a and projects the types of effects the Project would have on these resources.

5.1 No Build Alternative

The No Build Alternative assumes completion of projects defined in the O`ahu 2030 Regional Transportation Plan. The effects associated with developing these individual projects cannot be evaluated because their specific details are not available. These projects will undergo planning and environmental review as part of their individual development processes.

5.2 Build Alternatives

Construction of an elevated transit system could result in the following effects on cultural resources.

5.2.1 *Cultural Resources: Land*

The entire study corridor, from Honouliuli to Waikīkī and especially the area now known as Pearl City, were noted for the plethora of taro terraces and patches (lo`i kalo) and other subsistence crops such as sweet potatoes, yams, and bananas. The Kapolei/Ewa area still has a number of cultural resource remnants (walls, sink holes, shrines, and burials) and other traditional features unique to that area.

Adverse impacts resulting from construction and operation of the Project would most likely be short-term and consist of preventing access to certain areas in the study corridor. Most of the Project lands were heavily affected by historic activities in the 18th, 19th, and 20th centuries. Most cultural sites or resources were destroyed or damaged by sandalwood, sisal, and sugar cultivation and by ranching and other related activities. Lands within the study area have also been damaged by port activities and the transition from traditional to western lifestyle (e.g., business structures, dwellings, gardens, road systems, and other public works). Despite this, records show that significant cultural resources related to traditional habitation, traditional agriculture (terraces, lo`i kalo, banana plantations, sink holes) and religion (heiau, petroglyphs, burial sites) are located in the vicinity of the study corridor. The Project may provide beneficial effects, such as improving access to resources and areas of cultural practices and improving the community's quality of life.

5.2.2 *Cultural Resources: Water*

Anticipated adverse effects on remaining cultural water resources are minimal. Most of the traditional irrigation systems (auwai), springs, streams, artesian wells, and bathing pools that were traditionally used during pre- and post-contact periods were compromised during the development boom of the 19th and 20th centuries. Most streams are no longer used in a traditional context (e.g., agriculture irrigation systems, aqua-culture) and native species are no longer found in most streams, with the possible exception of Waiawa where gobi fish (o`opu) and native shrimp (opae) were noted by residents. No adverse effect is anticipated.

Care should be taken not to compromise any remaining water resources, especially because the mo`olelo (stories/legends) and cultural practices associated with many of them still exist today. Streams are traditionally associated with mo`o (lizard-type creatures) who utilized them as a waterway to get from place to place and even island to island. Many of them are still respected as guardians of the areas. Figure 5-1 shows the multitude of streams located within the study corridor. Overall, the Project is expected to be beneficial to freshwater resources because it would not generate substantial quantities of pollutants, and would result in a slight reduction in automobile use and the associated pollution that enters stormwater.

5.2.3 Cultural Resources: Marine

The entire Pu`uloa/Wai Momi (Pearl Harbor) area was once a thriving, bountiful traditional cultural resource. Many streams (e.g., Honouliuli, Waipi`o, Waikele, Waiawa, Waiau, and Kalauao) flowed into Pearl Harbor, bringing nutrients and life to native gobi, whose life cycle included moving from the mountains to the sea for spawning/mating, and to other endemic fish. These brackish estuaries also provided a rich environment for indigenous fish such as mullet, clams, and oysters. The ancient Hawaiians took advantage of these rich areas by constructing vast networks of fishponds (loko) to nurture these natural resources. The Hawaiian fishpond was, and remains, a superior example of the engineering prowess of native Hawaiians. No other indigenous people throughout the world refined these enclosed seafood resources like native Hawaiians. There were several types of fishpond structures, built and used according to the natural resources available in the area. For example, the windward side of the Island of O`ahu was known for a multitude of stonewall fishponds (loko kuapā) and the leeward coast often used the naturally-occurring sand dunes for their fishpond structures (loko pu`uone).

Fishponds specialized in raising different kinds of fish, according to what was best supported by the area's natural resources. For example, some were used primarily for raising young fish and others for particular fish such as the milkfish (awa), mullet (`anae or `ama`ama), and moi (pacific threadfin). The key engineering piece that set Hawaiian fishponds apart from other fishponds across the world was the invention of a sluice gate system (mākāhā) that utilized the tides for water circulation and natural fish recruitment. These structures were either an extension from the land outward into the water or part of the wall itself. Some fishponds were created inland with gateways/canals that opened up or led to open waters. Others were associated with the lo`i kalo (wet taro ponds/patches), where fish were allowed to go into the taro ponds to take advantage of the nutrients.

Unfortunately, because of the exponential increase in O`ahu's population and the scarcity of land, most fishponds have been destroyed, dredged, or filled to make way for urban expansion. In the few areas along the study corridor where traditional fishponds remain, care should be taken not to compromise them further. Figure 5-2 identifies the location of the historic fishpond resources located within the study corridor.

5.2.4 Cultural Practices

Burials are a significant traditional cultural practice that would potentially be affected in the study area. The Project lands were traditionally used in a typical ahupua`a lifestyle of habitation, farming, fishing, and religious practice; therefore, a high probability that burials may be encountered during development excavation activities exists. In the traditional lifestyle, burials were often made on lands adjacent to houselots, so family members could be close to and tend to the graves. Burials were noted in native testimonies during the Mahele and Land Commission Awards process, as discussed in Section 4.

If burials are encountered during construction of the Project, State burial laws and regulations require all activity to stop, and the proper authorities must be contacted for proper handling. Community cultural advisory groups could be very helpful with this process. An archaeological monitor should be present during all ground disturbance associated with the Project. A cultural monitor should also be involved in certain sensitive areas, to ensure proper identification and treatment of the disturbed resources.

Cultural Practices/Access: Land

Hawai`i's State constitution guarantees access to certain cultural resources and the exercise of gathering practices related to subsistence, religion, and land. The Project Team would consult with cultural advisory groups during the Section 106 process to help inform this process.

Potential effects on access to current traditional/ethnic/urban resources have been considered (e.g., churches, ethnic food places, and gathering places). Some are located along the corridor alignment or within the footprint of rail stations and/or other rail facilities. A few identified resources would be adversely affected by the Project. Further discussion of effects on these resources is included in the *Honolulu High-Capacity Transit Corridor Neighborhoods and Communities Technical Report* (RTD 2008b).

To mitigate effects on these resources, the Project Team would make every effort to contact and establish lines of communication with affected individuals or organizations. Together, these parties would construct a plan to minimize the effects of the Project's construction and operation. For most of these resources, major effects would be short-term, occurring during construction. Contractors would consult with affected individuals and organizations to ensure proper coordination, help minimize effects on access, and reduce noise and environmental disturbance.

Cultural Practices/Access: Water

Traditional cultural resources and gathering practices related to subsistence, religion, and recreation involving streams and/or springs has declined significantly. Cultural advisory groups would be consulted during the Section 106 process to help inform this process, as they may be most aware of access issues. It is important to note that oral history reports have shown that people are continuing some traditional

cultural practices in Pālolo Stream, Nu`uanu Stream, and Waiawa Stream, but information on other streams is not available at this time.

Cultural Practices/Access: Marine

The study corridor alignment is not expected to have long-term permanent effects on any marine cultural resource or access, although access could be temporarily impacted during construction. A potential indirect impact could be dirt runoff into the ocean during and after construction. This would jeopardize ocean life forms and people who dive, fish, and surf in the ocean. Extra care should be taken in construction areas near the shoreline or any water resources.

5.3 Summary

Archival and ethnographic research shows that most of the traditional cultural resources within the study corridor have been heavily damaged or destroyed through previous development, with the exception of a few sink holes in the `Ewa-Kapolei section and streams in the Pearl City-Moanalua sections. Short-term effects are expected on primarily ethnic and/or urban cultural resources such as churches, cemeteries, schools, food-related entities, parks, recreation facilities, and other urban cultural entities. These effects would primarily be access related.

Potential long-term impacts include the permanent modification of cultural resources (moving, damage, destruction). Burials are one of the most significant traditional cultural resources. Native Hawaiian testimonies in LCA claims indicate that there are documented burials within the study corridor and a probability that others could be disturbed. The permanent destruction of sub-surface cultural resources (filled fishponds, filled/covered terraces, enclosures, shrines and `auwai) is another potential long-term impact. Each surviving cultural resource that is uncovered should be assessed through collaborative consultation with appropriate cultural practitioners and/or community groups. This is further addressed in the following section and in the *Honolulu High-Capacity Transit Corridor Project Archaeological Resources Technical Report* (RTD 2008a).

A few of the identified cultural resources would be adversely affected. Further discussion of expected effects on these resources and recommended mitigation measures are discussed in the *Honolulu High-Capacity Transit Corridor Neighborhoods and Communities Technical Report* (RTD 2008b).

Table 5-1 summarizes anticipated effects for each resource identified in Section 4. Table 5-2 summarizes these effects for the proposed stations' APEs. Table 5-1 through Table 5-20 are organized by ahupua`a, and resources are categorized by the types defined in Section 4. The accompanying figures in Appendix K map the location of the resources in relation to the study corridor.

Table 5-1: Summary of Potential Long-Term Effects

| Ahupua`a | Area | Resource | Type | Section | Effect |
|------------|------------|---|--|---------|--|
| Honouliuli | Kapolei | brick cesspool/well | Historic | 1 | Adjacent to station |
| | | ordnance/coral | Historic | 1 | Fronts route, adjacent to station |
| | | barbed-wire fence | Historic | 1 | Crossed over by route |
| | | Honouliuli Gulch | Resource (land, water) | 1 | Crossed over by route |
| | `Ewa | irrigation canal* | Resource (land, water) | 1 | Crossed over by route |
| | | metal flume | Resource (land, water) | 1 | Route crosses above |
| Waikele | Waikele | Kapakahi Stream | Resource (water) | 2 | Route crosses above existing bridge, no direct impact |
| Waipi`o | Waipahu | Drainage canal | Resource (land, water) | 2 | Route crosses above existing bridge, no direct impact |
| Waiawa | Waipahu | Waiawa Stream* | Resource (water) | 2 | Route crosses in two places. May adversely affect access to stream and resources located within stream. See Pedestrian Survey Field Notes, Appendix G. |
| | | Leeward Community College and petroglyphs | Resource (land) | 2 | Would reduce parking on-site; would increase transit accessibility of site |
| Waimalu | Pearl City | Blaisdell Park | Practice | 2 | Fronts route |
| | Waimalu | Waimalu Stream | Resource (water) | 2 | Route crosses above existing bridge, no direct physical impact |
| Kalauao | Pearl City | Sumida Watercress Farm | Historic, resource (water, land), practice | 2 | Fronts route, no direct physical impact |
| | | Kalauao Stream | Resource (water) | 2 | Route crosses above existing bridge, no direct physical impact |
| `Aiea | `Aiea | `Aiea Bay | Resource (water) | 2 | May affect access but no substantial blocking of view |
| | | Aiea Stream | Resource (water) | 2 | Route crosses above existing bridge, no direct physical impact |
| Hālawā | Salt Lake | Hālawā Stream | Resource (water) | 4 | Route crosses above existing bridge, no direct physical impact |
| | | Aloha Stadium | Practice | 3 | Would reduce parking on-site; may increase accessibility of site |
| Moanalua | Moanalua | Ke`ehi Lagoon Park | Practice | 4 | Would cross over upper edge of park, Airport Alignment only |
| | | Moanalua Stream | Resource (water) | 3 | Potential column in stream but clearance would be high, no change in stream access |
| Kalihi | Kalihi | Dee Lite Bakery* | Practice | 5 | Potential displacement |
| | | Kalihi Stream | Resource (water) | 3 | Route crosses above existing bridge, no direct physical impact |
| Kapālāma | Kapālāma | Kapālāma Stream/Drainage Canal | Resource (water) | 5 | Route crosses above existing bridge, no direct physical impact |

Table 5-1: Summary of Potential Long-Term Effects (continued)

| Ahupua`a | Area | Resource | Type | Section | Effect |
|----------|--------------------|-------------------------------------|------------------|---------|---|
| Waikīkī | McCully/Mō`ili`ili | Ala Wai Canal | Resource (water) | 6 | Route crosses above existing bridge, may require a column in canal but column would be in line with existing bridge columns |
| | | Ala Wai Park | Practice | 6 | Fronts route; no direct effect |
| | | Akasaka Sushi Restaurant* | Practice | 6 | Potential displacement |
| | | Seoul Garden Yakiniku* | Practice | 6 | Potential displacement |
| | | Ojya Restaurant* | Practice | 6 | Potential displacement |
| | | Yakiniku Migawan* | Practice | 6 | Potential displacement |
| | | Ala Wai Recreation Center | Practice | 6 | Fronts route, access may be altered but maintained |
| | | Ala Wai Canoe Paddling Facility | Practice | 6 | Fronts route, access may be altered but maintained |
| | Mānoa | UH Mānoa | Practice | 6 | Would reduce parking on-site; may increase accessibility of site |
| Honolulu | Nu`uanu | Nu`uanu Stream | Resource (water) | 5 | Route crosses above existing bridge, no direct physical impact |
| | Chinatown | stones (two) at Irwin Park | Resource (land) | 5 | Access may be altered but maintained |
| | Kaka`ako/Ward | Aku Bone Lounge & Grill* | Practice | 5 | Potential displacement |
| | | Hawai`i International Child* | Practice | 5 | Potential displacement |
| | | Makana Aesthetics Wellness Academy* | Practice | 5 | Potential displacement |
| | | Tio Restaurant* | Practice | 5 | Potential displacement |
| | | Rock-N-Roll Sushi* | Practice | 5 | Potential displacement |

* These resources are identified as having potentially adverse long-term impacts. Under Act 50, these types of impacts are called “significant effects.” Act 50 defines “significant effect” as “the sum of effects on the quality of the environment, including actions that irrevocably commit a natural resource, curtail the range of beneficial uses of the environment, are contrary to the State’s environmental policies or long-term environmental goals as established by law, or adversely affect the economic welfare, social welfare, or cultural practices of the community and State” (H.B. No. 2895, H.D.1, 20th Leg. (2000)).

Table 5-2: Summary of Potential Long-Term Effects on Resources in Station APes

| Station | Ahupua`a | Resource | Type | Section | Impact Description |
|--------------------------------|-----------------|--------------------|------------------|---------|--|
| UH West O`ahu | Honouliuli | agricultural farms | practice | 1 | Refer to <i>HHCTC Farmlands Report</i> |
| Ho`opili | Honouliuli | agricultural farms | practice | 1 | Refer to <i>HHCTC Farmlands Report</i> |
| Aloha Stadium (Kamehameha Hwy) | Hālawā | Aloha Stadium | practice | 2 | Would reduce parking on-site; may increase accessibility of site |
| Middle Street Transit (Nimitz) | Moanalua/Kalihi | Kalihi Stream | resource (water) | 4 | Route crosses above existing bridge, no direct physical impact |
| Chinatown (Nu`uanu Stream) | Honolulu | Waolani Stream | resource (water) | 5 | Route crosses above existing bridge, no direct physical impact |

*These resources are identified as having potentially adverse long-term impacts. Under Act 50, these types of impacts are called "significant effects." Act 50 defines "significant effect" as "the sum of effects on the quality of the environment, including actions that irrevocably commit a natural resource, curtail the range of beneficial uses of the environment, are contrary to the State's environmental policies or long-term environmental goals as established by law, or adversely affect the economic welfare, social welfare, or cultural practices of the community and State" (H.B. No. 2895, H.D.1, 20th Leg. (2000)).

Table 5-3: Summary of Potential Short-Term Impacts in Honouliuli Ahupua`a

| Area | Resource | Type | Section |
|----------------|--------------------------------------|----------|---------|
| <i>Kapolei</i> | Varona Plantation Village | historic | 1 |
| | Youth Challenge Alternative School | practice | 1 |
| | Ribbons N Rainbows shop (lei making) | practice | 1 |

Table 5-4: Summary of Potential Short-Term Impacts in Ho`ae`ae Ahupua`a

| Area | Resource | Type | Section |
|----------------|--|----------|---------|
| <i>Waipahu</i> | Ohana Taekwondo | practice | 2 |
| | Tammy's Polynesian Market | practice | 2 |
| | Don Quijote Department Store | practice | 2 |
| | Nanding's Bakery | practice | 2 |
| | Gina's BBQ | practice | 2 |
| | Max's of Manila | practice | 2 |
| | Kin Sin Restaurant | practice | 2 |
| | New Hope Leeward | practice | 2 |
| | Lighthouse Outreach Center Assembly of God | practice | 2 |
| | Jesus Cares Ministries | practice | 2 |
| | His Name is Jesus Tabernacle | practice | 2 |
| | Far East Chop Suey (Chinese Restaurant) | practice | 2 |
| | Golden Coin (Filipino Restaurant) | practice | 2 |
| | Kuni Restaurant (Japanese Restaurant) | practice | 2 |
| | Tasty BBQ (Korean Restaurant) | practice | 2 |
| | Tuli's Bakery & Grocery (Samoan Market) | practice | 2 |
| | Leeward Florist | practice | 2 |

Table 5-5: Summary of Potential Short-Term Impacts in Waikele Ahupua`a

| Area | Resource | Type | Section |
|---------|--|------------------|---------|
| Waikele | Kabingan Filipino Express Restaurant & Banquet | practice | 2 |
| | West O`ahu Christian Church | practice | 2 |
| | St. Joseph's Church | practice | 2 |
| | Kingdom Hall of Jehovah's Witness | practice | 2 |
| | Hawai'i's Plantation Villages (Replicated cultural villages, plantation photos, cannery) | historic | 2 |
| | Shiro's | practice | 2 |
| | Paradise Island Concepts, Inc. (Fish & Dive) | practice | 2 |
| | Bible Baptist Church | practice | 2 |
| | Hawaiian Fellowship | practice | 2 |
| Waipahu | Waipahu Intermediate School | practice | 2 |
| | St. Joseph's School | practice | 2 |
| | Iglesia Ni Cristo Church | practice | 2 |
| | Waikele Stream | resource (water) | 2 |

Table 5-6: Summary of Potential Short-Term Impacts in Waipi`o Ahupua`a

| Area | Resource | Type | Section |
|---------|--|--------------------|---------|
| Waipahu | Waipahu District Park | practice | 2 |
| | Sara's Bar-B-Q | practice | 2 |
| | Waipahu Market | practice | 2 |
| | Valerio's Tropical Bakeshop | practice | 2 |
| | Jenny's Drive Inn | practice | 2 |
| | Tammy's Polynesian Market | practice | 2 |
| | Sunny D Ukulele | practice | 2 |
| | K's Bento-ya | practice | 2 |
| | Watanabe Floral | practice | 2 |
| | Wong Kung Chop Suey | practice | 2 |
| | Lavern's (Hawaiian & Local Foods) | practice | 2 |
| | Ola Mai Kakou | practice | 2 |
| | Church of God Prophecy | practice | 2 |
| | Church of Jesus Christ Latter Day Saints | practice | 2 |
| | Waipahu Church of Christ | practice | 2 |
| | Waipahu High School | practice | 2 |
| | Waipahu Public Library | practice, historic | 2 |
| | Tanioka's (Poke, Hawaiian and Japanese Market) | practice | 2 |
| | Elena's | practice | 2 |

Table 5-7: Summary of Potential Short-Term Impacts in Waiawa Ahupua`a

| Area | Resource | Type | Section |
|---------|---|------------------|---------|
| Waipahu | Waiawa Stream | resource (water) | 2 |
| | Alpha & Omega Christian Church & Bible School | practice | 2 |

Table 5-8: Summary of Potential Short-Term Impacts in Mānana Ahupua`a

| Area | Resource | Type | Section |
|------------|------------------------------------|----------|---------|
| Pearl City | Pearl City Elementary School | practice | 2 |
| | Pacheco Neighborhood Park | practice | 2 |
| | House of Dragon Seafood Restaurant | practice | 2 |
| | Ezogiku | practice | 2 |
| | Pearl City Chinese Restaurant | practice | 2 |
| | Pearl's Chinese Restaurant | practice | 2 |
| | Pearl City Florist | practice | 2 |
| | Prayer Center of the Pacific | practice | 2 |

Table 5-9: Summary of Potential Short-Term Impacts in Waimano Ahupua`a

| Area | Resource | Type | Section |
|------------|-------------------------------|---------------------------|---------|
| Pearl City | Joy of Christ Lutheran Church | practice | 2 |
| | Leeward Cemetery | historic, resource (land) | 2 |
| | Hale Mohalu Hospital | practice | 2 |
| | Iglesia Ni Christo | practice | 2 |
| | La Luz Del Mundo | practice | 2 |

Table 5-10: Summary of Potential Short-Term Impacts in Waiau Ahupua`a

| Area | Resource | Type | Section |
|------------|-----------------------------|--|---------|
| Pearl City | Waiau Spring | resource (water) | 2 |
| | Genki Sushi | practice | 2 |
| | Kobashigawa Watercress Farm | resource (land, water), practice, historic | 2 |

Table 5-11: Summary of Potential Short-Term Impacts in Waimalu Ahupua`a

| Area | Resource | Type | Section |
|---------|---------------------------|----------|---------|
| Waimalu | Jin Joo Korean Restaurant | practice | 2 |
| | Ming's Canton Food | practice | 2 |
| | O`ahu Taekwondo Center | practice | 2 |
| | Flowers & Gifts | practice | 2 |

Table 5-12: Summary of Potential Short-Term Impacts in Kalauao Ahupua`a

| Area | Resource | Type | Section |
|------------|------------------------------|----------|---------|
| Pearl City | Bale Vietnamese Restaurant | practice | 2 |
| | Champa Thai Restaurant | practice | 2 |
| | Ricardo's Italian Restaurant | practice | 2 |

Table 5-13: Summary of Potential Short-Term Impacts in `Aiea Ahupua`a

| Area | Resource | Type | Section |
|-------|------------------|----------|---------|
| `Aiea | Flowers by Carol | practice | 2 |
| | `Aiea Cemetery | Practice | 2 |

Table 5-14: Summary of Potential Short-Term Impacts in Hālawā Ahupua`a

| Area | Resource | Type | Section |
|-----------|---|----------|---------|
| Salt Lake | Waiāu Fish Market | practice | 3 |
| | Royal Palace Restaurant | practice | 3 |
| | Pearl Harbor Kai Elementary School | practice | 4 |
| | Richardson Park & Pool | practice | 4 |
| | Arizona Memorial Access & Bowfin Museum | historic | 4 |
| | Cincpac Command Headquarters | practice | 4 |
| | Makalapa Park | practice | 3 |
| | Makalapa Elementary School | practice | 3 |
| | Radford High School | practice | 3 |
| | Aliamanu Playground | practice | 3 |

Table 5-15: Summary of Potential Short-Term Impacts in Moanalua Ahupua`a

| Area | Resource | Type | Section |
|----------|---|----------|---------|
| Moanalua | Moanalua High School | practice | 3 |
| | Salt Lake-Moanalua Public Library | practice | 3 |
| | Soon's Kalbi | practice | 3 |
| | Island Family Christian Church | practice | 3 |
| | Yum Yum Thai Chinese | practice | 3 |
| | Sushi | practice | 3 |
| | Young's Ramen | practice | 3 |
| | Bethel Temple of the First Samoan Full Gospel | practice | 3 |
| | Family BBQ | practice | 3 |
| | Ninja Sushi | practice | 3 |
| | Fresh Foods Hawaii, Inc. | practice | 3 |
| | Pacific Seafood | practice | 3 |
| | Island Manapua | practice | 3 |
| | Hawaii Candy | practice | 3 |
| | Holy Family Catholic Academy | practice | 4 |
| | Ke`ehi Lagoon Park | practice | 4 |
| | Disabled American Veterans' Halls | practice | 4 |
| | Ke`ehi Lagoon Park Canoe Facility | practice | 4 |
| | Assets School | practice | 4 |
| | Nimitz Elementary School | practice | 4 |
| | Pearl Harbor Elementary School | practice | 4 |
| | Aliamanu Elementary and Intermediate School | practice | 3 |

Table 5-16: Summary of Potential Short-Term Impacts in Kalihi Ahupua`a

| Area | Resource | Type | Section |
|--------|--|--------------------|---------|
| Kalihi | Ba-Le Sandwich Shop & Bakery | practice | 3 |
| | St. Anthony School | practice | 3 |
| | Seafarer's International Union | practice | 5 |
| | Golden Coin | practice | 5 |
| | The House of Love Hawaii Cedar Church | practice, historic | 5 |
| | Island Fresh Fruit & 5 Star Noodle Factory | practice | 5 |
| | Pu`uhale Market | practice | 5 |
| | Koi Catering | practice | 5 |
| | Marukai Wholesale | practice | 3 |
| | O`ahu Community Correction Center | practice | 3 |
| | Kamakua Mau Loa Church of the Living God | practice | 5 |
| | Sun Noodle | practice | 5 |
| | Hanapa`a Hawai`i | practice | 5 |
| | Pentecostal Faith Assembly Church | practice | 5 |

Table 5-17: Summary of Potential Short-Term Impacts in Kapālama Ahupua`a

| Area | Resource | Type | Section |
|----------|---------------------------------|----------|---------|
| Kapālama | Crabtank | practice | 5 |
| | Young's Fishmarket | practice | 5 |
| | Utage Restaurant | practice | 5 |
| | Chong's BBQ | practice | 5 |
| | Sugoi's | practice | 5 |
| | Fujiya Ltd. | practice | 5 |
| | Ko`olau Farmer's | practice | 5 |
| | Kealoha Clothing Company | practice | 5 |
| | Yohei Sushi Restaurant | practice | 5 |
| | Ideta | practice | 5 |
| | Child Evangelism Fellowship | practice | 5 |
| | Barrio Fiesta Restaurant | practice | 5 |
| | Full Gospel Glory Saloam Church | practice | 5 |
| | Elvin's Bakery | practice | 5 |
| | Fritz European Bakery | practice | 5 |
| | Wang's Waiakamilo Restaurant | practice | 5 |
| | Boulevard Saimin | practice | 5 |
| | Kalihi Kai Elementary School | practice | 5 |
| | Palama Supermarket | practice | 5 |
| | Nisshodo | practice | 5 |
| | Taro Brand | practice | 5 |
| | Halla Huhm | practice | 5 |
| | Dillingham Bonsai | practice | 5 |

Table 5-18: Summary of Potential Short-Term Impacts in Waikīkī Ahupua`a

| Area | Resource | Type | Section |
|--------------------------|---|----------|---------|
| McCully-Mō`ili`ili | Mō`ili`ili Hongwanji Buddhist Temple | practice | 6 |
| | Hui o Kamalei | practice | 6 |
| | Tae Kwon Do & Jujitsu | practice | 6 |
| | Curry House Coco Ichibanya | practice | 6 |
| | Fook Yuen Chinese Seafood Restaurant | practice | 6 |
| | Tudo De Bom | practice | 6 |
| | Phuket Thai | practice | 6 |
| | Bistro Ah Un | practice | 6 |
| | So Gong Dong Restaurant | practice | 6 |
| | Yotteko-ya | practice | 6 |
| | Church of the Crossroads | practice | 6 |
| | The Early School | practice | 6 |
| | Greek Corner | practice | 6 |
| | Tai Chi for Health & Qi Guong | practice | 6 |
| | Hawaiian Tattoo Company | practice | 6 |
| | Mah Jong Club | practice | 6 |
| | Aruthaya Thai Restaurant | practice | 6 |
| | Ba-Le Sandwich Shop | practice | 6 |
| | Curry House Coco Ichibanya | practice | 6 |
| | Eastside Grill | practice | 6 |
| | Mō`ili`ili Community Center | practice | 6 |
| | Buddhist Study Center | practice | 6 |
| | Japanese Cultural Center | practice | 6 |
| | Hawaii Tokai International College | practice | 6 |
| | Hakubundo | practice | 6 |
| | Varsity Theater | historic | 6 |
| | Shirokiya | practice | 6 |
| | Ala Moana Hotel | practice | 6 |
| | Shokudo Restaurant | practice | 6 |
| | Pho One Vietnamese Restaurant | practice | 6 |
| | Yakiniku Korea House | practice | 6 |
| | Kyoto Ramen | practice | 6 |
| | Frank C. Judd Park | practice | 6 |
| | Happy Family Market | practice | 6 |
| | Araki Hiroya Soroban School | practice | 6 |
| | Aki-No-No Restaurant | practice | 6 |
| | Imanas Japanese Restaurant | practice | 6 |
| | Kohnotori | practice | 6 |
| | Mō`ili`ili Japanese School | practice | 6 |
| | Treasures of Thailand | practice | 6 |
| | Le Flowers | practice | 6 |
| Mō`ili`ili Triangle | practice | 6 | |
| Well Bento | practice | 6 | |
| India Market | practice | 6 | |
| Ezogiku | practice | 6 | |
| Kit-N-Kitchen | practice | 6 | |
| Veterans of Foreign Wars | practice | 6 | |
| Waikīkī | Ainahau Triangle | practice | 7 |
| | Lucoral Museum | historic | 7 |
| | King Kalakaua Plaza Shopping Center | practice | 7 |
| | International Marketplace Shopping Center | practice | 7 |

Table 5-18: Summary of Potential Short-Term Impacts in Waikī Ahupua`a (continued)

| Area | Resource | Type | Section |
|------|---|----------|---------|
| | Bethel Missionary Baptist Church | historic | 7 |
| | Damien Museum | historic | 7 |
| | Waikiki Community Center | practice | 7 |
| | St. Augustine Parish Convent | historic | 7 |
| | Jefferson School | practice | 7 |
| | St. Augustine Church | practice | 7 |
| | Ala Moana Shopping Center | practice | 7 |
| | Waikiki Gateway Hotel and facilities | practice | 7 |
| | `Ohana Waikiki Malia and facilities | practice | 7 |
| | Ikoī Massage Room | practice | 7 |
| | A Tiki Tattoo | practice | 7 |
| | Matteo's Italian Restaurant | practice | 7 |
| | Marina Surf Waikiki and facilities | practice | 7 |
| | Legend Seafood Restaurant | practice | 7 |
| | Aqua Waikiki Wave Hotel and facilities | practice | 7 |
| | Miramar at Waikiki and facilities | practice | 7 |
| | Keoni by Keo's | practice | 7 |
| | `Ohana East and facilities | practice | 7 |
| | Ka`iulani Statute | historic | 7 |
| | Pacific Soul Tattoo | practice | 7 |
| | Aqua Bamboo & Spa and facilities | practice | 7 |
| | Me BBQ | practice | 7 |
| | Pacific Beach Hotel and facilities | practice | 7 |
| | Waikiki Beach Marriott and facilities | practice | 7 |
| | Ocean Resort Hotel Waikiki and facilities | practice | 7 |
| | Christian Science Reading Room | practice | 7 |
| | Aloha Sushi | practice | 7 |
| | Hawai'i Convention Center | practice | 7 |
| | Fort DeRussy Armed Forces Recreation Center | practice | 7 |
| | Kalakaua Statue | historic | 7 |
| | Outrigger Luana Waikiki | practice | 7 |
| | Waikiki Banyan and facilities | practice | 7 |
| | Hilton Waikiki Prince Kuhio and facilities | practice | 7 |
| | Waikiki Park Heights and facilities | practice | 7 |
| | Continental Surf and facilities | practice | 7 |
| | `Ohana Waikiki West and facilities | practice | 7 |
| | Kuhio Banyan and facilities | practice | 7 |
| | Mangiamo Italian Restaurant | practice | 7 |
| | Takoyaki Samurai | practice | 7 |
| | The `Ohi`a and facilities | practice | 7 |
| | Pho Old Saigon | practice | 7 |
| | Royal Kuhio and facilities | practice | 7 |
| | The Wyland Waikiki and facilities | practice | 7 |
| | Four Paddle and facilities | practice | 7 |
| | Maile Sky Court and facilities | practice | 7 |
| | Keo's Thai Cuisine | practice | 7 |
| | Lamb of God | practice | 7 |

Table 5-19: Summary of Potential Short-Term Impacts in Honolulu Ahupua`a

| Area | Resource | Type | Section |
|--------------------------------------|--|-------------------|---------|
| Nu`uanu | Pho Baci Viet Restaurant | practice | 5 |
| | Hou Ren Tong Chinese Herbs & Acupuncture | practice | 5 |
| | Song Huong Vietnamese Restaurant | practice | 5 |
| | Quan Song Ngoc Vietnamese Food | practice | 5 |
| | Association of Chinese from Vietnam, Cambodia and Laos | practice | 5 |
| Liliha/Iwilei | Honolulu Community College | practice | 5 |
| | Kotobuki Foods | practice | 5 |
| | Nisshodo | practice | 5 |
| | Seoul Meet Company | practice | 5 |
| | K Kaya Fishing Supply | practice | 5 |
| | Lanakila Marine | practice | 5 |
| | Dole Cannery | historic | 5 |
| Chinatown | Green Papaya | practice | 5 |
| | Akyth, Inc. | practice | 5 |
| | Aloha Tofu Factory | practice | 5 |
| | Walker Park | practice | 5 |
| | Golden Palace Restaurant | practice | 5 |
| | Yi Xuan Stamp Carving | practice | 5 |
| | Acupuncture and Pain Relief Clinic | practice | 5 |
| | Ching Wan Music Club | practice | 5 |
| | Dong Guong Societies of Hawaii | practice | 5 |
| | Chinatown Marketplace | practice | 5 |
| | Saigon Market | practice | 5 |
| | Kekaulike Market | practice | 5 |
| | Lita's Philippine Produce | practice | 5 |
| | O`ahu Market | practice | 5 |
| | Open Market | practice | 5 |
| | Thanh Tuan Market | practice | 5 |
| | Fook Sau Tong Chinese Herbal & Suen Hang Yee Acupuncture | practice | 5 |
| Viet Hoa Acupuncture & Chinese Herbs | practice | 5 | |
| Sand Island | Shoreline | resource (marine) | 5 |
| Kaka`ako/Ward | Wong's Produce | practice | 5 |
| | Phuket Thai | practice | 5 |
| | KCAA Muriel Preschool | practice | 5 |
| | Ba-Le Restaurant | practice | 5 |
| | Ward Farmers Market | practice | 5 |
| | Marukai Wholesale Market | practice | 5 |
| | Kieselback Woodwork | practice | 5 |
| | Stepping Stones Academy | practice | 5 |
| | Ola Nui | practice | 5 |
| | Hale Kupuna | practice | 5 |
| | Care Hawaii | practice | 5 |
| | Hardwood Hawai`i | practice | 5 |
| | His Highest Praise Worship Center | practice | 5 |
| | The Orchid Room, Therapeutic & Wellness Center | practice | 5 |
| | Keo`s Thai Cuisine | practice | 5 |
| | King Kamehameha Hula Competition | practice | 5 |
| NBC-World Festival of Hula | practice | 5 | |

Table 5-19: Summary of Potential Short-Term Impacts in Honolulu Ahupua`a (continued)

| Area | Resource | Type | Section |
|----------|---|--------------------|---------|
| | Queen Lili`uokalani Keiki Competition | practice | 5 |
| | Smuin Ballet | practice | 5 |
| | Neal Blaisdell Center | practice | 5 |
| | NBC Plant and Craft sale | practice | 5 |
| | Honolulu Symphony (NBC) | practice | 5 |
| | Hawai`i International Taiko Festival | practice | 5 |
| | Cherry Blossom Festival (NBC) | practice | 5 |
| | Kamaka `Ukulele | practice | 5 |
| | Queen St. Burial Mound | historic | 5 |
| | Halekauwila St. Burial Mound | historic | 5 |
| | Kaka`ako Fire Station and Museum | historic | 5 |
| Downtown | Mother Waldron Park | historic, practice | 5 |
| | Pohukaina School | practice | 5 |
| | Muriel School | practice | 5 |
| | Downtown Galleries at FHB | practice | 5 |
| | Star of Sea Process (religious) | practice | 5 |
| | Aloha Tower | historic | 5 |
| | Downtown Ho`olaule`a | practice | 5 |
| | Honolulu Marathon | practice | 5 |
| | Kamehameha Day Parade & Celebration | practice | 5 |
| | Hawai`i Maritime Center | historic | 5 |
| | Ilda | practice | 5 |
| | Reneux Med & Day Spa | practice | 5 |
| | Hoaka Sculpture | historic | 5 |
| | Kukui Tree and Plaque | historic | 5 |
| | Propellor sculpture | historic | 5 |
| | Tak Wah Tong | practice | 5 |
| | Fook Sau Tay | practice | 5 |
| | Chinese Art Exhibition | practice | 5 |
| | Chinatown Open House (Religious) | practice | 5 |
| | Sun Yat Sen Statute | practice | 5 |
| | Buddhist Compassion Relief Tzn Chi Foundation | practice | 5 |
| | Chinese American Club | practice | 5 |
| | Hawai`i Chao Chow Association | practice | 5 |
| | Hawai`i Senior Citizen Chinese Social Club | practice | 5 |
| | United Chinese Society, Chinese Chamber of Commerce | practice | 5 |
| | Sun Yat-sen Hall | practice | 5 |
| | United Chinese Press | practice | 5 |
| | Chinese Lutheran Church/Chinese Language Church | practice | 5 |
| | First Fridays (Night in Chinatown) | practice | 5 |
| | Night in Chinatown Festival Parade | practice | 5 |
| | Double Ten Parade | practice | 5 |
| | Bon Religious Lantern Motorcade | practice | 5 |
| | Lum Sai Ho Tong Parade | practice | 5 |
| | Buddha's Light International Hawai`i Parade | practice | 5 |
| | Buddha's Birthday Celebration | practice | 5 |

Table 5-20: Summary of Potential Short-Term Impacts to Resources in Station APEs

| Station | Ahupua`a | Resource | Type | Section |
|---------------------------|-----------------|--|-----------------------|---------|
| Kapolei Transit | Honouliuli | Kapolei Hale | practice | 1 |
| Kalaeloa | Honouliuli | Barbers Point Naval Air Station Post Office | historic | 1 |
| Kapolei Parkway | Honouliuli | Varona Plantation Village | historic | 1 |
| West Loch (Leoku) | Ho`ae`ae | Don Quiote Department Store | practice | 2 |
| | Ho`ae`ae | Kuni Restaurant | practice | 2 |
| | Ho`ae`ae | Tuli's Bakery & Grocery | practice | 2 |
| | Ho`ae`ae | Nanding's Bakery | practice | 2 |
| | Ho`ae`ae | Gina's B-B-Q | practice | 2 |
| | Ho`ae`ae | Far East Chop Suey | practice | 2 |
| | Ho`ae`ae | Jesus Cares Ministries | practice | 2 |
| | Ho`ae`ae | His Name is Jesus Tabernacle | practice | 2 |
| | Ho`ae`ae | Golden Coin Restaurant | practice | 2 |
| | Ho`ae`ae | Ohana Taekwondo | practice | 2 |
| | Ho`ae`ae | Lighthouse Outreach Center Assembly of God | practice | 2 |
| | Ho`ae`ae | Tammy's Polynesian Market | practice | 2 |
| | Ho`ae`ae | Kin Sin Restaurant | practice | 2 |
| Waipahu Transit (Mokuola) | Waikele/Waipi`o | Paradise Island Concepts, Inc. (Fish & Dive) | practice | 2 |
| | Waipi`o | Waipahu Public Library | practice | 2 |
| | Waipi`o | Watanabe Floral | practice | 2 |
| | Waipi`o | Laverne's Hawaiian & Local Foods | practice | 2 |
| | Waipi`o | Elena's | practice | 2 |
| | Waipi`o | Hawaiian Fellowship | practice | 2 |
| | Waipi`o | Sunny D Ukulele | practice | 2 |
| | Waipi`o | Jenny's Drive Inn | practice | 2 |
| | Waipi`o | K's Bento-ya | practice | 2 |
| | Waipi`o | Waipahu Market | practice | 2 |
| Pearl Highlands (Kuala) | Waiawa | Alpha & Omega Christian Church & Bible School | practice | 2 |
| | Waiawa | Waiawa Stream | resource (water) | 2 |
| Pearl Ridge (Ka`onohi) | Waimalu/Kalauao | (no resources) | n/a | 2 |
| | Hālawā | Aliamanu Playground | practice | 3 |
| Ala Liliko`i (Arizona) | Moanalua | Aliamanu Elementary and Intermediate School | practice | 3 |
| | Moanalua | Soon's Kalbi | practice | 3 |
| | Moanalua | Salt Lake/Moanalua Library | practice | 3 |
| Kalihi (Mokauea) | Kalihi | Kamakua Mau Loa Church of the Living God | practice | 5 |
| | Kalihi | Koi Catering | practice | 5 |
| | Kalihi | Pu`uhale Market | practice | 5 |
| | Kalihi | The House of Love Hawaii Cedar Church | practice, historic | 5 |

Table 5-20: Summary of Potential Short-Term Impacts to Resources in Station APE (continued)

| Station | Ahupua`a | Resource | Type | Section |
|---------------------------------|-------------------|--|----------|---------|
| | Kalihi | Island Fresh Fruit & 5 Star Noodle Factory | practice | 5 |
| | Kalihi | Sun Noodle | practice | 5 |
| | Kalihi | Pentecostal Faith Assembly Church | practice | 5 |
| Kapalama (Kapalama Stream) | Kapālama/Honolulu | Nisshodo | practice | 5 |
| | Honolulu | Seoul Meet Company | practice | 5 |
| | Honolulu | Yohei Sushi Restaurant | practice | 5 |
| | Honolulu | Kotobuki Foods | practice | 5 |
| | Honolulu | Ideta Restaurant | practice | 5 |
| | Honolulu | Honolulu Community College | practice | 5 |
| Iwilei (Kaaahi/Kaamahu) | Honolulu | Green Papaya | practice | 5 |
| Chinatown (Nu`uanu Stream) | Honolulu | O`ahu Market | practice | 5 |
| | Honolulu | Viet Hoa Acupuncture & Chinese Herbs | practice | 5 |
| | Honolulu | Health and Wellness Center | practice | 5 |
| | Honolulu | Fook Sau Tong Chinese Herbal & Suen Hang Yee Acupuncture | practice | 5 |
| Downtown (Irwin Park/Bishop) | Honolulu | Irwin Park and stones (2) | practice | 5 |
| Downtown (Irwin Park/Bishop) | Honolulu | Propellor Sculpture | historic | 5 |
| Civic Center (Keauhou) | Honolulu | Kamaka Ukulele | practice | 5 |
| | Honolulu | Wong's Produce | practice | 5 |
| | Honolulu | Kaka`ako Fire Station and Museum | historic | 5 |
| Kaka`ako (Ward/Halekauwila) | Honolulu | Ba-Le Restaurant | practice | 5 |
| | Honolulu | Marukai Wholesale Market | practice | 5 |
| | Honolulu | Ward Farmer's Market | practice | 5 |
| Ala Moana Center (Konaiki/Kona) | Waikīkī | Shirokya | practice | 5 |
| Convention Center (Kalakaua) | Waikīkī | Hawai`i Convention Center | practice | 7 |
| | Waikīkī | Tai Chi for Health and Qi Guong | practice | 6 |
| McCully (Pumehana/McCully) | Waikīkī | Piolani Shopping Center | practice | 6 |
| | Waikīkī | McCully Street Mini Park | practice | 6 |
| | Waikīkī | McCully Street Bridge | historic | 6 |
| | Waikīkī | Curry House Coco Ichibanya | practice | 6 |
| | Waikīkī | Fook Yuen Chinese Seafood Restaurant | practice | 6 |
| | Waikīkī | Tudo De Bom | practice | 6 |
| | Waikīkī | Phuket Thai | practice | 6 |
| | Waikīkī | Bistro Ah Un | practice | 6 |
| | Waikīkī | So Gong Dong Restaurant | practice | 6 |
| | Waikīkī | Regal Diner | practice | 6 |
| | Waikīkī | Yotteko-ya | practice | 6 |
| | Waikīkī | Veterans of Foreign Wars | practice | 6 |
| | Waikīkī | Frank C. Judd Park | practice | 6 |
| | Waikīkī | Ala Wai Recreation Center | practice | 6 |
| Date Street (Citron) | Waikīkī | Fire Station Number 29 | historic | 6 |
| Kalaimoku | Waikīkī | King Kalakaua Plaza Shopping Center | practice | 7 |

Table 5-20: Summary of Potential Short-Term Impacts to Resources in Station APE (continued)

| Station | Ahupua`a | Resource | Type | Section |
|-----------------------------------|----------------------------|----------------------------------|----------|---------|
| Lili`uokalani Avenue | Waikīkī | Damien Museum | historic | 7 |
| | Waikīkī | Bethel Missionary Baptist Church | historic | 7 |
| Mō`ili`ili (Puck's Alley) | Waikīkī | Church of the Crossroads | practice | 6 |
| | Waikīkī | The Early School | practice | 6 |
| | Waikīkī | Greek Corner | practice | 6 |
| | Waikīkī | BiChuan Li Piano Studio | practice | 6 |
| | Waikīkī | Hawaiian Tattoo Company | practice | 6 |
| | Waikīkī | Mah Jong Club | practice | 6 |
| | Waikīkī | Aruthaya Thai Restaurant | practice | 6 |
| | Waikīkī | Ba-Le Sandwich Shop | practice | 6 |
| | Waikīkī | Curry House Coco Ichibanya | practice | 6 |
| | Waikīkī | Eastside Grill | practice | 6 |
| | Waikīkī | Varsity Theater | historic | 6 |
| | Waikīkī | Araki Hiroya Soroban School | practice | 6 |
| | Waikīkī | Aki-No-No Restaurant | practice | 6 |
| | Waikīkī | Well Bento | practice | 6 |
| | Waikīkī | Ezogiku | practice | 6 |
| | Waikīkī | India Market | practice | 6 |
| | Waikīkī | Kit-N-Kitchen | practice | 6 |
| | Waikīkī | Treasures of Thailand | practice | 6 |
| | Waikīkī | Mō`ili`ili Triangle | practice | 6 |
| | Waikīkī | Le Flowers | practice | 6 |
| Waikīkī | Kohnotori | practice | 6 | |
| Waikīkī | Imanas Japanese Restaurant | practice | 6 | |
| UH Manoa | Waikīkī | Stan Sheriff Center | practice | 6 |
| Pearl Harbor Naval Base (Radford) | Hālawā | (no resources) | n/a | 4 |
| Honolulu International Airport | Moanalua | lei stands | practice | 4 |
| Lagoon Drive (Aolele) | Moanalua | (no resources) | n/a | 4 |

6.1 Summary of Mitigation Measures

Mitigation measures are actions undertaken to alleviate or offset an adverse impact or replace an appropriated resource. The Project Team will consult with the SHPD of the Department of Land and Natural Resources (DLNR) and relevant community groups in establishing specific mitigation measures for the Project.

Public involvement is a key part of the mitigation process, because it helps identify appropriate resource people in the community and acceptable solutions to address adverse effects. After agreement has been reached in evaluating inventoried cultural resources and assessing a project's effects, consultation on mitigation can begin. Development of detailed mitigation plans can be a result of this process.

Section 106 regulations direct the Federal (or designated) agency to consult with the SHPO, who is head of the DLNR, to develop "modifications to the undertaking that could avoid, minimize, or mitigate adverse effects on historic properties" (36 CFR 800.6). Act 50 further imposes upon government agencies "a duty to promote and protect cultural beliefs, practices, and resources of native Hawaiians as well as other ethnic groups."

Because *Ka Pa`akai* is relevant to the Project, the Project Team used the analytical framework imposed by the court to summarize general mitigation measures that should be considered during the formation of more detailed plans. *Ka Pa`akai* requires the State to consider measures for avoiding all adverse effects, or developing a mitigation plan for identified cultural resources if avoidance is unreasonable or impossible. This section summarizes mitigation for each type of resource identified in Section 5.

Three types of effects are identified in Section 5: short-term, long-term, and long-term adverse. The preferred mitigation measure for all adverse effects is avoiding any type of effect on any resource identified along the study corridor. This section discusses avoidance measures for each type of resource, as required by *Ka Pa`akai*.

If effects on identified resources cannot be avoided, general short-term mitigation measures may include:

- Compliance with environmental construction guidelines;
- Regular communication and dissemination of public advisory information;
- Traffic management;
- Noise and dust control; and
- Establishment of a reasonable temporary alternative means of gaining access to the resource

Measures to maintain access during construction would apply to cultural resources for which short-term effects have been identified, and where applicable would mitigate the effects. This is also discussed in the *Honolulu High-Capacity Transit Corridor Neighborhoods and Communities Technical Report* (RTD 2008b).

Long-term (but not adverse) effects would generally leave a lasting but non-detrimental alteration to the resource. This includes beneficial effects, such as improved access to resources provided by the availability of transit. Where appropriate, effects can generally be mitigated by incorporating educational and/or site-specific information in the design and signage constructed and providing alternative access to altered sites. Consultation with community advisory groups is advised.

General mitigation measures for adverse long-term effects include all of the measures described above and relocation compensation for affected businesses. Relocation compensation is further discussed in the *Honolulu High-Capacity Transit Corridor Neighborhoods and Communities Technical Report* (RTD 2008b).

6.2 Cultural Resources: Land

This section discusses mitigation for land-based resources that may be impacted by project construction or operation.

6.2.1 Avoidance

In the areas identified in Section 5.2.1 where cultural resources remain, all effort should be made to avoid destruction. Advisory committees made up of experienced local residents should be created for consultation on effective ways to protect and maintain remaining cultural land resources. A plan for restoration and care should be made for each existing cultural site.

6.2.2 General Mitigation

In areas where extensive disturbance has led to the destruction of a cultural resource, or if avoiding disturbance is unreasonable, mitigation could include:

- Providing reasonable alternative access where access is temporarily impacted;
- GIS mapping the resources, including detailed recordings of data associated with resources;
- Developing interpretive signage based on information provided in this report and Appendices A, F, G, H, I, and J. This signage should be part of a program to educate the public on specific resources that once existed in the area, and should incorporate traditional place names and relevant Hawaiian traditions/histories of the area;
- Following sensitive design practices for new architectural features that have the least impact on the surrounding landscape;
- Using appropriate design and construction materials to lessen the development impact;

- Landscaping the developed area using native Hawaiian plants indigenous to that particular area/climate;
- Recovering any cultural features/sites, both surface and subsurface;
- Performing archaeological and/or cultural monitoring as necessary; and
- Utilizing enhancement programs such as the Public Art Program to:
 - help establish a unique sense of place and emphasize themes and cultural traditions attached to identified resources;
 - foster collective memory and give visible expression to local values and cultural diversity; and
 - help with orientation and wayfinding for residents and visitors, and enliven station areas and surrounding open spaces. Funding for this measure could come from the Public Arts fund, rather than the Project budget.

6.3 Cultural Resources: Water

This section discusses mitigation for identified freshwater resources that may be impacted by project construction or operation.

6.3.1 Avoidance

In areas where stream resources are untouched by development in the study area, all effort should be made to avoid disturbing these resources. Although many traditional practices have been interrupted, the underlying rights to those practices still exist. Extra attention should be given to protecting organisms living in and around these remaining water resources (i.e. gobi fish and native shrimp). With the help of an educated advisory group, a plan should be made to ensure adequate care and protect these areas from surrounding development.

6.3.2 Mitigation Measures

If effects on existing resources are unavoidable and/or in areas where extensive disturbance has already occurred, mitigation measures could include:

- Providing reasonable alternative access where access is temporarily impacted;
- Developing interpretive signage to educate the public on the current and historical significance of the resource(s);
- Following sensitive, low-impact design practices for the new facilities, to enhance the existing environment and prevent unnecessary interaction with the remaining resources;
- Performing baseline studies of the existing resources prior to construction and developing a plan for future monitoring; and
- Following landscaping plans that include native Hawaiian plants indigenous to the area.

6.4 Cultural Resources: Marine

This section discusses mitigation for all resources related to marine areas that may be impacted by project construction or operation.

6.4.1 Avoidance

Few marine resources remain undamaged in the study area. Section 5.2.3 did not identify any intact marine resources within the study corridor, except for subsurface fishponds that may have surviving infrastructure. If possible, further harm to the remaining damaged resources should be avoided.

6.4.2 Mitigation Measures

If further effects on remaining marine resources are unavoidable, mitigation measures could include:

- Developing interpretive signage to educate the public on the area's historical resources;
- Incorporating traditional place names or mo`olelo into the new facilities' design;
- Developing resource-sensitive architectural designs for the new facilities, to enhance the existing environment and create the least impact;
- Restoring and preserving historical resources (e.g., fishponds, `auwai) that have been damaged or impacted by other development, through partnerships with active fishpond restoration entities or other community entities;
- Landscaping the study area with appropriate native Hawaiian plants indigenous to the area; and
- Testing in areas of known fishponds to determine the presence or absence of intact fishpond deposits—especially in areas that have not been previously excavated and for which there is no information.

6.5 Cultural Practices/Access: Land

This section discusses mitigation for all remaining cultural practices, and exercised or existing access rights that involve using or accessing land within the study corridor.

6.5.1 Avoidance

Section 5 identified resources for which significant adverse effects are anticipated. Section 5.2.4 identified several ongoing cultural accesses or practices in the study area. Most of these practices would not be adversely affected, although some would sustain long-term adverse effects. All effort must be made to avoid short-term and long-term effects on existing traditional rights and practices in the developed area. Mitigation measures are further discussed in the *Honolulu High-Capacity Transit Corridor Community Impacts Technical Report*.

6.5.2 Mitigation Measures

In the event that effects on traditional access rights or continuing practices cannot be avoided, mitigation measures could include:

- Providing a reasonable alternative means of access for practitioners to exercise their traditional rights;
- Regularly consulting with community cultural advisory groups to ensure that existing practices and access rights are maintained and preserved;
- Providing interpretive signage educating the public about the importance of these resources and their significance in Hawaiian culture;
- Following low-impact, culturally-appropriate design practices for new facilities, to enhance the existing environment;
- Landscaping the study area with appropriate native Hawaiian plants indigenous to the area; and
- Following additional measures identified in the *Honolulu High-Capacity Transit Corridor Community Impacts Technical Report*.

6.6 Cultural Practices/Access: Water

This section discusses mitigation for all remaining cultural practices and exercised or existing access rights associated with freshwater resources identified in the study corridor.

6.6.1 Avoidance

In Section 5.2.4, three streams (Pālolo, Nu`uanu, and Waiawa) were identified as being active sites of cultural practices/access. During construction and design of the new facilities, extensive effort should be made to avoid any additional effects on these resources and rights. If avoidance is not possible, community cultural advisory groups should be consulted to develop a plan to reduce effects on the surrounding area. Environmental agencies should also be contacted to establish measures to minimize effects on the organisms living within the water resources. If access is temporarily affected because of construction, an alternative means of access should be provided.

6.6.2 Mitigation Measures

If avoiding effects on these resources is unreasonable, the following mitigation measures could be used:

- Providing reasonable alternative access if access is temporarily restricted;
- Coordinating with user groups to schedule access limitations during periods of minimal activity;
- Regularly consulting with community cultural advisory groups to ensure that effects on access are controlled and access points are maintained;

- Consulting with environmental agencies to ensure that construction does not impact freshwater organisms;
- Appropriately landscaping, to control post-construction erosion and enhance the cultural resources in the area; and
- Following appropriate low-impact design practices for new facilities, to preserve cultural access points and minimize construction effects.

6.7 Cultural Practices/Access: Marine

This section discusses mitigation for all remaining cultural practices and exercised or existing access rights associated with identified marine resources located with the study corridor.

6.7.1 Avoidance

The Project is not expected to have any lasting effects on marine practices or access rights in the study area. However, access could be temporarily affected during the construction period. If this occurs, an alternate access route should be provided to lessen the effect of the construction. One indirect effect, identified in Section 5.2.4, is the potential for dirt runoff resulting from construction. To help avoid this, procedures should be put in place to ensure that construction complies with existing environmental regulations.

6.7.2 Mitigation Measures

If effects on marine practices or access are unavoidable, the following mitigation measures could be used:

- Providing reasonable alternative access if access is impacted;
- Consulting with environmental agencies to ensure that construction does not impact marine organisms;
- Appropriately landscaping to control post-construction erosion and enhance cultural resources in the area;
- Following appropriate, low-impact design practices for new facilities to preserve cultural access points and minimize construction effects; and
- Ensuring compliance with regulatory construction standards that minimize runoff and/or erosion.

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Appendix A

Cultural Resources Background Review

Authored by Ka'imipono Consulting Services, edited by Ku'iwalu.

Report dated February 2008.

The Cultural and Historical Background Review entailed a broad search of primary and secondary source literature. The majority of this research material came from Maui Land & Pineapple Company, Inc. archives in Kahului; Hawaiian Collections of the University of Hawai'i Hamilton Library (Mānoa Campus); the State Historic Preservation Division library, State Survey Division; Bishop Museum Archives; Maui Historical Society Archives at Bailey House Museum; and the researcher's private library. Primary source material included Land Court records, company records, maps, newspaper articles, visitor journals, genealogies, oral histories and other studies. Secondary source material included translations of nineteenth-century ethnographic works, historical texts, indexes, archaeological reports, Hawaiian language resources (i.e., proverbs, place names and Hawaiian language dictionary), and Internet searches. A review of the archival material is presented in this section, preceded by an overview of the chronology of the moku (district) and the ahupua`a within the context of the broader history of the moku `āina (island) of O`ahu and greater Hawai`i.

Models of Hawaiian Chronology

Models of Hawaiian Chronology such as Cordy (1974/1996), Hommon (1976/1986) or Kirch (1985) provide a temporal view of settlement patterns as well as cultural changes through time, from initial settlement through first contact with the western world. Cordy's (1974) first model of a cultural development sequence looked at Initial Settlement Period, New Adaptation Period and a Complex Chiefdom Period. He has since modified this model (1996). Hommon's (1976) model of sociopolitical development sequence included four phases: Phase I AD 500-1400; Phase II AD 1400-1550; Phase III AD 1550-1650; and Phase IV AD 1650-1778. This model was later modified (1986) to three phases: Phase I AD 400-1400 Exploration and Settlement; Phase II AD 1400-1600 Expansion; and Phase III AD 1600-1778 Consolidation. Kirch (1985) believed that initial settlement occurred much earlier than AD 600. His cultural-historical sequence model has four phases: Phase I Colonization Period (AD 300-600); Phase II Developmental Period (AD 600-1100); Phase III Expansion Period (AD 1100-1650); and Phase IV Proto-Historic Period (AD 1650-1795) (Kirch, 1985:296-308; Kolb, 1991:205).

For this cultural impact study/assessment, Kirch's (1985) model will be used with the following addition: Early Historic Period (AD 1795-1899), Territorial History (AD

1900–1949), and Modern Historic Period (post AD 1950). The reasoning behind Kirch’s model is the belief of many native Hawaiian people that based on oral histories or legends, the migrations of their Polynesian ancestors to Hawai`i took place prior to AD 700. According to Fornander (1917: IV: II: 406), there are seventy-five generations from Wākea to Kamehameha I who born was around AD 1753. If just eighteen years were allotted to each generation (typically a generation is twenty years) that would make the time of Hawaiian progenitors Wākea and Papanuihānaumoku (who settled in Nu`uanu, O`ahu) approximately AD 403. [McKinzie (1983:12) gives thirty years per generation.]

It should be noted that a study (Tuggle & Spriggs 2001) refutes the ‘early colonization’ supposition. For decades, the consensus among Hawaiian archaeologists was that evidence from Bellows, O`ahu and Ka`ū, Hawai`i Island, supported early Polynesian colonization dates of AD 300 to AD 600 (Tuggle 1979; Kirch 1985). Tuggle and Spriggs (2001) studied new data and re-evaluated past dates and dating methods and have concluded that acceptable early dates fall within AD 700-1100. However, at a recent South-East Asia archaeology conference at Bishop Museum (Jan 2007), Dr. Tianlong Jiao presented a paper summarizing years of collaborative studies that indicate that Hawai`i was settled 1200-1600 years ago.

The following overview encapsulates cultural changes over time and highlights significant events and people. More corroborating details follow this overview section with traditional mo`olelo and mele, historic works and various studies.

An Overview of Human Impact, Settlement and Socioeconomic Development of O`ahu in the Context of Greater Hawai`i

Colonization Period. First voyager dating is scanty at best, however, based on early site dates from Bellows, O`ahu and South Point, Hawai`i, Kirch (1985) estimated that the Colonization Period of the Hawaiian Islands was somewhere between AD 300-600. Jiao (2007) estimates that Hawai`i was settled about 1200-1600 years ago.

From the archaeological perspective, an eastward expansion of the Austronesian-speakers is very clear. Archaeological evidence demonstrate that all Polynesian islands were uninhabited by humans until the arrival of people making a type of pottery that archaeologists call Lapita around 3500 years ago. Because all traditional languages throughout Polynesia are Austronesians, therefore these Lapita people must have spoken the Austronesian language. In other words, Lapita was the last common ancestral culture of all Polynesians. Then the question is: Where did the Lapita come from? Most archaeologists agree that Lapita was an intrusive culture into the New Oceania, and its final origin is in the Philippines, Taiwan and finally the coastal area of Southeast China.

So, combining all these evidence, today most scholars accept the following Austronesian expansion model proposed by Peter Bellwood, a leading Pacific archaeologist from Australian National University, this model argues that the

ancestors of the Austronesian speakers first migrated to Taiwan from mainland southeast China around 6000 to 5000 years ago. They paused in Taiwan for about a thousand years, then expanded southwards to the Philippines around 4000 years ago, reaching Near Oceania around 3500 years ago., arriving Hawai`i around 1200-1600 years ago, and finally colonizing most inhabitable Pacific islands around 1000 years ago.

These first Polynesian voyagers to Hawai`i “followed the tracks of migratory birds. Mainly they traveled by the stars... [and] on a voyage of migration; sixty to a hundred persons could exist for weeks on a large canoe, which might be a hundred feet in length” (Day 1992:3). This feat was “remarkable in that it was done in canoes carved with tools of stone, bone, and coral; lashed with handmade fiber; and navigated without instruments” (Teruia 1995: vii).

These “long voyages” of the early Polynesians stagger the imagination. Large canoes...equipped with mat sails or mere paddles, sufficed for voyages covering hundreds and thousands of miles. Navigation was based on knowledge of the stars, ocean currents, the habits of sea birds, and the observed tendency of clouds to pile up above islands (Morgan 1966: xix).

Reconstructing the cultural sequence for O`ahu and other places in Hawai`i during the colonization period would involve the ‘founder effect’ and time necessary to adjust and adapt to a new environment. The colonizers were not able to bring all of the gene pool or cultigens from their homeland, so their new culture consisted of what survived the journey, what was remembered and what could be applied to the new environment (Kirch 1985:285-6). Although early Hawaiians were farmers and felt spiritually tied to the `āina (land) in many ways (Waters, n.d.), when they first arrived they had to modify both their subsistence practices and the land. Faunal remains analyses indicate that early Hawaiian subsistence depended on fishing, gathering, bird hunting (extinct fossil remains, see Olson and James, 1982), as it took time to clear the forests, plant their crops, breed their animals, and construct suitable living quarters.

After the Islands had been discovered, by chance or by purposeful exploration, the Polynesians carried there pigs, dogs, chickens, and such cultivable plants as breadfruit, bananas, taro, yams, and the sweet potatoes which somehow had reached the South Pacific islands from South America. (Rats, mice, and lizards went along uninvited.) (Morgan 1966: xix).

Creation chants such as the Kumulipo depict a very deep philosophical bond with the land and nature and “the respectable person was bound affectionately to the land by which he was sustained” (Charlot 1983: 45, 55). Ancient sites of various ko`a (fishing and bird shrines) also imply a spiritual respect for their sustenance.

Nanaula, a distinguished chief, was the first to arrive from the southern islands. It is not known whether he discovered the group [Hawai`i] by being blown northward by adverse winds, or in deliberately adventuring far out upon the ocean in search of new lands. In either event, he brought with him his gods, priests, prophets and astrologers, and a considerable body of followers

and retainers. He was also provided with dogs, swine and fowls, and the seeds and germs of useful plants for propagation. It is probable that he found the group without human inhabitants.

During that period--probably during the life of Nanaula--other chiefs of less importance arrived with their families and followers either from Tahiti or Samoa. They came in barges and double canoes capable of accommodating from fifty to one hundred persons each. They brought with them not only their priests and gods, but the earliest of Polynesian traditions. It is thought that none of the pioneers of the time of Nanaula ever returned to the southern islands, nor did others immediately follow the first migratory wave that peopled the Hawaiian group (Kalākaua 1887/1990:19-20).

Developmental Period. During the Developmental Period, AD 600-1100, as the founding groups grew, they fissioned into subgroups referred to as *ramages*, with the senior male of the original ramage as chief of the conical clan, although hierarchical ranking was not just relegated through the patrilineal line of descent (Kirch 1985:31). Bellwood refers to these groups as tribal and related by blood (Bellwood 1978:31). In *Ka Po'e Kahiko* Kamakau refers to Hawaiian ranking in the following passage:

For 28 generations from Hulihonua to Wākea, no man was made chief over another, and during the 25 generations from Wākea to Kapawa, various noted deeds are mentioned...Kapawa was the first chief to be set up as a ruling chief...from then on the group of Hawaiian Islands became established as chief-ruled kingdoms - Maui from the time of Heleipawa, son of Kapawa...this was the time that records (oral) began to be kept of the chiefs (Kamakau 1964:3).

Changes occurred bringing about a uniquely Hawaiian culture, documented by the material culture found in archaeological sites. These include quadrangular adze, bone fishhook variations, `ulu maika (a game piece) stones, lei niho palaoa (necklace of bone or ivory and human hair worn by high ranked chiefs) and evidence of shifting cultivation. The evidence also indicates that the "ancestral pattern of corporate descent groups" were still in place (Kirch 1985:302-3). The early culture evolved as the population grew, and many of the changes were related to significant socio-economic changes.

For thirteen or fourteen generations the first occupants of the Hawaiian Islands lived sequestered from the rest of the world, multiplying and spreading throughout the group. They erected temples to their gods, maintained their ancient religion, and yielded obedience to their chiefs. The traditions of the period are so meager as to leave the impression that it was one of uninterrupted peace, little having been preserved beyond the genealogies of the governing chiefs (Kalākaua 1887/1990:20).

In about A.D. 1025 or perhaps a little earlier, the people of the group were suddenly aroused from their long dream of six centuries by the arrival of a large party of adventurers from Tahiti. Their chief was Nanamaoa. Their

language resembled that of the Hawaiians and their customs and religions were not greatly at variance. They were therefore received with kindness, and in a few years their influence began to be felt throughout the group. They landed at Kohala, Hawaii, and Nanamaoa soon succeeded in establishing himself as an influential chief. His sons secured possessions on Maui and O`ahu, and on the latter island one of them--Nanakaoko--instituted the sacred place called Kukaniloko, in the (traditional) district of Ewa (now considered part of Wahiawa), where it was the desire of future chiefs that their sons should be born.... This became the sacred birth-place of princes, as `Īao, in Wailuku valley, on the island of Maui, became their *taboo* spot of internment. It was at Kukaniloko that Kapawa, the son of Nanakaoko, was born. His principal seat of power was probably on Hawaii, although he retained possessions on Maui and O`ahu (Kalākaua 1888/1990:70-71).

The next arrivals of note from the southern islands were the two Paumakua families, one of which settled in O`ahu and Kauai and the other in Hawaii and Maui...whether they arrived contemporaneously or two or three generations apart is a question not pertinent to our story (Kalākaua 1888/1990: 71).

Somewhere about the year A.D. 1040 Maweke, a native chief of the line of Nanaula-the first of the family that is brought into prominent view in the chronology of the second. influx-was the *ali`i nui*...of the island of O`ahu. He had three sons-Mulielealii, Keaunui and Kalehenui. On the death of Maweke, the eldest son Mulielealii acceded to the title of *ali`i nui*, occupying the western side of the island. Kalehenui was given possessions at Koolau and Keaunui was established in the district of Ewa. The latter became ancestor of a line of powerful chiefs in that district and is credited with having cut or open the navigable channel near Puuloa salt works, by which the estuary now known as Pearl River, not far from Honolulu, was rendered accessible to navigation.... Mulielealii had three sons-Kumuhonua, Olopana and Moikeha (Kalākaua 1888/1990: 118).

The Paumakua family occupied a large part of the eastern side of the island and although they were of the stock of the second influx, their relations with the native chiefs and people seem to have been peaceful and satisfactory. Paumakua who first appeared in native annals two generations before the time of Olopana and his brothers, either as an immigrant from one of the southern islands or the son or grandson of a chief of recent arrival, was one of the most restless and dashing of the prominent leaders of that period.... It is claimed that Paumakua visited all the foreign lands then known to Hawaiians and brought back with him many things that were strange. From one of his voyages he returned with two white priests, Keakea and Maliu (Kalākaua 1888/1990: 119).

But stronger leaders were soon to follow from the south. Among the first was the high-priest Paao, from Samoa [some say it was Society Islands]. He arrived during the reign of Kapawa, the grandson of Nanamaoa, or immediately after his death. The people were in an unsettled condition

politically, and Paao, grasping the situation, either sent or returned in person to Samoa for Pili, a distinguished chief of that island. Arriving with a large following, Pili assumed the sovereignty of the island of Hawaii and founded a new dynasty. Paao became his high priest, and somewhat disturbed the religious practices of the people by the introduction of new rites and two or three new gods [e.g., Kūka`ilimoku] (Kalākaua 1887/1990:20-21).

Expansion Period. The Expansion Period, AD 1100-1650, is significant for a number of reasons. Communication between the Hawaiian groups and southern groups suddenly ceases and oral histories don't offer any explanations. With the exception of Moloka`i and a portion of O`ahu who were of the Kamauaua and Māweke families from the Nanaula lines, all the others were of the southern chiefs and their descendants (Kalākaua 1887/1990:20-22). Most of the "ecologically favorable zones," the windward and coastal areas of all major islands, were now settled, and the more marginal leeward areas were being developed.

Legends reveal that during the 12th century, several Hua chiefs reigned on Maui. Huanuikalalailai is the grandfather of Haho [Haho is the son of Paumakua who is buried in `Āo; Haho also founded the Aha-ali`i (Kalākaua 1888/1990:84-85)] and is the grandfather of the famous Hāna twins Hanala`anui and Hanala`aiki who become the progenitors of the ali`i nui of Hawai`i Island, Maui, Moloka`i, Lāna`i, as well as O`ahu and Kaua`i (McKinzie 1983: xx).

A legend (Skinner 1902:212-216) tells about a Japanese vessel wrecking on Maui in the 1200s. The captain and his sister marry into ali`i nui families, but what is most significant about this story is the metal sword that the Captain had. During this period the ali`i nui of Hawai`i Island was Kalaunui who in AD 1260 had subdued O`ahu and Moloka`i and on Maui a great fight ensued. In the battle the Captain fought bravely with his sword, but was finally struck down by a warrior named Kaulu, son of Wa`ahia, a seer of great renown. Rather than turn the sword over to the Hawai`i king, Kaulu buried it on the spot. He later retrieved it and put it into his mother's (Wa`ahia) care before the Hawai`i contingency headed for battle on Kaua`i. The Hawai`i warriors were overcome and defeated before they could even land their canoes by the sling stones and javelins of the Kaua`i warriors. The Hawai`i king Kalaunui was taken prisoner and the kings of Maui, Moloka`i and O`ahu who were hostages of Kalaunui were set free. Kaulu escaped with a remnant force only to be accused by the queen of cowardice. In the negotiations for the release of Kalaunui, the queen offered several things: a fleet of canoes with many spears; twenty feather cloaks with stone axes, ivory and whalebone; but these were all rejected. The last resort was to offer her daughter in matrimony to the king of Kaua`i. This too was rejected. After three years and unsuccessfully trying to get an army together, the queen was ready to give up. This is when Wa`ahia asked for an audience at court. She explained that she alone could rescue the king, but that the court had to grant whatever her wish was when they returned. They agreed and Waahia left Hawai`i Island with a single oarsman for Kaua`i. They arrived during Makahiki festivities and Wa`ahia got an audience in court. Her offer was the Japanese sword "that was harder than stone, that broke spears like reeds, that gave its owner supreme fortune and supreme command." The offer was accepted. Before the release of Kalaunui,

Waahia had Kalaunui agree that his release was contingent on him giving his daughter to her son in marriage. This too was agreed on.

This was also the period of the greatest population growth, the development of large irrigation field system projects, and dry land farming. The uniquely Hawaiian invention, the loko or fishpond aquaculture, was developed in the fifteenth century or the later half of this period (Kirch 1985: 303). Monumental heiau building flourished in this period, as “religion” became more complex. During the last 200 years of the Expansion Period, the concept of ahupua`a was established, as well as class stratification, territorial groupings, powerful chiefs and “mō`ī” or king (Kirch 1985:303-6).

The Pa`ao/Pili influence created a major shift in “religion” and socio-economic patterns. Pa`ao had brought with him the Kū practice of human sacrifice used in monumental luakini heiau or war temples. Pili started a line of ali`i nui that would continue to the Kamehameha “dynasty.” The evolution of the luakini heiau is difficult to place archaeologically, and although the arrival of Pa`ao may have been a real event [ca AD 1100-1200]; the uniqueness and complexity of heiau were most likely a local (Hawaiian) development (Kolb 1989:3).

Cordy (1998) explains the “rise of complex societies and settlement inland” that occurs in the 1300s with special reference to central O`ahu:

By the 1300s, the oral histories tell of the formation of district (moku) sized countries [Cordy 1996:597-598]. The accounts are brief, but they suggest these were much larger countries. Around A. D. 1320-1340, the sons of the chief Maweke were in charge over three noted countries on O`ahu. These were `Ewa, Kona and Ko`olaupoko. Importantly for the history of Wai`anae, the `Ewa country included not only `Ewa, but also Wai`anae and Wai`alua [Fornander 1960 (1880): 48-49, 68, 88 56 In Cordy 1998]. The senior line of Maweke, the Maweke-Kumuhonua line, controlled `Ewa in these times. Some accounts suggested that Kumuhonua (Maweke's grandson) was the nominal ruler of all O`ahu about 1340-1360. This `Ewa country included Kūkaniloko (the sacred birthing area), and Līhu`e became the country's important ruling center. Līhu`e was located on the central plateau, roughly in the Schofield Barracks area. It is vital to realize that the `Ewa country may not have been divided into districts at that time. This might account for the fact that Kūkaniloko is in Wai`alua today (generally considered to be part of Wahiawa today) and that Līhu`e was mostly in today's Wai`anae-uka and perhaps once lapped over into parts of Wai`alua and `Ewa. The borders may have come later.

Another important point related to the rise of these larger countries is that more administrative levels of chiefs probably formed -- with a ruler and with local chiefs over the many communities of these district-based countries. More chiefs were present. In the Līhu`e area, the early famed ruling line belonged to the Lō Ali`i chiefs. Anthropologists also believe that the political structure was still kin-based. The ruler would be the senior man in the dominant kin group of the country, and the local chiefs would be his kinsmen

or the senior men in the dominant kin groups of their communities. The land-holding system is also still likely to have remained kin-based, with local groups controlling land. Countries may have had populations of 1,000-3,000 based on similar types of countries in Polynesia at European contact and other estimates.

The oral histories also show that the chiefs began to be behaviorally isolated from commoners to a greater degree in the 1300s [Cordy 1996:597-598 56 In Cordy 1998]. The Aha Ali'i council was established and restricted access to chiefly status. Certain types of temple worship supposedly became more restricted, with rulers and chiefs becoming the main participants. One would expect different levels of temples to develop in these years -- with local community temples and larger temples at the ruling centers (national temples)... However, temple sizes were certainly still much smaller than the sizes seen at European contact. No temples dated to this period have yet been documented for O`ahu.... Construction of large national temples may have begun in the 1300s. (Cordy 1998: 9-10).

Cordy's next period [AD 1400s-1500s] also falls under Kirch's "Expansion Period" as Cordy summarizes his "Rise of the O`ahu Kingdom" in the following:

The oral histories indicate that O`ahu was unified into one kingdom during the 1400s -- the O`ahu Kingdom. La`akona, who was the ruler of `Ewa, Wai`anae, and Waialua about 1420-1440, was apparently recognized as the overall ruler of O`ahu by the other district based countries. In his line "descended the dignity of *Mō`ī* of O`ahu" [Fornander 1969:89(1880); Cordy 1996:598 56 In Cordy 1998]. La`akona was the senior Maweke-Kumuhonua line. This line held power until the reign of Haka, 1520-1540. Haka portrayed as an evil ruler in the accounts -- "a stingy, rapacious, and ill-natured chief, who paid no regard to either his chiefs or his commoners" [Fornander 1969:88(1880); Kamakau 1991:53-54 (1865) 56 In Cordy 1998] -- was deposed by the O`ahu chiefs. He retreated to the fortress of Waewae on the Kawiwi ridge between Wahiawā and Wai`anae valleys, where he was captured and slain. Mā`ilikūkahi of the junior Maweke-Mo`ikeha line was made ruler in 1520-1540, and this line held power until the late 1700s.

Up to the time of Haka, rulers of O`ahu seem to have retained Līhu`e as their royal center, and Kūkaniloko remained an important birthing site throughout O`ahu's history. When Haka was removed, the ruling center was moved to Waikīkī in Kona district as this was the district long controlled by the Maweke-Mo`ikeha line [Fornander 1969(1880): 89; Kamakau 1991(1865): 54, 56; In Cordy 1998]. But, Mā`ilikūkahi still seems to have traveled to the Līhu`e area and perhaps periodically resided there, for he was there when raiders from Hawai`i Island arrived [Kamakau 1991(1865): 55-56 In Cordy 1998]. Mā`ilikūkahi had been raised partly at Wahiawā [Kamakau 1991(1865): 53 56 In Cordy 1998]. These raiders proceeded up from Pearl Harbor and were met by Mā`ilikūkahi and defeated in battles running from the gulches to Waikakalaua to Kīpapa, just below Wai`anae uka.

With island unification, at least three administrative levels of chiefs should have been formed -- the ruler, high chiefs over one or more districts (or over multiple communities), and local chiefs over one or two communities. Social stratification, thus, became more complex. Each strata of chiefs would have been set off from the commoners and amongst themselves (Cordy 1998:10-11).

By AD 1500...evidence suggests that another level in the chiefly hierarchy was added during this time. Each polity was now ruled by an ali`i nui and a series of district chiefs. Conflict and competition between these two polities became more frequent. The ahupua`a were becoming the primary geographical units as competition between chiefs led to a reorganization of regional power. Absolute ranking was beginning to replace relative ranking as chiefs found it necessary to compete for resources and power (Kolb 1990:67).

Additional legends noted that foreigners were ship-wrecked or landed on the shores of various Hawaiian Islands. One story takes places during the reign of Keali`iokaloa, son of `Umi-a-Liloa, who reigned about A.D. 1525-30. A vessel was wrecked at Ke`ei, South Kona at a place now called Kulou, the captain and his sister reached shore in safety. They intermarried with the natives. Centuries later it was learned that on October 31, 1527 three vessels fitted out by Spaniard Cortez, conqueror of Mexico, left Zacatula for the Moluccas. About 1,000 leagues from port they were separated by a severe storm and two smaller vessels never made it to their destination. Later in 1555 the Spanish navigator Juan Gaetano discovered these islands; an ancient manuscript chart in Spanish archives indicates a group of islands in the same latitude as the Hawaiian Islands, but over ten degrees longitude too far east. In June 1743 a British warship captured a Spanish galleon near the Philippine Islands and found a manuscript chart on board with the same group of islands charted the same as the 1555 chart in the archives (Wisecarver 1993:11).

Mo`olelo about events that took place in the early to mid 1600s were revealing in that they illustrate that many of the battles of this period were relatively quickly contained by the opposing ali`i [see History of Kualii (Kualii ca. 1630-1660s) in Fornander 1917:IV: II: 364-434]. These stories also illustrate the on-going inter-relationships between the people of the various islands. Kūali`i lives in the time of Maui ali`i nui Kamalālāwalu and Kauhi, son of Kauhiakama, the younger brother of Kamalālāwalu (Fornander 1917:416, 418, 424); Kamalālāwalu and Kauhiakama were sons of Kiha-a-Pi`ilani (Kamakau 1992:56), second son of Maui ali`i nui Pi`ilani and Lāi`elohelohe. Kiha was born and dedicated at a heiau in Waikīkī where his mother's family resided (Lā`ielohelohe was the daughter of Pi`ilani's father's sister Kelea and Hālawa-Waikīkī ali`i Kalamakua of the Kalona-nui line of central O`ahu) (Kamakau 1991, 1992).

Proto-Historic Period. The Proto-Historic Period, AD 1650-1795, appears to be marked with both intensification and stress. Wars and intermittent periods of peace took place during this period between intra-island chiefdoms and inter-island kingdoms; cousins challenged cousins, nephews rebelled against uncles, fathers

battled sons--all living on various islands and some losing track that they were related [see Kamakau 1992a; 66-174].

However, it was during this period that the Royal Kolowalu Statute or Kūali`i's Law was enforced. Kūali`i Kuniaakea Kuikealaikauaokalani lived for an extremely long time [end of Expansion Period to beginning of Proto-Historic Period], was said to sometimes have supernatural powers. In the History of Kūali`i, the exploits of Kūali`i (great-great grandson of Kākuhihewa, ali`i nui of O`ahu) take him to every island and he eventually unites all the islands "from Hawai`i to Ni`ihau" (Fornander 1917: IV: II: 406). This ali`i nui of O`ahu died at Kailua in Ko`olaupoko in AD 1730, supposedly at the age of one hundred and seventy five.

It (Kūali`i's Law) was strict, unvarying and always just. It was for the care and preservation of life; it was for the aged men and women to lie down in the road with safety; it was to help the husbandmen and the fishermen; to entertain (morally) strangers, and feed the hungry with food. If a man says, "I am hungry for food," feed (him) with food, lest he hungers and claims his rights by swearing the Kolowalu law by his mouth, whereby that food becomes free, so that the owner thereof cannot withhold it; it is forfeited by law. It is better to compensate.... A transgressor or one who is about to die, is, under the application of this law exonerated of his death or other penalty... (Fornander 1917: IV: II: 432).

In Cordy's reconstruction of O`ahu Kingdoms, this was also a time of continued population growth:

These are the years when the O`ahu Kingdom grew to the pinnacle of its power [Cordy 1996:600-603 In Cordy 1998]. Population grew, fields expanded, and more houses were built. These were the times of famed O`ahu rulers: Kalai`manuia (1600-1620), Kākuhihewa (1640-1660), Kūali`i (1720-1740), and Pelei`ōhōlani (1740-1779).... The three generations of rulers following Kākuhihewa slowly lost power to the high chiefs of the kingdom's districts [Fornander 1969(1880): 275-278 In Cordy 1998]. The ruler resided mostly in Ko`olaupoko, and the high chiefs of Kona, of `Ewa-Wai`anae, and of Waialua and Ko`olauloa apparently were virtually independent within their own lands.

About 1720 Kūali`i became ruler. He re-established the ruler's power over the kingdom in a series of battles, first with the Kona chiefs and then with the `Ewa, Wai`anae and Ko`olauloa chiefs. His first battle with the `Ewa, Wai`anae and Ko`olauloa chiefs was at Kalena in today's Schofield Barracks area of Wai`anae uka [Fornander 1969(1880): 270-272; Fornander Collection 1917, 4(2): 412-416 In Cordy 1998]. Then while off raiding Hawai`i Island, the `Ewa, Wai`anae and Ko`olauloa chiefs rose again. Kūali`i returned, and another battle was fought at Kalapo Stream [Kālepa? (sic)] in the Wai`anae uka area near the ridgeline of the Wai`anae mountains [Fornander Collection 1917, 4(2): 414 In Cordy 1998]. This ended the last resistance on O`ahu. The remainder of the long reign of Kūali`i was marked by periods of stability.... Kūali`i also gained power over parts of Kauai, evidently through inheritance.

He put his junior son, Pele`ōhōlani over those Kaua`i lands -- occasionally visiting them himself [Kamakau 1991(1867): 70-75; Fornander 1969(1880): 277-282 In Cordy 1998]....

Upon Kūali`i's death about 1740, his eldest son -- Kapiho`okalani -- came to power. He carried on the conquest of Moloka`i, but was slain there by the army of the Kingdom of Hawai`i under Alapa`inui. Alapa`inui led his army on to O`ahu.... The O`ahu chiefs meanwhile sent to Kaua`i for Pele`ōhōlani to come and serve as regent for his brother's young son. Pele`ōhōlani arrived and assumed control of the O`ahu army. A truce was reached with the high chief of Wai`anae, Na`ili (brother of Alapa`inui's wife), negotiating the truce, and the Kingdom of Hawai`i's army returned home. Pele`ōhōlani soon became the sole ruler of O`ahu, and in later years he conquered Moloka`i, and brought the O`ahu Kingdom to the height of its power [Kamakau 1961:7-0-75; Fornander 1969(1880): 134-140 In Cordy 1998]... (Cordy 1998: 13-16).

Often in traditional Hawaii, opposing armies worked out a "truce" especially since the ali`i nui were all related, although they may have forgotten how close.

It was a custom, when blood relatives went to war with each other and both sides suffered reverses, for some expert in genealogies to suggest a conference to end the war [or stay it before it began]; then a meeting of both sides would take place [this type of meeting took place between Alapa`i and Pele-io-holani in 1737 in Waimanalo, O`ahu] (Kamakau 1992:72).

The end of this period marked the end of an era for the unique Hawaiian cultural as a flurry of western contact began and has not abated since. In January 1778 Cook landed in Waimea, Kaua`i and the culture of old Hawai`i began its spiraling change (see Day 1992). Cook left Hawai`i for several months, but returned later in the year. At this time Ka`eo-ku-lani was ruling chief of Kaua`i; Ka-hahana of O`ahu and Moloka`i; Kahekili of western Maui, Lāna`i and Kaho`olawe; and Kalani`ōpu`u of Hawai`i and Hāna (Kamakau, 1992:84-86, 92, 97-98). When Cook sailed into Kealakekua Bay on January 17, 1779, Kalani`ōpu`u was still fighting Kahekili on Maui. On January 25, 1779 Kahekili visited Clerke on the *Discovery*, while Kalani`ōpu`u visited Cook at Kealakekua Bay on the *Resolution* (Kuykendall and Day 1976:16). "Kalani`ōpu`u treated Captain Cook hospitably, giving him hogs, taro, potatoes, bananas, and other provisions, as well as feather capes, helmets, kahili, feather leis, wooden bowls...tapa cloths...finely-woven mats of Puna, and some especially fine mats made of pandanus [hala] blossoms" (Kamakau 1992:101). By February 1779, Cook's scheme to kidnap Kalani`ōpu`u as a hostage was thwarted and Cook was subsequently killed following a skirmish over a stolen cutter (Kuykendall and Day 1976:18).

Kalani`ōpu`u died in 1780. He is said to have been the biological son of Ka-maka`i-moku (of Wai`anae) and Pele-i`ō-hōlani ruling chief of Kaua`i and later, O`ahu. He was given the name Ka-lei`ōpu`u by Pele-i`ō-hōlani, "but the Hawaiians called him Ka-lani-ku-mai-eiwa-ka-moku" (Kamakau 1992:110). However, before he died he made it known that his son Kiwala`ō (his mother was Maui chiefess Kalola, sister of Kahekili) was to succeed him and gave to his nephew Kamehameha, the

guardianship of his war god Kū-kā'ilimoku (Kamakau 1992:107-109). After Kalani'ōpu'u's death, a number of conspiracies transpired, formulated by several kahuna and chiefs. These lead to more skirmishes, intra-island battles, the deaths of various chiefs and eventually the death of Hawai'i island's ruling chief, Kiwala'ō.

Cordy (1998) and Speakman (2001) explain what happened on O`ahu after the death of Pelei`ōhōlani.

Pelei`ōhōlani's son, Kumuhana, was not a capable ruler, and he was soon removed by the O`ahu chiefs [Fornander Collection 1919, 6(2): 282-291; Kamakau 1961(1867): 128-141In Cordy 1998]. (Kuhana returned to his family's lands on Kaua`i.) Kahahana was chosen to be ruler. The son of a sister of Pelei`ōhōlani (Kaionuilalahai) and of a powerful `Ewa high chief (`Elani), Kahahana had been raised on Maui in the court of the Maui ruler, Kahekili [also Kahahana's uncle].... [Kahekili] tricked Kahahana into slaying his high priest, Ka`ōpuluhulu [who] had control of the Waimea-Pūpūkea area and the huge heiau of Pu`u Mahuka. He also had control over Kunaiwa Heiau at Pu`u Kahea in Wai`anae....

Kahahana, while in Wai`anae and refurbishing Kamohoali`i Heiau, called Ka`ōpuluhulu to him. He was captured, slain at Pu`uloa, taken to Waikīkī, and offered up on the heiau there. With this advisor out of the way, the Maui army invaded in 1783 (Cordy 1998:15-16).

The O`ahu chief [Ka-hahana, foster son of Kahekili] was living in Nu`uanu Valley above Honolulu when he received word that Ka-hekili had landed on the beaches with a large fleet of war canoes and was gathering his warriors about him for an attack on the defenders of O`ahu. In January 1783, a decisive battle was fought. Ka`-hekili's wife, Kau-wahine, who was also a noted fighter, took part in this battle.... Confusion seized the ranks; the warriors of Ka-hahana were dispersed while he and his wife fled to the forest. Thus, O`ahu and Moloka`i were taken by Ka-hekili.... [However] fighting erupted on his home island of Maui among minor chiefs... [along with] the growing threat from Hawai`i.... Kahekili's son and designated heir, Ka-lani-kū-pule, was dispatched to Wailuku to prepare for the coming attack. Ka-lani-kū-pule took with him Maui's war leaders and Ka-hekili's best warriors, the battle-scarred veterans of the war on O`ahu (Speakman 2001:40-41).

The O`ahu army was defeated at Kahe-iki in Nu`uanu and Kahahana fled into the Ko`olaus with his wife and an aide. Kahahana was caught in 1785 and slain. This led to a revolt by the O`ahu chiefs with his father, `Elani, one of the leaders. The rebels were harshly subdued in battles in `Ewa. The remainder pulled back into the Wai`anae mountains, but some were lured out and crushed again by Kahekili's forces. In subduing this revolt, Kahekili was said to have slain many of the remaining nobles of the O`ahu Kingdom.... For 10 more years, the Maui Kingdom ruled O`ahu. It is likely that a Maui high chief was given Wai`anae district and lesser Maui chiefs were placed over the ahupua`a of Wai`anae (Cordy 1998:15-16).

The Hawaiian newspaper *Ke Au Hou* printed an article on November 29, 1911:3 about Kahahana's battle with Kahekili and mentioned the various places on O`ahu that Kahahana hid.

When Kahekili defeated O`ahu, Kahahana, his wife and friend fled to Moanalua where he lived with his servant. From there he moved to Kinimakalehua at Aliomanu below Kapukaki, a place facing Leilono. There was a lehua and a hau tree where they stayed for a few days. From there they went to Ke-ana-a puua and from thence to Kepaakea, then to Waipi`o and on to Kahaone. They remained there until they thought it better to go up to Oahunui at Wahiawā and so they went to the forest of Halemano. They were there a short time and moved to Leilehua. After living there for a time they went to stay at Poohilo in Hono`uli`uli and there they hid until, weary with life in the forest, they showed themselves to the commoners.

In spite of all the warring in the 1700s, the sandalwood trade got its start in 1784 and would continue until 1836 (Smith 1942: 7). By 1790 Kamehameha had gained enough control of the island of Hawai`i that he could leave to join the war parties on Maui. Their canoe fleet "beached at Hāna and extended from Hāmoa to Kawaipapa" to battle Kalani-kū-pule, son of Kahekili, and ruling chief of Maui while his father ruled O`ahu. After several battles along the East Maui coast, Kamehameha's force reached Wailuku where the "great battle" took place. This would be the beginning of the end of independent ruling chiefs because of the inequity of Kamehameha's battle strategy. Kamehameha had brought a cannon from the *Eleanor* along with her captain, Isaac Davis, and crewmember John Young, now his aikāne punahele (favorites) and advisors (Kamakau 1992:147-148) [Day, 1992:24 says that Isaac Davis was the lone survivor of the *Fair American*].

While Kamehameha was at Wailuku with his followers he heard of Ka-lola's being on Molokai with her daughters and granddaughter and he sent word by Kikane for her not to proceed to O`ahu as he was coming to escort her to Hawai`i. He sailed with a great company, among them Ke`eaumoku, Keawe-a-heulu, Ka-me`e-ai-moku and Ka-manawa, the brothers of Ka-lola, and landed at Kaunakakai. They met Ka-lola at Kalama`ula and, when Kamehameha saw how ill she was and of an incurable disease according to kahuna's diagnosis, he asked, "Since you are so ill and perhaps about to die, will you permit me to take my royal daughter and my sisters [Ke-ōpū-o-lani, her mother Ke-ku`i-apo-iwa and aunt Ka-lani-hau-io-kikilo] to Hawai`i to rule as chiefs?" Kalola answered, "If I die, the girl and the sisters are yours." Then Kamehameha and all the chiefs waited until the death of Ka-lola [widow of Ka-lani-`ōpu`u; older sister of Kahekili, aunt of Kamehameha I and highest ranking living ali`i nui at the time] (Kamakau 1992:149).

While Kamehameha was on Moloka`i waiting for the passing of Kalola, *kapu* chiefess of Maui and Hawai`i, he sent two messengers to O`ahu; one to Kahekili and one to find the Kaua`i kahuna Kapoukahi of the kahuna order Hulihonua, as he was skilled in the art of reading omens and signs. It was he who advised that if Kamehameha wanted to rule over all the islands that he should build a great heiau

at Pu`u Kohola at Kawaihae (Kamakau 1992:149-150). The messenger to Kahekili threw down two maika stones, a black one and a white one. Kahekili asked if Kamehameha was coming to O`ahu to wage war and the messenger said yes. Kahekili then asked him where he would land. The messenger told Kahekili of the landing places that were advised and who advised Kamehameha. After commenting on each suggestion, Kahekili imparted a message for Kamehameha:

Go back and tell Kamehameha to return to Hawai`i and watch, and when the black tapa covers Kahekili and the black pig rests at his nose, then is the time to cast stones. Then, when the light is snuffed out at Kahiki that is the time to come and take the land (Kamakau 1992:150).

While on Moloka`i Kamehameha heard that his cousin Keoua Kūahu`ula, Ka`ū chief, had waged war on other chiefs of Hawai`i Island and had killed Keawe-ma`u-hili, the Hilo chief who had aided Kamehameha in the Maui battle, in spite of an agreement with Keoua that he wouldn't "fight the sons of Kahekili." Keoua took over Hilo then went on to Waipi`o where he destroyed the fishponds and plundered the taro patches and robbed the people from Waipi`o to Waimea, then went on to ravage Kōhala. Kamehameha returned to Hawai`i Island from Moloka`i and proceeded to wage war on Keoua. Several battles later, both sides could not gain an upper hand. Although Keoua's warriors seized the muskets of Kamehameha, they didn't have the powder to make them work. It took an act of nature or the goddess Pele to turn the tide as Keoua's army was annihilated by a volcano eruption (Kamakau 1992:151-152).

In the meantime, Ka`eokulani, ruling chief of Kauai and half-brother of Kahekili heard what happened to his nephew Kalanikūpule on Maui; how they narrowly escaped death. And "how the waters of `Āo had been choked with the bodies of the slain in this war." He was so upset that he decided to wage war against Kamehameha (Kamakau 1992:148, 159). The shift in style of warfare that Kamehameha started during the *Battle of Kepaniwai* in Wailuku, Maui continued.

[Ka`eo-ku-lani] set out with [nephew] Pe`ape`a, son of Kamehameha-nui, his counselor of war, Ki`ikiki`i, Kai`awa, and chiefs, warriors, and paddlers, all well armed with muskets and weapons of all kinds, and with his two man-eating dogs. (He also took with him) Maka`eha and Mr. Mare Amara [foreigner], a man skillful in the use of arms who acted as his gunner (Kamakau 1992:159).

On O`ahu Ka`eo met up with his brother Kahekili, ruling chief of O`ahu, Maui, Moloka`i and Lāna`i and persuaded Kahekili to join him in the war against Kamehameha. Kahekili left his son Kalanikūpule in charge of O`ahu again and left for Moloka`i.

The war party landed at Kaunakakai on Moloka`i, and when the Kaua`i chief saw for the first time, by the ovens they had left, the size of the camp which Kamehameha had occupied he said, "Where a big squid digs itself a hole, there crab shells are heaped at the opening." Upon their reaching Maui...the army camped at Wailuku and of Waiehu the Kaua`i chief remarked, "Here is

the land of the warrior to whom Kamehameha owes his kingdom (alluding to Ke`eaumoku whose wife Namahana, brought him the land of Waiehu)... Waiehu fell to Ki`iki`i and it was, alas! The Kaua`i people who ate the poi of Waiehu.... Kahekili gave some of the land of Maui to the ruling chief of Kaua`i to be divided among his men, and Waiehu fell to Ki`iki`i. This caused discontent among the chiefs of Maui, who had thus to lose some of their land, and they rose against the Kaua`i chief. A battle was fought at Paukūkalo adjoining Waiehu while some of the people were out surfing (Kamakau 1992:159-160).

It is not clear what happened right after that battle because what follows is Kahekili leaving Maui with his warriors from Kaupō, while Ka`eo sails for Hawai`i with his warriors from Hāna. However, they both land in Waipi`o and Ka`eo keeps his vow and “wantonly destroyed everything in Waipi`o including the sacred places and the tabu threshold of Līloa [ancient relative]...not even Keoua who had passed through there the year before and destroyed the land and the food, had made such wanton destruction” (Kamakau 1992:160). Kahekili in the meantime goes on to Hālawa in Kōhala where fighting occurs, then sails from Hālawa and joins Ka`eo in Waipi`o. When Kamehameha hears about Ka`eo and Kahekili, he sails with John Young and Isaac Davis and meets up with Ka`eo and Kahekili at Waimanu cliffs. The battle of 1791 called Kepuwaha`ula, was a stand-off with loss to both sides. Kahekili left and returned to Maui (Kamakau 1992:161-162).

Kamehameha decided to take the advice of the Kaua`i kahuna Kapoukahi and build a heiau at Pu`u Koholā. Kamehameha personally helped to construct the heiau in the summer of 1791 to assure his victory over his cousin, Keoua Kuahu`ula, son of his father’s older brother. Messengers were sent to Keoua to ask him to come to the heiau so that there would be peace between the cousins. Keoua left Ka`ū with a fleet of twenty-seven canoes. As he sailed into Kawaihae Bay at Mailekini, Ke`eaumoku thrust a spear at Keoua, which he dodged, snatched and thrust back. Suddenly muskets were fired from the shore, leaving Keoua and all the others from his canoe dead. The rest of Keoua’s warriors were spared when Kamehameha declared the law of the broken paddle [Mamalahoa] (Day 1984:77; Kamakau 1992:154-157).

Vancouver returned to Hawai`i Island in February 1793 to find all the chiefs wanting guns and powder. Instead he gave Kamehameha a bull and heifer from California and asked that all the chiefs stop fighting. In March he sailed to Lāhaina and saw Kahekili who was an old man. He also asked Kahekili to stop the fighting. Kahekili said that “it was not right for the chiefs of Hawai`i to raid Maui and rob and pillage without cause.” He told Vancouver he should stay and guard him against further wars. Vancouver went on to O`ahu to see Kalanikūpule, then to Kaua`i before going to North America. It was the last time Vancouver saw Kahekili who died later that year at the age of eighty-seven, after becoming ill and returning to Waikīkī, O`ahu. His bones were carried by his twin brothers Ka-me`e-ia-moku and Ka-manawa and hidden in a secret cave in Kaloko, North Kona. His gods were Ku-ke-olo-ewa, Kuho`one`e-nu`u, Kalai-pahoa, Ololupe, Kameha`ikana, Kala-mai-nu`u, Kiha-wahine, Haumea and Wali-nu`u (Kamakau 1992:164-166).

On Vancouver's third visit to the islands in 1794, Kamehameha I was ruling chief of Hawai'i; Ka'eo was ruling chief of Maui, Moloka'i and Lāna'i; Kalanikūpule of O'ahu and Kaumuali'i of Kaua'i. Then Ka'eo got tired of Maui and wanted to go back to Kaua'i. Not knowing what his uncle's plans were Kalanikūpule prepared for war. A few skirmishes and reconciliations took place that year on O'ahu, but as Ka'eo prepared to embark to Kaua'i from West O'ahu he discovered a conspiracy among some of his chiefs who were planning to throw him overboard in mid-ocean. He dismantled his canoe and proceeded to make war on Kalanikūpule. Ka'eo won a couple of skirmishes, but in the end was defeated in 'Aiea by Kalanikūpule who was aided by foreign vessels in Pearl Harbor guarding the shores with guns and cannons. Ka'eo died in mid-December 1794 (Kamakau 1992:168-169).

The captain and some of his crew of the foreign vessels were then tricked and killed. Kalanikūpule confiscated the vessels and munitions with the intention of sailing to Hawai'i to overtake Kamehameha. Just one day out they all got seasick and had to return to Waikīkī with Kalanikūpule and his wife still on board. The foreigners sailed off during the night, but put Kalanikūpule and his wife aboard a canoe and let them go back to O'ahu. The foreigners then sailed for Hawai'i Island to tell Kamehameha what happened and to give him all the munitions on board (Kamakau 1992:170-171).

Demographic trends during the Proto-Historic Period indicate a population reduction in some areas, yet show increases in others, with relatively little change in material culture. There was a continued trend in craft and status material, intensification of agriculture, ali'i controlled aquaculture, upland residential sites, and oral records which were rich in information. The Kū cult, luakini heiau, and the kapu (restriction or regulation) system were at their peak, although western influence was altering the cultural fabric of the islands (Kirch 1985:308, Kent 1983:13). By 1794 American, English, Irish, Portuguese, Genoese, and Chinese foreigners were living in the islands (Day 1992:23-25).

Early Historic Period. The Early Historic Period (AD 1795-1950) is marked by very significant events. Kamehameha left Hawai'i Island in early 1795 and landed in Lāhainā, taking over all the food patches and cane fields before leaving for Molokai where the "whole coast from Kawela to Kalama'ula was covered by canoes. There on Molokai he awaited for the proper time to sail for O'ahu, where the chiefs and warriors of Kalanikūpule were slaughtered; after the Battle of Nu'uaniu, O'ahu, Molokai, and Lāna'i were conquered (Kamakau 1992:170-171). Kamehameha took Keku'iapoiwa Liliha and Kalanikauiake'aleano to O'ahu to witness the battle at Nu'uaniu Pali and the defeat of O'ahu. It was during this trip that Kalanikauiake'aleano was given the name Ke'ōpūolani (Klieger 1998:21).

When Kamehameha conquered O'ahu and Maui (with the help of western advice and technology), and subsequently unifying the Island Kingdom (Kent 1983:16), it marked the end of the Proto-Historic Period. Control of each island's polity was relegated to Kamehameha's loyal chiefs and warriors. Less than one hundred years later the government in Hawaii would change forever. And Hawai'i's culture and economy continued to change radically as capitalism and industry established a firm foothold.

Maui's rule came to an end in 1795 with the final conquest of Kalanikūpule and the Maui Kingdom at Nu`uanu at the hands of Kamehameha's Hawaiian Kingdom army [Kamakau 1961 (1867): 168-169; Fornander 1969(1880): 262-266 In Cordy (1998)]. Kalani-kū-pule hid in the underbrush for a little over a year and then was captured mauka of Waipi`o in `Ewa and killed. His body was brought to Kamehameha and offered in sacrifice to his god, Kū-ka`ili-moku. [Kamakau 1961 (1867):173 In Cordy (1998)] (Cordy 1998:17).

Kamehameha took Keku`iapoiwa Liliha and Kalanikauika`alaneo to O`ahu to witness the battle at Nu`uanu Pali and the defeat of O`ahu. It was during this trip that Kalanikauika`alaneo was given the name Ke`ōpūolani (Klieger 1998:21).

In 1798 Kamehameha returned to Lanai and made Kaunolu his summer residence, commuting from the island of Hawaii. In 1802 Kamehameha moved his chiefs, fleet, army, court, wives, sons, daughters, brothers, sisters, and other dependants to Lāhainā, Maui. But after two years of "eating the land" at Lāhainā, Kamehameha moved on to O`ahu. Kamehameha began to develop the arts of peace, although this sometimes came about by tragic methods according to an incident involving Don Francisco de Paula Marin as told to Theodore-Adolphe Barrot, a visiting French diplomat who visited in 1836.

[Marini] met with another adventure much more tragic. Kamehameha commanded him one day to cut off a prisoner's head and Marini was obliged to obey, using for this purpose a carpenter's saw. Someone wished to know if this anecdote was true and asked him about it; a shudder seemed to pervade the body of the Spaniard. "Alas! said he "What could I do? If I had not cut off the prisoner's head he [Kamehameha I] would have cut off mine. It is better to eat the head of a wolf than to be eaten by him" (Barrot 1978:58-59).

In 1803 Kamehameha settled in on O`ahu where he placed his chiefs over all the lands (Cordy 1998:17). He put the chiefs and their men from Hawaii to work farming the lands of O`ahu. They first lived in Waikīkī, then when the voyaging ships started coming they moved to Honolulu (Silverman 1987:41-47).

By 1810 the sandalwood trade was still flourishing under the control of Kamehameha I, to the point where the subsistence level fell apart, as farmers and fishermen spent most of their time logging, causing famine to set in. Kamehameha I had become "a fervent consumer of high-priced western goods" (Kent 1983:17-20).

In 1819 Peter Corney was on a trading voyage in the north Pacific and the vessel he was on made a stop in the Sandwich Isle [Hawaii]; he wrote this in his journal:

In the company of this man (Marin), I went round the island, and found all the plains and valleys in the highest state of cultivation. Tarrow, which is the principal vegetable, grows in abundance; there are two sorts; the first and best is planted in large square patches, banked up about six feet, and beat down very hard at the bottom and sides, so as to hold water...and the water

forms a fish pond as well as tarrow patch.... They turn the water from the mountains; bring it down in streams to the tarrow ground....

The other sort of tarrow is planted in dry ground, and takes a year to come to perfection. The sweet potato is planted in the same manner, and is hilled up with earth. They have plenty of what are commonly called Irish potatoes, yams, bread-fruit, melons...cabbages, onions, celery, garlick; also very good wheat, rice, Indian corn, and every description of fruit that grows in the West Indies; turnips, cucumbers, radishes, salad, in fact all that is produced in England will grow there...(Corney 1896: 108-109).

However, more portents of change were in the offing after the death of Kamehameha in 1819.

On October 1819, seventeen Protestant missionaries set sail from Boston to Hawai'i. Earlier that year, on May 8, 1819, Kamehameha I died. Following his death, his son and heir Liholiho banished the kapu system at the advice of his queen mother Keōpūolani and Ka`ahumanu (Kamakau, 1992:210, 222).

The missionaries arrived in Kailua-Kona on March 30, 1820, to a markedly changed culture; one with a "religious" void, and a growing appetite for western products. They quickly started missions on all of the islands. During this period "between one hundred and two hundred foreigners lived among the Islands.... Hardly a ship touched without leaving a deserter or two behind...a white man automatically ranked as a chief, although he could not own land in fee simple or build a permanent house...[and] they took Hawaiian wives" (Day 1992:25).

The whaling [oil] industry gave a needed boost to the waning sandalwood trade between 1820 to 1872 (Smith 1942:7), but another industry was also on the horizon. According to Gast (1973), Captain F. W. Beechey of HMS *Blossom* spent ten days in Honolulu making astronomical observations May 21-31, 1826. He returned on January 25, 1827 and spent a month. In his journal he mentions Don Francisco de Paula Marin a former confidant and advisor of Kamehameha, one who was greatly responsible for introducing a variety of fruits, vegetables, agricultural plants and animal husbandry; and the growing influence of America.

Attempts have been made to manufacture sugar from the canes which grow very abundantly and in great luxuriance in the Islands; and I sincerely hope that Mr. Marini who has hitherto been of greatest benefit to the government of Wahoo [O`ahu] may succeed in the mill which he was constructing...during our visit....

At that time, the value of a picul (133 1/3 pounds) of sandalwood was approximately 10 American dollars; during the early years of Liholiho's reign he [Marin] was not consulted on matters of business, and it was at this time that the Americans took most advantage of the childlike greediness and gullibility of the young king and the chiefs (Gast 1973: 111-113)

In 1831, the Sandwich Islands Mission set up a “high school” on a hill above Lāhainā, Maui, “to educate young Hawaiians as teachers and preachers” (Day 1992:47). In the 1830’s other industries such as whaling, and merchandising were established in Hawaii. In 1836 the first sugar plantation was established on Kauai (Kent 1983:23, 29). “The island forests had been stripped of sandalwood, up to [this] time the most valuable export article, medium of exchange and source of great wealth. Agriculture such as existed, found its outlet in the sale of sweet potatoes, taro, bananas and sugar cane to whalers and merchantmen...”(Smith 1942: 6). When French Diplomat Barrot visited O`ahu in 1836, he made the following observations.

O`ahu, justly called the garden of the Sandwich Islands, on account of the numerous streams which water it, is capable of recompensing the labors of agriculture with all the products of those of our colonies which are the most favored by nature. The plains of the interior and those near the shore, are exceedingly well adapted to the cultivation of sugar cane, which grows here to an astonishing size. The hills produce cotton and coffee in abundance, which can safely challenge a comparison with the most commended of similar articles...indigo grows spontaneously, and the high mountains offer the precious sandalwood for exportation.... Water at the Sandwich Islands, however, as in all other countries which produce by irrigation, is the occasion of many quarrels and sometimes of fatal accidents. It is not necessary to state that the lands of the King and of the Chiefs share the streams the most abundantly, but as there is generally a full supply of water, there is enough for each one (Barrot 1978:69-70, 72)

Sandalwood has become exceedingly scarce, so that in order to find any it is necessary to go where the country is almost impassable. During the first years of cutting sandalwood, the forests were cut down without any precaution. It was a treasure the value of which was unknown to the chiefs and abused by them when discovered. It is now impossible to procure a full cargo of this precious wood...the poverty of the chiefs, joined to the passions which have been awakened in them, will prevent this [sandalwood] becoming a valuable article of export in a few years... moreover they are aware that the resource is about to fail them, and they make haste to exhaust it in every possible manner (Barrot 1978:107).

Disease also had a devastating affect killing ali`i and maka`āinana alike; measles epidemics in 1848 and 1849, followed by the horrendous smallpox epidemic in 1853...”ten thousand [all toll] of the population are said to have died of this disease in Hawaii” (Kamakau, 1992:411, 418). By 1858 at least 2,119 foreigners lived in Hawaii. Many were merchants who traded with whalers, while the missionaries lived in various locations throughout the islands. “Foreigners engaged in agricultural pursuits with the idea of reaping a profit from the land in contrast with the Hawaiians, who carried on...subsistence agriculture” (Coulter 1931/1971:11). By this period, the sugar industry had a firm foothold in Hawaii, and would forever change the landscape as well as its cultural fabric.

By the 1890s tourism in Hawaii as a fledgling industry was already evident; first as a result of the needs of whalers, then because of the guests of the sugar industry (Joesting 1987:249-250). This would accelerate after annexation when people flocked to see and read about their “new acquisition” (Leib and Day 1979:14). Various studies were conducted on all the major islands from the late 1800s to the early to mid-1900s.

Territorial History (AD 1900-1959). In 1900 Hawai`i had a population totaling 154,000 of whom only 29,799 were pure Hawaiians, 7,857 part-Hawaiians and the rest of 116,244 consisting of many other races (Wisecarver 1983:13). This period saw Native Hawaiians running for Congress (Daws 1974 297); and much of the lands being sold in fee simple. The Organic Act was effective on June 14, 1900 and Hawai`i became a Territory of the United States; in 1901 the first Territorial Legislature convened and passed the first income tax law (WSC 1962:26). Two World Wars during this period were to have far reaching effects on lives and industries as young men left the islands by the hundreds, for the front lines abroad. Parts of O`ahu from Kapolei to McCully were damaged by bombs and explosives dropped/fired from Japanese planes on December 7, 1941, especially in the Pearl Harbor/Hickam areas. This took its toll on the landscape and the lives of countless people.

Modern History (post AD 1950). 1950 marked the introduction of radiocarbon analysis which shifted the focus of study in archaeology to “excavation as the primary means of data recovery,” followed by a focus on settlement patterns, subsistence, land and marine use. However, the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) and its implementing regulations (43 CFR Part 10) has shifted the focus of study to include a greater interaction with indigenous people, and a lesser focus on invasive methods of study. This new focus of study coincidentally came on the heels of a “renaissance” movement in Hawaiian culture in the 1970s, and has serendipitously given additional support to this shift in cultural change. In 2000 another regulatory change came as a result of Act 50 which amended the Environmental Impact Statement to included Cultural Impact Assessment.

O`ahu in Traditional History

The ethnohistoric works of the late 19th and early 20th century contributed a wealth of information that comprises the traditional literature--the *mo`olelo*, *oli*, *mele*, *`olelo no`eau* and place name meanings--as well as glimpses into snippets of time, and a part of the Hawaiian culture relatively forgotten. The genealogies handed down by oral tradition and later recorded for posterity, not only give a glimpse into the depth of the Hawaiian culture of old, they provide a permanent record of the links of notable Hawaiian family lines. The *mo`olelo* or legends allow *ka po`e kahiko*, the people of old, the *kūpuna* or ancestor, to come alive, as their personalities, loves, and struggles are revealed. The *mele* (songs) and the *oli* (chants) not only give clues about the past, special people, *wahi pana* or legendary places, and genealogies,

they substantiate the magnitude of the language and memory skills of *na kupuna kahiko* (the people of old).

Genealogies. *Po`e ku`auhau* or genealogy *kahuna* were very important people in the days of old. They not only kept the genealogical histories of chiefs “but of *kahunas* [sic], seers, land experts, *diviners*, and the ancestry of commoners and slaves.... An expert genealogist was a favorite with a chief.” During the time of `Umi genealogies became *kapu* to commoners, which is why there “were few who understood the art; but some genealogists survived to the time of Kamehameha and even down to the arrival of the missionaries” (Kamakau 1992:242).

Surviving genealogies in the form of *`oli* or chants illustrate that the ruling families of each island were interrelated quite extensively. The chiefs of O`ahu, Kauai, Hawaii, and Greater Maui had one common ancestry. Families branched out, but conjoined several times in succeeding generations. O`ahu and Hawai`i's chiefs were linked by `Umi as are Hawaii and Maui chiefs, and Hawai`i's chiefs were linked to Kauai chiefs (Kamakau, 1991:101; McKenzie, 1983: xxv). Not only were the chiefs or *ali`i* related to each other, they were also related to the *maka`āinana* or ‘people who looked after the land’--often referred to as ‘commoners.’ In *Ruling Chiefs*, Kamakau states that “there is no country person who did not have a chiefly ancestor” Kamakau (1992:4). Malo (1951) also wrote about the connection between the *maka`āinana* and the chiefs. “Commoners and *ali`i* were all descended from the same ancestor, Wakea and Papa” (Malo, 1951:52). This is evident in the genealogies. Genealogies were very important to the chiefs, because ranking was very important. The genealogies not only indicated rank, they ascertained a link to the gods. *Ali`i* could defend and/or prove their rank by knowing or having their genealogist recite their genealogy. “To the Hawaiians, genealogies were the indispensable proof of personal status. Chiefs traced their genealogies through the main lines of `Ulu, Nana`ulu, and Pili, which all converged at Wakea and Papa (Barrère, 1969:24). Two well-known genealogy chants are the *Kumuhonua* and the *Kumulipo*.

O`ahu Line

“In the genealogical line of *Nana`ulu*, it is believed that he is an ancestor of Tahiti and Borabora because in this genealogy down to Mo`ikeha [it is said he is from Tahiti] and married Hooipo (Hinauulua) in Kauai who bore their three children: Hookamalii, Haulanuiiaka, and Kila. And Hookamalii became the chiefly ancestor for O`ahu: Haulanuiiaka for Kauai; and Kila for Hawaii” (Kamakau in McKinzie 1983: xxv). The following consists of the genealogical line called *Nanaulu*; these are the ancestral chiefs of O`ahu and Kauai, from Nanaulu down to Lā`ielohelohe (McKinzie 1983:13). Kamakau (1991) says that Nanaulu to `Olopana are the ancestors of Kahiki [Tahiti] and Nu`uhiwa [Marquesas] (Kamakau 1991:79). [Note: no macrons are used because McKinzie did not use them.]

At the time Kakuhihewa was ruling chief of O`ahu, Kihapi`i and his son Kamalalawalu were chiefs of Maui; Keli`iokaloa [later killed by Kona's people], Keawenuiaumi, Kanaloakuaana [Kona, Kohala and Hamakua and older brother of Lonoikamakahiki], and Umiokalani were ruling chiefs of Hawaii Island (Kamakau in

McKinzie 1986:13, 14). However the families from each main island were all related as the genealogy of Kawaookekahuli illustrates, as written by her husband Samuel R. Keli`ihahaimoku. “The birth of the ancestors occurred through those of Molokai, Hawaii, and of Maui. The great-great-grandparents join together with those of Oahunui; and the great-great-grandparents were related to Kūhihewa” (McKinzie 1986:75). Keli`ihahaimoku continues:

We have partially withdrawn through a straight line in the history of the genealogical line, unbranched; and because the history of Kawaookekahuli (w) is extensive, what the researcher has partially presented are the individual alignments and Oahunui’s great-great-grandparents on the side of Kawaookekahuli’s father. This is what we now present; that there are those from Waianae, those from Oki Kupee, those from Wahiawā, of Kūkaniloko, and those of Mokuleia. The desire of the ancient period has passed away (Samuel R. Keli`ihahaimoku husband of Kawaookekahuli In McKinzie 1986:75)

Table 1. Nanaulu Genealogy Ali`i
(McKinzie 1983:13; 1986:14, 15; see also Kamakau 1991:76-77).

| Kane (male) | Wahine (Female) | Keiki (offspring) |
|----------------|-----------------|-------------------|
| Nanaulu | Ulukou | Nanamea |
| Nanamea | Puia | Pehekeula |
| Pehekeula | Uluae | Pehekenana |
| Pehekenana | Nanahapa | Nanamua |
| Nanamua | Nanahope | Nanakeauhaku |
| Nanakeauhaku | Elehu | Keaoa |
| Keaoa | Waohala | Hekumu |
| Hekumu | Kumukoa | Umalei |
| Umalei | Umaumanana | Kalai |
| Kalai | Laikapa | Malelewaa |
| Malelewaa | Pililohai | Hopoe |
| Hopoe | Hauananaia | Makalawena |
| Makalawena | Koihouhoua | Lelehooma |
| Lelehooma | Hapuu | Kekupahaikala |
| Kekupahaikala | Maihikea | Maweke |
| Maweke | Naiolaukea | Mulielealii |
| Mulielealii | Wehelani | Kumuhonua |
| “ | “ | Olopana |
| “ | “ | Moikeha |
| Moikeha | Hanauulua | Hookamalii |
| Hookamalii | Keaiiula | Kahai |
| Kahai | Kehenu | Kuolono |
| Kuolono | Kaneakalelei | Maelo |
| Lauli-a-Laa | Maelo | Laulihewa |
| Laulihewa | Akepamaikalani | Kahuoi |
| Kahuoi | Pelea | Puaakahuoi |
| Puaakahuoi | Nononui | Kukahaiililani |
| Kukahaiililani | Kokaloa | Mā`ilikūkahi |

Table 2. O`ahu Ruling Chiefs Descendants of Piliwale (McKinzie 1986:16, 22, 23, 79, 114, 116).

| Kane (male) | Wahine (female) | Keiki (offspring) |
|-----------------------|-------------------------------|--------------------------|
| Mā`ilikūkahi | Kanepukoa | Kalona-nui |
| " | " | Kalona-iki |
| Kalananui | Kaipuholua | Kalamakua |
| Lolae-o-Halona | Keleanuinoanaapiapi (Maui) | Kaholialale-o-Halona |
| " | " | Luliwahialale-o-Halona |
| Kalamakua (Halawa) | Keleanuinoanaapiapi (niaupio) | Laielohelohe |
| Kalona-iki | Kikenuiaewa | Kamaleamaka |
| " | " | Piliwale |
| " | " | Lali |
| Piliwale | Paakanilea | Kūkaniloko (w) |
| " | " | Kohepalaoa |
| Luaia | Kūkaniloko | Kalaimanua |
| " | " | Kauwahimakaweo |
| Lupekapukeahomali | Kalaimanua | Kuamanua |
| " | " | Kahikapuamanua |
| " | " | Hao |
| " | " | Kekela |
| Kaihipapuamanua | Kaunuiakamehoalani | Kakuihewa |
| Kakuihewa* | Kahaiaonuiakahuailana | Kaihipapuakakuihewa |
| Kakuihewa | Kae`akaloa | Kaihipapu-a-Kakuihewa |
| " | " | Kanekapu-a-Kakuihewa (k) |
| " | " | Makakualii (w) |
| Kaihipapuakakuihewa | Kanakeawe | Kahoowahaokalani |
| Kahoowahaokalani | Kaweolauhuki | Kauakahiakahoowaha |
| Kauakahiakahoowaha | Mahulua | Kualii |
| Kualii (O`ahu) | Kalanikahemakoalii (Maui) | Kapiioho (k) |
| " | " | Pelei`ōhōlani (k) |
| " | " | Kukuiaimakalani (w) |
| Pelei`ōhōlani (O`ahu) | Lonokahikini | Kuwalu (w) |
| " | " | Keeaumoku |
| " | " | Kapueo (w) |

Table 3. Lineage of Victoria Kamamalu*
[RP 7713] (McKinzie 1986:31; Spoehr 1989:8-9).

| Kane (male) | Wahine (female) | Keiki (offspring) |
|---------------------------|-----------------|---------------------------|
| Ke`eaumoku | Namahana | Kuakini (k) |
| " | " | Kalakua (w) |
| " | " | Ka`ahumanu (w) |
| Kamehameha I | Kalakua | Kina`u |
| " | " | Kamamalu |
| " | Keōpūolani | Liholiho |
| | | Kauikeaouli |
| | | Nahi`ena`ena |
| Mataio Kekuanao`a | Kina`u | Moses Kukuaiwa |
| | | Victoria Kamamalu |
| | | Lot Kamehameha (K-V) |
| | | Alexander Liholiho (K-IV) |
| Alexander Liholiho (K-IV) | Emma Na`ea | Albert Edward Kauikeaouli |

*The *Genealogy of the Royal Descendants* living at the time of Queen Lili`uokalani further illustrates how the Hawaiian people were related: "The tillers of the soil were chiefly people. Rare indeed were the men and women who do not have their royal genealogy from ancient times up to this period" (McKenzie 1986:88).

Mo`olelo.

Legends or *mo`olelo* are a great resource as well as entertaining. Leib and Day (1979) state in their annotated bibliography of Hawaiian legends, that legends "are a kind of rough history." They noted "Luamala's idea of the value of myth and legend in the serious study of a culture" and her following quote. "To a specialist in mythology, a myth incident or episode is as objective a unit as an axe, and the differences and similarities of these units can be observed equally clearly and scientifically." Leib and Day also expressed concern about authenticity, and sometimes found it difficult to determine if a legend was a primary or secondary source. The following terminology and their definitions come from their work (Leib and Day 1979:xii, 1):

- Tradition* used to refer to that which is handed down orally in the way of folklore
- Folklore* a rather inclusive term, covering the beliefs, proverbs, customs, and literature (both prose and poetry) of a people
- Myth* a story of the doings of godlike beings
- Legend* deals with human beings and used interchangeably with 'myth'...because the collectors and translators of the tales often failed to make the strict distinction themselves
- Ka`ao* "pure fiction"

Mo`olelo deals with historical matters and somewhat didactic in purpose...included tales of the gods, as well as tales of historical personages...many have recurring patterns, plots, and types of characters

Place Name Mo`olelo - Study Corridor Alignment. The following stories reference or take place in the various places noted and correspond to *ahupua`a* and/or places that the study corridor alignment will traverse. From Hawaii State Library/DOE (1989).

- Aiea Ahupua`a, “The city of refuge: A tale of O`ahu”, In Gowen, *Hawaiian Idylls of Love and Death* pp 59-66
- Ewa District (selected list)
 - “Kaihi-kapu or the attack of the king shark”, In Armitage, *Ghost Dog and other Hawaiian Legends* pp 148-151
 - Emerson, N.B. *Pele and Hi`iaka*
 - “Story of Lonoikamakahiki”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 1* pp 256-363
 - “History of Kualii”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 1* pp 364-434
 - “Legend of Kalelealuaka and Keinohoomanawanui”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 1* pp 464-471
 - “Legend of Kewalo”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 2-71
 - “Legends of Palila”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 136-153
 - “Legend of Opelemoemoe”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 168-171
 - “Legend of Kahalaopuna”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 188-193
 - “Legend of Helemano”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 228-263
 - “Legend of Maikoha”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 270-273
 - “Legend of Namakaokapao”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 274-283
 - “Tradition of Kamapua`a”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 314-363
 - “Story of Palila”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 372-375
 - “Brief stories of ghosts and cunning”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 418-435

- “Famous men of early days”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore* V 2 pp 486-503
- “Story of Makahi”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore* V 2 pp 564-569
- “History of the Awa”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore* V 2 pp 606-611
- “The Kukui Tree”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore* V 2 pp 670-677
- “The Slandered Priest of O`ahu”, In Gowen, *Hawaiian Idylls of Love and Death* pp 34-42
- “The City of Refuge: A Tale of O`ahu”, In Gowen, *Hawaiian Idylls of Love and Death* pp 59-66
- “The Triple Marriage of Lonoimakahiki”, In Kalākaua, *The Legends and Myths of Hawaii* pp 117-135
- “The Apotheosis of Pele”, In Kalākaua, *The Legends and Myths of Hawaii* pp 139-154
- “Kelea, the Surf-rider of Maui”, In Kalākaua, *The Legends and Myths of Hawaii* pp 229-246
- “The Adventures of Iwikauikawa”, In Kalākaua, *The Legends and Myths of Hawaii* pp 335-349
- Laie I ka wai, *The Hawaiian Romance of Laiekawai*
- “Why the mullet swim around O`ahu”, In Pukui *Tales of the Menehune* pp 51-54
- “The Pali and battle of Nu`uanu”, In Thrum *The Pali and Battle of Nu`uanu* pp 7-15
- “*The Ivory of O`ahu*”, In Westervelt *Hawaiian Historical Legends* pp114-124
- Halawa Ahupua`a
 - “The story of Moe-Moe: Also a story about Po-o and about Kauhuhu the shark-god and about Moe Moe’s son, the man who was bold in his wish”, In Colum, *Legends of Hawaii* pp 104-122
 - “Keala”, In Gowen, *Hawaiian Idylls of Love and Death* pp 43-50
- Ho`ae`ae Ahupua`a
 - “Legend of Kanakaokapao”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore* V 2 pp 274-283
 - “This land is the sea’s”, In Thrum, *Hawaiian Folk Tales* pp 203-214
- Honolulu
 - “Puapualenalena”, In Alan, *Legends of Old Hawaii* pp 69-78

- “The Origin of the Tapa Cloth”, In Armitage, *Ghost Dog and Other Hawaiian Legends* p 140
- “Story of Pikoikaalala”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 1* pp 450-463
- “Legend of Hanaaumoe”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 476-483
- “Legend of Kawelo”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 2-71
- “Legend of Puniakaia”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 486-503
- “The story of Paa and Lonopele”, In Green, *Folktales from Hawaii* pp120-124
- “Star Flower”, In Irwin, *In Menehune Land* pp 56-63
- “Leialoha and the Menehune”, In Irwin, *In Menehune Land* pp 110-116
- “Kaiana, the last of the Hawaiian knights”, In Kalākaua, *The Legends and Myths of Hawaii* pp 383-408
- “Kahalaopuna, the princess of Manoa”, In Kalākaua, *The Legends and Myths of Hawaii* pp 511-522
- “Battle of the Owls”, In Thrum, *Hawaiian Folk Tales* pp 200-202
- “Lepeamoā”, In Thrum, *Hawaiian Folk Tales* pp 164-184
- “The Last Prophet of O`ahu”, In Westervelt *Hawaiian Historical Legends* pp143-148
- “Legendary Places of Honolulu”, In Westervelt *Legends of Old Honolulu* pp1-9
- “The gods who found water”, In Westervelt *Legends of Old Honolulu* pp32-37
- “The Owls of Honolulu”, In Westervelt *Legends of Old Honolulu* pp157-172
- Hono`uli`uli Ahupua`a
 - “Lepe the bird-maiden and how her brother Kauilani sought for her and found her”, In Colum, *The Bright Islands* pp 187-196
 - “Lepeamoā”, In Thrum, *More Hawaiian Folk Tales* pp 164-184
 - “Lepeamoā”, In Westervelt *Legends of Old Honolulu* pp 204-245
 - “History of Kualii”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 1* pp 364-434
 - “The sacred spear point”, In Kalākaua, *The Legends and Myths of Hawaii* pp 209-225
- Kaka`ako. “Aiai, son of Kuula”, n Thrum, *Hawaiian Folk Tales* pp230-249

- Kalihi Ahupua`a
 - “History of Kualii”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 1* pp 364-434
 - “Stories of the menehunes”, In Thrum, *Hawaiian Folk Tales* pp 114-116
 - “Fish stories and superstitions”, In Thrum, *Hawaiian Folk Tales* pp 269-274
 - “Punaaikoa”, In Thrum, *More Hawaiian Folk Tales* pp 185-196
 - “Puna and the dragon”, In Westervelt, *Legends of Gods and Ghosts* pp 152-162
 - “Legendary places in Honolulu”, In Westervelt *Legends of Old Honolulu* pp 32-37
- Kapolei. “History of Kualii”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 1* pp 364-434
- Makiki Ahupua`a
 - “Story of Peapea”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 458-463
 - “A story of Ualakaa”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 532-533
 - “The waters of Hao”, In Pukui, *Tales of the menehune* pp 88-92
 - “Piikoi the rat-killer”, In Westervelt *Legends of Old Honolulu* pp 157-172
- Mānana Ahupua`a
 - “Kawelo’s parentage”, In *Legend of Kawelo* pp 4-17
 - “Legend of Kahalaopuna”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 188-193
- Manoa Ahupua`a
 - “The Princess of Manoa”, In Day, *The Princess of Manoa* pp 1-11
 - “The lady of the moon”, In Irwin, *In Menehune Land* pp 56-63
 - “The betrothal of Kaehu and Star Flower”, In Irwin, *In Menehune Land* pp 68-71
 - “Long stone”, In *Legend of Kewalo* pp 116-117
 - “As heiau builders”, In Thrum, *Stories of the Menehunes* pp 37-38
 - “Maluae and the under-world”, In Westervelt, *Legends of Gods and Ghosts* pp 14-20
 - “Keaomelemele, the maid of the golden clouds”, In Westervelt, *Legends of Gods and Ghosts* pp 116-151

- “The great dog Ku”, In Westervelt, *Legends of Old Honolulu* pp 82-89
- “Kamapua`a Legends”, In Westervelt, *Legends of Old Honolulu* pp 246-277
- Moanalua Ahupua`a
 - “The ghost dog of Nu`uanu”, In Armitage, *Ghost Dog and other Hawaiian Legends* pp 69-70
 - “The Legend of Aukelenuiaiku”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 1* pp 32-111
 - “Legend of Kaulu”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 1* pp 522-533
 - “The cannibal dog-man”, In Westervelt, *Legends of Old Honolulu* pp 90-96
- Palolo Ahupua`a
 - “The lady of the moon”, In Irwin, *In Menehune Land* pp 56-63
 - “Lepeamoā”, In Westervelt *Legends of Old Honolulu* pp 204-245
- Pauoa Ahupua`a
 - “Legend of Pumaia”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 1* pp 470-477
 - “Story of Peapea”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 458-463
 - “Brief sketch of Kamehameha I”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 464-485
 - “Sweet Leilehua”, In Gowen, *Hawaiian Idylls of Love and Death* pp 67-77
 - “Keoua, a story of Kalawao”, In Gowen, *Hawaiian Idylls of Love and Death* pp 101-109
- Pu`uloa. “Conte de bonne femme”, In Patton, *Legendes Hawaiiennes* pp 109-115
- Waiiau Ahupua`a
 - “The story of Laieikawai”, In Kalākaua, *The Legends and Myths of Hawaii* pp 455-480
 - “Pele and snow-goddess”, In Westervelt’s *Hawaiian Legends of Volcanoes* pp 55-62
 - “Story of Kaehuikimanoopuuloa”, In Thrum, *More Hawaiian Folk Tales* pp 293-306
- Waiawa Ahupua`a
 - “Story of Kaehuikimanoopuuloa”, In Thrum, *More Hawaiian Folk Tales* pp 293-306

- “A story of Kawelo”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore* V 2 pp 694-721
- Waikele Ahupua`a
 - “Kaihi-kapu or the attack of the king shark”, In Armitage, *Ghost Dog and other Hawaiian Legends* pp 148-151
 - “Legend of Palila”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore* V 2 pp 136-153
- Waikiki
 - “Legend of Kepakailiula”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore* V 1 pp 498-517
 - “Legend of Kapakohana”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore* V 2 pp 208-213
 - “Story of Peapea”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore* V 2 pp 458-463
 - “The menehune of the sea”, In Irwin, *In Menehune Land* pp 72-95
 - “Lono and Kaikilani”, In Kalākaua, *The Legends and Myths of Hawaii* pp 319-331
 - “Little yellow shark”, In Knudsen, *Hawaiian Tales* pp 13-15
 - “The story of Kaopulupulu”, In *Legend of Kawelo* pp 124
 - “Waikiki, mecca of society”, In Paki’s *Legends of Hawaii: O`ahu’s yesterday* pp 73-75
 - “Kawelo of Kauai”, In Pukui, *The Water of Kane* pp 107-134
 - “Kaehu and the man-eater”, In Pukui, *The Water of Kane* pp 176-177
 - “Lōlale seeks a wife”, In Thorpe, *In the Path of the Trade Winds* pp 3-12
 - “Kuanuuanu and Pakaa”, In Thrum, *More Hawaiian Folk Tales* pp 53-67
 - “Punaaikoa”, In Thrum, *More Hawaiian Folk Tales* pp 185-196
 - “The wizard stones of Kapaemahu”, In Thrum, *More Hawaiian Folk Tales* pp 261-264
- Waimalu Ahupua`a
 - “Tradition of Kamapua`a”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore* V 2 pp 314-363
 - “The iron knife”, In Kalākaua, *The Legends and Myths of Hawaii* pp 177-205
- Waimano Ahupua`a
 - “When the little blond shark went visiting”, In Column, *Legends of Hawaii* pp 84-91

- “Story of Kaehuikimanoopuulua”, In Thrum, *More Hawaiian Folk Tales* pp 293-306
- Waipahu Ahupua`a
 - “Legend of Palila”, In Fornander, *Fornander Collection of Hawaiian Antiquities and Folklore V 2* pp 135-153
 - “The song of the kapa log”, In Pukui, *The Water of Kane* pp 179-183
 - “Mikololou”, In Thrum, *More Hawaiian Folk Tales* pp 307-308
 - “The O`ahu legends of Maui”, In Westervelt, *Legends of Maui—a Demi God of Polynesia* pp 119-127

Place Names. Hawaiians of old generally named everything; from winds and mountains, to rocks, canoes, taro patches, fishing stations, and “the tiniest spots where miraculous or interesting events are believed to have taken place” (Elbert in Pukui et al., 1974:x). They all represented a story, some known only locally, while others became legendary. The list below represents place names with an association to lands within the project corridor.

`Aiea Land section, mill, village, bay, stream, field...west of Honolulu (RC 169) Lit. *Nothocestrum* tree (Pukui et al. 1974:7).

The small area of low flatland covered by plantation camp, railroad, etc. below the old highway, was formerly in terraces. According to McAllister (site 146), Mathison made the following observations on this region in 1821-22: The adjoining low country is overflowed both naturally and by artificial means, and is well stocked with tarrow plantations, bananas, etc. The land belongs to many different proprietors; and on every estate there is a fishpond surrounded by a stone wall.

The neighborhood of the Pearl River is very extensive, rising backwards with a gentle slope toward to woods, but it is without cultivation, except around the outskirts to about half a mile from the water. The country is divided into separate farms or allotments belonging to the chiefs, and enclosed with walls from 4 to 6 feet high, made of a mixture of mud and stone (Handy v1 p 81 In Sterling and Summers 1974/1993:10).

Loko Kahakupohaku (Site 104-filled in) near Aiea railroad station; 3 acres, 1050 feet long, 5 feet wide, 3.5 feet high (Sterling and Summers 1974/1993:48).

`Ewa Plantation, plantation town, quadrangle west of Pearl Harbor. Lit. crooked. Kāne and Kanaloa threw a stone to determine the boundaries. The stone was lost but was found later at Pili-o-Kahe. See PE `ewa`ewa; li 98; Sterling and Summers 1:8; UL 84 ((Pukui et al. 1974:28).

Hālawā Land section, town and stream. Waipahu qd. li 70 (Pukui et al. 1974:36).

Hickam AF base, village (Sterling and Summers 1974/1993:45).

Watertown. Camp town located between Hickam and Ft. Kamehameha.

Loko Waiaho-Queen Emma's pond (Site 94-destroyed) was located near Watertown—32 acres (Sterling and Summers 1974/1993:47).

Loko Ke`oki (Site 95-filled in) near Watertown (Sterling and Summers 1974/1993:47).

Loko Papiolua (Site 96-filled in) located opposite Waipi`o Peninsula...about 1 acre with wall 150 feet long, 4 feet wide (Sterling and Summers 1974/1993:47).

Loko-a-Mano or Loko Amana (Site 97-filled in) located in Navy yard (Sterling and Summers 1974/1993:47).

Loko Pohaku (Site 98-destroyed), 2.5 acres at Navy yard (Sterling and Summers 1974/1993:47).

Loko Wailolokai (Site 99-destroyed) (Sterling and Summers 1974/1993:47).

Loko Wailolowai (Site 100-destroyed) (Sterling and Summers 1974/1993:47).

Makalapa Crater (Site 101) used for fresh-water pond (Sterling and Summers 1974/1993:47).

Loko Kunana and Loko Muliwai (Site 102-filled in), Kunana formerly 25 acres; two walls running between land and Kunana Island are 1800 feet and 1950 feet long, 5 feet wide and 3 feet high. Muliwai is 4 acres, its wall is 500 feet long (Sterling and Summers 1974/1993:47-48).

Salt Lake/Āliapa`akai, crater, Waipahu qd.; said to have been dug by Pele on her first circuit of the islands. Hawaiians believed that the lake was connected to the sea by a hole in the center. Lit., salt pond (Pukui et al. 1974:210, 11).

Ho`ae`ae Land section and point, `Ewa. Lit to make soft or fine. A stone called Pohaku-pili is on the edge of the cliff on the boundary of Hō`ae`ae and Waikele; it belonged to the gods Kāne and Kanaloa (Pukui et al. 1974:47).

This ahupua`a had a moderate-sized area of terraces watered by springs in land from West Loch of Pearl Harbor (Handy Vol I, p 82 In Sterling and Summers 1974/1993:31).

Honolulu City and County, harbor. Old names for the harbor were Kou and Māmala. Lit. protected bay (Pukui et al. 1974:50).

In 1859 the Kona District was officially named Honolulu; its boundaries were from Maunalua (ʻili of Waimanalo-East) to Moanalua; the Revised Laws of Hawaii 1925 described Honolulu from Makapuʻu Head in Maunalua to Moanalua (Sterling and Summers 1974/1993:257).

Honoʻuliʻuli Land division, village, forest reserve and gulch-Waipahu qd. Lit. dark bay (Pukui et al. 1974:51).

Large terrace areas are shown on the U.S.G.S. map of Oʻahu (1917) bordering West Loch of Pearl Harbor, the indication being that these are still under cultivation. I am told that taro is still grown here. This is evidently what is referred to as “Ewa taro lands” (Handy vol I, p82 In Sterling and Summers 1974/1993:31).

Honoʻuliʻuli Coral Plains. It is probable that the holes and pits were formerly used by the 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 (McAllister In Sterling and Summers 1974/1993:31).

Hanalei, a small flat land with a little gulch on either side on the right of Puʻuloa mauka of Puu-o-Kapolei. Formerly there was much milo, neneleau, true kamani and other trees on the land, home of the iʻiwi and oʻo birds (Kelsey Collection, HEN vol I, p 820 In Sterling and Summers 1974/1993:34).

Kahauiki Land section and stream west of Kalihi Valley that formerly irrigated extensive taro terraces (Sterling and Summers 6:309) Lit. the small hau tree (Pukui et al. 1974:63).

Kahauiki Stream irrigated a moderate-sized area of terrace extending from the sea inland for about half a mile (Handy vol I, p 79 In Sterling and Summers 1974/1993:326).

Loko Weli (Site 75) between Kahauiki and Mokumoa Island said to be 30 acres with earth embankments; Loko Kaikikapu (road now separates the two fishponds) is 20 acres with a 900 feet wall from Mokumoa Island to Moanalua (McAllister In Sterling and Summers 1974/1993:327).

Puukapu Heiau (Site 88) (McAllister In Sterling and Summers 1974/1993:327).

Burial Grounds. From Pohaha (Ft Shafter area) to [Red Hill] (In Sterling and Summers 1974/1993:327).

Kakaʻako Section 16 of Honolulu-Map 6 (Pukui et al. 1974:71).

Kalauao Land section and stream, Waipahu qd. A battle was fought in the area between here and ʻAiea Heights from November 16 to December 12, 1794; Kalanikūpule defeated and killed Kaʻeokūlani [his uncle], chief of

Maui, Molokai, Lanai and Kauai (RC 168-170) Lit. the multitude of clouds (Pukui et al. 1974:75).

The lowlands seaward of the highway and for a short distance inland, now mostly under cane with a few banana groves, were all formerly terraces irrigated from Kalauao stream. Kalauao Gulch was too narrow to have terraces inland (Handy v1, 81 In Sterling and Summers 1974/1993:12).

Kukī'iahu (Site 110). Here Kalaimanua, chiefess of O`ahu, lived most of the time. She is said to have built the fishponds of Kapaakea (Site 111) Opu (Site 109), and Paaiau (Site 108) (McAllister In Sterling and Summers 1974/1993:12). She followed her mother, Kukaniloko as Mo`i of O`ahu. Kalaimanua was born at Kūkaniloko, the famous birthplace of Hawaiian royalty and resided most of her time at Kalauao. Her husband Lupe Kapukeahomakalii, a son of Kalanuili (k) and Naluehiloikeahomakalii (w)...assisted her in government (Fornander, The Polynesian Race vol II p 262-269 In Sterling and Summers 1974/1993:12).

This is also the land upon which occurred the battle of Kakiiahu [between Kalanikūpule and his uncle Ka`eo (McAllister; see also Kamakau Ruling Chiefs p169 In Sterling and Summers 1974/1993:12).

Kahuawai Bathing Pool. Kahuawai is a noted bathing place since ancient times by the chiefs.... Kakuhihewa's daughter and the hero Kalelealuaka bathed in this pool...as did Ka`eokulani (Kaehuiki Mano o Puuloa-Ke Au Hou Dec 21, 1910 In Sterling and Summers 1974/1993:13).

Opelemoemoe made his home at Kahuoi in Kalauao. He had a strange power of being able to sleep days and on end and only wakened by thunder. One day he fell asleep at Puu Kapolei and was taken by two men from Kauai to be a sacrifice there. A thunderstorm woke him; he married and settled on Kauai. After a time he went back to Kalauao but told his wife if she bore him a son to give him his spear. His son Kalelealuaka eventually found him at Kalauao (Fornander, Collections...Hawaiian Antiquities vol V, part I p 168 In Sterling and Summers 1974/1993:14).

Loko Pa`aiiau (Site 108-swampy), 190 by 600 feet; pond fed by water from surrounding taro patches; constructed by Kalaimanua (Sterling and Summers 1974/1993:48).

Loko Opu (Site 109-filled); road crosses now; it was 10.5 acres; wall 2700 feet in extent; built by Kalaimanua (Sterling and Summers 1974/1993:48).

Kalihi

Land section, channel, stream, valley, field, Honolulu, said to have been named by Prince Lot (Kamehameha V) in 1856. Kalihi in

Honolulu is famous in legend as the home of Pele's sister Kapo (HM 186), and of Haumea, Pele's mother who is identified with Papa, the wife of Wākea. She had many adventures at Kalihi and saved her husband Wākea, who was being taken away for sacrifice and he was tied to a tree. By embracing him, his bonds loosened and the two disappeared into the tree. Ka`ie`ie was a heiau here for her worship (HM 278-283) (Pukui et al. 1974:77).

Kalihi is the "outside edge" or boundary valley (Lyons, In Sterling and Summers 1974/1993:321).

Extensive terraces covered all the flatland in lower Kalihi Valley for approximately 1.25 miles on both sides of the stream (Handy In Sterling and Summers 1974/1993:322).

Thrum mentions three heiau: Kaoleo (Kalihi-kai); Haunapo (Kalihi-kai); Ka`ie`ie (Kalihi-uka) (McAllister In Sterling and Summers 1974/1993:322).

Kahakaaulana. The narrow place in the Kalihi harbor inlet and formerly the place where travelers used to swim across to Kalaekao or Puuloa to avoid the long detour by way of Moanalua (Sterling and Summers 1974/1993:322).

Loko Ananoho (Site 73) 52 acres with walls 4700 feet in length and 6 feet wide, primarily of coral and average 3 feet high (McAllister In Sterling and Summers 1974/1993:322).

Loko Auiki (Site 73) is a small adjoining pond partly filled; 12 acres with a 900 feet wall (McAllister In Sterling and Summers 1974/1993:322).

Loko Pahouiki, Loko Pahounui, Loko Apili (Site 74). Pahouiki is 14 acres with coral wall 1050 feet in length; Pahounui is 26 acres with coral wall 2600 feet long; Apili is 28 acres with wall 1500 feet long (McAllister In Sterling and Summers 1974/1993:322).

Apili "caught, snared or stuck;" land surrounding the fishponds (famous for the superior flavor of the fish, particularly the awa or milkfish) of Kalihi once belonged to Capt Alexander Adams who had a famous garden there and a resort for strangers and whale men about 1850 (In Sterling and Summers 1974/1993:322).

Papa-nui-aimoku. A huge stone mostly deep in the ground on the seaward side of the old trail below Kalihi pumping station; a Kauai chief Kekalukalu-o-Kewa is said to have called the stone up out of the ground...now a hollow exists (Sterling and Summers 1974/1993:323).

Kapālama Section 5 of Honolulu (map 6), canal; Lit., the lama wood enclosure (high chiefs were protected here) (Pukui et al. 1974:320).

Niuhelewai. Kaulu and his brother then returned from Kuaihelani and stopped at Moanalua, where Kaholeha remained, while Kaulu went off to Niuhelewai to see the place. Niuhelewai is a place at Kapālama (below King Street) where Haumea lived. Haumea was an akua and no one who fell in its way was saved; all would be eaten up...(Fornander, Coll "Legend of Kaulu" vol V, p 368 In Sterling and Summers 1974/1993:319-320).

Kapālama had two streams watering its terrace area, which was almost continuous from Iwilei up to the foothills above School Street, an area measuring about three quarters of a mile both in depth inland and in breadth (Handy, Haw Planter vol I, p79 In Sterling and Summers 1974/19923:14).

Kewalo Section 22 of Honolulu (map 6), basin, and harbor, 2 surfing areas (Kewalo and Point Panic). Outcast intended for sacrifice were drowned here. Lit. the calling (echo) (Pukui et al. 1974:109).

A fishpond and surrounding land on the plains below King Street and beyond Koula. It contains a spring rather famous in the time previous to the conversion of Christianity, as the place where victims designed for the heiau of Kanelau on Punchbowl (Puowaina) slopes were first drowned...(Sterling and Summers 1974/1993:292).

Kou Old name until 1800 for Honolulu Harbor and vicinity, including the area from Nu`uanu Avenue to Alakea Street and from Hotel Street to the sea (Westervelt 1964b:15), noted for kōnane and for ulu maika and said to be named for the executive officer (ilāmuku) of Chief Kākuhihewa of O`ahu (PH 168). Lit. kou tree (Pukui et al. 1974:117-118).

Makiki Place, street, heights, stream, valley and section 20 of Honolulu (map 6), probably named for a type of stone used as weights for octopus lures (Pukui et al. 1974:142).

Māmala Bay. Honolulu Harbor to Pearl Harbor, named for a shark woman who lived at the entrance of Honolulu Harbor and often played kōnane. She left her shark husband, `Ouha, for Honoka`upu. `Ouha then became the shark god of Waikīkī and of Koko Head (Finney and Houston 39; Westervelt 1964b:15, 52-54). In the song "Nā ka Pueo" (Elbert and Mahoe 81), the name of the bay is juxtaposed to mālama, to protect: Ma ka `ikikai a`o Māmala, mālama iho ke aloha, on the surface (of the sea) of Māmala, protect the love (Pukui et al. 1974:144).

Mānana Land division, stream at Pearl City (Pukui et al. 1974:145).

This narrow ahupua`a was called Manana-iki in its lower portion and Manana-nui in the mountains where it broadens and include Manana Stream, which flows into Waiawa Stream. There were a few terraces

seaward, irrigated by Waiawa Stream (Handy Vol. I p. 81 In Sterling and Summers 1974/1993:16).

Puoiki Heiau (Site 121) destroyed.

Pilimo`o Pool. Legend of a boy who turned into an eel to save children from the sharks who discovered that an underground tunnel from the sea led to this pool a favorite diving place for children of the area (Makahonu Naumau May 22, 1940-HEN vol I, p 1595 In Sterling and Summers 1974/1993:17).

Mānoa Land section, stream, waterfall, valley, field and section 28 of Honolulu (map 6). Part of the floor of Mānoa Valley was covered with a lava flow from Sugarloaf cone 10,000 to 20,000 years ago. UH-Mānoa campus is built on it and Mō`ili`ili quarry has been excavated in it (li 158; Macdonald and Abbott 376). Lit., vast (Pukui et al. 1974:146).

McCully Street and section 25 of Honolulu (map 6), named for Lawrence McCully, appointed associate justice of the supreme court by Kalākaua. He opened the Punahou tract as a subdivision (TM) (Pukui et al. 1974:150).

Moanalua Land division, park and stream near Ft Shafter, Honolulu (map 6) said to be named for two encampments (moana lua) at taro patches, where travelers bound for Honolulu from `Ewa rested. The buildings here [at the gardens] are Kamehameha V cottage, a summer house built in 1867 and given to Samuel Damon in the 1880s, and the great hall built in 1906 by Samuel Damon. An ancient maika field near here was called Pueo-hulu-nui (much feathered owl) because owls from Kauai and Ni`ihau were said to meet here to participate in the battle of the owls.... When Kahekili of Maui conquered O`ahu he placed his son Kalanikūpule in charge of Moanalua. After the battle of Nu`uanu, Kalanai kūpule fled but was finally caught and sacrificed on an altar, probably at Pu`ukapu. Kamehameha gave Moanalua to Kame`eiamoku. Next the valley passed to his son, Hoapili, then to Hoapili's adopted son Lot, to Ruth Ke`elikōlani, and then to Bernice Pauahi who willed the entire ahupua`a to Samuel Damon in 1884... (Pukui et al. 1974:152-1543).

Moanalua Park was once a moderate-sized area of terraces...irrigated with water from Kalou Stream which empties into Moanalua Stream three-quarters of a mile inland. The large area southwest of lower Moanalua Stream, which is now partly park and partly planted to bananas was formerly all taro terraces [to seaward] (Handy In Sterling and Summers 1974/1993:328).

Ilemi Spring. The name of Moanalua came from two taro patches close to the road that was taken by travelers from Ewa; the patches were

close to the spring of lemi; the taro leaves were huge and kept for the chiefs (In Sterling and Summers 1974/1993:327).

Loko Mapunapuna (Site 78) (mullet) is 40 acres with a wall 1600 feet long, 10 feet wide and made of coral; adjoining is small pond Loko Keawamalia surrounded by earth embankment (McAllister In Sterling and Summers 1974/1993:330).

Loko Awaawaloa (Site 79) is a small 8.8 acre pond with coral wall 900 feet long; adjoin pond is Loko Ahua (McAllister In Sterling and Summers 1974/1993:330).

Loko Kaloaloa (Site 80) is 36 acres with semi-circular coral wall 2700 feet long, 6 feet wide and 3 feet high (McAllister In Sterling and Summers 1974/1993:330).

Loko Kaihikapu (Site 81-filled) is 258 acres with coral wall 4500 feet long, 3-8 feet wide, and 3 feet high built by Kaihikapu-a-Manuia (McAllister In Sterling and Summers 1974/1993:330).

Kaihikapu Salt Pans (Fornander, Polynesian Race vol II, p267 In Sterling and Summers 1974/1993:330).

Loko Lelepaua (Site 82-destroyed) was a large inland pond 332 acres with coral and earth walls 10 feet wide and built by Kaihikapu-a-Manuia; where salt pans were located (McAllister In Sterling and Summers 1974/1993:330).

Alia-paakai (Salt Lake) (Site 83). In the vicinity of Alia-paakai Kotzebue observed several tapa plantations; a tree [wauke?] whose bark cloth is made (McAllister In Sterling and Summers 1974/1993:330).

Alia Coral Flats, south of Moanalua

Nu`uanu

Section 11 of Honolulu (map 6), valley, stream, pali' Lit., cool height (Pukui et al. 1974:167).

“Cool terrace” or notch in mountain, referring to the cold wind at the Pali, the place at the top of the Pali being a nu`u to those approaching from Koolau to the “nuku o Nu`uanu” (In Sterling and Summers 1974/1993:293).

From Waolani to Kapālama the terraces were continuous on the level and gently sloping land between Nu`uanu and Waolani streams, past Wyllie and Judd Streets and throughout the section on the north side of the valley, down what is now Liliha Street.... “Scarcely had we left the gardens of the capital, which were for the most part planted with beautiful flowers, when we arrived at broad fields of arum macrorrhizon, which are known by the name of ‘tarro patches’ here. What a sight for us to view such large fields on this valuable economic plant.... Near by lie fields planted with sugar cane, which is only used

for eating here, and whose bluish green makes a vivid contrast with the bright green of the banana leaves and the velvety color of the taro plants.... (Sterling and Summers 1974/1993:294).

The lower district, extending from Nu`uanu Avenue to Alakea Street and from Hotel Street to the sea is said by McAllister to have been anciently known by the name of Kou...the name Honolulu now given to the city was that of a high chief of “a very rich district of farm land near what is now...the junction of Liliha and School Streets, in the time of Kakuhihewa” (In Sterling and Summers 1974/1993:294).

Pālolo Section 35 of Honolulu (map 6); homesteads, stream, valley, field (Helumoa, Ka`au). Lit., clay (Pukui et al. 1974:178).

Pauoa Valley, flats, section 19 of Honolulu (map 6) (Pukui et al. 1974:182).

The flatland in the bottom of Pauoa Valley above Punchbowl was completely in terraces. About half of the old terrace area is now covered by streets and school and dwelling houses. Of the upper portion a considerable area is still under cultivation. Below Punchbowl, between Pacific Heights and King Street, there must have been more or less continuous terraces on the ground now covered by the city (Handy, Hawaiian Planter vol I, p 78 In Sterling and Summers 1974/1993:291).

Puowaina Kamakau says that the menehune lived on Puowaina, “and the pit for excrement was Pauoa. Formerly there was an imu ahi, a fire oven for burning men on this hill. Chiefs and common men were burned as sacrifices in that noted place. Men were brought for sacrifice from Kauai, O`ahu and Maui, but not from Hawaii. People could be burned in this place for violating the tabus of the tabu divine chiefs. The great stone on top of Punchbowl Hill was the place for burning men” (McAllister p 82 In Sterling and Summers 1974/1993:291).

Pearl City City, peninsula (Pukui et al. 1974:182).

Pearl Harbor Named for pearl oysters formerly found there. It was discovered by the crews of two English whalers, the Pearl and the Hermes, both of which went aground on the reef on April 26, 1822. It was acquired by the United States in 1898 and now part of City and County of Honolulu (Bryan 1942:195-198) (Pukui et al. 1974:182).

Pohukaina Kaka`ako, Honolulu; formerly the area behind the Hawaii State Library (Pukui et al. 1974:187).

Pu`uloa Land section, camp, salt works, village, area east of Pearl Harbor, and old name for Pearl Harbor; it is said that breadfruit were brought here from Samoa (PH 16). Lit., long hill (Pukui et al. 1974:201).

(Site 145) Tradition credits the introduction of the breadfruit tree in these islands to Kahai, a son of Moikeha, who brought a species from

Upolu in the Samoan group on his return voyage from Kahiki and planted some at Pu`uloa (Thrum/McAllister In Sterling and Summers 1974/1993: 41).

Loko Kapamuku (Site 142-destroyed) opposite Waipi`o Peninsula (Sterling and Summers 1974/1993:48).

Loko Okiokilepe (Site 143-destroyed) opposite Waipi`o Peninsula (Sterling and Summers 1974/1993:48).

Waiau Land division and village, Waipahu qd. Lit., swirling water (Pukui et al. 1974:221).

The ahupua`a takes its name from Waiau Spring and pond, south and west of which are small terrace areas now planted mostly in truck (Handy The Hawaiian Planter vol I p 81 In Sterling and Summers 1974/1993:15).

Maika Field. They went down to the water and up, going above the group of taro patches of Waiau, up to the maika playing field...(Na hunahuna no ka mo`olelo Hawaii-Kuokoa Jan 1, 1870 In Sterling and Summers 1974/1993:15).

Ka-lua-olohe Plain. The ancient hairless dog Ku-ilio-loa lived here in a pit.... In the story of Kualii Waiau was said to be his birthplace; his mother was from here and his father was from Ko`olau (Kualoa). Waiau was said to be a land of chiefs in the olden days (Na Wahi pana O Ewa-Ka Loea Kalaiaina July 29, 1899 In Sterling and Summers 1974/1993:15).

Puhikani. A bathing place of the shark chiefess Ka`ahupāhau (Kaehuiki Mano O Puuloa-Ke au Hou Dec 21, 1910 In Sterling and Summers 1974/1993:16).

Loko Kukona (Site 114-filled in); was 27 acres with wall of coral and basalt, 4-5 feet wide and 2 feet high (Sterling and Summers 1974/1993:48).

Loko Luakahaole (Site 115-filled in), just above Loko Kukona, 1 acre (Sterling and Summers 1974/1993:48).

Waiawa Land division, ditch, stream, Waipahu qd. (Pukui et al. 1974:221).

Awa (fish) Pond (Fornander vol II, p 400 In Sterling and Summers 1974/1993:17).

Kuhia Loko (fishpond) (Site 119) (Sterling and Summers 1974/1993:17).

Polea and Kuhia. Polea and Kuhia were konohiki in `Ewa and is why there are places on the shore named Polea and Kuhia. There were two Kuhia, Kuhia-loko and Kuhia-waho who were twin brothers (Kaehuiki

Mano O Puuloa-Ke au Hou Dec 21, 1910 In Sterling and Summers 1974/1993:18).

Kahi`uka's Cave. Kahiuka was the brother of Ka`ahupāhau and his cave was in Waiawa below the home of Rev Bishop who was the pastor in Ewa (Kaehuiki Mano O Puuloa-Ke au Hou Dec 14, 1910 In Sterling and Summers 1974/1993:18).

Puehulunui/Pueohulunui and Haupuu-Maika Playing Fields. On to the lands of Mānana and Waiawa to the stream of Kukehi, up to the two maika fields.... Pueohulunui lies at the crossroads where one leads to Waialua and the other branches off to Honouliuli, and to Wai`anae (Na Hunahuna noi ka Mo`olelo Hawaii-Kuokoa Jan 1, 1870 *In Sterling and Summers 19974/1993:18).

Hapu`u Maika Field. They came to the top of Hauupu (the present site of the Kahikuonalani Church (named for Kalākaua who helped with the building of the church) at Waiawa (Na Wahi pana O Ewa-Ka Loea Kalaiaina July 1, 1899 In Sterling and Summers 1974/1993:18).

Loko Apala (Site 118-filled in), southwest side of PC Peninsula opening into Middle Loch (Sterling and Summers 1974/1993:48).

Loko Kuhialoko (Site 119-filled in) southwest side of PC Peninsula, sea side of O`ahu railroad (Sterling and Summers 1974/1993:48).

Loko Mo`o (Site 120) north of railroad track, formerly 13 acres, now very small pond (Sterling and Summers 1974/1993:48).

Waikele Land section, stream, Waipahu qd. Lit., muddy water (Pukui et al. 1974:223).

Kawelo, the overseer of the land of Waikele....(In Sterling and Summers 1974/1993:23).

In the flatland, where the Kamehameha highway crosses the lower valley of Waikele Stream there are remains of terraces on both sides of the road, now planted to bananas, beans, cane and small gardens. For at least 2 miles upstream there were small terrace areas (Handy vol I, p 82 In Sterling and Summers 1974/1993:24).

Loko Ka`auku`u and Loko Pouhala (Site 126-overgrown) formerly adjoined (Sterling and Summers 1974/1993:48).

Loko Laulaunui (Site 140) (Sterling and Summers 1974/1993:48).

Waikīkī Section 31 of Honolulu (map 6), beach, park; Lit., spouting water (said to be named for swamps later drained to form Ala Wai Canal; also the name of a chiefess (Pukui et al. 1974:223).

In the year 1795 Kamehameha...came with an immense army to O`ahu to make war against Kalanikūpule [said to be his half-brother],

king of Maui and O`ahu and son of Kahekili.... Kamehameha landed at Waikīkī, his immense fleet of canoes occupying the beach from Waikīkī to Waialae to the windward of Diamond Head. Immediately on disembarking the army was formed in line of battle and marched to Nu`uanu Valley to meet Kalanikūpule. Several running engagements took place between the opposing forces, commencing at the opening of the valley on the `Ewa side of Punchbowl.... (Nakuina 1904 In Sterling and Summers 1974/19923:318-319).

Waimalu Hill (1,450 feet high), land section, town, and stream debouching at Pearl Harbor; the Spaniard Francisco de Paula Marin had a home here (li 95). Lit., sheltered water (Pukui et al. 1974:225).

The extensive flats between East Loch of Pearl harbor and the present highway [1974] were formerly developed in terraces irrigated from Waimalu Stream and Waipi spring which is east of Waiau Pond. There are banana groves there now. Terraces also covered the flats extending three quarters of a mile above the highway into Waimalu Valley and there were small terrace areas several miles upstream beyond these flats (Handy vol I, p 81 In Sterling and Summers 1974/19923:14).

Waimalu Burial Caves. Mauka on `Ewa side of the Wauimaku bridge...half a mile from the RR crossing stream is a piggery; opposite the piggery on the Ewa bluff about 300 feet is the cave; built up terraces line each side of the cave which is divided into two rooms. This large cave has been ransacked but still has a number of bones the smaller caves below also have burials (Visited by Richard Nishino, Kenneth Emory and May Stacey Sept 1953; In Sterling and Summers 1974/1993:14).

Punanaloa. Place of two legendary stones named after the sons of Maihea; also a place to collect water (Huewai-pi) (Na Wahi Pana O Ewa-Ka Loea Kalaiaina July 29, 1899 In Sterling and Summers 1974/`993:15).

Loko Pa`akea (Site 111); 12 acres and has a wall 1850 feet in length, waterworn basalt and coral 6 feet wide, 4 feet high; said to be built by Kalaimanuia (Sterling and Summers 1974/1993:48).

Waimano Stream, trail and land division near Pearl Harbor; the shark demi-goddess Ka`ahupāhau bathed here. Lit., many waters (Pukui et al. 1974:225).

Waimano Stream. Irrigated small terrace areas east of what is now called Pearl City (Handy, The Hawaiian Planter vol I, p 81 In Sterling and Summers 1974/1993:16).

Wymannoo/Waimano. In the month of November the king was pleased to grant me sixty acres of land situated upon the Wymummee [Wai-

Momi] or Pearl-water, an inlet of the sea about twelve miles to the west of Hanaroorā/Honolulu.... We passed by footpaths winding through an extensive and fertile plain, the whole of which is in the highest state of cultivation. Every stream was carefully embanked to supply water for the taro beds. Where there was no water, the land was under crops of yams and sweet potatoes. The roads and numerous houses are shaded by coconut trees.... My farm was on the east side of the river, four or five miles from its mouth. Fifteen people with their families resided upon it, who cultivated the grounds as my servants. There were three houses upon the property...(Nov 1809-Archibald Campbell p 145 In Sterling and Summers 1974/1993:16).

Loko Weloko (Site 116-filled in) east side of PC Peninsula-east Loch; 21 acres with walls 3200 feet in length, 10 feet wide of lava and coral rocks (Sterling and Summers 1974/1993:48).

Loko Pa`au`au (Site 117-filled in) on PC Peninsula (Sterling and Summers 1974/1993:48).

Waipahu Quadrangle, land section, city, stream, field, south central O`ahu; said to have been originally Waipahu. The shark goddess Ka`ahupāhau lived here. Lit., bursting water (burst forth from underground) (Pukui et al. 1974:227).

Mokoula Heiau (Site 127) destroyed. Southwest of the main road in the village of Waipahu (McAllister In Sterling and Summers 1974/1993:25).

Hapupu Heiau (Site 129) destroyed. Waipahu Plantation stables now occupy the site of the heiau where chief Hao was slain at the direction of O`ahu mo`i while he was at temple worship (McAllister In Sterling and Summers 1974/1993:25).

Petroglyphs. Located on the west edge of Waipahu town on cliff boulders north side of Waikele Stream (Cox and Stasack Hawaiian Petroglyphs p 97 In Sterling and Summers 1974/1993:25).

Waikele The place now called Waipahu was originally Waikele. Waipahu was only the place [Waipahu Spring (Site 128)] where the tapa anvil of Kahuku came out (HEN p2742 In Sterling and Summers 1974/1993:25).

Waipi`o Land sections, village, peninsula, point, river and station, Waipahu and Wahiawā qds. South central O`ahu. Lit., curved water (Pukui et al. 1974:207).

Between West Loch of Pearl Harbor and Loko Eo the lowlands were filled with terraces which extended for over a mile up into the flats along Waikele Stream. The lower terraces were formerly irrigated partly from Waipahu Spring, which Hawaiians believe came all the way from Kahuku. It is said that terraces formerly existed on the flats in

Kipapa Gulch (Handy vol I, p 82 In Sterling and Summers 1974/1993:19).

Ahuena Heiau (Site 122) in Halaulani, Waipi`o (destroyed). Just seaward of the Experiment Station of the Hawaiian Sugar Planter's Assn. (McAllister In Sterling and Summers 1974/1993:19).

Loko Eo (Site 123-filled in). Large fishpond well known for superior flavor of fishes; north end of Waipi`o Peninsula (In Sterling and Summers 1974/1993:20, 48).

Loko Hanaloa (Site 125-filled in), center of Waipi`o Peninsula, covered 195 acres; the wall is 5 feet wide and 4 feet high with six makaha built of coral slabs (Sterling and Summers 1974/1993:48).

The Makahiki of Waipi`o.

Kumelawai, Waipi`o. Birthplace of John Papa Ii Aug 3, 1800 on the land of his uncle Papa Ii owner of the pond of Hanaloa—he received his property from Kamehameha from the time of the Battle of Nu`uanu (Ii p 101 In Sterling and Summers 1974/1993:24).

Kapuna Cave. Once occupied by ancient chiefs and later used by fishermen. The cave is on the Waipi`o side and a sea passage separates Waipi`o and Waikele and Waikele and Hono`uli`uli (In Sterling and Summers 1974/1993:24).

Appendix B
House Bill No. 2895 H.D.1, 2000

A BILL FOR AN ACT RELATING TO
ENVIRONMENTAL IMPACT STATEMENTS
(UNOFFICIAL VERSION)
HOUSE OF REPRESENTATIVES H.B. NO, 2895 H.D.1
TWENTIETH LEGISLATURE, 2000
STATE OF HAWAI'I

A BILL FOR AN ACT
RELATING TO ENVIRONMENTAL IMPACT STATEMENTS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAI'I:

SECTION 1. The legislature finds that there is a need to clarify that the preparation of environmental assessments or environmental impact statements should identify and address effects on Hawai'i's culture, and traditional and customary rights.

The legislature also finds that native Hawaiian culture plays a vital role in preserving and advancing the unique quality of life and the "aloha spirit" in Hawai'i. Articles IX and XII of the state constitution, other state laws, and the courts of the State impose on government agencies a duty to promote and protect cultural beliefs, practices, and resources of native Hawaiians as well as other ethnic groups.

Moreover, the past failure to require native Hawaiian cultural impact assessments has resulted in the loss and destruction of many important cultural resources and has interfered with the exercise of native Hawaiian culture. The legislature further finds that due consideration of the effects of human activities on native Hawaiian culture and the exercise thereof is necessary to ensure the continued existence, development, and exercise of native Hawaiian culture.

The purpose of this Act is to: (1) Require that environmental impact statements include the disclosure of the effects of a proposed action on the cultural practices of the community and State; and (2) Amend the definition of "significant effect" to include adverse effects on cultural practices.

SECTION 2. Section 343-2, Hawai'i Revised Statutes, is amended by amending the definitions of "environmental impact statement" or "statement" and "significant effect", to read as follows:

"Environmental impact statement" or "statement" means an informational document prepared in compliance with the rules adopted under section 343-6 and which discloses the environmental effects of a proposed action, effects of a proposed action on the economic (and) welfare, social welfare, and cultural practices of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects.

The initial statement filed for public review shall be referred to as the draft

statement and shall be distinguished from the final statement which is the document that has incorporated the public's comments and the responses to those comments. The final statement is the document that shall be evaluated for acceptability by the respective accepting authority.

"Significant effect" means the sum of effects on the quality of the environment, including actions that irrevocably commit a natural resource, curtail the range of beneficial uses of the environment, are contrary to the State's environmental policies or long-term environmental goals as established by law, or adversely affect the economic (or) welfare, social welfare(.), or cultural practices of the community and State."

SECTION 3. Statutory material to be repealed is bracketed. New statutory material is underscored.

SECTION 4. This Act shall take effect upon its approval.

Approved by the Governor as Act 50 on April 26, 2000

Appendix C

Guidelines for Assessing Cultural Impacts

Adopted by the Environmental Council, State of Hawai'i
November 19, 1997

I. Introduction

It is the policy of the State of Hawai'i under Chapter 343, HRS, to alert decision makers, through the environmental assessment process, about significant environmental effects which may result from the implementation of certain actions. An environmental assessment of cultural impacts gathers information about cultural practices and cultural features that may be affected by actions subject to Chapter 343, and promotes responsible decision making.

Articles IX and XII of the State Constitution, other state laws, and the courts of the state require government agencies to promote and preserve cultural beliefs, practices, and resources of native Hawaiians and other ethnic groups. Chapter 343 also requires environmental assessment of cultural resources, in determining the significance of a proposed project.

The Environmental Council encourages preparers of environmental assessments and environmental impact statements to analyze the impact of a proposed action on cultural practices and features associated with the project area. The Council provides the following methodology and content protocol as guidance for any assessment of a project that may significantly affect cultural resources.

II. Cultural Impact Assessment Methodology

Cultural impacts differ from other types of impacts assessed in environmental assessments or environmental impact statements. A cultural impact assessment includes information relating to the practices and beliefs of a particular cultural or ethnic group or groups.

Such information may be obtained through scoping, community meetings, ethnographic interviews and oral histories. Information provided by knowledgeable informants, including traditional cultural practitioners, can be applied to the analysis of cultural impacts in conjunction with information concerning cultural practices and features obtained through consultation and from documentary research.

In scoping the cultural portion of an environmental assessment, the geographical extent of the inquiry should, in most instances, be greater than the area over which the proposed action will take place. This is to ensure that cultural practices which may not occur within the boundaries of the project area, but which may nonetheless

be affected, are included in the assessment. Thus, for example, a proposed action that may not physically alter gathering practices, but may affect access to gathering areas would be included in the assessment. An ahupua`a is usually the appropriate geographical unit to begin an assessment of cultural impacts of a proposed action, particularly if it includes all of the types of cultural practices associated with the project area. In some cases, cultural practices are likely to extend beyond the ahupua`a and the geographical extent of the study area should take into account those cultural practices.

The historical period studied in a cultural impact assessment should commence with the initial presence in the area of the particular group whose cultural practices and features are being assessed. The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs.

The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both man made and natural, including submerged cultural resources, which support such cultural practices and beliefs.

The Environmental Council recommends that preparers of assessments analyzing cultural impacts adopt the following protocol:

1. identify and consult with individuals and organizations with expertise concerning the types of cultural resources, practices and beliefs found within the broad geographical area, e.g., district or ahupua`a;
2. identify and consult with individuals and organizations with knowledge of the area potentially affected by the proposed action;
3. receive information from or conduct ethnographic interviews and oral histories with persons having knowledge of the potentially affected area;
4. conduct ethnographic, historical, anthropological, sociological, and other culturally related documentary research;
5. identify and describe the cultural resources, practices and beliefs located within the potentially affected area; and
6. assess the impact of the proposed action, alternatives to the proposed action, and mitigation measures, on the cultural resources, practices and beliefs identified.

Interviews and oral histories with knowledgeable individuals may be recorded, if consent is given, and field visits by preparers accompanied by informants are encouraged. Persons interviewed should be afforded an opportunity to review the record of the interview, and consent to publish the record should be obtained whenever possible. For example, the precise location of human burials are likely to be withheld from a cultural impact assessment, but it is important that the document identify the impact a project would have on the burials. At times an informant may provide information only on the condition that it remain in confidence. The wishes of the informant should be respected.

Primary source materials reviewed and analyzed may include, as appropriate: Mahele, land court, census and tax records, including testimonies; vital statistics records; family histories and genealogies; previously published or recorded ethnographic interviews and oral histories; community studies, old maps and photographs; and other archival documents, including correspondence, newspaper or almanac articles, and visitor journals. Secondary source materials such as historical, sociological, and anthropological texts, manuscripts, and similar materials, published and unpublished, should also be consulted. Other materials which should be examined include prior land use proposals, decisions, and rulings which pertain to the study area.

III. Cultural Impact Assessment Contents

In addition to the content requirements for environmental assessments and environmental impact statements, which are set out in HAR §§ 11-200-10 and 16 through 18, the portion of the assessment concerning cultural impacts should address, but not necessarily be limited to, the following matters:

1. A discussion of the methods applied and results of consultation with individuals and organizations identified by the preparer as being familiar with cultural practices and features associated with the project area, including any constraints or limitations which might have affected the quality of the information obtained.
2. A description of methods adopted by the preparer to identify, locate, and select the persons interviewed, including a discussion of the level of effort undertaken.
3. Ethnographic and oral history interview procedures, including the circumstances, under which the interviews were conducted, and any constraints or limitations which might have affected the quality of the information obtained.
4. Biographical information concerning the individuals and organizations consulted, their particular expertise, and their historical and genealogical relationship to the project area, as well as information concerning the persons submitting information or interviewed, their particular knowledge and cultural expertise, if any, and their historical and genealogical relationship to the project area.
5. A discussion concerning historical and cultural source materials consulted, the institutions and repositories searched, and the level of effort undertaken. This discussion should include, if appropriate, the particular perspective of the authors, any opposing views, and any other relevant constraints, limitations or biases.
6. A discussion concerning the cultural resources, practices and beliefs identified, and, for resources and practices, their location within the broad geographical area in which the proposed action is located, as well as their direct or indirect significance or connection to the project site.

7. A discussion concerning the nature of the cultural practices and beliefs, and the significance of the cultural resources within the project area, affected directly or indirectly by the Project.
8. An explanation of confidential information that has been withheld from public disclosure in the assessment.
9. A discussion concerning any conflicting information in regard to identified cultural resources, practices and beliefs.
10. An analysis of the potential effect of any proposed physical alteration on cultural resources, practices or beliefs; the potential of the proposed action to isolate cultural resources, practices or beliefs from their setting; and the potential of the proposed action to introduce elements which may alter the setting in which cultural practices take place.
11. A bibliography of references, and attached records of interviews which were allowed to be disclosed.

The inclusion of this information will help make environmental assessments and environmental impact statements complete and meet the requirements of Chapter 343, HRS. If you have any questions, please call 586-4185.

Appendix D

Agreement to Participate in this Cultural Impact Study/Assessment

Project Title: Honolulu High-Capacity Transit Corridor
Investigator: Maria Orr, M.A. or Lynette Cruz, Ph.D.
Kaimipono Consulting Services LLC

You are being asked to participate in a cultural impact study/assessment (CIA) conducted by an independent investigator contracted by *Ku'iwalu* as part of a larger environmental impact study conducted by *PB Americas, Inc.* for the **City & County of Honolulu**. The investigator will explain the purpose of this study, the procedures to be used, the potential benefits and possible risks of participating. You may ask the investigator any question(s) in order to help you to understand the study or procedures. A basic explanation of the study is written below. If you then decide to participate in the study, please sign on the second page of this form. You will be given a copy of this form to keep.

I. Nature and Purpose of the Study

The purpose of this cultural impact study/assessment is to gather information about the project lands within the transit corridor alignment from Kapolei to Ala Moana with extensions to Honolulu International Airport, Waikiki and Manoa at University Avenue, through interviews with individuals who are knowledgeable about this area, and/or about traditional and historic information such as cultural practices, legends, songs, chants or other information. The objective of this study is to facilitate in the identification and location of any possible pre-historic and/or historic cultural resources, or traditional cultural practices in the area mentioned above, in accordance with applicable historic preservation laws, regulations, and guidelines, including: *Act 50 HB2895 (A.D.2000)*, *HRS Chapter 343* and *Office of Environmental Quality Control (OEQC) Guidelines*

II. Explanation of Procedures

After you have voluntarily agreed to participate and have signed the consent page, the investigator will tape record your interview and have it transcribed later. Data from the interview (ethnographic research) will be used as part of the background historical summary for this project. The investigator may also need to take notes and/or ask you to spell or clarify terms or names that are unclear.

III. Discomforts and Risks

Foreseeable discomforts and/or risks may include, but are not limited to the following: having to talk loudly for the recorder; being recorded and/or interviewed; providing information that may be used in reports which may be used in the future as a public reference; knowing that the information you give may conflict with information from others; your uncompensated dedication of time; possible miscommunication or misunderstanding in the transcribing of information; loss of privacy; and worry that your comment(s) may not be understood in the same way you understand them. It is not possible to identify all potential risks however reasonable safeguards have been taken to minimize risks.

IV. Benefits

This study will give you the opportunity to express your thoughts (*mana`o*), and your opinions will be listened to and shared; your knowledge may be instrumental in the preservation of significant cultural resources, practices and information.

V. Confidentiality

Your rights of privacy, confidentiality and/or anonymity will be protected **if you so desire**. You may request, for example, that your name and/or sex not be mentioned in write-ups, such as field notes, on tape, on files (disk or folders), drafts, reports, and future works; or you may request that some of the information you provide remain "off-the-record" **and not be recorded in any way**. In order to ensure protection of your privacy, confidentiality and/or anonymity, you should immediately advise the investigator of your desires. The investigator will ask you to specify the method of protection, and note it on this form below.

VI. Refusal/Withdrawal

You may, at any time during the interview process, chose to not participate any further and ask the investigator for the tape and/or notes. Please note that you will be given an opportunity to review your transcript, and to revise or delete any part of the interview.

VII. Waiver

Part I: Agreement to Participate

*I, _____, understand that Maria Orr or Dr Lynette Cruz, independent investigators contracted by Ku`iwalu will be conducting oral history interviews with individuals knowledgeable about the project lands within the Honolulu High Capacity Transit Corridor. The oral history interviews are being conducted in order to collect information on possible pre-historic and/or historic cultural resources, as well as traditional cultural practices associated with these lands and access to these resources and practices. I understand I will be provided the opportunity to review my interview to ensure that it accurately depicts what I meant to say. **I also understand that if I don't return the revised transcripts after two weeks from date of receipt, my signature below will indicate my release of information for the draft report. I also understand that I will still have the opportunity to make revisions during the draft review process.***

_____ *I am willing to participate.*

_____ *I am willing to participate, under the following conditions:*

| | |
|-----------------------------|-----------------|
| Consultant Signature | Date |
| Print Name | Phone |
| Address | Zip Code |

MAHALO NUI LOA

Part II: Personal Release of Interview Records

I, _____, have been interviewed by Maria Orr or Dr. Lynette Cruz of Kaimipono Consulting Services LLC, independent investigators contracted by Ku`iwalu. I have reviewed the written transcripts of tape recordings of the interview, and agree that said documentation is complete and accurate except for those matters specifically set forth below the heading "CLARIFICATION OR CORRECTIONS." I further agree that Kaimipono Consulting Services LLC, Ku`iwalu, PB Americas, Inc. and Honolulu City & County may use and release my identity and other interview information, both oral and written, for the purpose of using such information in a report(s) to be made public, subject to my specific objections, to release as set forth below under the heading "SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS."

CLARIFICATION OR CORRECTIONS:

SPECIFIC OBJECTIONS TO RELEASE OF INTERVIEW MATERIALS:

| | |
|-------------------------------|-------------------|
| _____ Consultant Signature | _____ Date |
| _____ Print Name | _____ Phone |
| _____ Address | _____ Zip Code |

MAHALO NUI LOA

Appendix E

Ethnographic Survey: Basic Research Instrument for Oral History Interviews

This research instrument includes basic information as well as research categories which will be asked in the form of open primary questions which allow the individual interviewed (Consultant) to answer in the manner he/she is most comfortable. Secondary or follow-up questions are asked based on what the Consultant has said and/or to clarify what was said. The idea is to have an interview based on a “talk-story” form of sharing information. Questions will NOT be asked in an interrogation style/method, NOR will they necessarily be asked in the order presented below. This research instrument is merely a *guide* for the investigator and simply reflects general categories of information sought in a semi-structured format. Questions will be asked more directly when necessary.

The Consultants were selected because they met one or more of the following criteria:

- Had/has Ties to Project Area/Vicinity
- Known Hawaiian Cultural Resource Person
- Known Hawaiian Traditional Practitioner
- Referred By Other Cultural Resource People

(NOTE: This part of the interview, #1-4 is mutual sharing and rapport building. Most of the information for research categories “Consultant Background” and “Consultant Demographics” come from this section, but not exclusively.)

1. To start please tell me about yourself...Name? Where/When you were born?

(This information can be addressed in a couple of ways. After the investigator first turns on the tape recorder, the following information will be recorded: Day/Date/Time/Place of Interview/Name of Consultant (if authorized by Consultant)/Name of Investigator/Questions: Have you read the Agreement To Participate? Do you have any questions before we begin? Will you please sign the Consent page. The investigator will explain again the purpose of the interview.

The investigator will then ask the Consultant to “Please tell me about yourself--when/where were you born? Where did you grow up? Where did you go to school?” This general compound question allows the Consultant to share as much or as little as he/she wants without any pressure. Most of the information for #1 may already be known to the investigator.)

2. History: Your `ohana/family background; Hawaiian connection (if any)?

(Much of the information for questions #2, 3, and 4 usually comes from the “monologue” answer to Question #1. If it does not, then these questions will be asked. The answers in this section usually establish how the Consultant meets the criteria; how the Consultant developed his/her information base, etc.)

3. Youth: Where lived? Grew up? (This may have been answered in #1)

4. Schooling? Where? When? (This may have been answered in #1)

(NOTE: The next part of the interview, #5-7 reflects information sought for the following research categories: Land, Water, Cultural Resources and Use as well as Significant People, and Events. The questions are open-ended so as NOT to “put words in the mouths” of the Consultants. The answers will help in assessing if any cultural properties or practices will be impacted by the project.)

5. *Can you tell me what you know about the project lands?*

6. *What are your recollections and/or personal experiences of the project area(s)?*

7. *Do you know any stories/legends/songs/chants associated with these areas?*

Possible follow-up questions:

- How are you or your family connected to the project lands?
- What year(s) were you and/or your family associated with these lands?
- What was this place/area called when you were growing up? When you were working here?
- Can you describe what the area looked like--what kinds of natural and/or man made things?
- To your knowledge what kind of activities took place in this location?
- Do you know of any traditional gathering of plants, etc in the area?
- Please describe any other land/water use? Resources?
- What was the historic land use? Agriculture? Habitation? Dwellings? Military? Ranching?
- **(Have map ready for marking.)**
- Do you know about any burials in the project area?
- Do you know of any cultural sites in the project area or vicinity?

8. *Is there anyone you know who can also tell me about the project area?*

(NOTE: Usually in the course of the interview, Consultants suggest other people to interview.)

9. *As soon as the tape of this interview is transcribed I will send you two sets. Please review your transcript and make any corrections and/or additions, then sign both copies of the Release Form thereby allowing the information to be used by the investigator (Kaimipono Consulting Services LLC), Ku`iwalu, PB Americas, Inc. and Honolulu City & County. Then mail one set back in the enclosed stamped-addressed envelope.*

10. *If your revised transcript is not returned within two weeks of date of receipt, it will be assumed that you are in concurrence with the transcript material and your information will then be incorporated into a draft Cultural Impact Study/Assessment report to be incorporated into a draft environmental impact statement report (DEIS). However, you can still make changes during the draft review process.*

(NOTE: Generally when people share information about a specific topic/place, they usually state where their information came from. If it isn't volunteered, it is asked as a follow-up question(s). A map of the project area should be available to confirm that investigator and consultant are talking about the same place. Photos would also help if a field trip is not possible. The best scenario would be to be “on-site” at some part of the interview...although this is not always practical.)

MAHALO NUI LOA

Appendix F

Oral History Transcripts

Interviews conducted by both Ka'imipono Consulting Services and Ku'iwalu

Mr. Louis Agard, Jr. (Orr)

I went to Kamehameha [School] (12 years old)...and I took my six years of military training, 'cause Kamehameha was a military school, and that became valuable. I graduated with honors and Kamehameha gave me a college scholarship, so I went away to college at University of Redlands in Electrical Engineering. But Kamehameha was created to train boys and girls to be good, industrious boys and girls; the girls, of course, were taught homemaking...and us we were taught military training...but they also trained us in the fields of being capable of reading and writing and able to fulfill jobs like firemen, policemen, maintenance workers, Hawaiian Telephone, Hawaiian Electric, those kinds of things.

The December the 7th attack occurred when I was in Kamehameha--17 years old. And I got to see the whole thing (from school). So Colonel Mahikoa issues over the P.A. system in the campus: All of the senior boys please report to the assembly hall. So we all mosey on down and we sit down and standing at the podium he says, very emphatically and officially he says: "Men, I don't have to tell you this is war, but there's a bus outside the door that is gonna take you to enlist in the corps to help fight the enemy if they attempt to land in these islands..." So then we were assigned to protect all vulnerable facilities like the water works in case saboteurs landing to poison the water, the electric company to disrupt electricity—protect it, the telephone company for communications—protect it. And there were a few other things, you know, big business things or anything that served the public and was vulnerable to some kind of sabotage. So then we were assigned to protect all vulnerable facilities like the water works in case saboteurs landing to poison the water, the electric company to disrupt electricity—protect it, the telephone company for communications—protect it. And there were a few other things, you know, big business things or anything that served the public and was vulnerable to some kind of sabotage.

Ala Moana and vicinity. I remember when we were kids when the trolley ran right down here on King Street (Downtown), all the way out to Waikiki and right around the Kapahulu Cleaners. Kapi'olani branches off and then it went along the beach. And I could run over there on the weekends, pay seven and half cents in the trolley, you get two coupons for 15 cents...go down to Hale'au'au which was owned by Rudy Tong in those days and grab a surfboard and a towel and go out surfing. Come back, give them back the surfboard, shower up, towel off...get in at the old street car—it was just a rail system, with a electric wire overhanging it, and had a

horn that went “Clang, Clang, Clang, Clang, Clang, Clang” -- chase people out of the way.

We went through the old duck ponds which is today where the big developments are, where they have now Nauru Tower, Hawa`iki, Hoku—Hokua, which is a new one being built, and Ko`olani which is the other one. And this is all built on the land that belonged one time to the tiny little nation of Nauru--they bought the land years ago. The duck ponds were filled in with dredgings from the Ala Wai Canal Boat Harbor. When they dredged all of that and the Ala Wai Canal -- they took all the dredgings and poured it into the old taro patches and made it solid land. That’s why you have there today the shopping center (Ala Moana)... That used to be all duck ponds, well taro patches first, then neglected and water polluted. So the Chinese went into rice and put plenty ducks inside the pond too, I don’t know maybe fertilize it, and raise ducks at the same time and recycle like they do in China. They built their lavatories right over the water and people go to the lavatory over the water, and then drops in the water, and then it causes the kelp -- algae to grow and the fish eat it and then so the Chinese recycle the whole thing in that system. Kind of interesting but it’s kind of messy. But that’s how they have to live. So they brought that system over here and that was really a mess! It was—when the street car went through you had hold your nose because the duck droppings were so powerful in that water; so finally they decided OK we’ll fill it in.

Kewalo. I worked around Kewalo for years, I’m probably the oldest tenant in the yard there. I have two lease parcels of ceded land. And, I have my old shop there where I was processing fish, cutting it up and distributing it and drying up and processing it, packing it and weighing it for years. Then I just quit that a few years ago, maybe about five or six years ago. I gave up after working in it for seventy years -- almost seventy years.... where this Fisherman’s Wharf is...that used to be a Spencecliff Restaurant. And then in this open space between here and the sheds was the Shipyard, and the Hawaiian Tuna Packers--twas here over a hundred years.

Pālama. My mother grew up in the Pālama section of the island, where they have Pālama Settlement today. They had a large taro patch running from School Street down to what is Mayor Wright Housing today. That used to be all taro patches and the water was coming from that stream that came from the mountain that used to be there, which is now covered over by the highway and developments, but the water is running under those places, to the ocean.

Kaka`ako (Queen/Ward). (Kaka`akao--Ala Moana Beach Park till almost to downtown Fort Street). In about 1938, 1939 I was already here--my father was here starting another business in Kaka`ako on the corner of Queen and Ward Avenues, which today on that site has a Shell Gas Station. All of that was all small parcels--family parcels; some of it having been passed on for a long period of time, but was lots of homes in there. And there were some businesses, some automotive businesses that opened up there--they would do repair work and painting of cars. Right at the corner of Queen and Ward Street, we had across the street from us directly was the Fuji Gasoline Station and across from us on the Queen Street side was a little Chinese restaurant. Next to my father’s lot on the same side of the street

was a little Clorox-making Portuguese family. Many Portuguese families living on our side of the street and the street just mauka of Queen Street. But always lots of small family homes in there. Mostly all of that's gone today and small businesses have largely moved in there. The housing that was there or those homes have mostly sold off to other uses.

Queen Street. Where these people are walking. There are burials right under this road. This is an encroachment on Kawaiaha`o's (Cemetery), this here, where they stuck this road in they didn't bother to fool with the burials (Queen Street) and nobody complained and they just went right over it. This is an old buggah--the date is on the top--the Primo Building. Lex Brodie, been there a good twenty years, as far as I know.... Holy Ghost Church...you might see the remnant of that church there. Something has happened there, I don't what, talked about closing it down. I think it's on Queen Street. If I see it, I'll recognize it...and what you gonna see when get in there is still some of those old homes--the old Portuguese--this was Portuguese town here...and this is where my father's yard was, the Shell Station.

Holy Ghost Church-Queen St.



Aloha Theatre-Queen St. Ching Store-Queen St. near Ward Ave



Mr. Poni E. Kamaau (Orr 05)

Aloha, my name is Poni (Elliot) Kamaau. Both my parents came from Kaka`ako, my father was born in the Mokauea area--that's Iwilei and then Mokauea--that's how it would go, Kaka`ako, Honolulu, then you have Iwilei then Mokauea... anyway Nimitz! My Kamaau family comes from Kapoho, Kīpahulu, Hāna, also from Hilo--living in Hilo at a time of cultural difference. That's when Christianity and cultural religion were clashing. My father comes from the Mailekini Kamaau ohana and one was a Reverend William Kamaau--he was also in Kaka`ako...actually at Kawaiaha`o Church; he was a Reverend there, so there's a plaque in there for him. But I come from the Samuel Mailekini line (my grandpa); Mailekini was more about our traditions or one that took care of traditions. And one of the traditions was to make sure that the manō, the sharks were okay, if they were fed and that they needed, you know like you would take care of your own pets if you had pets. He had pets and they were sharks. It was natural for many families at that time to engage in these things and then again it was not because times were changing and they needed to leave those things alone. 'Cause a lot of people didn't understand that and it was considered not good. They were fisherman and so they found their way from Hilo and from Maui (from Big Island to Maui) coming to Honolulu. My Grandpa ended up becoming very educated instead of becoming the fisherman that he was when he was a young boy and teenager. As an adult and married and raising a family, he needed to become a businessman. He loved to play music and like many Hawaiian

fishermen, ended up becoming a musician. My Grandpa living in Kaka`ako, was also a bandmaster; he had his band in the 1920's and 30's. It was called Sammy's Swing Band. They played music from those times--it was a regular orchestra band, with a lady singer.... And my Grandpa used to have Gabby Pahinui and all the well-known entertainers all on his aku boat. And they would leave from Kewalo basin, and they would go out and come in -- my father, my uncles -- that's what they did. My Grandpa had two aku boats...he adopted a boy from one of the cousins and then later he had twelve kids. My father was one of the oldest; he worked as a fisherman, but they learned many things because of living in Kaka`ako during their time. My Grandpa ended up down in Waimānalo in his later years and once again across from the beach; my father's side was primarily across from the beach. They were on Coral Street across from the beach, right off of Ala Moana--actually. My father was with the fishing boats and the Federal Government (NOAA) hired him -- the interior of national fishery came in the Territorial years. My father always had a job at the sea. Now my mother was also from Kaka`ako and she came from `Ilaniwai Street and that's where Keahi Luahine...that's the house my mom was raised in. Keahi had *hānai*--Aunty `Iolani Luahine, my grand aunt, was given to Keahi. My grandma, Pu`uainahau was the oldest sister and the youngest sister was Aunty `Iolani Luahine. And for many years, Keahi lived there in Kaka`ako; now Keahi was married to Frank Sylvester who was a prominent Portuguese man. He was on the Commissioners Board of Kaka`ako...the chapter of the Holy Ghost in Kaka`ako, the parade and the whole thing.

Kaka`ako. There were beaches actually in Kaka`ako--had beautiful sandy beaches and the park, the kiawe trees and the coconut trees went right down to the [shore]. Right now you just see landfill and you see what you see today. But during their time you could actually walk across the street. The old section would be this pier right here and the new section would be the landfill. So, you take away Point Panic, John Dominis Restaurant, you take all that away, then you would have the lagoon. But if you go behind this Honolulu Marine and Kewalo Shipyard you going see the inwards part of it. And they had ponds -- they had fresh water ponds. Because over there where the City and County has their building by Koula Street. Over there is a pond, you going see the ali`i coconut trees, the niu. You can see it today too; we passed it right over there. But it's all enclosed, and if you go in there, it's a pond. They went fill it all up. Oh, that's too bad yeah, in those days when they were building things, they would fill up natural spring ponds. Actually, that was a kapu place over there. That's where they would prepare for the sacrifice. That was a *kapu* place by Koula. It was a sanctuary; the sanctuary was the pond, the pond was the sacred, the wahi pana, surrounded by ali`i coconuts. And that's where they would prepare, but you couldn't shed blood on the heiau. So they went through this ia`u moe or moe...kai kai moe....you know to flick or wai moe, to drown, you know to put them in there and they sleep. And then they took them up and they had the whole thing on the Poho`āina.

Many of the people that are in Papakōlea and Kewalo Hawaiian homes, are people that had come from Kaka`ako. And many of them down in Waimānalo homestead had come from Kaka`ako. And so Kaka`ako was a regular Hawaiian, a mixture

actually. They had all kind people living in Kaka`ako. The Holy Ghost halls, that's where everybody had their lū`aus and that hall is still there. The Star Supermarket family started in Kaka`ako--and then branched out. They were right there on Queen Street where the Kaka`ako Theater is, they were right across. They started their mama-san business selling saimin and soup--miso soup from their garage at night. People would just come at night and they would have the soup going.

The Ball at Mother Waldron, they would have the dances and Auntie `lo would go to the dances. Not only was she a hula dancer and did her Kahiko hula's, but Auntie `lo was a really good poker dancer and that was her favorite. They had dances and they had orchestras and my grandpa would play, his Sammy Swing Band would play at Mother Waldron Park. It was a big pavilion over there and he would play for the dancers. If I go look and dig in the trunks, which I haven't done since the time my parents passed on, I would find all these pictures cause that's all they took. My grandpa had photos, my Auntie `lo had photos--they all had photos. And I also remember--which is not in Kaka`ako, but it's on mauka--the housing, Kamāmalu Housing. The old homes turned into little rooming houses and my tutu Kalai was staying there, Kahelewai's were staying there, and the Malo's were down in Kaka`ako. The Akina's, the Oloeole's, they were in Papakōlea too, the Ho`omokini's and Waiholuwa's. Do you know up into the early part of 1970's we still took our clothes for iron down to the Portuguese lady down in Kaka`ako, right above Queen Street?

Eventually Kaka`ako was changed in the late 40's because that's when it became industrialized; I guess it became an industrial area. So many of the families sold their properties and they moved out and many of them went onto Hawaiian homelands. But Kaka`ako was very special. We were taught very ancient things, very old Hawaiian things of respect for the sea and we would dive off Kewalo basin and swim in the channel.

Kewalo. Now if you were just right on this side, this is Kewalo still yet so were going to take one step over. If you go Kaka`ako, cause Kewalo is in Kaka`ako, right over to that end where Honolulu Harbor around that and what is the name of the wind that is going to be there? The name of the wind is Kūkalahale. Kūkalahale (singing the song), okay we coming in. Kamamala is the seas of Kaka`ako. It was also known as Nihoa to me during the time of Ka`ahumanu and Kou. Honolulu being what it is now, Mamalako Nihoa, Aloha Nihoa Ekekahi Eha`eha (singing/chanting), but that was when Ka`ahumanu was still here. And then the island Nihoa, also the same name. We always going get one twin to every name in Hawaiian.

Kō`ula. It was on Kō`ula; it was right in that area, Kō`ula the back part. The school was big. I remember they made the neatest wicker furniture. We were going into the trade of making wicker furniture. Kō`ula was that whole area...where John Dominis is, all over there was lagoons and ponds and it's an inlets and coves all over there. They went throw all that, all the left over. Left over of what they when go drag [dredge] down to Ala Moana Center. This was a major basin area, this was major but all the rest was all flat, coral flats. It went all the way up that's why you drive to Ward

Avenue and all over there, it was all coral flats. That's why my grandpa was on sand. Everybody that lived in that area was on sand.

This is when you could watch the sharks come in and you would actually swim. They would ride surfs in like that and they would come right into the channel that's how they would come into the channel. And then they would come all the way in here and go around and just go in between all the ships and they were just scavengers looking for food. They would come over here but this is the part, on this side of it. This side was more and it ended right where John Dominis restaurant is. It ended right there because get one landfill over there. The water went in more this way and there were channels and these sharks would go underneath. And underneath were like Coral Sea caves and they would come out on the `Ewa side. But I think with all this landfill they really went right down into it. So when we swam in here, we swam back and forth across the channel without regards of these manōs. And even after we found out, there's a little pier thing over there. Those coconut trees, they still the same size as when I was there. But along this fence right here, where the white containers are, my father used to grow all his gourds and the gourds would cover that entire fence was all gourd vines, ipus, all the ipus. And they would grow good and the fruit flies wouldn't even sting them. The neat thing about it is that you grow your gourds down here by the seaside, the salt air, the fruit flies don't like the salt air. The gourds grow real big. So that's when I was doing the mauka-makai I said, what kind of plants you can grow very close to the sea? I said your gourds are one of the plants you can grow because the gourds were used for containers and much usage.

Ft. Armstrong. Fort Armstrong all over there, Immigration was all over there [from the Gold Bond building going Ewa to downtown]. You know further down, the limu [seaweed] started off right in the Iwilei area. That was the best limu area picking, right over here in Kaka`ako was very good limu, all the different varieties. According to my grandpa and father and even seeing it as a little child before they started building Ala Moana Center and Magic Island, the old Ala Moana, the old Kaka`ako. Beyond this point it was all reefs, there's nothing else beyond this point. Of course the rubbish place was there too and the pumping stations. That was all Fort Armstrong. Behind was just; it was just Coral Flats. And then you come back into your major harbors again like Honolulu Harbor. So this is your basin, then Honolulu would be your other basin and in between was all these little holes and these little groves. And then you would come back again where Honolulu Basin is turning up toward Iwilei, where the Salvation Army and K-Mart, you making the turn ... Young Brothers--all that was flats. All the way up to Salvation Army, all the way up to where K-Mart, all that area was all flat. I gave a picture of that one time to the Pacific Club in a grab bag gift. I had a picture of Iwilei with women picking limu.

Kawaiaha`o. Kawaiaha`o Cemetery came all the way down, where they had that major burial from the epidemic, the flu. They buried them all in this massive grave area--before the nineteen hundreds, the first one. And then there was a second one that came.... So what happened was that when they started to build the streets, it went right over all these graves. From Queen Street all the down to the ocean. Halekauwila Street, we had a hale ipu on Halekauwila Street in the seventies before I left home. Had a warehouse down there that my father, he was suppose to retire

from the ocean and that didn't work. He ended up retiring and they ended up coming back and telling him we need you back on the ship and he said; no I retired. They were so desperate to get him back on the ship because he was the only one who could handle the Hawaiian crew, the local civilian crew was raising against the haole officers.

Downtown Honolulu. [Merchant Street, Bishop Street, and Alakea Street] they were all the coral flats. Alakea was totally coral out but they were all in the vicinity of the [ʻIolani] Palace. Before it was all going into Downtown Honolulu, they were all ready designated from Kamehameha's time. 'Cause wherever the ali`is stepped and walked, those were the sacred grounds.

Fishponds. They were all in this area. All over here, all the way down to the Airport, all the way down to Ewa were fishponds. It was so convenient because your reef volcano came up and added these coral inlets. So it was convenient to have, it was all naturally made. All you had to do was go...and it was already there. Keep up all of that and the people will eat, the people will have food.

Joe Recca [Orr 05]

Kaka`ako. The family home was there in the late, when the first church Keaulaolao Kamālamalama was built 1897--the family home was there. And that area was known as Kō`ula, in fact Kewalo, where you know the Kewalo area. Kaka`ako is like a part of that entire area. And then it's broken down into little areas. Kewalo and then our area, Kō`ula and then you get up to the Punchbowl area. And Pūowaina is up that area. And going up there you know we had Japanese camp. See we were surrounded. That area, down by Kaka`ako, by the incinerator area, that was all Filipino camp. There was Portugese camp down Queen Street where the Holy Ghost Church is. Of course the Kewalo Theater, where they had 10 cents movies on Saturdays for children. And out by where we stayed there was a Firestone Recap next to the family home and Hawai`i Hotel.

Melvin Kalahiki, Sr. [Cruz]

Born in 1925 in Kalihi, just off Dillingham Blvd. Attended public elementary school in Kalihi, then went to Kawaihae (on Hawai`i Island) to live with his grandfather. Came back to O`ahu. Graduated from Farrington High School. He didn't use public transportation much, but walked everywhere. Remembered the train station and trains going out to Kaena Point. They used to "chase the trains", meaning that when the train slowed down, he and others would jump on board the train and throw pineapples out. Grew up selling newspapers on Mokauea and King. Sts. Mostly Hawaiians lived in the Kalihi area. Kids would swim in Kalihi Stream and catch crabs from the bridge. Further down, at Pu`uloa, they could gather clams—the water was clean back then. Mel used to go down to the place now called Sand Island. There was a Kalihi Leper Settlement there, a holding station until enough were held to warrant sending them by boat to Molokai (Kalaupapa). His family used to go on picnics behind the leper settlement, down by the water. They had a pet shark, 18-20 feet long, with barnacles all over it, an old "black fin". It had a Hawaiian name. As kids they used to go swimming in that area all the time. There was no bridge there

back then. There was a slaughter house near Kalihi stream up mauka. Every time they had a big rain, the area would flood and pigs would be found all over the road and wash down the stream. Mel knew all the water holes in and along Kalihi Stream, one below King St., one below School St., behind the school. The one way up in the valley was called “Blue Pond”. The streams up in the valley had waterfalls.

Dillingham used to be Queen St. Back then they used street cars, and then the trolleys were used. He lived near the present Delite Bakery, 3 houses away. His sister lived next door. Across the street was an empty lot that grew medicinal herbs, so whenever his father needed medicines, he went to the “medicine cabinet” across the street. Mel had four sisters and six brothers, all of whom lived together in the house, along with assorted cousins, aunties, and uncles. One sister took hula lessons and went to school with `Iolani Luahine at McKinley H.S. Bumble bees used to follow her around. Mel’s father, whose family comes from a line of Lua practitioners, used to teach her certain steps under the house.

There was no Farrington High School at the time. Kamehameha School was there, in the Dillingham area. The Kamehameha Chapel was here and later was moved, stone by stone, to where it stands now. Mel recalled that his grandpa (William Paul Mahi Akau) came to Honolulu because he was ill, and he died here. The body was sent back from Honolulu on the Humu`ula, but the boat wouldn’t be still because the water was so choppy. So a kahea was given to clear the way, and the water calmed so they could put the body on board. The water stayed calm for 16 hours, all the way to Kawaihae.

Mel’s father worked for Mutual Telephone in Kalihi. He used to walk to Kawaiaha`o Church and then to Waikīkī, along with (now Senator) Daniel Akaka and his brother, Joe. No one had cars in those days.

[sample excerpts to be added later]

George Kahumoku Flores [Cruz]

Born in downtown Honolulu on Ke`eaumoku St. Grew up in working class neighborhood and public housing in Mānoa; attended public schools; graduated from McKinley High School. He swam in the streams and ponds as a child, was too poor to use public transportation, so walked everywhere. He honors Queen Lili`uokalani with an annual ceremony on her death day (Nov. 11, 1917). Experienced an encounter (spiritual) at a heiau in Kalalau on Kaua`i. Went to Vietnam; spent ten years in the military. Lived in his car for 16 or 17 years. His great-great-grandfather (Kuluwaimaka) was King Kalākaua’s chanter.

[sample excerpts to be added later]

Claire Pruet [Cruz]

Grew up in Kaimukī, attended Catholic schools. Remembers landmarks in Waikīkī, Kaimukī, and downtown Honolulu. Comments on the old transportation system (HRT) or carpooling to get to Kamehameha School. Grandmother grew up in Waikīkī on Bertelman estate on Paoakalani St. Their family was loyal to the Queen at the

time of the overthrow and counter-revolution [provides some interesting history of that time]. Property was subsequently sold and burials on the property were then moved to O`ahu Cemetery. Pruet is descended from the Cleghorn line, prior to Cleghorn's marriage to Miriam Likelike. Her family inherited a number of artifacts.

"I was born in March of `42, after Pearl Harbor was bombed. My father was activated to...he was an employee of Pearl Harbor so than they got activated so they had to stay in Pearl Harbor...all that destruction. That time in Honolulu I recall blackouts...because I was growing up in Kaimukī we had all the windows blotted out because there was a curfew. We used to hear the siren going...this is for years...this is my dimmest memory but I would say I'm like four or five years old and remembering the blackouts."

[sample excerpts to be added later]

Helemano Lee [Cruz]

He was born in 1944. He grew up with his Portuguese grandmother, Rose Bee, who was from Pāhala on the Big Island, but lived on Cook St., near the old Kewalo Theater. There's a park there now, between Queen and Kawaiaha`o Sts. He remembers the landmarks in the area, like the theater and the Holy Ghost Church down the road, the Gouveia family that made Portuguese and blood sausage in their garage. Helemano's grandfather was a carpenter and had his own shop on Queen St., where he made furniture. Helemano's father was Herman Lee, a fisherman who both fished and built boats. He used to lay traps right outside of Kewalo Basin. Everybody would buy the fish he caught, but no one wanted eels, so they ended up eating a lot of eels when he was young.

The Lee family was very musical. Helemano's cousins and uncles sang and played with Genoa Keawe and Sonny Chillingsworth. The family moved to Pālolo when the city started breaking down the old houses. Other areas he remembers: Pohukaina School, next to Mother Waldron Park (the school is no longer there), the original Aloha Shoyu factory; the first store in the area, Star Market; a school for the handicapped, where Pohukaina School used to be; the Hawai'i Prison on Kalani St.; the old poi factory run by a Chinese man.

[sample excerpts to be added later]

Toni Lee [Cruz]

Supports the betterment of city life, including development of infrastructure for affordable homes/housing and transportation; supports golf courses over industrial building and business-type parks; believes she grew up and lived in a Hawaiian way, even though she doesn't speak Hawaiian language and is unfamiliar with Hawaiian stories related to place; is positive about the ability of Hawaiians to survive and contribute to a Hawaiian way of living in today's world; believes that people should be proud of being Hawaiian (by blood) and, in whatever kind of work they do, they will bring to the work a sense of Hawaiian-ness because it is something that has been handed down to them genealogically.

I was born October 14, 1941 in Honolulu, Hawai'i. Went through the sixth grade [at Sacred Hearts] and then to Washington Intermediate School for one year and then to Kamehameha in my eighth grade year and graduated from Kamehameha.

[Re H-1] Yes, I think we were happy that it was coming. We knew that it was going to get people to and from their working area a lot faster, but also it didn't impede, to our knowledge, on anything that was Hawaiian. It showed a way of progress, yes, of transportation, but it was not an eyesore to the community.

[Re statehood] I was a senior in high school at Kamehameha. We became a state. I do not recall pomp and circumstance. I remember standing on the steps of our gym with the announcement and many of us were sad. We didn't have any Rah-Rah. Wasn't anything there that I recall...either I led a very sheltered life and wasn't part of it. My mother was very active in the community. Our family was not part of the celebration because we were not happy. We thought we would be better off as a territory. I still believe that.

[Re fitting in] "Hawaiian-ness" was very suppressed....to the fact that when I was born, I wasn't even given a Hawaiian name. Hawaiian language was suppressed. Hawaiian language was never spoken in my home at all...ever. I was always encouraged to take hula and learn arts and crafts...and things like that...that was the extent of it. As far as Hawaiian folklore, we didn't even really have it in even in the schools. I attended Kamehameha schools from the eighth grade and we didn't even have Hawaiian language at Kamehameha Schools back then at all.

I graduated in 1959. So I was there from my eighth grade year on. So there was no Hawaiian language. We couldn't even dance the hula standing up. We would have to hula noho...period! And by the way, "Don't move those hips!" So Hawaiian....it was not "in" to be Hawaiian then. So a lot of the folklore was really not shared with my generation actually. Maybe that's because I lived in the city and maybe it's because my mother and my grandmother, who was the matriarch of our family actually...she worked for the attorney general's office. She was very much of the western world. She was in the Order of the Eastern Star, which was a major organization back then... Eastern Star, and the men were called Masons...they're still together now, but it's not as prominent as it was then. My grandmother was a member of the Hawaiian Civic Club of Honolulu. She was a life member, but until we moved to Pearl City and formed the Pearl Harbor Civic Club, we were not members living in Honolulu at that time. The Civic Club was very small then so it was not very "in" to be Hawaiian back then. But let me also add to that, many people who grew up during my time feel that they were deprived because they didn't know their Hawaiian-ness. I never felt deprived because I always knew who I was. I always knew where I came from. I always knew I was Hawaiian. I didn't feel that I was deprived ... "Oh, Poor thing, me"because I wasn't able to know the language.

Our kupuna felt very strongly that they wanted our people to be able to fit in the world today. To be able to speak, to be able to be educated, to be able to discuss things and not feel that they were inferior to anybody else. So the English language was very, very important to learn and to be able to communicate.

[Re racism and preference policies] My husband and I would go look for a place to rent...my husband was half-Hawaiian and half-Korean....but looked Korean. I would send him. Because if you looked for an apartment or house...it said "AJA" preferred...well, he's slant-eyed so they would look at him more favorably than they would look at me. When we worked at jobs, everybody got different pay. When we were hired we were always told, "Do not discuss your salary with your peers." Now, psychologically, we know when someone says not to do it...what are you going to do? Of course you're going to discuss it! So at lunch, we would thoroughly discuss. And we would find that we all had the same job but different salary. So yes, back then there was much of that going on. And it was hard to get a job too because many of them are looking for the Japanese to hire first. If you go through newspapers back then, you will see...very predominately..."AJA preferred".

[Re pride in being Hawaiian] You know in my work for the government for forty-one years I was proud of being a Hawaiian. And I took my Hawaiian-ness, what little I had, to work with me everyday. To teach them about what we do as individuals, to teach them how we think, to express to them on the politics happening of the day how I felt as a Hawaiian, how I felt as a person growing up in Hawai'i because they would never necessarily get that. I would teach them Hawaiian crafts when it was the appropriate time. I would invite them to the luaus of the area. Whatever Hawaiian Civic Club was doing or whatever open house the Bishop Museum was having, I would do flowers for my entire command and let them know what was going on. Because I thought that was important

[Re folklore] As far as folklore, the folklore question, I could not sit and tell you of a folklore that I remember. But knowing and being Hawaiian, yes, we learned about that. You know like we would go pick guavas...we spent summers on the Big Island and my grandmother would make guava jelly and we would go pick guava. Some times we'd climb in the car and we'd pick guava and the guava would go higher and higher...gunfunnit...how come we cannot reach them now?... or say something about it and then all of a sudden the guavas would be falling on our head. That kind of stuff...where they say, "Why was that?" Right? That's part of our ancestors maybe saying, "You know you better behave and ask good enough...ask for permission to do this before you just come and help yourself!" Or, "Don't hanaino this place!" Then we grew up with that. We grew up with Pele, and the Lady in White walking alongside the highway...you know picking her up and she might not be in the back of the car. I guess, maybe I've forgotten, but driving over the Pali and pork in your car ... whether you're going to take pork in your car and your car is going to get stuck...we always made it...we never did carry pork over the Pali because we knew that as a people...so we never did do it. So I guess in a sense that was the folklore of the day ...that was the folklore of my time frame.

[Re what we need] You know in growing up I always thought housing [was] very important. We need more houses. We need affordable housing. I never thought in my lifetime, and I might be sorry that I'm saying this on a tape, but I never thought that I would see the day that I would be happy to see a golf course. And it's only because it pains me to see our city that builds things...builds houses...before they build infrastructures. It pains me that they throw the cost of an infrastructure on the

people that buy. It pains me that we drive a boulevard and we see big rubber tubes that carry our waste water management...the sewers are aboveground. They say it's temporary and yet Kalaniani`ole just got cleaned up. They were there for almost ten years. Now there are other ones in `Ewa ...there are some down Kaka`ako side, and on the Ala Wai...those are becoming ways of life. Is that how we are going to live? You build the infrastructure first, you build the sewers first, and then you build. And you know those guys that are building...that are raking and lining their pockets with gazillion dollars...they need to pay for that infrastructure...not the guy buying the house! That to me is important. It's an eyesore. And yet it's a necessity.

[Re the proposed Transit Corridor and the Outdoor Circle] When people say, "Oh you know the Outdoor Circle, they don't like signs!" I never could understand why until I got off a plane in California and saw the signs...you know, billboards. I have yet to hear them say anything about it. They're concerned about the trees; they're concerned about what's being cut down and what's being put up and what's being moved, and yet they're going to put up a concrete eyesore to our place that we live. That's the biggest sign that you ever want to see...for our life!"

Karen Motosue [Lapilio]

Karen was born on Kaumakapili Lane many years ago which was located between Nu`uanu Street and Smith Street and was the original location of Kaumakapili church before it burned down. Her mother was born in Waialua and her father in Kīlauea, Kaula`i although both of them were living in Chinatown by their teen age years working and going to school. Her grandmother had a barber shop and a barber school on Beretania St., between Kaumakapili Lane and Smith Street, the area where the family lived. Karen attended Royal School, Kauluwela School, Central Intermediate and McKinley High School. She attended Japanese School at the old Soto Mission before it got displaced by the freeway and in addition to Japanese language, students also learned other cultural practices such as tea ceremony, calligraphy, flower arranging and Japanese embroidery. Her uncle owned a hotel across A`ala Park and all of the relatives lived nearby. There were a dozen or more Japanese hotels in the area at that time. At that time `A`ala Park to Kauluwela Lane was all tenements, saimin stands and mom and pop stores. Lots of the streets are all gone now. She lived there from birth till the Federally funded urban renewal projects forced everyone to move out. The redevelopment effort claimed to be clearing slums but it disrupted the culture, practices and lifestyles of the residents. In the old days, they gave you 60 days to move out and a check from HUD for 35.00 to cover moving costs and that was it.

Karen has been the Director of the Hawai`i Heritage Center located at 1040 Smith Street in Chinatown for many years. She currently coordinates multi-cultural programs and conducts tours of Chinatown. Regarding the rail corridor, Karen says "The problem with Nimitz is the visual blight. It is the last visual we have left to Honolulu Harbor and the ocean and now we will have the rail that will block our view to the water. Would have been better to use Beretania Street or Hotel Street or even better yet, go underwater like in San Francisco. The Kaka`ako plan proposed a

green belt from Waikīkī to Kaka`ako which is the reason for the Kaka`ako waterfront park.

Chinatown is an important place and serves many needs such as cultural, educational, economic, and social. It has everything that you need and more. There have been many changes over time and the most drastic one was the opening of the Ala Moana Shopping Center. This event was very damaging to merchants and caused many of them to go out of business because people started going to shop at Ala Moana instead of Chinatown. Currently the population of Chinatown is mainly Indo-Chinese with people coming from Cambodia, Vietnam, Taiwan, Hong Kong etc.

Culturally the rail should not have a negative effect on Chinatown and it may be good for tourists who will be able to get there easier on the rail. Many people shop in Chinatown because there is no distinction between wholesale and retail so everyone pays the same price. Many people market there every day because they like to have fresh and cheap food and that practice will not change. All of the businesses buy from each other, for example, the Chinese restaurants buy their roast duck from the neighboring markets and that practice still goes on today.

The main corridor in Chinatown is King Street, Hotel Street and Beretania Street so access should not be impeded by the rail project. You need to talk to the owners of the markets along Nimitz as they will need assistance during the construction period to make sure that their customers will have access to the marketplace .

Some interesting facts about Chinatown is that the McCandless building in Chinatown is the only one (in Chinatown) that was fully restored in 1980 with the assistance of the Federal and state government. McCandless Properties, a family business, is a major landowner in Chinatown. The other building that is a full restoration is `Iolani Palace.

There is a native garden in the courtyard of one of the McCandless building (between King Street and Hotel Street) that contains plants that were native to Chinatown at one time. The garden contains plants like tī leaf, kukui, dryland taro, coffee, and sugar cane. It used to be open to the public but not anymore. Chinatown is a very important and unique place to the people of Hawai`i.”

Tin Hu Young [Lapilio]

Tin Hu Young was born in 1927 in the Pearl City peninsula near the corner of Kirkbride and Lanakila across from Victory Dock. My dad was Tin Hu Young Sr. and mother was Elizabeth Kahiku Johnson Young. In the old days it was known as the original Queen's Pond. There was a tiny little island in the middle and a large rock wall protecting the pond with a small opening to let the tide waters flow in and out. Victory Dock was built over this pond before and during WWII. Most of my childhood years were spent at the pond, crabbing, fishing, or riding boats that we made with the neighborhood kids. The house I was born in was actually a converted carriage house. This was during the horse and buggy days and the house was actually owned by one of our trustees at Kawaiaha`o church, Frank Archer. My dad worked in Pearl Harbor Shop #56 as a pipe fitter. My grandfather on my Chinese side was a rice grower. My mother Elizabeth and

my Aunt Mary were raised by grandfather's oldest brother Johnny Johnson who was a ranch foreman for the Dillingham's. They had a large cattle ranch above Pearl City.

As far as going to school, I started in Pearl City. At that time there was only one school in Pearl City and I think it only went up to the 8th grade. In those days Pearl City didn't have all the schools that they have today. And in Waipahu they only had one August Ahrens school. From the 1st-5th grade I went to a school in Pearl City. In 6th grade I went to Queen Ka'ahumanu School in Honolulu. That was just before the war.

As far as work experience, I was fourteen during war time and I worked at USED, which was an organization that paid us fifty cents an hour. They made us plant vines for camouflage for the airplanes especially at Bellows field. We got to earn money but we couldn't touch anything because of safety. When I was sixteen I got to work in Pearl Harbor in the naval supply area. I worked at Kahua Island which held the navy supply. When I was eighteen I joined the U.S Army. I took my training in Fort Bliss in El Paso, Texas where I was trained to be a clerk administrator. Afterward, I was assigned to the 1802 Special Regiment in West Point, New York. I worked as a clerk at the officers club which was a nice job. My work experience went from a kid in the navy supply center and then later on I worked in the electric center at Pearl Harbor Naval Yard. Later on, I worked as a Spencecliff warehouse manager at a restaurant. After that, I worked at a family business in the `awa root business.

[Re: Waiawa, Pearl Harbor] The most culturally important feature in this area is the meeting point of Waiawa and Mānana as that is where the two mountain ranges, Wai`anae and Ko`olau meet. Pearl Harbor area was one of the main breadbasket areas for O`ahu from way back. There was always farming, planting of food, food gathering areas, and the rivers were filled with fish. At one time the river used to be very clean and all these schools of fish used to come up the river from Pearl Harbor and would go and spawn in the watercress patch and ponds, etc. Now there is a junkyard adjacent to the river so it is now polluted and I do not think it can be used as a food source. Also the Navy filled in 200 acres at the mouth of the river to make it higher.

[Re: Waiawa Stream] The importance of Waiawa stream is because it is the second largest watershed on O`ahu. We have to protect the watershed and the low lands in order to protect the stream. It has not been taken cared of as far as flood control which adversely affects the people along the river, farms, and houses. At least 20 years ago, I was on the committee to address the flood control issues and Jiro (former owner of Petland at Ala Moana) and I went door to door to all the houses along the river to ask if they were willing to give up part of their lands for flood control and we actually got everyone's consent to do this. Turns out the project was a low priority in the scheme of things because they said there were supposedly no big projects being planned for the area however it did not take long before Home Depot, Sam's Club and other stores started coming up. One of the problems is the pilings under the bridge which stops the debris from moving down the river. One time we contacted the Navy and they said their boundary is makai of the bridge however I told them you cannot arbitrarily divide up the river because what happens at the river mouth affects what happens up stream. At one time, I contacted Henry Giugni

because he knew the assistant secretary of the Navy and sure enough, he was able to get us some help. The end result was the navy seals came out and blew out the piling so the debris could go down to the mouth of the river. We lost our home from flooding as the Navy buoys damaged the house during the flood. Kamehameha Schools was responsible (as the land-owner) and we received replacement cost for the value of our home.

Waiawa Bridge is an energy corridor as it is the crossing point for the electric lines for the power from Waiau as well as the main sewer line that crosses under the river. The military also has their lines in this area. Many of the names in this area begin with Wai which means fresh water, such as Waiau, Waiawa, etc. Water was very important to the Hawaiians and so these were very important areas in the old days.

I attended the hearings the Navy held when they were discussing the storage and transport of radioactive waste. They wanted to know what route the community would suggest and I told them the ewa side is preferable. The Navy has to deal with the storage for all the ships and from there they were supposed to ship to salt mines in Nevada. Aliamanu area used to be all ponds and is all backfilled now.

[Re: burials] With regards to the burials along Halekauwila street, I do not think there will be as much iwi kupuna as was found on Queen Street. The reason is because as you get more mauka, you are getting further away from the bay and most of the area was backfilled. From Kawaiaha`o Street to Blaisdell, Sheridan and Rycroft, these areas were all marsh and ponds before. So when they dug up Ala Wai, they used it to fill these areas as well as Ala Moana. The reddish brick building near Kawaiaha`o Street and next to Gold's Gym used to be the Kings Boathouse because this area was at that time, close to the water.

[Re: Waikīkī] Waikīkī was a different place back then. We used to dive off the Kalākaua bridge as the water was very clean. There were public baths and lots of rocks. They brought the sand into the area to make it look nice for the tourists. Things have really changed on O`ahu.

Rosa Lou Garcia Cadiz [Lapilio]

Rosa Lou Garcia Cadiz was born in Kohala, Hawai`i island on the plantation and both her parents came from Ilocos Nortes in the Philippines. Her parents owned the Garcia Family store in Kohala and so she grew up working in the store. Rosa Lou is in her 80's and she has owned a custom tailor shop in the Chinatown area for many years. Currently her shop is located at 1145 River Street. Many Filipinos frequent her shop to purchase Barong Tagalog and Filipiniana dresses. The barong is an embroidered garment of the Philippines. It is very lightweight and is worn untucked over an undershirt. It is a common wedding and formal attire for Filipino men as well as women and was officially made the national costume by President Marcos. She says that she is selling less Filipino things nowadays than before as the young people do not wear the barong anymore. She remembers when there were many Filipino stores, barber shops and pool halls throughout Chinatown but says the rent is too high now and many of the Filipino residents are all passed away now. She

remembers the Filipino garden in Chinatown that grew marungay, egg plant, bitter melons, etc.

[Re: Filipino cultural events] Rosa Lou's shop is right next to A`ala Park and she remembers when the Filipinos used to have rallies at the Rizar statue. She would like to see more ethnic activities in the Park and remembers when people used to fish for tilapia and crab in the river but not anymore as the water is polluted.

[Re: the rail] She hopes the rail will not take away business from the bus and believes that the area is already too congested and will get worse.

Margaret Y. Pang [*Lapilio*]

Margaret Pang was born on Austin Lane which is located behind Tamashiro Market and grew up around the Palama Settlement and Chinatown area. She is the granddaughter of Mr. Young, the founder of O`ahu Marketplace and the owner of the China Bazaar which was formerly located on Maunakea Street. Her grandfather and uncles were active members of the benevolent societies such as the United Chinese Society, etc. but these societies have all since disbanded.

Margaret is a Chinese woman in her 80's and she has fond memories of growing up in Chinatown. She says that everyone purchased their food in Chinatown and you could always catch the latest gossip about who was getting married, having children, etc. Most all of the wedding receptions were held in Wo Fat restaurant and they would also have firecrackers and the dragon dance to chase away evil spirits. There was another popular Chinese restaurant called Happy Inn that used to be on Smith Street. When she was growing up, at least 75% of the restaurants in Chinatown were owned by Chinese but now the Indo-chinese have completely taken over. She says that the immigrants really work hard and they do not expect the government to give them hand-outs. She remembers there were about four to five theaters in Chinatown at one time, including the Roosevelt Theater. Margaret's father started the Tan Sing Drama Club which was the home of the Chinese Drama Society located on Kukui Street.

[Re: cultural practice] Margaret plays the moon harp which is a Chinese instrument that was used to perform Chinese music in Japan from the end of the Edo period through the Meiji period. The moon harp is so named because its shape resembles the full moon. Margaret still teaches moon harp lessons in Chinatown and is there every Saturday.

[Re: rail] She is concerned about the view of the rail going along Nimitz. She thinks it will spoil the view and this will be the first impression of Honolulu that people (including tourists) will see and remember. Regarding the impact of the rail on Chinatown, she feels it may have a positive impact because more people will come to visit so it will be good for all of the Chinatown merchants. Compared to other Chinatowns such as San Francisco, our Chinatown is not as crowded or popular as these other places with wall to wall people. Right now the Chinese restaurants are packed at lunch time but not in the evenings so maybe they could catch the rail.

Shad Kane (Lapilio)

Shad Kane grew up in Wahiawā and later moved to Kalihi where he spent most of his teen years. He attended Kamehameha and graduated from the University of Hawai'i. He retired from the Honolulu Police Department in 2000. He is a member of the Kapolei Hawaiian Civic Club and former chair of the Makakilo/Kapolei/Honokai Hale Neighborhood Board, Member of the State Environmental Council, the Hawai'i Energy Policy Forum, the Kapolei Outdoor Circle, the Friends of Honouliuli, Ka Papa O Kākuhihewa and the Makakilo-Kapolei Lions Club. He is also the `Ewa Representative on the O`ahu Island Burial Council and a Native Hawaiian Representative on the Native American Advisory Group (NAAG) to the Advisory Council of Historic Preservation in Washington DC.

[Re: Place names and cultural history] The significance of ancient place names is that these are the names that our Kupuna gave these places. These names are important because they tell us something about these places. The role they played in the daily lives of the po`e kahiko. These names were given with a lot of thought and purpose and although much of our ancient past has been lost a piece of that past can be found in our ancient place names. Our cultural stories help us understand that these places all have a very important and colorful history. This history is not just that of a plantation past, or of its military role during the closing moments of WWII or that of an industrial center but rather it is a place with a history of over 2000 years of human habitation. We are speaking of an island in the middle of the Pacific. Our ancestors were in these waters when the Roman Empire ruled much of Europe and the countries surrounding the Mediterranean. These stories are to help us see beyond the facade of concrete and wooden structures. To see beyond the roads and highways of today. To feel the winds of the past. To allow us to see that which cannot be seen. To once again see the manu `ō`ō feed on the noni fruit at Kānehili (formerly Barbers Point). To taste the waters brought forth by Kāne and Kanaloa from the sinkholes at Kānehili. To see the breadfruit tree planted by Kaha`i-a- Ho`okamali`i at Kualaka`i (Nimitz Beach in Kalaeloa). To see Hi`iaka as she admires her reflection at the Spring of Hoakalei. To be able to see Kapo as she stands on the hill known as Pu`uokapolei. Maybe as we are all rushing about in our daily lives we can take a brief moment and find satisfaction and try to listen and see if we can hear those voices of the past. Like the chatter of the birds in the uplands or the sound of raindrops on the leaves of ancient koa. This is the importance of these stories.

We today see so much taking place in this new city of Kapolei. These are good things as we grow older. But there are things that we cannot forget or leave behind. Things that we must take with us. We all should have beautiful homes where we can raise our `ohana. We should have meaningful employment, jobs we enjoy doing. Most of us are no longer hunters, fishermen, farmers or gatherers. We do our hunting and fishing in stores, markets and businesses. This is our story today.

[Re: Destruction of the Landscape] Much of the cultural landscape of these islands that we have come to love was lost with the invention of the light bulb by Thomas Edison. There was no longer any demand for whale oil for lighting oil lamps. The

thriving whaling town of Lahaina slowly lost its prominence as the business center of these islands. The capitol of these islands moved to Honolulu. Up until this period in island cultural history much of the cultural landscape was still intact. Although Kaahumanu had attempted to destroy many of our ancient heiau and sacred cultural structures some still could be found scattered amongst the landscape.

It was widespread agricultural interest that brought about the demise of many cultural sites and ahupua`a and `ili boundary markers. It was agriculture that changed our cultural landscape so completely with the plowing over of thousands of acres of lands. The stones of many of our cultural sites and boundary markers were pushed into piles within these agricultural lands. Today many of these stone piles can still be seen as one drives along the H-1 Freeway to and from Makakilo and Kapolei. Some line our freeway between Waipahu and Kapolei. As one is driving in the Wai`anae direction along the H-1 many of these sacred stones can be seen on the mauka side of the H-1 just after you pass the Makakilo Drive overpass and before the Water Park. Many of them are just beyond the backyards of the perimeter homes in lower Makakilo. Many can still be seen on the makai side of the H-1 just pass the Water Park and before Honokai Hale.

[Re: previous archaeological work] H. David Tuggle and his wife Myra Tomonari-Tuggle of International Archaeological Institute, Inc. at the request of Belt Collins Hawai`i in 1994 conducted an inventory of all cultural resources through mid-1994 of the entire `Ewa Plain. It was an inventory of all previous archaeological surveys. It was done to satisfy the requirements of an Environmental Impact Statement part of the closure of the Barbers Point Naval Air Station and the cleanup and reuse of the former naval air station. This synthesis of Cultural Resource Studies was ultimately intended to serve as a cultural resource management plan.

The sad reality of all the previous archaeological work done in Kānehili (Kalaeloa) and all the `Ewa Plain is they were merely done to satisfy requirements environmental impact statements and cultural assessments. The work was budgeted. Dave Tuggle's "Synthesis of Cultural Resource Studies of the `Ewa Plain" which is the source of much of what I have shared with you was intended to ultimately serve as a "Cultural Resource Management Plan" with the closure of the former Naval Air Station at Barbers Point. It was intended to serve as a source of cultural resource information toward its preservation and future study. Perhaps Dave Tuggle's last few pages of his synthesis best explains what is our responsibility today, what is our kuleana. What must we do as contemporary people of this new city of Kapolei. In short he says the work is not done. Much more needs to be done in terms of gathering data. More research needs to be done. Very little has been done in the excavation of sinkholes toward the study of extinct bird bones. These sinkholes are time capsules. If we do not have the resources or interest to further study and research the cultural landscape of Kānehili. Perhaps our job is to take care of these places and to protect them for future study and understanding. If we do this, perhaps future generations will thank us for our foresight.



[Re: `Ewa] Traditionally `Ewa is one of 6 moku for the entire island of O`ahu. In defining the land area of Honouliuli we can start at the mouth or entrance of Pearl Harbor and travel along the coastline past Keone`ula, Kalaeloa and Ko `Olina all the way to Pili `O Kahi. Then follow the ridge of the Wai`anae Mountains up past Pālehua, Mauna Kapu, Pōhākea all the way to Pu`u Hāpapa adjacent to Schofield Barracks. Then follow a line east beyond Kunia Road and then return to Kunia Road at a point where the Country Club is located. Follow Kunia Road past Village Park and Waipahu to a point at the top of Kaihuopala`ai or West Loch. Then continue your line bisecting West Loch to the start at the entrance to Pearl Harbor.

[Re: Polynesian history, culture and lifestyle] Let us however take a step back in time and see how life once was when we were once hunters, fishermen, growers of kalo and `uala and gatherers of bird feathers. A time when we were once warriors. The oral traditions to most cultural thinkers today are more than just stories. It is a history of people and places few of us know today. It was told and passed on in a manner that would help us remember. Such are the stories of Kāne and Kanaloa. They are not just gods but our Kupuna who traveled the seas and land. Kāne of fresh water, “wai” and Kanaloa of the seas “kai”. It is a voyaging story and tells of their travels from the islands of the southern latitudes to these jewels of the northern seas. It is a story of how Kāne brought forth life to this land. It is a story of places and names and water and people and the places where they lived and thrived.

A question our ancestors had to deal with constantly is how many people an island can support. I know it is something a lot of us think about often. If not, we should because it is real. One of the reasons our Polynesian ancestors came this far north is simply because their numbers became so overwhelming that they started to have

the kind of problems you would expect as numbers of people grow. We have the same problems today and same question. It is no different although we are only separated in time. They lived a subsistence lifestyle which meant it was important for them to live in areas of resources. There were no refrigerators or grocery stores. Food and water need to be abundant and readily available. Fish had to be plentiful. One did not have time to cast a hook and line out and wait for a fish to bite as his wife and children were home waiting for a meal. As these numbers of people grew in the southern latitudes, food and resources became less readily available. It became a struggle amongst family members which resulted in conflict and famine. It was either die or risk the seas in search of a new home. Many cultural thinkers feel that it was this that brought about the age of exploration into the northern seas of our ancestors. To put this into a better perspective the Roman Empire was flourishing around 27 BC. It is believed by some that the first settlers arrived in Hawai'i around 100 to 300 BC. It took well over a thousand years in the evolution of a language where there are more differences than similarities. It was this distance not only in miles, but in time, that gave rise to this unique culture who we today know of as the Hawaiians.

When one compares the history of these Polynesian explorers it is no different from the explorations of other countries during the same period. It was a search for resources. There was however one major difference. The Hawaiians were the only ones out on the open seas. No other country ventured beyond the sight of land. There are many stories of such Navigators of Kapawa and Maweke having been to such places as South America, Central America and the Pacific Northwest. Maweke was exploring these foreign lands 150 years before the 1st Crusade into the Holy Land which had occurred around 1099 AD.

The sweet potato is South American in origin. It is also believed that our ancestors had a taste for salmon before western contact. In the early 1990s an article appeared in the "Smithsonian" magazine that identified human skeletal remains found along the Columbia River in the Pacific Northwest as Polynesian in origin. What made this find extremely interesting is the iwi kūpuna was dated prior to the Native American Indians having been in this region. A court struggle with Native American Tribes of the region resulted in further research being halted and the remains turned over to the Native American Tribes involved in the dispute. The iwi kūpuna was subsequently reinterred by the Tribes. Few Hawaiians ever knew that this discussion was taking place.

[Re: Kaupe`a]. He inoa O Kaupe`a, Kaupe`a is the name. Before we try to understand this name let's first try to determine where is this place geographically. No one alive today can say with any kind of certainty where the exact boundaries of Kaupe`a may have existed. Kaupe`a is the area that surrounds Pu`uokapolei and extends seaward perhaps to the fence line of the former naval station. We also know that it extends quite a distance in the `Ewa and Ko `Olina direction. A hint as to where Kaupe`a once existed can be found in several ancient traditions or mo`olelo (stories). One such story is the Travels of Pele and Hi`iaka. Pele fell in love with Lohi`au and chose her youngest and favorite sister Hi`iaka to seek and find Lohi`au on Kaua`i and bring him back to her on Hawai`i Island. As she was traveling across

the island of O`ahu she made a brief stop at Pu`uokapolei. This place, Pu`uokapolei, is located adjacent to the Kapolei Regional Park today. The story indicates that when Hi`iaka left Pu`uokapolei she set out for Kualaka`i. As she travels from Pu`uokapolei for Kualaka`i she first passes through Kaupe`a then Kānehili before she reaches Kualaka`i. Kānehili is the area defined by the former Naval Air Station at Barbers Point or today Kalaeloa. Kualaka`i is known today as Nimitz Beach in Kalaeloa.

Mary Kawena Puku`i with Samuel Elbert wrote the Hawaiian Language dictionary which is used today by most language teachers and students. She spent many years working for the Bishop Museum as a Hawaiian language expert and is credited for translating many articles found in the Hawaiian language newspapers written during the 1800s. Ms. Puku`i shares a story that she claims as true and really happened to her. She never heard of Kaupe`a until one day when she was visiting her cousin and aunt who lived in Pu`uloa. They were walking along the beach from Pu`uloa to Kalaeloa, not the Kalaeloa that we know of today but rather just beyond the former Naval Air Station to the area where Germaine`s Luau is located in Campbell Industrial Park.

They were accompanied by a true native dog whose name was Teto. Teto had belonged to Mary`s aunt. Teto was small with upright ears with a body the size of a fox terrier. As they were walking along on their way to Kalaeloa something strange had happened. Teto for no understandable reason fell to the ground and laid still. They all thought the dog had died. Mary Kawena Puku`i`s aunt shouted out to her to run to water and get some sea water.

When Mary got back her aunt took the water and sprinkled it over the head of Teto and chanted something in Hawaiian. When she rubbed the head of the dog with the sea water, all the while saying something in Hawaiian, Teto suddenly started to move and wake up. Her aunt then explained and shared stories regarding the wandering spirits of Kaupe`a. She told Mary because Teto was a true Hawaiian dog, the homeless, wandering ghost of Kaupe`a may have wanted Teto for himself because he was a true native dog.

[Re: Wiliwili Groves of Kaupe`a] In many of the articles written by Hawaiian Historian Sam Kamakau for a Hawaiian language newspaper of the 1800s, he makes reference to the wandering spirits of the Wiliwili Groves of Kaupe`a. It is a place where these homeless spirits seek spiders and moths for food. We mentioned in an earlier story of how Life, Death and Sleep overlapped. There are two places as explained by Sam Kamakau, Aokuewa and Leina-a-Ka-`Uhane. An aokuewa is a place of "wandering spirits or homeless ghosts." Leina-a-Ka-`Uhane are leaping places into the next world or realm. When one dies and he is assisted by his `aumakua to a Leina-a-Ka-`Uhane he is assisted into the next world by his `aumakua. However if one does not have an `aumakua he does not have the advantage of being assisted in finding the Leina-a-Ka-`Uhane. He is thus banned to barren and desolate place to eat spiders and moths.

These are places of the aokuewa. These are places where one comes to make up for not having been a good person. He is given another chance. Some Christians

today refer to this place as purgatory or limbo. Although most Christians believe that limbo is somewhere else. The po`e kahiko believed it is here...on the island of O`ahu it is Kaupe`a.

However they further believed that although they were doomed to seeking spiders and moths they still had a chance to redeem themselves. Their only hope was to seek the Ulu-o-Leiwalu tree at Leilono. Leilono is at Moanalua on O`ahu. Historically Ulu-o-Leiwalu was known to be close to the rock Kapūkakī and said to be line with the burial mound of Āliamanu and facing toward the right side of the North Star or Hōkūpa`a. In the ancient stories the Ulu-o-Leiwalu was a hole in the ground about 2 feet in diameter.

In this hole was said to be a breadfruit tree or the Ulu-o-Leiwalu. There were only 2 branches on this tree one on the east side and one on the west side. It was said that the branches were deceiving. It was also said that the Ulu-o-Leiwalu was guarded by a huge caterpillar on the east and a large mo`o on the west.

Even after having come this far these homeless spirits had to get past these “watchmen” to get to the Ulu-o-Leiwalu and be saved. Having arrived they had to make critical choice. They would need to chose which branch to leap for. If they chose the correct branch and found an `aumakua who would help them they would be saved and no longer wander the “Wiliwili Groves of Kaupe`a.” If, however they chose the wrong branch after having leaped on to it with no `aumakua to help him, the branch could not hold his weight and would break he would fall into total darkness of night.

From all descriptions of the location of Leilono and the Ulu-o-Leiwalu it would have been in the area just mauka of Moanalua Highway in the area of Ala Kapuna or more commonly known as “Red Hill.”

Like many Hawaiian words and place names there are dual meanings. So is Kaupe`a. With the travels of the Hōkūle`a we today have accepted that our history is one of a migrating people from the southern latitudes to these northern waters. They were able to do this with their knowledge of the stars, constellations, sun, moon, wind and ocean currents. It is a story that overwhelms all of us and a credit to men and women of the Hōkūle`a.

However the story did not stop with the arrival of those foreigners from the land of the southern stars. With their arrival to these northern latitudes whose stars they were not familiar with their first challenge was to mark their way back home. On the leeward side of every island they marked that path home by identifying those stars that gave them that sense of direction.

The Southern Cross is that constellation that was very familiar to our kupuna in the southern skies. They referred to the Southern Cross as the “bat`s perch” or Kaupe`a simply to them because it looked like an upside down cross. They however realized that as they traveled further north of the equator the “bat`s perch” slowly descended beyond the southern horizon such that from the area of the new city of Kapolei only one star can be seen.

It is believed by most cultural thinkers of today that although the boundary markers that once marked the geographical area of Kaupe`a can no longer be seen they may have marked or pointed out the location of that lone star. The navigational significance of the Southern Cross is it gives one a sense of direction. As it rises it is indication that one is moving into the southern latitudes. As it descends it is an indication that one is moving toward the northern latitudes. Thus to our ancestors or the po`e kahiko Kaupe`a pointed to the lone star and the way home to Kahiki.

There are many Tahitian associations that define the ancient history of the new city of Kapolei. Perhaps the most important is this. Hawaiian Historian Sam Kamakau identifies `Ewa as the “Celebrated lands of the ancestors.” He makes this statement because Kamaunaniho who is considered one of our first migrant ancestors from Kahiki lived at Pu`uokapolei.

In 1930 H. Gilbert McAllister who was an archaeologist at Bishop Museum did the first archaeological survey on O`ahu. He said that in 1930 the foundation of Kamaunaniho`s home, the stone wall that surrounded her home and her grave could still be seen at Pu`uokapolei. In 1998 an archaeological survey identified an elevated platform in the area of where Kamaunaniho`s house site would have once existed.

Where at one time many stories were once considered myths and legends, today our voyaging traditions such as that of Kāne and Kanaloa, Pele and Hi`iaka, Kamapua`a and the travels of Olopana, Mo`ikeha and La`a and more are now considered a historical record of our ancient past. Kaupe`a is clearly a part of that voyaging

[Re: Kaupe`a] This is another story of Kaupe`a and those who those who “eat spiders and moths” in an attempt to seek their aumakua and their way to the “Leiwalu `O Leilono”. Maybe it is they who are the shadows with no faces that we see.

The ancient beliefs of our kupuna as taught to us by Hawaiian historian Samuel Kamakau regarded the two separate forces of energy that inhabited our physical body as “Wailua”. One was referred to as a “dream spirit” and the other was that energy which sustained our lives and carried on the life-sustaining processes of the body such as the functions of the heart, brain, lungs and breathing. It was believed that life, death and sleep overlapped. When one went to sleep and dreamed this “dream spirit” leaves the body and travels. “Dream spirits” can resolve problems and visit departed family members. If one was a practitioner of the arts and he dreamed he met with someone who shared information he would take this advice seriously. If the person does not wake up, or in their beliefs the “dream spirit” does not return to the physical body that defines death. In death if this person lived a good life and was respectful of all the kapu, he respected the wishes of his parents and basically lived a good life he would have the advantage of his `aumakua or family guardians to help him find his way to a “Leina-a-Ka-`Uhane” or leaping places into the next world. If however he was not a good person and was not able to find an `aumakua or family guardian who would help him he would be banned and doomed to wander in desolate and barren places. He would wander and exist by eating spiders and moths

in places referred to as an aokuewa or “Places of Wandering Spirits”. So therefore there are two places, a “Leina-a-Ka-`Uhane” and an “Aokuewa”. On the island of O`ahu the Leina-a-Ka-`Uhane is at Ka`ena Point and perhaps also at Pu`uokapolei based on a kanikau by Kekuapo`i. Every island has an aokuewa, Kama`oma`o on Maui, Mānā on Kaua`i, Halāli`i on Ni`ihau, Uhana on Lāna`i, Ma`ohelaia on Moloka`i and the wiliwili groves of Kaupe`a on O`ahu or as we know it today as Kapolei. In an effort to get an appreciation out of what we are sharing today there is one fundamental Christian belief that we need to understand. From this I will draw some parallels to bring some kind of clarity to this. In a Christian sense there are three places in death. There is a heaven, hell, and a third place known either as limbo, purgatory and which other cultures may have different names. This third place is where one’s spirit, soul or “dream spirit” goes to make up. It is his second chance. If you are not good enough to find your way to a better place or not so bad so as to be condemned to pain and suffering for eternity, it is purgatory where you would go to make up for past deeds or poor choices. However most of us believe that purgatory is somewhere else. In a Hawaiian cultural sense, purgatory is here in places known as an aokuewa.

These are the places whose stories we are all very familiar with. It is not to say that strange things do not happen elsewhere. Of course they do. However it is places such as Kaupe`a where they happen most often. I will share just a few from a personal perspective. I have had strange unexplainable things happen to me on other islands but these are just those that have occurred here in Kaupe`a or Kapolei.

We lived at one time at the bottom of Makakilo at a relatively new subdivision named Kapolei. Not the Kapolei that we know today, but one that is just adjacent to Hawaiian Waters Water Park on the eastern slope to Pu`u Pala`ila`i. We had a perimeter house lot facing the H-1 Freeway. Our house was on Akaawa Street. The front door and back door was perfectly aligned such that you could see through the house out the back when standing on the front porch. You could see the kiawe and interesting rock walls in the brush. Many things happened there which is perhaps one of the reasons we moved to where we are living today. I will share only a few in an effort to keep this as short and brief as possible. It was a perimeter lot where the dry kiawe trees and dry brush at certain times of the year came right up to our house so there was always the concern of brush fires especially on New Years. To keep the brush back I kept my horse and a goat in the back. I hoped they would enjoy eating the many different grasses growing out of the rock walls. There were many times when my horse would behave in a manner that led me to believe that children were playing in the area. As most of us would do I brushed it off as not meaning much since in most cases I could not see anyone. And as most of us know horses can be unpredictable. However I started paying a little more attention to incidents involving my goat whose name was “Blah”. I often found it strange that his 5-gallon bucket of water was often found empty. I assumed that he enjoyed drinking a lot of water. The empty bucket would be found still standing with the ground surrounding the bucket dry. It got to a point that it was happening too often to make much sense. After having stretched my garden hose over the wall one day to fill his bucket with water I returned to check the filled bucket immediately after I had rolled the hose

back up. To my amazement the bucket was empty. The bucket was still standing and the ground surrounding the bucket was dry. A chill went up my back that I can still remember clearly to this day. This is a true story that I have never been able to explain. There have also been many occasions when in the middle of the night my wife would wake to see a shadow of a woman standing at the foot of our bed. At one time I had a dog, whose name was Ali`i, that I kept under my house directly beneath our bedroom. He was not an old dog but he was always a well mannered, quiet dog. One evening in the middle of the night he kept waking us up with all the noise and running around. It got so bad I woke up and went to check. I got dressed, turned on the light under the house and walked and peeked under the house to see that it looked like he was playing. His tongue was hanging out and his tail was wagging excitedly as if he was playing with someone he knew. I dismissed the behavior of the dog as nothing unusual and went back to sleep until the next day. When I went to check on him in the morning I found him dead. Ali`i did not belong to me. His owner who was a family friend had passed away about a month prior. He and his owner an elderly Hawaiian man had lived in Punalu`u and had routinely walked almost daily together on the beach. That dog's behavior had changed drastically since the day his owner passed and became very withdrawn. I personally believe it was his owner that he was playing with under my house on that night before he died. There are many more stories as the many stone walls between my house and the freeway. I think those walls are still there today and can be seen from the freeway.

When Hawaiian Waters Water Park first opened they had a difficult time keeping the same security guards. Guards frequently chased what they thought were children but could never find them. When Barbers Point NAS first closed in 1999 it was the same situation with security guards. Security guards were chasing what they thought were children through the abandoned buildings but never finding them. Kapolei Middle School had incidents of unexplained shadows of children playing and of a woman who would disappear behind closed doors. Many office buildings in Kapolei were blessed by Hawaiian Kahu many times because of unexplained incidents. Many unexplained accidents along the freeway by Honokai Hale. Incidents of drivers trying to avoid what they thought was an individual standing on the road. Many stories of new home owners in Kapolei seeing shadows. One story was shared with me by a woman whose family recently moved from Maui to a new house in Kapolei. Her young son would wake up in the middle of night crying saying a man with something red on his shoulders and something red on his head standing at the foot of his bed staring at him. The boy was only about 3 or 4 at the time. I have been asked many times to help bless new homes in Makakilo, Kapolei and `Ewa for similar reasons. The stories are many and the concern is real.

Those wandering souls may still be here. However the oral traditions hint that these lost souls may still have a second chance. There is a place where they could be saved. It was called the Leiwalu `O Leilono. A strange tree with only two branches. It is an endless search on their part to find friendly souls or friendly `aumakua to help them seek the Leiwalu `O Leilono, the breadfruit tree of Leilono. It can only be found at Kapūkakī.

[Re: Moanalua and Red Hill] Leilono is a place of reprisal. It is the place in the traditions or stories of old that the wandering spirits on the plains of the wiliwili groves of Kaupe`a need to seek in order to be saved. It is long trek from Kaupe`a to Leilono in their attempt to find some friendly `aumakua who could help save them from falling into the endless night of Milu. Leilono is described as being at Moanalua. It is described as being on the northern side of Kapūkakī at the boundary between the moku of `Ewa and the moku of Kona. It is also explained as being right in line with a burial hill at Āliamanu. Kapūkakī is better known today as Red Hill. Interesting enough it is also described as being on the right side of the North Star. It is said that the Leiwalu `O Leilono can be found here. It was a small hole about 2 feet in circumference. This is the hole that the wandering spirits from Kaupe`a have come to seek. If one cannot find a friendly `aumakua to help save him, his only chance of being saved is to find the breadfruit tree of Leilono. It is known in the oral traditions as the Leiwalu `O Leilono. When one would peer through this ka puka o Leilono, this small hole he will find this tree. It had on it only two branches. It is here that those wandering spirits who had not been able to find a friendly `aumakua would have to make a critical choice. He had come a long way from Kaupe`a to be saved. As he peered down into the hole he would see the breadfruit tree of Leilono. Of the two branches he would have to decide which branch would save him. If he chose the wrong branch it would break and he would tumble down into the hole plunging into the pit of total darkness and endless sleep. It is known in the oral traditions as the pō pau`ole. If he grabbed hold of the correct branch that would hold and not break, it would bring him the help of the friendly `aumakua. From that branch the soul would see the `aumakua realm and his ancestors. He would thus be saved.

The Leiwalu `O Leilono at Kapūkakī (Red Hill) however was guarded on the east by a giant caterpillar watchman. On the west it was guarded by a giant mo`o watchman at the pond of Napehā. I have been told that Napehā was a swimming pond west of Kapūkakī (Red Hill). It was a pond that got its name from the Chief Kūali`i who drank water from it. The name came from Kūali`i being out of breath and tired when he came upon this pond to refresh himself. These wandering souls had to get past these giant watchman in an effort of making a choice and thus either be saved or to perish forever in the pō pau`ole of Milu. A place of total darkness and endless sleep.

A last thought to leave you with. There are three realms for the spirits of the dead according to the ancients and we have spoken of all three today. There was first, the realm of the homeless spirits, the "Aokuewa". Kaupe`a is that place of limbo or purgatory we know today as Kapolei. The second realm is the realm of the "Ao `Aumakua". It is a good place that one day we all want get to and restore those acquaintances with our ancestors or those who have already passed. The third place has many names such as the realm of the "Milu", of Kapokuakini, of Kapokuamano and perhaps that of Pu`uokapolei. When Chief Kahahana died his wife Kekuapo`i wrote an oli kanikau in honor of his life. She wrote it around 1785 when her husband died from injuries he received from the assault of Kahekili on the island of O`ahu. He died at Pu`uloa or today, `Ewa Beach. His body was taken to `Āpuakēhau Heiau in Waikīkī and sacrificed by Kahekili. In this oli kanikau Kekuapo`i mentions all the names of places that were special to her husband. She however

makes an interesting reference to Pu`uokapolei. She states that her husband's "spirit" entered the Milu by way of Pu`uokapolei. In addition to hula, Kapo, the older sister of Pele, was also known for sorcery. In some hula rituals and ceremonies, it is Kapo who is summoned and it is she who is called to enter one's body.

[Re: Kānehili or Kalaeloa] No one knows the exact geographical area of Kānehili however Dave Tuggle identifies the area once occupied by the Barbers Point Naval Air Station as Kānehili. Kānehili is the ancient place name of the region we today refer to as Kalaeloa. Its location and size was determined by the oral traditions. When one walks from Pu`uokapolei to Kūalaka`i he would pass through Kaupe`a and Kānehili before he reaches Kūalaka`i. The oral traditions identify Kānehili as the place where Kāne brought forth water from the sinkholes with the strike of his ko`oko`o. It is also identified as the place where bird-catchers caught the `ō`ō as they fed on the noni fruit. One can today find tī leaves and noni growing in sinkholes in Kānehili.

The oral traditions is an important source of information in an effort to understand our ancient past of Hawai`i nei. They tell us a lot. The simple poetic references to places by name is an indication that our kūpuna lived there. If there were people there would be water a short distance away. One would find all the necessities of life; food, shelter and resources for clothing. There would also be places of leisure, for gathering and enjoying each others company.

In a song by Hi`iaka, Pele's younger sister, to Lohi`au and her companion

Wahine`ōma`o, Hi`iaka says this:

Ku`u aikane I ke awa lau of Pu`uloa

Mai ke kula o Pe`e Kaua ke noho`oe

E noho kaua e kui, e lei I ka pua o ke kauno`a

I ka pua o ke akulikuli, o ka wiliwili

O ka ihona o Kaupe`e (Kaupe`a) I Kānehili,

Ua hili au, akahi no ka hili o ka la pomaika`i

Aohe moewa`a o ka po, e moe la nei

E lohiauipo, e Wahineoma`o

Ho`e`a mai ka wa`a I a`e aku au

This poetic reference, "O ka ihona o Kaupe`e (Kaupe`a) I Kānehili" (The descent of Kaupe`a to Kānehili) is an indication that Kānehili is directly makai of Kaupe`a and Pu`uokapolei. This is consistent with Dave Tuggle's reference that the entire geographical area of the former naval air station is the cultural landscape or `ili of Kānehili

The following reference to Kānehili appears in a Kanikau by Kekuapo`i to her deceased husband Kahahana, the last ruling mō`ī of the mokupuni of O`ahu.

I walea wale i ke a - Contented among the stones

I ka ulu kanu a Kahai - Among the breadfruit planted by Kahai

Haina oe e ka `ō`ō - Thou vast spoken of by the `ō`ō

E ka manu o Kānehili - By the bird of Kānehili.

I kea ae la hoi kuu lani - My chief also was seen

Iluna ka ohu Kanaliō a ka manu e - Above the dense Kanaliō fog by the bird

*Kela manu haule wale I kauwahi - That bird dazed by smoke
I hapapa I loaa I ke kanaka - Falling to the ground is caught by men
Honi I ka manu hunakai o kai - The bird scents the sea spray
Aia ka I kai kuu lani - There indeed by the sea is my chief,*

It is easy to understand from this reference that Kānehili is where bird catchers caught the `ō`ō as the bird fed on the noni tree. It is also interesting in that the noni can still be found today growing among the kiawe trees and weeds. It was the yellow feather of the `ō`ō that the bird catchers sought to adorn the `ahu`ula (feather capes) of the O`ahu chiefs.

So where is Kānehili today? Signs of Kānehili can be found in and amongst the kiawe and weeds along Coral Sea Road, It can be found in the area of the Barbers Point Stables. It can be found amongst coral rubble mauka of White Plains Beach. It can be found mauka of Tripoli. For although the “waters of Kāne” have long since left the sinkholes of Kānehili, although the `ō`ō no longer feeds on the noni fruit of Kānehili and although much have changed in the last 500 years, there still exist many signs of an ancient past amongst the weeds and kiawe of Kānehili.

Why don't we go back in time to the period of around 1500 A.D. The place is Kānehili. The celebration is the Makahiki. It is a time of peace and joyous celebration for Lono has come to Kānehili on his annual trip around the island of O`ahu. We are all at the Pāone at Kānehili. It is a place today still hidden amongst the kiawe and weeds close to White Plains Beach. It is a large enclosure approximately 1 ½ acres entirely filled in with sand. The nākoa from Pālehua have come down from the waolani with gifts and makana of pua`a for Lono. The farmers of ka lo`i have brought kalo and mai`a (banana). The birdcatchers of Pukaua have brought feathers as makana to show their loyalty to the Mō`i and Lono. The fishermen of Kūalaka`i have brought i`a (fish), limu līpoa and lobster. Today there will games played to test the Kāne's skills at makaihe (spear throwing) and hākāmoa (wrestling). Some kāne and wāhine will perform some hula while the games are being played. Food will be plentiful for everyone. There will be much `awa drinking. When the games are over and the sun begins to set over Pu`uokapolei some of us will walk home along the paved trail back to Kualaka`i. Those from the uplands of Hanalei, Pālehua, Pu`u Ku`ua and Keahumoa will stop for a while at Keoneai and Puainako and refresh ourselves before going further mauka. It has been a good day, a day of thanksgiving and celebration for a bountiful harvest.

Much of the place we know of as Kalaeloa today has been disturbed by military construction. However in every place where there were no disturbance, no military construction, no ground disturbing activities one would find signs of ancient Hawaiian culture. It is an indication that all of the former naval air station was a community of people. Along the shoreline were temporary habitation structures for fishermen. Just inland could be found many permanent habitation sites with trails and sinkholes that served as a water source and agriculture. Today in Kalaeloa one can easily find sinkholes with tī leaves and noni growing in them.

[Re: Kapua`ikāula or Pu`uloa] Many of the stories and traditions associated with Kapua`ikāula seem to refer to Kapua`ikāula and Puuloa as the same place. We do

know that it is in the moku of `Ewa but Pu`uloa is not just `Ewa Beach but rather all of Pearl Harbor or as it is anciently known, Keawalauopu`uloa (the many harbors of Pu`uloa). Some felt that it was on the Honolulu side of the channel entrance to Keawalauopu`uloa and others thought from the stories that it was on the Waianae side of the channel upon approach from the sea. In all these stories there was a strong connection to Pu`uloa. From all indication it appeared to be a fishing village located along the shore. According to the oral traditions there are many references to it being a place of canoe landing and departure.

So where in the moku of `Ewa did this interesting place exist? After much research it was learned that the moku boundary between `Ewa and Kona (Honolulu) has changed several times. Today the moku boundary parallels the fence line dividing Pearl Harbor Naval Shipyard from Hickam Air Force Base. However upon further investigation it was learned that anciently the actual boundary was 1 mile east of the fence separating the bases. It allowed both `Ewa and Kona to share in the inland fish ponds of Lelepaua and Ka`ihikapu which were built by Ka`ihikapu-a-Manuia who was the son of Kalaimanuia and the father of Kākuhihewa. Those fishponds which were 332 and 258 acres respectively now lie beneath the tarmac of both Hickam AFB and the Honolulu International Airport. The auwai are still there today and exit Mamala Bay and Keehi Lagoon. You can still see them today on your occasional flights off island. Kapua`ikāula is Hickam Air Force Base. The ancient moku boundary between `Ewa and Kona used Kapua`ikāula as a description of that division. Today the center of Kapua`ikāula would be in the approximate location of Hickam Harbor Beach adjacent to the reef runway. Is it any wonder why there is a street name of Pu`uloa in Māpunapuna?

[Re: current cultural practices] Since 2002 the O`ahu Council of Hawaiian Civic Clubs and the 15th Airbase Wing Commander of Hickam Air Force Base has been sponsoring an annual Makahiki at Kapua`ikāula. The Makahiki is an ancient, annual festival that was dedicated to Lono, the deified guardian of agriculture, rain, health and peace. For over two thousand years, the significance of Lono and his contributions to the beliefs and practices of the early Hawaiian people, influenced the celebration of events held during the Makahiki Festival throughout the Hawaiian Islands. According to the ancient lunar calendar of Hawai`i, the beginning of the Hawaiian new year began on the first night of the rising of the star constellation Makali`i (Pleiades). The four months following the rise of the Makali`i (from October to the end of January) was set aside as a time for Lono to give thanksgiving for the bounty of the land and sea. Since Lono was the embodiment of all the characteristics of peace and welfare, all warfare was strictly forbidden during the time of the Makahiki. Since Lono represented the spiritual life-force that came out of all agricultural efforts, much feasting of every kind was done during the four months of the Makahiki. This focus on health and welfare made games of skill that tested a healthy body and mind which is a focal point of the Makahiki games. It was here at Kapua`ikāula, some 250 years and earlier where the Makahiki Festival was celebrated. Other places in `Ewa where the Makahiki games were played were Puuokapolei, Waikele, Waipio and Puuloa.

[Re: ancient history and prophecy] When Peleioholani, mo`i (ruler) of the island of O`ahu, Kaua`i and Moloka`i died his son Kūmahana assumed authority of these islands. Kūmahana however was not a respected Chief. Most people and other Chiefs and Kahuna saw him as self-serving with no sense of responsibility. Shortly after his assent to mo`i he simply disappears from all stories and traditions. Little is known of him. The stories that immediately follow is a search for a new mo`i. That responsibility fell into the hands of Kahuna nui of O`ahu Ka`ōpuluhulu. He was the spiritual pillar and advisor to the Chief of this island. It was well known by all that Ka`ōpuluhulu was very disappointed in Kūmahana at the time he disappeared. Ka`ōpuluhulu felt that in filling the vacancy left by Kūmahana the nephew of Peleioholani, Kahahana was best suited for the position.

Although Kahahana was born on O`ahu he was sent to Maui as a young boy and was raised as a hanai son in the court of Kahekili. The relationship between Maui and O`ahu was strained during these years. This difficult relationship was the result of an assault on island of O`ahu by Kauhiakama of Maui some 200 years earlier. The Administrative Chief of the island of O`ahu at that time was Ka`ihikapu-a-Kākuhihewa. His grandfather was Ka`ihikapu-a-Manuia who built the huge fish ponds of Ka`ihikapu and Lelepaua at Kapua`ikāula. His father was the great O`ahu Chief Kakuhihewa. Kauhiakama`s warriors suffered a major defeat and Kauhiakama`s body was sacrificed and desecrated by Ka`ihikapu at `Āpuakēhau Heiau at the present site of the Moana Hotel in Waikīkī. His bones were used to make fish hooks and his skull was used as a receptacle for human excrement. This was something that Maui had never forgotten and swore that their descendants will one day take revenge. That day was soon arriving. Kahekili had never forgotten.

Ka`ōpuluhulu sought out the sister of Kahahana and asked that she go to Kahekili and ask that he allow Kahahana to return to O`ahu to serve as Mo`i. After she had arrived in Maui and submitted the request of Kaopolupolu, Kahekili met with his hanai son Kahahana. He informed Kahahana of the request of the Kahuna nui Ka`ōpuluhulu and gave his approval on condition that all of the land and ocean resources of Kualoa would be his. Kahahana agreed to these conditions not knowing the value of this gift. When Ka`ōpuluhulu and all the O`ahu chiefs heard of the agreement Kahahana made with Kahekili they all disapproved. This was the beginning of the decline of the Nanaulu genealogical line of O`ahu chiefs.

Ka`ōpuluhulu was a true prophet at the time that Kahahana became the Chief of O`ahu. He was respected by everyone and held in high esteem amongst both the Chiefs and Kahuna class. He was the Kahuna nui. He served Kahahana faithfully although he disagreed with the agreement he made with Kahekili. He made every effort to make Kahahana understand that his authority and rule relied on the sanctity of Kualoa. Kahahana`s arrogance and thoughtlessness caused Ka`ōpuluhulu to return to his home in the moku of Waialua in Waimea at the “Valley of the Temples”. His heiau known as “Kupopolu Heiau” still stands in silence somber beneath the weeds on the Haleiwa side of Waimea Bay mauka of Kamehameha Highway. It is on property belonging Kamehameha Schools.

Ka`ōpulupulu had his knee tattooed as the word deaf and knee is the same. He did this so all would know that his chief was deaf to all sound advice. When the news of Ka`ōpulupulu tattooing his knee got to Kahahana, he angrily ordered that Ka`ōpulupulu be put to death. All the while Kahekili trying to convince Kahahana that Ka`ōpulupulu was a traitor and to heed to the conditions of awarding Kualoa to him. Kahahana`s nākoa sought out Ka`ōpulupulu and found both he and his son Kahulupue at Kupopolu, Waimea Bay. The intent was to bring him to Ulukou (Waikīkī) by way of Kapua`ikāula and sacrifice him at `Āpuakēhau Heiau. The nākoa however took him and his son Kahulupue to Waianae by way of Ka`ena. They stopped at Pu`u Kahea today in the area where the old plantation manager`s house used to be. It was at Pu`u Kahea where Kahahana`s nākoa stabbed and fatally wounded Kahulupue. It was here that Ka`ōpulupulu shouted out to his son and said, “make every effort to reach the sea, then the land shall belong to the sea.”

As a prophet in this reference Ka`ōpulupulu is saying that the future of these islands lie in the sea. Kahulupue ran and made it to sea in the area of Mount Lahilahi at Makaha and swam out and was never seen again. Ka`ōpulupulu was then taken to Kapua`ikāula by way of the trail by Pu`uokapolei. He was taken pass Pukaua, Pu`uokapolei, Keoniae, Puainako and Poo hilo and arrived at Kapua`ikāula, Pu`uloa. It was here at Kapua`ikāula that Ka`ōpulupulu was killed. However before he was killed he prophesized that where his body would be laid in Waikīkī so too would his chief, Kahahana`s body lie. He further prophesized that all the lands of these islands would one day pass into the hands of foreign power from across the sea.

His body was then placed in a canoe at Kapua`ikāula and taken to Ulukoa (Waikīkī) and placed upon an ahu (altar) at `Āpuakēhau Heiau. The year was 1784. Five years earlier Captain Cook arrived in these islands and subsequently killed at Kealakekua Bay. Kamehameha was a young man on Moku O Keawe, Hawai`i Island. Word of these islands was spreading around the world.

With Ka`ōpulupulu gone it was easy for Kahekili to launch an assault on Kahahana. Upon word that Kahekili had arrived with his nākoa on O`ahu, Kahahana with his wife Kekuapo`i and one other friend fled into the forest to escape the wrath of Kahekili. Kahekili devastated the island of O`ahu and ruthlessly killed many men, women and children. He sought out many of the remaining O`ahu chiefs and their wives and children. He killed the last remaining descendants of the Nanaulu clan who were the first Tahitian arrivals who had arrived on these shores approximately around 400 AD. Kahekili and Kamehameha were descendants of the Ulu Clan who had arrived in the eastern islands of the Hawaiian chain some 500 years later. Although cousins to the earlier Nanaulu Clan of O`ahu it was time that divided these Tahitian cousins. Kahekili had fulfilled the death of his ancestor Kauhiakama who was sacrificed and whose bones were desecrated some 200 years earlier. Kahekili found Kahahana in Pu`uloa where he was killed and taken by canoe from Kapua`ikāula and laid upon the same altar in Waikīkī at the `Āpuakēhau Heiau also in fulfillment of the prophecy of Kaopolupolu.

Our cultural history is such an interesting one that some things are so hard to explain. It could be said that maybe some occurrences are just a matter of

coincidence. Ka`ōpulupulu knew that these lands would one day pass into foreign hands and they would come from across the sea. He also knew that the fulfillment of that prophecy would only happen with his death. It was not something that he wanted but knew it was destined. Years later when sugar blanketed our once pristine native landscape one of Hawai`i's largest sugar markets was the United States. The northern and southern states were in the middle of their Civil War. Shipment of sugar to the northern states was cut off by the south which created an opportunity for Hawaiian sugar. As the shipment of sugar to the United States increased so did the tax on exported sugar to the U.S. Eventually King Kalakaua made an agreement with the United States that by reducing the tax on sugar he would allow the U.S. exclusive rights of access to Keawalauopu`uloa (Pearl Harbor). This was the Reciprocity Treaty. Thus Ka`ōpulupulu`s prophecy had come true. The very first lands to pass into a foreign power was Keawalauopu`uloa. It was here that Ka`ōpulupulu was killed.

[Re: Honouliuli] Honouliuli is one of 13 ahupua`a or traditional land divisions of the moku of `Ewa. It is also the name of the flood plain in the area of West Loch Golf Course. Honouliuli was one of the areas of the earliest settlement in all Hawai`i. Much like Mesopotamia and the Columbia River Valley they settled in areas of resources. Where there was rich fertile soil and an abundance of fresh water. Although Honouliuli is the name of the entire ahupua`a, it is also important to understand that the entire river system and drainage from Honouliuli gulch into Kaihuopala`ai took the name of Honouliuli. Traditions clearly connect some of the fishponds of Kaihuopala`ai and mullet productivity specifically with Honouliuli. It is probable that Honouliuli took its name, meaning "blue harbor" or "dark bay", from its association with Kaihuopala`ai. Honouliuli was known for its kalo and fish ponds. When an archaeological survey was done a number of years ago, signs of human habitation and farming was very evident. Carbon 14 dating of midden or ancient archaeological trash associated with human habitation indicated that people were living in this area by 400 AD. The Saxons invaded England in 400 AD and Atilla the Hun conquered most of Europe around 450 AD. The first migration or the Nana`ulu Migration from Tahiti arrived around 400 AD. This was the first migration of the Ali`i.

A model of the settlement of the `Ewa region indicates that it grew west from the Honouliuli flood plain along the alluvial fan elevations inland from the `Ewa Plains perhaps in the area north of Farrington Highway at the fertile river basins of Kalo`i Gulch, Makakilo Gulch, Awanui Gulch, Pālailai and Makaīwa Gulch.

These were areas of permanent habitation though difficult to test due to site destruction by recent agricultural efforts and ranching and more recently by residential housing developments. Another settlement direction would have been south along Kaihuopala`ai (West Loch) to Keahi Point or we know today as Iroquois Point then further southwest along the coastline through the areas we know of as Keone`ula, Kualaka`i, Kalaeloa and Ko`Olina. There are signs of both permanent and temporary habitation structures, burial, heiau and signs of dry land and sinkhole farming such as growing `uala (sweet potato) on coral mounds.

When Thomas Edison invented the light bulb there was no need for whale oil to light Massachusetts homes. When the island economy shifted from whale oil to agriculture, all attention turned to the island of O`ahu and the moving of the island capitol from Lahaina to Honolulu on O`ahu. It was this and the abundance of water in Honouliuli that spurred the interest of agricultural entrepreneur James Campbell to purchase 43,270 acres of land in the ahupua`a of Honouliuli. He moved his family from Lahaina, Maui, to O`ahu and drilled the first fresh water well in Honouliuli. This however is viewed by many as marking the end of a cultural landscape by widespread plowing over of a cultural landscape and also the loss of our river systems and native fresh water aquatic life. I can still remember as a young boy in the back seat of my father's car passing over many bridges with crystal clear water flowing beneath it out into the sea. That was a mere 55 years ago. We used to catch `ōpae in these streams. I do not see them anymore. I used to catch `o`opu in these streams. There are no `o`opu to catch anymore. James Campbell was not the first. There were others and these are their stories. Kamehameha was not the first to desire the riches of the island of O`ahu and the fertile river basin of Honouliuli. In ancient times the island of O`ahu was spoken of as being "momona", fat. Fat in terms of its natural resources and abundance of fresh water, lo`i kalo and fishponds, especially those of Honouliuli.

[Re: Early Hawaiian history, warfare of area] The earliest invasion that we are aware of from the oral traditions and partly through the journals of Cook when he arrived on Kaua`i many years later was of a young and ambitious chief from Hawai`i Island by the name of Kalaunui`ōhua. After uniting the island of Hawai`i he launched and succeeded in defeating both East and West Maui. In defeating Wakalana, who was the mō`ī of East Maui he killed a warrior chief, and confiscated his interesting weapon that glistened in the sun (believed to be a steel sword). The name according to traditions of this field general of Wakalana, who was the owner of the weapon, was a man by the name of Kaluikiamanu. He and 2 other men and 2 women were befriended by Wakalana when their ship went aground off East Maui. According to traditions they all took on Hawaiian names and intermarried and had many children who have descendants living today on every island. There are stories of Kaluikiamanu and his magical ko`oko`o on how he was able to sever his enemy in battle with the strike of this magical staff that glistened in the sun.

After defeating and taking control of Maui, Kalaunui`ōhua had an easy time defeating both Moloka`i and O`ahu. He was defeated in Kaua`i and Kaluikiamanu`s weapon was confiscated by Kūkōna of Kaua`i and remained in the possession of the Kaua`i chiefs until Captain Cook saw it and described it in his journal as "saw a rusted piece of a metal sword in the possession of the Chief Kā`eokūlani" who was then chief of the island of Kaua`i. It is believed that this sword was Japanese in origin and not Spanish as one would think. The Japanese were here 500 years before the arrival of Captain Cook. Many years later several chiefs from the island of Hawai`i by the names of Hilo and Punalu`u amongst others launched an invasion on the island of O`ahu in an attempt to seek out and kill the Chief Mailekūkahi. This was a period just before Columbus discovered America. Oral traditions have it that they had assembled a fleet of 3,000 canoes and at first landed at Waikīkī.

Traditionally at this time there were 3 political capitols on the island of O`ahu; Waikīkī, Mōkapu and Līhu`e. Realizing that Mailekūkahi and his army were not in Waikīkī they decided to travel further west and entered Keawalauopu`uloa (Pearl Harbor). They then entered the waters of Kaihuopala`ai (West Loch) and landed their 3,000 canoes in the area today we know of as the shoreline of West Loch Estates and Shoreline Park and the Waipahu Business and Industrial area.

Traditions indicate that there were many homes on a high ground above the kalo and fish ponds. The area described could be where the West Loch Golf Course Country Club is located and the West Loch Estate and Shoreline Park. It appears that most everyone fled the area on arrival of such a large fleet of canoes. No mention is made of people in the homes or tending the lo`i.

The invaders then marched north along a trail that may have been what we know of today as the Kunia Road or perhaps very close and parallel to it. Hilo and Punalu`u may not have known it then but amongst the cultural sites discovered recently along that route on the high ground above Keahumoa and Kupehau (Del Monte Ag land along the slopes of the Wai`anae Mountains) are numerous habitation structures, walls, trails and heiau that would indicate a large population of people living in the area. They may have observed the approach of the advancing army and had time to inform Mailekukahi's army further north at a place known as Līhu`e. As both Waikīkī and Mōkapu, Līhu`e was also a political capitol of O`ahu and served as a training area of Nākoa in ancient times. It was at a place known as Waikakalaua where the first battle took place between the armies of Hawai`i and Mailekūkahi. It was a major defeat for the Hawai`i chiefs and Nākoa. Warfare during this period in Hawaiian history was close up and hand to hand. From a short distance spears were thrown.

Spear throwing was generally from as close as arms length to as much as 10' to 15'. The Nākoa would have to follow up with a hand weapon to retrieve his spear and fast enough so the adversary would not have time to return to spear. There were many strategies, formations and tactics. Many West Point graduates have learned Hawaiian warfare tactics and strategies. It was a situation of run, chase and fight. This battle was no different.

When Hilo and Punalu`u realized that this was not going to be an easy fight they retreated in the makai direction from Waikakalaua in the southerly direction back to Honouliuli. It was a series of running and fighting. A second major fight took place in an area we today refer to as Mililani Mauka. Large numbers of Nākoa lost their lives on both sides. The Chief Punalu`u also lost his life here and later it took his name and was refered as the "Plains of Punalu`u" before it was plowed over by Dole. Subsequent to this battle the Hawai`i Island chiefs and their army took another major defeat in an area that took the name of this battle. It is known to us today as Kīpapa, "paved with the bodies of the Hawai`i Island Nākoa". The fighting took place all the way to Waimano where the Chief Hilo was killed and brought an end to the fighting. Nothing is said of how many Hawai`i Island Nākoa and chiefs survived. In the end Hilo was decapitated. His head placed on a pole and carried to the intersection of 2 trails. The trail to Wai`anae by way of Pu`uokapolei and the trail north paralleling perhaps Kunia Road today. The pole with Hilo's head was placed at the location of

the where today can be found St. Francis West Hospital. It served as a reminder to everyone else who may have thoughts of invading O`ahu by way of Honouliuli. This place took the name of Po`ohilo.....the head of Hilo.

When Kamehameha defeated Kahekili for the island of O`ahu and thus unifying the Hawaiian Islands he awarded all of the ahupua`a of Honouliuli to one of his leading war chiefs Kalanimoku, as panilaau or conquered lands. These lands then passed to his sister Wahinepi`o. In 1848 Wahinepi`o's daughter Kekau`ōnohi laid claim to all of her mother's land as part of the great land division. When she died it passed to her husband Levi Ha`alelea and then his wife Anadelia Amoe and subsequently to her sister's husband John Coney.

A portion of the land, `ili of Pu`uloa, was sold by Kekau`ōnohi to Kamehameha III and Isaac Montgomery who operated a salt works which sold salt to meat packers for export of shipment of their meat products. John Coney leased a portion of it to James Dowsett and John Meek for cattle ranching. In 1877 all of the lands of the ahupua`a of Honouliuli with the exception of the `ili of Pu`uloa was sold to James Campbell.

Captain George Vancouver has also helped us shape our understanding of this area through observations he made on a visit during the 1790s. While anchored off of Pearl Harbor he identified the area between the Waianae and Ko`olau Mountains as being low or rather moderately elevated. The land also appeared to him to be unpopulated and of poor fertility. He also indicated that there was a place close to the shore (Honouliuli flood plain) that seemed populated and that the soil was fertile for cultivation. His ability to see that far from offshore is an indication that there were no obstructions along the shoreline which meant it had to be void of tall trees and plants. It also meant that the homes at Honouliuli were on high ground.

Some of the old Hawaiian fishponds are still therethough over grown in Mangrove. Most of the lo`i kalo have all been filled in to make way for a golf course, but you can still see an occasional wild kalo, growing in the narrow stream beds amongst the California grass. There is still a piece of an ancient wall that can be seen in the area of the number 6 hole at the West Loch Golf Course that appears in a map of 1873. Po`ohilo, or where the head of the Hawai`i Island Chief Hilo once stood, may have been on the high ground above the golf course where the St. Francis West Hospital now stands. Where James Campbell's Ranch once stood is now the West Loch Fairways Subdivision. Where the Kahua Slaughter House once stood will soon be developed by the Catholic Church. Where there were once small mom and pop stores along the old quiet Ft. Weaver Road will soon be taken down to provide room for a new development. So it is both exciting with new things to come yet sad as we see one generation pass before our very eyes. This is where it all started in the flood plains of Honouliuli. Perhaps it was these people who arrived in Hawai`i around 100 to 300 BC.

It is difficult to see beyond the plantation and military past and that is ok. However we need to remember that there once was a canoe that passed this way and saw the fertile lands and many rivers of this broad coral plain and abundance of flightless land birds and fish. We are here today because they decided to stay.

[Re: Keawalauopu`uloa or Pearl Harbor] Honouliuli as part of Keawalauopu`uloa (Pearl Harbor) had always been a place desired by the other island chiefs historically. The island of O`ahu had more inland fresh water than any other island. Much of that water was fed by the 13 ahupua`a of the moku of `Ewa into Keawalauopu`uloa. Today it is also referred to as the Pearl Harbor aquifer although it does not have near the amount of fresh water it once had. It was this fresh water that gave the limu līpoa of the `Ewa shoreline its unique flavor. It was this fresh water that traveled within the porous coral substrata again unique to the `Ewa region.

I have never questioned any of these stories from people who shared them with me. I only know that I need to share them. They are not mine to keep. We all struggle with them however they are never questioned. We may not understand but can only appreciate them simply because these are the stories and beliefs of our ancestors. They are not to be feared, but to be embraced.

[Oral history based on summary of excerpts previously published]

Appendix G

Pedestrian Ethnographic Surveys: Field Records

Compiled by Ka'imipono Consulting Services

Section 1. Kapolei-Waipahu-Leeward Community College (Malia Evans-Mason)

I. FG-01

- A. Undeveloped, former sugar cane lands, with sporadic brush/*kiawe*.
- B. Previously plowed, but back fill in some areas creates unstable walking surface.
- C. Currently under development with fence line being installed by Delta Construction. (note: supervisor Thomas stayed at site during survey)
- D. Metal flume in disrepair running *mauka* to *makai* (north of existing power station)
- E. Proposed rail crosses Kalaeloa onto Kapolei Parkway into developed, commercial area (Home Depot)

II. FG-02

- A. Proposed rail runs past Kamokila Blvd on the left into fenced off construction area.
- B. Visited Unlimited Construction site (Supervisor Phil Poulet unavailable: left message for permission to access site)
- C. Two multi-story cranes and fenced in construction area.
- D. Unable to survey from Kamokila Blvd to Franklin D. Roosevelt (barbed wire fence running along FD Roosevelt)
- E. Abandoned military buildings corner of FD Roosevelt and Hornet Ave.
- F. Existing power plant west of abandoned military buildings.

III. FG-03

- A. Landscaping dump site (tree trunks, wood chips, debris) corner of Saratoga and Hornet Ave.
- B. Four sinkholes located within field area bordered by Boxer and Yorktown Avenues, southwest of TMK 91013026 (see TMK map for location)
- C. Historic period ships anchor fronting quarters 384 (Franklin St.)
- D. Military Training facility, Religious school south of proposed Kalaeloa Station.

IV. FG-04

- A. Onelau'ena Homeless/Transitional Shelter (Belleau and Woods Sts.)
- B. Raw sewage overflow south of Bldg. 1831 (Bowling Center).
- C. Corner of Saratoga and Enterprise (*mauka* side) Heavy Brush/*kiawe*
 - 1. Location of proposed Fort Barrette Road Station
 - 2. Possible cultural site: Cluster of stones placed in linear formation (approximately 100 yds in from Ft. Barrette, 50 yards in from Enterprise).
 - 3. Brick cesspool/water well (2 ½ ft. diameter) west of stone formation.
 - 4. Area east of possible cultural site includes debris; metal, concrete, asphalt,
 - 5. Further east running parallel to Fort Barrette Road, possible ordnance in burned out area including coral debris.

V. FG-05

- A. Restricted Area (according to sign on Fort Barrette entry point) NO SIGN on Enterprise point of entry.
- B. Restricted barbed wire fence running *mauka* to *makai* approximately 600 yards East of Midway (Independence).
- C. East of Coral Sea Road
 - 1. Stopped by Military Police
 - 2. Abandoned warehouses, inaccessible due to restricted, fenced off areas.
- D. Corridor-restricted area, no access

VI. FG-06

- A. Cross Roosevelt to Hawaiian Railway Society (Historical/cultural site)
- B. Varona Plantation Village (Historical/Cultural site) eligible for National Register
- C. No access to proposed Kapolei Parkway Station from Roosevelt.
- D. Access found through Geiger Rd/unmarked gravel roads.
- E. Proposed Kapolei Parkway Station
 - 1. Former agricultural lands, previously plowed
 - 2. Overgrown with *kiawe*, scrub brush.
 - 3. Quarry area (crushed coral, sand) construction area west of Kapolei Station and north of existing railway tracks.

VII. FG-07

- A. Fenced off area lining large culvert/drainage system running NW to SE.
- B. Proposed site of East Kapolei Station on cleared/previously plowed ag lands.
- C. Concrete lined irrigation system/*auwai* (cultural/historical feature) running NE to SW direction.
- D. Presently pumpkins, melons being grown on Aloun Farms ag lands.

VIII. FG-08

- A. Proposed UH West O`ahu Station situated in pumpkin, corn and melon patches leased by Aloun Farms.
- B. Fenced off government water tower, electrical plant and chemical storage area south of proposed station.

IX. FG-09

- A. Proposed Ho`opili Station situated in corn field leased by Aloun Farms.
- B. Rail line to run through cleared/ploughed agricultural lands, now banana patches.
- C. Note: Supervisor at Aloun Farms very concerned regarding future rail line. Was unaware his farming operations were to be affected by rail transit.
- D. Large power plant on Farrington Highway, west of rail line.

X. FG-10

- A. Walked along dirt path *mauka* of Farrington Highway, from across Kahi Mohala to before Aloun Farms warehouses, where rail to cross highway.
- B. Previously cleared ag lands *makai* of Farrington Highway.
- C. Mostly banana and corn patches where rail line to be constructed.

XI. FG-11

- A. Dirt path running parallel to Farrington Highway (*mauka* side), overgrown with brush, grasses, koa haole.
- B. Kahi Mohala, West Loch Golf Course and St. Francis West on *makai* side of Farrington Highway.

XII. FG-12

- A. Mostly commercial/industrial area along rail line.
- B. Waipahu Town Center, Waipahu Shopping Center, and Westgate Center on *mauka* side of proposed rail line system.
- C. Ohana Taekwondo, Tammy's Polynesian Market, Sunny D Ukulele shop, numerous ethnic eateries, Waipahu and Leeward Florists.
- D. Waipahu Intermediate and Waipahu Elementary, numerous churches in vicinity.
- E. Waipahu Cultural Park *mauka* of Farrington Hwy.
- F. Unmarked cemetery directly below Waipahu Elementary on Waikele Rd.

XIII. FG-13

- A. Residential/light commercial area.
- B. St. Joseph's School, numerous churches
- C. Ted Makalena golf course *makai* of Farrington Hwy.
- D. Naval shipyard *makai* of proposed rail line

XIV. FG-14

- A. Mostly residential area
- B. Waipahu High School
- C. Naval Reservation Ewa of Leeward Community College inaccessible (barbed wire fence surrounding perimeter)
- D. Leeward Community College
 - 1. Native plants along naval reservation fence line
 - 2. Petroglyph on single stone, bottom floor right of atrium.

Section #2. Leeward Community College-Pearl City-Aiea-Salt Lake-Mapunapuna-Iwilei-River Street. (Lynette Cruz, PhD; Brian Cruz; and Shelly Keliipuleole)

Starting Address Pearl Highland Station (LCC), Park & Ride Facility at Kamehameha Hwy. and Kuala
Ending Address Dillingham Station (HCC), 1007 Dillingham Trade Center

Notes:

Start: makai side of Kamehameha Hwy., heading Diamond Head

- 96-135 Kamehameha Hwy.: Uyeda Family
- 96-137 Kamehameha Hwy.: Solmiria Family
- 96-149 Kamehameha Hwy.: Samuel Alipio (owner) house and land. (808) 455-7882. Grandson Brandon Alipio, house in back. 2nd side house: Pam Alipio-Akagi (daughter of Samuel Alipio)
 - *Interview by Lynette Cruz, Brian Cruz and Shelly Keli'ipule'ole: Samuel Alipio. Owner of land since 1965, prior to his purchase, land was occupied by owners Mahikoa family. Property has 6 dwelling houses, all fed by a brackish water well. Cultivated fruit trees on land such as mango, avocado, banana, etc. Waiawa Stream runs behind the property line with `o`opu, prawns, opi (sp?), papio, awa, red shrimp. Land had taro patches about 40 years ago.*
- 96-151 Kamehameha Hwy.: House
- 96-161 Kamehameha Hwy.: Gray Concrete house
- 96-164 Kamehameha Hwy.: Farinas Family (owners)
 - *Interview by Lynette Cruz and Brian Cruz: Gloria (Farinas family member). Family purchased land ten years ago in 1997. Land has 1 house and fruit trees such as papaya, ulu, banana, potatoes, etc. Neighbors and family have community gatherings on the property.*
- 96-165 Kamehameha Hwy.: driveway and gate
- 96-167 Kamehameha Hwy.: 2-story house, Rocky and Jill (landlords/owners), Maka (tenant)
 - *Interview by Lynette Cruz: Maka (tenant). Has occupied home since 2005.*
- 96-169 Kamehameha Hwy.: 2 story beige house
- 96-171 Kamehameha Hwy.: **Cultural site:** Alpha Omega Christian Fellowship, pink house and chapel
 - Nemiso Arizabal and wife of 50 years (landowners), Rebecca (daughter)
 - *Interview by Lynette Cruz, Brian Cruz and Shelly Keli'ipule'ole: Nemesio Arizabal (landowner and preacher). Father Alejandro Fagaragan first purchased land from Bishop Estate in 1940 after moving to Hawai'i from the Philippines. The Church was built in 1960, members of their church come from all over the island (Waipahu, Pearl City, Kalihi, etc.). After his father passed away, he succeeded him in land ownership in 1987. His lot is 9,060 sq. ft. Waiawa Stream is located behind (makai) of the property line. Picture taken by Lynette Cruz of Nemesio Arizabal and wife.*
- **Station: Pearlridge Station**, Kamehameha Hwy. and Ka'onohi St.
 - *Interview by Brian Cruz: Barney (general manager, Lex Brodie Tires). Pictures taken by Lynette Cruz near area.*

Starting Address 945 Kamehameha Highway

Ending Address Pearl City Library

Notes:

Starting point: 945 Kamehameha Hwy., Stuart Plaza

- Across mauka of Kamehameha Hwy.:
 - Pearl City Elementary School
 - Park
 - Pearl City Police Station
 - Pearl City Library
- Makai of Kamehameha Hwy.
 - Cutter Dodge
 - Chrysler Plymouth
 - Dodge
 - Jeep

- Behind
 - OHAA Music Together
 - Nisei Shiatsu
 - Pearl City Vet
 - Auto GMP
 - The Prayer Center
- Next to Home Depot is a park owned by UH.
- Irma Packard: 1965. msaloha2@hotmail.com, (808) 456-9296 (no notes on who this is)
- Businesses in area: Mauka
 - Daiei
 - Leeward Bowl
 - 76 gas station
 - Pu`u Momi St.
 - Zippy's
 - Jon of Christ
 - Sears Outlet Center
 - Lipoa Pl. and Kamehameha Hwy.: Sumida Watercress Farm
- Businesses in area: Makai
 - Cemetery
 - Leeward Funeral Home and Cemetery
 - Samoan graves closest to Kamehameha Hwy.
 - Pearl City Bus Plaza: 803 Kamehameha Hwy.
 - Flamingos Restaurant
 - 765 Kamehameha Hwy. Iglesia Ni Cristo Church of Christ
 - HECO power plant
 - Neil Blaisdell Park
 - Harbor Center
- **Station: Aloha Stadium**, no address, empty parking lot at Salt Lake Blvd.
- **Station: Kamehameha and Makalapa Station**, No address, intersection of Radford Dr., park at corner
- **Station: Aloha Stadium and Salt Lake station**, No address, corner parking lot of stadium parking.
 - Makai of station across street is McDonalds and Stadium Market Place
- **Station: Ala Lili'oi Station**, No address, intersection.
 - Businesses in area:
 - Salt Lake Shopping Center
 - Safeway
 - Salt Lake/Moanalua Public Library
- **Station: Salt Lake/Ahua Station**, no address, Ahua and Mokumoa
 - Businesses in area:
 - Roberts Hawai`i
 - HECO power plant
 - Moanalua stream
 - *Interview by Lynette Cruz: Thomas Lee (Roberts Hawai`i Employee/bus driver) (808) 286-3187, cell. His aunty Abigale Watkins composed a song of (for) the Queen Lili`uokalani, about crown flower, sung by John Pi`ilani Watkins because the Queen used to pick the crown flower in the area. The Queen also used to bathe in the stream. He grew up in the area. Kaluaoa School used to be the school in the area.*
- **Station: Middle Street Station**, no address, intersection of Middle St. and Nimitz Hwy.
 - Businesses in area
 - MTL main hub (The Bus)
 - Refuse station (across on the `Ewa side of Middle St.)
- **Station: Dillingham/HCC Station**
 - 1007 Dillingham Trade Center
 - Mauka side of Dillingham- HCC

Starting Address 215 N. King St.
Ending Address 546 Ka`a`ahi St.

Rivers Street, Nu`uanu Stream (1932), right of proposed `Ewa-bound track, mauka 1 lot above 215 N. King St.

- Senior Center and parking structure
- Train station (Union Station?) Main hub, later became MTL bus station
- Green house/plant farm, plants raised for movies such as *Lost*
- Lot at the back of the old train station: used for storing vehicles, trailers and parts from movie sets (no address); old train tracks run through
 - *Interview by Lynette Cruz: Paul (security guard). Picture taken—Paul, Brian, Shelly. Paul states that lot is used for stocking; showed actual railroad tracks.*
 - *Interview: Grant Isagawa (security guard at adjacent `Iwilei Center): lot is leased by Weinburg*
- 502 Ka`a`ahi St. and Ka`a`ahi Pl.: Mauka side of Ka`a`ahi St. heading `Ewa
 - Thom Equipment Co., Inc.
- 914 Ka`a`ahi Pl.
 - Hawai`i Print UHY/G. Von Hamm Textiles, Inc., X Speed Automotive
- 906 Ka`a`ahi Pl.
 - Richards Meat Inc. (808) 853-1822
 - *Interview by Brian: Richard Coloner (Richards Meat Market). All business owners in the area are very concerned about what is going to happen to the businesses in the area. They have attended meetings on the issue of the transit system, but no one has given them a time frame. They are left in the dark.*
- 524 Ka`a`ahi Pl.
 - Gray Apartment Building
- 546 Ka`a`ahi Pl.
 - Brown Building
 - Bay Market, 5 & 2 Bento (corner of Ka`a`ahi St. and Dillingham

Makai side of Ka`ahi St., heading `Ewa

- 511 Ka`a`ahi St.
 - Green Building
- 519 Ka`a`ahi St.
- 537 Ka`a`ahi St.
 - Fischer Tile & Marble Hawai`i, LLC.
- 545 Ka`a`ahi St.
- Nu`uanu Auto Co. Ltd.

Start: 215 N. King St., left side of track heading `Ewa, Makai 1 lot below

- 225 N. Nimitz Highway: Higa Market, Ltd. (808) 521-3591
- 225 N. Nimitz Highway Units: Seafood Garden Market (808) 524-4847
- Kuwili Road
 - Old fire station: abandoned
 - Medical Examiner facility
 - Homeless shelter
- **Station: Iwilei**
- 860 and 866 `Iwilei Rd.: `Iwilei Center, Inc. (see picture of directory list)
 - *Interview by Lynette Cruz: Grant Isagawa (security guard): `Iwilei Center, land is leased by Weinberg from the state and owns the structure. Used to be occupied by Island Movers.*
 - Tenants (upstairs)
 - 235: Creative Hawaiian Gifts, Victor Trading Co.
 - 234: Liquid Planet Studios
- 850 `Iwilei Rd. (downstairs), Diamond Head side of `Iwilei Center
 - Nonprofit organizations
 - Downstairs Makai side, heading `Ewa
- 420 Kuwili St., Suite 101: Pacific Medical Healthcare & Supply Co.

- 418 Kuwili St., Suite 106: Big Brothers, Big Sisters
- 500 Kuwili St., Suite 100: Sushi Chef and French Gourmet
- corner of Pine St. and Kuwili St.: Hawaiian Electric (power plant)

Section #3. Airport Extension (Lynette Cruz, PhD; Brian Cruz; and Shelly Keliipuleole)

- **Station: Airport Station**, no address: airport lei stands
 - *Interview by Lynette Cruz: Lilian Hewlen (Arthur's Lei Stand). This lei stand is her family business, her mother is Marian Hewlen and they have been making/selling lei for 50 years.*
 - *Interview by Lynette Cruz: Marian Akau-Martinez (owner, Dora's Lei Stand). Has been making/selling lei from that location since the beginning. Formerly located at the Old Aloha Tower before World War II when all the ships came in. Then moved to the Airport location.*
 - *Interview by Lynette Cruz: Juanita Vurgcayao. Iwalani Hedges (now a school teacher at Nanakuli, wrote a book on the History of the Airport lei stands which is at the UH library.*
- **Station: Lagoon Drive Station**, No address: Lagoon Drive and Aolele: occupied by AMPCO System, airport parking. Opened in the 2nd week of November 2007. Prior to that, worker states it was an empty lot.
 - Makai side of station is the airport runway
 - Mauka side of station across Aolele:
 - Commercial Shelving, Inc.
 - Architectural Woods, Inc.
 - Ian's Auto Body & Paint
 - Punchbowl Fender II

Section #4. River Street-Downtown-Kaka`ako-Ward-Ala Moana at Pi`ikoi. (Roberta Chun, PhD Candidate). (GIS maps correspond to items below)

Map 1.

1. Nu`uanu Stream
2. Nu`uanu Bridge (1932)
3. Pho Baci Viet Restaurant
4. The Orchid Room-Therapeutic & Wellness Center
5. Hou Ren Tong Herb Store
6. Song Huong Vietnamese Restaurant
7. Akule Research—Pier 11
8. K. Kaya Fishing Supply
9. Lanakila Marine
10. Quan Song Ngoc Vietnamese Food
11. Association of Chinese from Vietnam, Cambodia and Laos

Map 2.

12. Monkeypod tree
13. Monkeypod tree plaque
14. AMFAC Stone sculpture
15. AMFAC Stone sculpture plaque
16. Walker plaque (1)
17. H. Hackfield & Co., Ltd. Gate sculpture
18. Coral block sculpture (1) makai
19. Coral block sculpture (2) mauka
20. Henry Walker memorial plaque
21. Courthouse coral stone sculpture plaque
22. H. Hackfield & Co., Ltd. Gate sculpture plaque
23. Mrs. Walker memorial plaque
24. Henry Walker Sr. memorial plaque
25. Fountain
26. Walker Park plaque (*Coconut trees throughout Walker Park)
27. Cannon sculpture

Map 3.

- 27a. Pohaku (1) Aloha Tower Marketplace
- 28. Pohaku (2) Aloha Tower Marketplace
- 29. Flagpoles (3) Aloha Tower Marketplace
- 30. Aloha Tower sculpture/sign
- 31. Coconut trees—Aloha Tower
- 32. Coconut trees—HECO

Map 4.

- 33. Flagpole—Nimitz Hwy/Richard St
- 34. Propeller sculpture
- 35. 300 Ala Moana sign
- 36. Kukui tree
- 37. Kukui tree plaque
- 38. Monkeypod trees (4)
- 39. Mililani Mall sign
- 40. U.S. Courthouse flagpole
- 41. U.S. Courthouse sculpture
- 42. Hoaka sculpture
- 43. Prince Kūhiō Federal building/U.S. Courthouse sign
- 44. Monkeypod trees (3) Kaahumanu Hale grassy area
- 45. Monkeypod tree (1)
- 46. Arch/Family structure
- 47. Monkeypod trees (4)

Map 5.

- 48. Monkeypod trees (3)

Map 6.

- 49. Wong's Produce
- 50. Care Hawaii
- 51. Mother Waldron Park/Pavilion
- 52. Hale Kupuna
- 53. Ola Nui

Map 7.

- 54. Kieselbach Woodwork
- 55. Stepping Stones Academy (Pre-School)

Map 8.

- 56. Logos Bookstore
- 57. Bete Muu
- 58. KCAA Muriel Preschool
- 59. Local 5, H.E.R.E.

Map 9.

- 60. Healing Academy
- 61. Sculptures (2)

Map 10.

- 62. Hawaii International Child
- 63. Makana Aesthetics Wellness Academy
- 64. John Guild Communications (recording studio)
- 65. Aku Bone Lounge & Grill (meeting place)
- 66. Iida (Japanese ethnic store)
- 67. Ceramic Hobbyist
- 68. Hardwood Hawaii

Section #5. Ala Moana at Pi'ikoi-Ala Moana at Kapiolani-Waikiki Extension to Paokalani Ave (Trung Doan). (Items below correspond to aerial maps of the Section.) (Mini-surveys (5))

Kona/Pi'ikoi Strs. (Map 1)

- Several parking facilities;
- Hotels; Garages
- Hawaiian Jewelry

Kona St. (Map 2)

- Nordstrom
- Ala Moana parking
- High-rise buildings

Kona St./Atkinson/Kapiolani (Map 3)

- Various businesses; eateries; bars/night clubs
- Vet Center
- Fitness Center
- Statue

Kapiolani/Kalakaua Ave. (Map 4)

- Hard Rock Café
- Convention Center
- Bridge
- Ala Wai Canal

Kalakaua Ave (Map 5)

- Waikiki Landmark
- Fountain
- High-rise buildings (shops, businesses, eateries, parking)

Kalakaua/Kuhio Ave. (Map 6)

- Tony Roma Restaurant
- Shops
- Residence
- Christian Science Reading Room
- Residence
- ABC Store
- Keo's Restaurant
- Hotels
- General Store
- Park
- King Kalakaua statue
- Nick's Fish Market Restaurant
- Trees
- La Casa
- Nike Town

Kuhio Ave (Map 7)

- Big tree
- Residence
- Apartments
- Hotels (one has stone wall)
- Kuhio Court
- Villas
- ABC Store
- Residence
- Hotels
- Shops

Kuhio Ave (Map 8)

McDonald's
Tattoo shop
Matteo Restaurant
Seaside Bar/Grill
Waikiki Trade Center
Old House
Clubs
Eateries
Restaurants
Hotels
Apartments

Kuhio Ave (Map 9)

Food Pantry
General Store
Fun Factory
Perry's Smorgy's Restaurant
Old house-stone wall
Princess Kaiulani statue
Shops
Several big hotels
House
Apartment

Kuhio-Paokalani Ave (Map 10)

Apartment
ABC Store
Hotels (Pacific Beach, Prince Kuhio, Waikiki Banyan, Marriott)

Section #6. University Extension from Kapiolani/Kalākaua to University Ave at Varsity (Noriko Kono). (Mini-surveys (7) potential cultural resource)

1. Frank C. Judd Park, 1960 Kapiolani Blvd. Urban. Property in location of the McCully Station.
2. Keala Canoe Club, 2015 Kapiolani Blvd. (President Mr. Hawaiian); trains in Ala Wai Park for 21 years; annual Ala Wai challenge on Jan 27th.
3. Ala Wai Recreation Center, 2015 Kapiolani Blvd. (Ms Kafren French/Mr. Lupert); community center with various activities/classes (build in 1930s); site of the McCully Station.
4. Tokai University Educational Systems, 2241 Kapiolani Blvd (Japanese University).
5. Mō`ili`ili Hongwanji Buddhist Temple, 902 University Ave. Originally built in 1906; new building built in 1960; on alignment, 600 feet from Date St Station. Funerals and rituals take place here.
6. Church of the Crossroads/United Church of Christ, 1212 University Ave. Building designed by Claude Albon Stiehl in 1932; finished 1935; on State and National Register. Site is 200 feet from UH-Manoa Station.
7. Varsity Theatre, University Avenue. Constructed in 1930s. UH-Manoa Station will be right next to the theatre; potential dorm for UH students.

Appendix H

Land Commission Awards Detail

The following tables detail the land use documented in each ahupua`a through the Land Commission Awards process. The information has been placed in this chart as it was recorded in the LCA records, therefore, there are few Hawaiian diacritical markings as at that time, the use of such markings had not yet been standardized. During the award process, claimants were required to describe the way in which the land was being used at the time the claim was made as part of the awards process.

| LCA # | Claimant | Ahupua`a | `Ili | Land Use |
|-------|---------------|------------|--|--|
| 848 | Kapula | Honouliuli | Poohilo | 5 <i>apana</i> : (1) lot-3 houses; (2) 6 <i>lo`i kalo</i> ; (3) 3 <i>lo`i kalo</i> ; (4) <i>lo`i kalo</i> ; (5) 5 <i>lo`i kalo</i> , pasture |
| 847 | Hinaa | Honouliuli | Poohilo | 14 <i>lo`i kalo</i> - guardhouse, <i>kula</i> /pasture |
| 911 | Kahailepa | Honouliuli | Poohilo | 2 <i>apana</i> : (1) 4 <i>lo`i kalo</i> , <i>kula</i> , house; (2) walled <i>lo`i</i> ; <i>po`alima</i> , Kauakahilau is <i>konohiki</i> for Kekauonohi. |
| 831 | Kaekuna | Honouliuli | Poohilo | 2 houses, 2 <i>lo`i kalo</i> |
| 1570 | Kekua | Honouliuli | Poohilo | 4 <i>apana</i> : (1) <i>lo`i</i> , <i>kula</i> -pasture (Aihonu), <i>mo`o</i> (Waiauu); (2) <i>lo`i</i> (Haalelenai) in <i>mo`o</i> (Waianu); (3) <i>kula mahiai</i> (Kaluanonomuku) in <i>mo`o aina</i> (Aihonu); (4) 2 <i>lo`i kalo</i> (Kiaiopelu and Kalokoloa) in <i>mo`o</i> (Waianu); <i>po`alima</i> , |
| 193 | Louis Rees | Ho`ae`ae | | taro, goats, cattle, horses |
| 10474 | Namaau | Ho`ae`ae | Keoneula | (no data) |
| 1578 | Kaihumai | Ho`ae`ae | Laekea | <i>kula</i> -pasture; <i>lo`i kalo</i> ; <i>po`alima</i> ; Namaau (old <i>konohiki</i>); Kupoli (new <i>konohiki</i>) |
| 887 | Kaihikapu | Ho`ae`ae | Kalokoeli Kuainihi Kuainiho Pakai | <i>po`alima</i> ; 5 <i>lo`i kalo</i> houseslot, stream 3 houses waina, vineyard |
| 1533 | Kealaiki | Ho`ae`ae | Kiaiole Waiki | <i>lo`i kalo</i> , <i>po`alima</i> <i>moo kalo</i> , 3 <i>lo`i</i> , <i>kula</i> (Koipu), vineyard (<i>konohiki</i> Paoa); |
| 750 | Mokumakuaole | Ho`ae`ae | Koipu | 5 <i>lo`i kalo</i> , <i>auwai</i> , <i>pali</i> |
| 1571 | Kalihue | Ho`ae`ae | Kamolokala | 2 <i>lo`i kalo</i> , <i>auwai</i> , houseslot, wall, <i>pali</i> |
| 899 | Kahooweliweli | Ho`ae`ae | Amakehilalo | 5 <i>lo`i kalo</i> , <i>kula</i> -houseslot, wall, <i>auwai</i> , <i>po`alima</i> |
| 1561 | Kaumanu | Ho`ae`ae | Kamalokala | 3 <i>apana</i> , <i>kula</i> , 2 <i>lo`i kalo</i> , <i>auwai</i> , <i>po`alima</i> , <i>pali</i> , stream, pasture |
| 1707 | I | Ho`ae`ae | Kalokoeli | 2 <i>apana</i> : (1) House lot, 2 houses 5 <i>lo`i kalo</i> , <i>auwai</i> , pasture, <i>pali</i> ; (2) 3 <i>lo`i kalo</i> , stream |

| LCA # | Claimant | Ahupua`a | `Ili | Land Use |
|---------|----------------------------------|----------|-----------------------------------|--|
| 1712C | Nu`uanu | Waikele | Keahupuaa | <i>mo`o aina</i> (Kalai): (1) 4 <i>lo`i</i> ; (2) <i>pahale</i> (garden/pasture) in <i>kula</i> (Auiole), seashore |
| 7260*O | Namakeha, B | Waikele | Kaolipea | 2 <i>mo`o</i> : (1) 252.18 Acs; R.P. 4370; (2) 4 <i>apana</i> 39.13 Acs; R.P. 4398 |
| 1614B | Hookaamomi | Waikele | Keahupuaa Ahualii | <i>mo`o aina</i> (Mikiokai)-4 <i>lo`i kalo</i> ; <i>kauhale</i> (houseslot) |
| 908 | Kaniu | Waikele | Ohua | 1 <i>apana</i> , road/path; stream |
| 1015 | Kuheleloa | Waikele | Paahao | 2 <i>apana</i> : <i>mo`o aina</i> - house lot, 3 <i>lo`i kalo</i> , pasture, house; animal enclosure |
| 5663*O | Kahonu | Waikele | Pahao | 2 <i>apana</i> ; 14.37 Acs; R.P. 8164 |
| 860 | Kaaihee | Waikele | Paahao | <i>mo`o kalo</i> , cultivated <i>kula</i> , salt pans, houseslot |
| 1005 | Kahiki | Waikele | Pouhala | (1) Houseslot; (2) 4 <i>lo`i kalo</i> , pasture; (3) <i>kula</i> |
| 858C | Pokini | Waikele | Pouhala Paahao | 1 <i>apana</i> : <i>kula</i> (<i>konohiki</i> - Moeikoolua) 2 <i>apana</i> : 5 <i>lo`i kalo</i> |
| 857 | Kapepee (w) | Waikele | Pouhala | Houseslot, <i>kula</i> ; (2) <i>lo`i kalo</i> |
| 1018 | Palaualelo (w) | Waikele | Pouhala | Houseslot; <i>mo`o aina</i> -cultivated <i>kula</i> land |
| 858 | Kanealoha | Waikele | Waipahu Pouhala | <i>mo`o aina</i> ; <i>konohiki</i> (Luluhivalani) <i>loko</i> -fishpond, 5 <i>lo`i kalo</i> ; houseslot; |
| 5930 | Puhalahua (<i>konohiki</i>) | Waikele | Hanohano | <i>loko</i> (fishpond), <i>lo`i kalo</i> ; (2) <i>lo`i kalo</i> , pasture; sea (Apokaa), starts from the mouth of Kaalahina River |
| 8241 | Kaholohana | Waipio | Hanaupouli | <i>Pahale</i> -5 houses |
| 8241SS | Kauhiohewa | Waipio | Hanaupouli | House, <i>mo`o Kahaole</i> , <i>lo`i</i> |
| 1685 | Peke | Waipio | Kakaia | 3 <i>lo`i</i> , <i>auwai</i> , <i>kula</i> -pasture (fenced); houseslot |
| 10613*O | Abner Paki | Waipio | Hanaloa | 3 <i>apana</i> ; 350 Acs; R.P. 2243 |
| 10512*O | Nahuina | Waipio | Kauaka | 3 <i>lo`i kalo</i> |
| 9368 | Kakoo | Waiawa | Kuhiawaho | <i>Mo`o kalo</i> - <i>Mo`oiki</i> ; <i>kula</i> <i>pahale</i> ; <i>loko</i> |
| 9387 | Puakai | Waiawa | Kalona | <i>mo`o</i> , house lot, fenced |
| 9387 | Puakai | Waiawa | Kumuhau | <i>lo`i kalo</i> |
| 9409 | Puhiki | Waiawa | Kaumiumi | <i>mo`o</i> |
| 10942 | William Wallace | Waiawa | Kahoai | former <i>konohiki</i> (Noa Naheana) lands; house lot, 2 <i>mo`o</i> (Kalualii & Mooiki); <i>mo`o</i> (Ulu-2 <i>lo`i</i>); <i>mo`o</i> (Oopu & Kahoai-4 <i>lo`i</i>) |
| 9294 | Kekeni/Kekini | Waiawa | Piloiaumoa Panaio | <i>pahale</i> ; <i>konohiki</i> (Kahanolono) houseslot |
| 904 | Noa Naheana | Waiawa | Kahoai | 4 lots: (1) houseslot-bounded/3 houses; (2) <i>lo`i kalo</i> ; (3) <i>loko</i> -sand dune; (4) <i>loko</i> . * <i>Kawaialoloa-konohiki</i> |
| 4213 | Kauhi | Waiawa | Kahoaee Kapuaihalulu Kalona | <i>mo`o</i> (Kaihumaneiki)-3 <i>lo`i</i> , <i>kula</i> ; houseslot <i>pahale</i> ; Holoipiapia Stream <i>pahale</i> |
| 5591 | Kekua | Waiawa | Kahoaee | <i>mo`o kalo</i> (Kaekumenenui)-5 <i>lo`i</i> , <i>kula</i> , wall |

| LCA # | Claimant | Ahupua`a | `Ili | Land Use |
|---------|-------------------|----------|-------------------|--|
| 9357 | Kekua | Waiawa | Kapaloa | <i>mo`o kalo</i> (Kaekumenenui)-4 <i>lo`i</i> , pasture |
| 2685 | Ohia | Waiawa | Kapuiahialulu | 6 <i>lo`i kalo</i> , banana plantation (<i>kuamaia</i>), <i>kahuahale</i> , <i>kula</i> , <i>auwai</i> , <i>konohiki</i> (Paahana) |
| 8305 | Paulo Kanoa | Manana | Kaholona | <i>lo`i kalo</i> , 12 <i>apana</i> |
| 5662 | Kawelo | Waimano | Kaihuakapuaa | 3 <i>apana</i> -9 <i>lo`i kalo</i> ; <i>po`alima</i> , wall, seashore |
| 11029*O | John Stevenson | Waimano | Kukona | (no data) |
| 9385 | Palea | Waiau | Kauhihau | <i>po`alima</i> , 6 <i>lo`i kalo</i> (Kanohai)-fenced |
| 9339 | Nonoaea | Waiau | Naono | <i>po`alima</i> , <i>mo`o</i> (Kealanahalehele), 5 <i>lo`i kalo</i> |
| 9409 | Puhiki | Waiau | Kaakawaihau | <i>mo`o kalo</i> (Ainaio)/5 <i>lo`i</i> , <i>auwai</i> , <i>kula</i> |
| 9410 | Hema | Waiau | Kaumiumi | <i>mo`o kalo</i> (Kapalakai)-6 <i>lo`i</i> , <i>kula</i> , <i>ko`ele</i> |
| 9410 | Hema | Waiau | Kaakawaihau | <i>mo`o</i> (Waikowaha)-4 <i>lo`i kalo</i> , <i>kula</i> |
| 9410b | Wahaolelo | Waiau | Kaakawaihau | 4 <i>mo`o</i> (Kumuulu-6 <i>lo`i</i>), (Muliwai-loko), (Muliwai-iki—loko), (Kaluaapulu-2 <i>lo`i</i> , <i>kula</i> |
| 9369 | Kanealii | Waiau | Kumuula | 2 <i>mo`o kalo</i> (Manamana-4 <i>lo`i</i>), (Kealohi-11 <i>lo`i</i> , pasture, stream) |
| 9344 | Liliu | Waiau | Honokawailani | 10 <i>lo`i</i> , <i>kula</i> , a <i>kahuahale</i> -house lot outside of the <i>paapina</i> (land enclosure-pasture) |
| 9328 | Kaeka & Kalimaena | Waiau | Kaluaopu | <i>mo`o</i> (Makakua), 9 <i>lo`i</i> , <i>kula</i> , 2 <i>koele</i> ; * <i>kokohiki</i> is Kekaina |
| 2938 | Huanu/Lahilahi | Waimalu | Pohakupu | (Marin/Lahilahi lands) house lot/farmland |
| 9407 | Kuaalu | Waimalu | Pipio | <i>po`alima</i> , <i>loko</i> , <i>loko`ia</i> , 6 <i>lo`i kalo</i> |
| 5649 | Kahanaipuaa | Waimalu | Kumupali | 3 <i>lo`i kalo</i> , house lot |
| 5586 | Kahiki | Waimalu | Pipio | 5 <i>lo`i kalo</i> , <i>loko</i> , pasture, house lot, 2 sand dune |
| 9372 | Keiki | Waimalu | Kapaloa | <i>mo`o kalo</i> (Kukaelelenui); 2 <i>apana</i> |
| 8525B*O | Kauwa, J.A. | Waimalu | Waieli Kainakoi | (no data) |
| 9315 | Haki | Waimalu | Waieli | <i>mo`o</i> (Kalokoloa and Keoneula)-8 wet & 8 dry <i>lo`i kalo</i> , <i>loko</i> , pasture, <i>po`alima</i> , sand dunes |
| 5365 | Stevens, Col. Wm | Kalauao | Paaiau | <i>Muliwai</i> , sea shore, <i>pali</i> |
| 5910 | Piko | Kalauao | Kaonohi | <i>mo`o kalo</i> (Kukii)-4 <i>lo`i kalo</i> , <i>kula</i> |
| 5934 | Piko | Kalauao | Kapukaokiha | <i>loko puuone</i> , house lot |
| 5840 | Kuohao | Kalauao | Kaunohi | <i>mo`o kalo</i> (Kahihina) in <i>mo`o aina</i> (Kamilomilo): (1) 3 <i>lo`i kalo</i> , <i>po`alima</i> , Kalauao Stream; (2) 2 <i>lo`i kalo</i> ; (3) 3 <i>lo`i kalo</i> ; |
| 9297 | Kanikele | Kalauao | Kamilomilo | <i>mo`o kalo</i> (Kuupuloku)-4 <i>lo`i kalo</i> , <i>muliwai</i> |
| 9400 | Hilo | Kalauao | Kaunohi Manukuaha | <i>mo`o kalo</i> (Kipawale): (1) 4 <i>lo`i kalo</i> ; (2) 1 <i>lo`i kalo</i> ; (3) house lot 2 <i>apana</i> |
| 2494 | Kekou, Julia | Kalauao | Kaunohi | 4 <i>apana</i> , 6 <i>lo`i kalo</i> , <i>loko ia</i> |
| 6156 | Nua | Kalauao | Kaunohi | <i>mo`o kalo</i> (Kamalua)-5 <i>lo`i kalo</i> , <i>loko ia</i> Loko Opu), wall, |

| LCA # | Claimant | Ahupua`a | `Ili | Land Use |
|-------|--|----------|--|--|
| 6156B | Mahoe | Kalauao | Kaunohi | <i>mo`o kalo</i> (Paauki)-10 <i>lo`i kalo</i> ; 1 <i>koele</i> ; <i>kula</i> ; <i>loko ia</i> (Loko Opu) |
| 5581 | Kalaimanuia | Kalauao | Kaunohi | <i>mo`o</i> (Opu), 3 <i>lo`i kalo</i> , <i>kula</i> -pasture, <i>loko</i> |
| 9338 | Keapoahiwa | Aiea | Kealapii | <i>mo`o</i> (Kapalakai), 2 <i>lo`i</i> , <i>loko</i> , <i>dunes</i> , <i>muliwai</i> |
| 2054 | Kaapuni | Aiea | Kalawaha | 2 <i>lo`i kalo</i> , pasture |
| 2052 | Kekoanui | Aiea | Kapalakai | 4 <i>lo`i kalo</i> , <i>muliwai</i> , <i>kula</i> , houselot |
| 5918 | Pua | Aiea | Kealapii | <i>mo`o kalo</i> (Kaiawa)-4 <i>lo`i kalo</i> , <i>muliwai</i> , <i>po`alima</i> , house |
| 9337 | Pua | Aiea | Kealapii | <i>mo`o</i> (Kaiawa); 1 <i>apana</i> |
| 2141 | Keapoahiwa | Aiea | Kapakai | 3 <i>apana</i> , 2 <i>lo`i kalo</i> , houselot, <i>loko ia</i> , <i>muliwai</i> , <i>mo`o</i> (Kaiawa), <i>po`alima</i> |
| 74344 | Kulani | Aiea | Kaomuoi Waihiluna | 4 <i>lo`i kalo</i> , <i>loko puuone</i> ; 1 <i>apana</i> |
| 1990 | Naihe | Aiea | Kepoho | 2 <i>lo`i kalo</i> , pasture |
| 2156 | Opunui | Halawa | Kaloiki Piomowai | 3 <i>lo`i kalo</i> ; (2) 1 <i>lo`i kalo</i> ; (3) houselot 1 <i>apana</i> |
| 2131 | Kanihoalii | Halawa | Kamau Kalokoloa | 1 <i>lo`i kalo</i> , 2 <i>loko</i> , <i>kula</i> , house lot; 1 <i>apana</i> |
| 2102 | Kaohe | Halawa | Kalokopaoa | 3 <i>lo`i kalo</i> , <i>loko puuone</i> , a <i>kula</i> -houselot (Ehu) |
| 1044 | Hoomoeapule | Moanalua | Kapakala Kapakahi Inaikolea Kiao Pohala Umi | <i>ko`ele lo`i</i> (Puali and Kaapoepoe); <i>ko`ele loko lemi</i> ; pasture (Haapilo) farmlands: Kawau, Puali, Kaapoepoe, lemi and Kiao; <i>dunes (lele)</i> ; Loko Kaaukuu; Ahua and Mokumoa (fisheries); <i>lo`i</i> (Piinau) <i>dunes (lele)</i> ; Loko Makapuu, <i>lo`i</i> 1 <i>apana</i> , <i>maiaula</i> , <i>muliwai</i> 1 <i>apana</i> Kama mua <i>lo`i</i> , other <i>lo`i</i> , <i>kula niu</i> / <i>kula land house lot</i> . |
| 1488 | Kaehu, J. H. | Moanalua | Kamuliwai Kapakahi | 6 <i>lo`i kalo</i> , <i>auwai</i> (Pepehu), stream; houselot; <i>konohiki</i> (Kealoha) |
| 1322 | Kaelemakule | Moanalua | Kapakahi | 3 <i>apana</i> , 7 <i>lo`i kalo</i> , 2 <i>kula</i> |
| 1793 | Hookele | Moanalua | Kahaiao Maili | 3 <i>lo`i</i> , 1 <i>kula</i> , house, 4 coconut trees, <i>koele</i> (Keehi) 1 <i>apana</i> |
| 868 | Kaikainalii (father-Manuhua was sib of Kameeiamoku) | Moanalua | Kalou, Maili, Mapunapuna, Muliwai Kapakahi | cultivated, 3 houses; (2) partly (3) fenced-3 houses; Waiiau River (4) cultivated land; Loko Wele, stonewall many houses, pasture, <i>lo`i</i> |
| 5261 | Kekipi | Moanalua | Maili | 2 <i>lo`i kalo</i> , <i>auwai</i> , 2 <i>kula aina</i> (pasture) |
| 1317 | Oleloino | Moanalua | Umi/Uhi | <i>lo`i kalo</i> , <i>po`alima</i> , <i>loko</i> , houselot |
| 2761 | Namaielua | Moanalua | Kaloaloa | 2 <i>lo`i kalo</i> |
| 1197 | Pukai | Moanalua | Kapakahi | <i>Lo`i kalo</i> , 2 <i>auwai</i> , road, <i>kula</i> -pasture |
| 2270 | Kuwahine | Moanalua | Mapunapuna | 6 <i>lo`i kalo</i> , 3 <i>auwai</i> , pasture |
| 3183 | Kalahouka | Moanalua | Mapunapuna Honahona | <i>Auwai</i> , 2 <i>lo`i kalo</i> ; <i>lo`i kalo</i> |

| LCA # | Claimant | Ahupua`a | `Ili | Land Use |
|---------|---------------------------|---------------|--|---|
| 1318 | Kahalepalaoa | Moanalua | Homahoma Kamookahi Puhala | <i>lo`i kalo, auwai, lauhala</i> 5 <i>lo`i kalo</i> houseslot |
| 1318B | Kahalepalaoa | Moanalua | Kaholi | houseslot |
| 1315 | Kahuakailoa | Moanalua | Wawaloa | 5 <i>lo`i kalo, auwai, loko ia</i> |
| 3130 | Kamako | Moanalua | Kuaiawa | <i>lo`i kalo, kula</i> -pasture, houseslot |
| 2851 | Keone | Moanalua | Homahoma | 4 <i>lo`i kalo</i> , pasture |
| 1344 | Wahineole (w) | Moanalua | Wawaloa | 5 <i>lo`i kalo, auwai</i> , houseslot; <i>konohiki</i> (Lot) |
| 1328 | Kahaukomo | Moanalua | Homahoma | 3 <i>lo`i kalo, pali</i> , houseslot, pasture; <i>konohiki</i> (Hoomoeapule) |
| 6450 | Kaunuoha | Kalihi | Mokauea | (no data) |
| 50 | Laumaka | Kalihi | Haunapo | (no data) |
| 803 | Adam Alexander | Kalihi | Alipi | taro, pasture, stream |
| 818 | George Beckley | Kalihi | Kaliheawa | Farm/fishing grounds |
| 3237 | Hewahewa | Kalihi | Kaluapulu | (no data) |
| 10498 | Nahinu | Kalihi | Kiona | (no data) |
| 2938 | Huanu/Lahilahi | Pauoa/Kewalo | Kaakaukukui | Coconut trees, wi trees, <i>lo`i</i> (Marin grandson) |
| 2938 | Huanu/Lahilahi | Honolulu | Kalawahine | (Marin) vineyard/fenced lot |
| 11029*O | Johnn Stevenson | Honolulu | Kamakela | house lot |
| 61 | Namakeha | Honolulu | Kaalaa | (Halekauwila) 2 houseslots |
| 677 | Kekuaaoa, M. | Honolulu | Honuakaha | 2 houses (Hotel/Nu`uanu); Nihoa |
| 735*O | Kaahumanu | Honolulu | Honuakaha | 2 houses, fenced |
| 10605*O | Piikoi, Iona & Kamakee | Honolulu | Kawelo | (Kapuni), Lihl, lele |
| 10463 | Napela | Honolulu | Kukuluaeo | 2 fishponds, <i>auwai</i> , house site, a salt land |
| 129 | Kinimaka | Honolulu | Queen/Punchbowl | houseslot |
| 164 | Kekuaaoa/Kamamalu | Honolulu | Fort Street | Houseslot, sea shore, road |
| 180 | Kekuaaoa/Lot | Honolulu | Punchbowl Street | Houseslot, seashore |
| 247 | Lunalilo/Kanaina | Honolulu | Beretania St., Queen St., King St., Fort St., Merchant St., Printers Lane°, Punchbowl, Kakaako | 12 houseslots, road, burials (Royal Cemetery, wall, several leases to merchants and others who resided in houses including a stone house |
| 626 | Stephen Reynolds | Honolulu | Hotel & Merchant | houseslot |
| 704 | Honaunau | Honolulu/Apua | Punchbowl St. | 3 houses, <i>muliwai</i> , sand dunes |
| 729 | Kekuhaupio | Honolulu | Queen St. | 3 houses, wall, |
| 784 | James Robinson & Co | Honolulu | Queen St | Sea shore, wharf |
| 9971*O | Leleiohoku, Wm P. | Honolulu | Kaakopua Pakaka/#38 Kaaihee #39 No. #37 | Farm occupied by James Robinson East of the kula of Kahua, a lele of Kalawahine, seaward of Makiki. House lot occupied by Kahinu |
| 2065 | Bolabola, Keo | Honolulu | Kapuukolo | houseslot |
| 6236*O | Kaaiawaawa | Honolulu | Koiuii | 6 apana; 6 houseslots |

| LCA # | Claimant | Ahupua`a | `Ili | Land Use |
|--------|--|----------|-----------------------|--|
| 7712*O | Kekuanaoa/Kamamalu | Honolulu | Fort | 28 apana: Puunui 1 ili for Honolulu Pauhuluhulu. Puunui 2 Kona, O`ahu Punana. Puunui 3 Kailili. AlewaLaukalo Kahapaakai Olomana Kuwili Kuaipaako Kapiwai 1 Kalia, `ili for Waikiki, Kona, O`ahu Kapiwai 2 Kahaole Pilikea Kaluahole Puiwa Kaluaalaea KawananaKoa Kapuna Kalokohonu Nukunukuaua Kunawai Kaaumoa AalaAuaukai Palepo Waihinalo Niupaipai Mookahi Apowale Pawaa of Maalo Kuaiula Kaluaolohe Kaaleo Kaluahinenui KuhiMana by Waiaka Kaihikahi Kumuula Oloku Kahoiwai 1 Hauhaukoi Kahoiwai 2 Kaukahoku Keonepanee Kului Kaluaauau, `ili for Kalilhi. |
| 30 | Kahoowaha | Honolulu | Kapuukolo | House lot-6 houses; burials, sea shore, Kahulumanu the village, <i>pukuikolo</i> (collection of gods, things) |
| 38 | Grimes, Eliab & Hiram | Honolulu | Nu`uanu St. | Wharf, wooded & grass buildings, marketplace |
| 46 | Maughan, Joseph/ wife Cruz-dau/Marini | Honolulu | Maunakea St. | former cow yard, house –belonged to Marini |
| 57 | Kou, Simeona | Honolulu | Kapuukolo | <i>pili</i> grass fisherman <i>hale</i> |
| 186B | Kekuanaoa/Kamamalu | Honolulu | Queen St. (Aienui) | markethouse |
| 256 | Kalukini | Honolulu | Kapuukolo | 6 houses-fenced, sea shore, |
| 810 | Jones, Francis, Rosalie & John (children of Lahilahi Marin) | Honolulu | Marine St. | 2 house lots (stone house) and <i>pili hale</i> , fenced |
| 982 | Kukao | Honolulu | Koula Kukuuaeo | 1 <i>apana</i> (from the time of Peleioholani) houselot (Kukuuaeo), 4 houses-fenced |
| 2938 | Huanu, Lahilahi heir | Honolulu | Kalawahine | fenced vineyard |
| 66 | Napahi | Honolulu | Kapuukolo | House/fence |
| 170 | Kekuanaoa, Mataio | Honolulu | King St. | houselot |

| LCA # | Claimant | Ahupua`a | `Ili | Land Use |
|-------|---------------------------------|----------------------|---|---|
| 22 | Kauwaina, G./ Weloula/Napihi | Honolulu | Kapuukolo | Houselot-fenced |
| 64 | Kihewa | Honolulu | Kapuukolo | Houselot |
| 61FL | Kaholo | Honolulu | Kuwili | Fort land; 1 <i>lo`i kalo</i> , <i>auwai</i> , houselot, pasture, |
| 826 | Keakahiwa | Honolulu | Kaoawai, Kuwili | 3 <i>apana</i> : 3 <i>lo`i kalo</i> , bathing pool |
| 1089 | Kapehe (w) | Honolulu | Kuwili, Kapakapa | 2 <i>apana</i> : 8 <i>lo`i kalo</i> , houselot |
| 2440B | Kauaua (w)-Mrs. John Young | Honolulu | Kapahaha Kuwili Kapaakea | 3 <i>apana</i> : 1 houselot: people who live under her: Oponui, Kekipi,. Mahoe,. Keawe, Kahalaoa, Hapa, Nalimu. 2 old men live comfortably there. <i>lo`i kalo</i> , <i>loko</i> ; housetot |
| 23FL | Moeino | Honolulu | Kunawai, Hauhaukoi | <i>lo`i kalo</i> , <i>lele</i> 5 <i>apana</i> : 5 <i>lo`i kalo</i> ; houselot, pigpen |
| 655 | Kahaleaahu, John | Honolulu | Keoneula | Houselot-3 houses, wall, road |
| 2107 | Kahina | Honolulu | Kahawali, Kapahaha, Hauhaukoi, Kaoawai | 3 <i>lo`i kalo</i> , <i>auwai</i> <i>lo`i kalo</i> , houselot housetot |
| 8305 | Paulo Kanoa | Kapalama | Kainapuaa | <i>Auwai</i> , hog sty (rocks from Kaiwiula) protested by Nu`uanu, Mahi's son |
| 1398 | Mumuku | Kapalama | Kealia Keoneula, Kaluapilau, Kalia | 3 houses, 2 <i>auwai</i> , 3 <i>lo`i kalo</i> Houselot 4 <i>lo`i kalo</i> , houselot-3 houses |
| 1053 | Kahenawai | Kapalama Honolulu | Koholala | 3 <i>lo`i kalo</i> housetot |
| 11056 | Mauli | Kapalama | Kaukahoku | 2 <i>lo`i kalo</i> |
| 1723B | Needle, John | Kapalama | Pulehu | 3 <i>lo`i kalo</i> , houselot-framed; 2 brick tombs |
| 4889 | Kalimaiki | Kapalama | Ahaikuou, Niuhelewai, Kainapuaa | House site, 2 <i>lo`i kalo</i> <i>kahuahale</i> |
| 1034 | Kapauhi | Kapalama | Iwilei | House-4 houses, fence |
| 1222 | Alua | Kapalama | Pelekane | 5 <i>lo`i kalo</i> , houselot, coconut trees |
| 3144 | Ku | Kapalama | | 3 <i>apana</i> : 2 <i>lo`i kalo</i> , houselot, <i>loko ia</i> |
| 3153 | Nakoa | Kapalama | Kahope | 3 <i>apana</i> : 3 <i>lo`i kalo</i> , <i>auwai</i> , houselot |
| 8400 | Kuhelelei | Kapalama | Kaukahoku | 3 <i>apana</i> : 3 <i>lo`i kalo</i> |
| 8504 | Holmes, George | Kapalama | Kumuulu | 3 <i>apana</i> : 19 <i>lo`i kalo</i> , houselot |
| 265B | Zupplien, (Henry) | Kapalama | Kilikiliawa, Poepoe | 9 <i>lo`i kalo</i> ; 19 <i>lo`i kalo</i> |
| 591 | Meek, John | Kapalama | Kuwili | <i>lo`i kalo</i> |
| 1034 | Kapauhi | Kapalama | Iwilei | housetot-2 houses |
| 2073 | Kauhiwa | Kapalama Honolulu | Kaukahoku Keoneula and ½ <i>lo`i kalo</i> ; | <i>housetot</i> |
| 4034 | Davies, Robert G. | Kapalama | Kumuhahani | 2 <i>apana</i> : <i>lo`i kalo</i> |
| 8400 | Kuhelelei | Kapalama | Kaukahoku | 3 <i>apana</i> : 3 <i>lo`i kalo</i> |

| LCA # | Claimant | Ahupua`a | `Ili | Land Use |
|---------|--------------------|-------------------------|---|---|
| 8856 | Kalanui | Kapalama | | 4 <i>apana</i> : 3 <i>lo`i kalo</i> , houselot |
| 9FL | Kewa | Kapalama | Kuwili | 2 <i>lo`i kalo</i> , Fort land |
| 2937*O | Harbottle, William | Kapalama | Kuipaakea | 2 <i>lo`i kalo</i> , pasture |
| 3142 | Hooliku | Kapalama | Iwilei, Kalokoloa, Kumupali, Haikuoa | Houselot, sand dune 2 <i>lo`i kalo</i> , house site |
| 4747 | Kama (w) | Kapalama | Kuipaakea | <i>lo`i kalo</i> |
| 7681 | Kekai | Kapalama | Kaukahoku | 1 <i>apana</i> |
| 6450 | Kaunuoha | Waikiki | Puulena | (no data) |
| 1503 | Puaa | Waikiki/Kawelo | Kukuluaeo | 3 fishponds, house site |
| 1504 | Pahiha | Pauoa/Kawelo Waikiki | Kaakaukukui Puukea | 3 <i>lo`i kalo</i> ; 5 <i>lo`i kalo</i> , <i>auwai</i> House lot, fishpond, salt bed |
| 1265 | Kamoho | Waikiki | Kapaakea | 3 <i>lo`i kalo</i> , houselot |
| 1269 | Nalopino | Waikiki | Paakea | 2 <i>lo`i kalo</i> |
| 1274 | Huililau | Waikiki | Piliamoo | 2 <i>apana</i> : 12 <i>lo`i kalo</i> , 1 houselot |
| 1536 | Kaneauhii | Waikiki | Opukaala, Kapaakea | <i>lo`i kalo</i> 2 <i>lo`i kalo</i> , houselot-stone wall |
| 2362 | Kaaimoa | Waikiki | Paakea, Kaialiu | 2 <i>lo`i kalo</i> , 5 <i>hala</i> , houselot <i>lo`i kalo</i> |
| 2619 | Pahau | Waikiki | Kapaakea Pau | 2 <i>apana</i> : 18 <i>lo`i kalo</i> |
| 5937 | Paukuwahie | Waikiki | Kiki | 8 <i>apana</i> |
| 6235*O | Kapaakea | Waikiki | Kapaakea | 3 <i>apana</i> |
| 6252 | Kekukahiko, M. | Waikiki | Kaalawai | <i>lo`i kalo</i> |
| 7713*O | Kamamalu, Victoria | Waikiki | Kapaakea | <i>apana</i> |
| 11029*O | John Stevenson | Manoa-Waikiki | Kaipu | <i>lo`i kalo</i> , pasture, 4 <i>po`lima</i> |
| 100FL | Kekaula | Waikiki | Kalia | <i>lo`i kalo</i> , <i>loko</i> , <i>loko ia</i> , 5 <i>ki opua</i> , house site, pasture, Fort land |
| 101FL | Kaluaoku | Waikiki | Kalia | Fort land, 2 ponds, 3 <i>ki`opua</i> , died of small pox |
| 104FL | Kekuanaoa, M. | Waikiki | Kalia Piinaio | 2 <i>lo`i kalo</i> , 5 fish ponds; <i>muliwai</i> |
| 1270A | Kalalakoa | Waikiki | Hopoe-Kaopae | 4 <i>lo`i kalo</i> |
| 1272 | Mauae | Waikiki | Paakea, Hopoe, Kealoha | 2 <i>apana</i> : <i>lo`i kalo</i> <i>lo`i kalo</i> houselot-2 houses |
| 1452 | Haau | Waikiki | Hamohamo | <i>lo`i kalo</i> ; houselot |
| 1455 | Pelekane | Waikiki | Hamohamo | House lot, <i>lo`i kalo</i> |
| 1457 | Paumano | Waikiki | Hamohano | 3 <i>loi`i kalo</i> ; <i>auwai</i> ; 1 <i>kula</i> ; houselot, pasture |
| 1458 | Kapea | Waikiki | Hamohamo | <i>lo`i kalo</i> , <i>kula</i> , houselot |
| 2079 | Kauhola (w) | Waikiki | Kiki Mokahi Kawaiaala | 3 <i>lo`i kalo</i> , houselot; 2 <i>lo`i kalo</i> ; 4 <i>lo`i kalo</i> |
| 2081 | Kaoneanea | Waikiki | Kamookahi, Kalia | 3 <i>lo`i kalo</i> ; House lot, fishpond |

| LCA # | Claimant | Ahupua`a | `Ili | Land Use |
|--------------|-----------------|-----------------|---|--|
| 2083 | Kahiloaho | Waikiki | Kamookahi, Kanukukahi, Piinaio, Mooiki, Kalia | 2 lo`i kalo; 1 <i>apana</i> ; 1 <i>apana</i> lo`i kalo; houselot |
| 6386 | Kauhao | Waikiki | Niukukahi | Entire `ili |

Appendix I

Ali'i Nui Associated with the Study Corridor

Ali'i nui noted for their association with lands located within the study corridor include:

- Nana`ulu (primary progenitor of the O`ahu chiefly line)
- Māweke, Mulieali`i, `Olopana, Mo`ikeha (famous voyaging chiefs)
- Kaha`i, Ma`ilikūkahi (ali`i nui of O`ahu)
- Brothers Kalona-nui and Kalona-iki (ali`i nui of O`ahu)
- Cousins Kalamakua (Waikīkī/Hālawa) and Lolae-o-Halona (Līhu`e/Ewa)
- Their wife, Maui's famous surfer-chiefs Keleanuinoana`api`api
- Her daughter Lā`ielohelohe who married her first cousin Maui mō`i Pi`ilani - together they became the "progenitors" of the famous Pi`ilani line
- O`ahu ali`i Pu`uhale and his daughter Kūkaniloko (ruling chiefs of O`ahu)
- Her daughter Kalaimanua, builder of many fishponds in Pearl Harbor
- Ha`o, Kekela, and another famous O`ahu mo`i Kakūhihewa
- Kānekapu (ali`i nui of O`ahu), the legendary chief Kualī`i (ruling chief of O`ahu)
- His son Pelei`ōhōlani (ruling chief of O`ahu)

These same lands were also traversed and/or impacted by historical greats such as:

- Maui/O`ahu chiefs Kahekili, his brother Ka`eokūlani (Maui/Kaua`i ruling chief), Kahekili's son Kalanikūpule, and Kahekili's nephew Kahahana (both O`ahu ruling chiefs)
- O`ahu-born, Hawai`i Island mō`i Kalani`ōpu`u
- Hewahewa (chief kahuna), Ke`eaumoku (war advisor) and Namahana, parents of Ka`ahumanu (favorite wife of Kamehameha I; cousin of Kalanikūpule)
- Kamehameha and Kalakua (sister of Ka`ahumanu), parents of Kīna`u (O`ahu regent)
- Kamehameha I and Keōpūolani (daughter of Kīwala`ō-Hawai`i ali`i nui), parents of Hawai`i kings Liholiho, Kūikeyaouli (who entertained people in `Ewa and areas surrounding Pearl Harbor) and Nāhi`ena`ena, their sister
- Kamāmalu, Boki
- Kekūanao`a, father of Victoria Kamāmalu, Lot Kapuāiwa (Kamehameha V), and Alexander Liholiho (Kamehameha IV)
- Emma Na`ea, granddaughter of John Young

- Kalākaua and his sister Lili`uokalani, who loved to ride the train to `Ewa and Wai`anae; she also owned lands in Waiau and Waikīkī, and visited friends in Waipi`o and `Ewa

All of the chiefs and relatives of Kamehameha I were awarded O`ahu lands after the infamous Battle of Nu`uanu. Many of them or their descendants were re-awarded lands and reclaimed them during the Great Māhele/Land Commission Award process.

Appendix J

Historic People Associated with the Study Corridor

In addition to the aliʻi nui listed in Appendix I, other noted historic people who impacted or were associated with project lands include:

- Queen Kapiʻolani
- Princess Ruth Keʻelikōlani
- Princess Bernice Pauahi Bishop and her parents Abner Pākī and Konia
- John Young
- Isaac Davis
- Don Francisco de Marin
- Prince Jonah Kūhio Kalanianaʻole
- James Campbell (husband of Abigail Kuʻaihelani Maipinepine)
- Benjamin Franklin Dillingham
- Henry Kaiser
- Alexander Adams
- William De Witt Alexander
- Theo H. Davis
- Abraham Fornander
- John Papa ʻĪʻĪ
- Samuel Kamakau
- William Matson
- Thomas Thrum

Appendix K

Maps of Cultural Resources

The following maps identify the location of the resources identified in Tables 4-2 through 4-20 of this technical report. A legend is included at the bottom of each map. The yellow shaded area running parallel with the proposed route is the APE. The outer layer is the 500' APE, used primarily for identification of resources in station areas, while the inner layer is the 250' APE, used for identification of all resources and potential impacts listed in Tables 5-2 through 5-20 of this technical report.

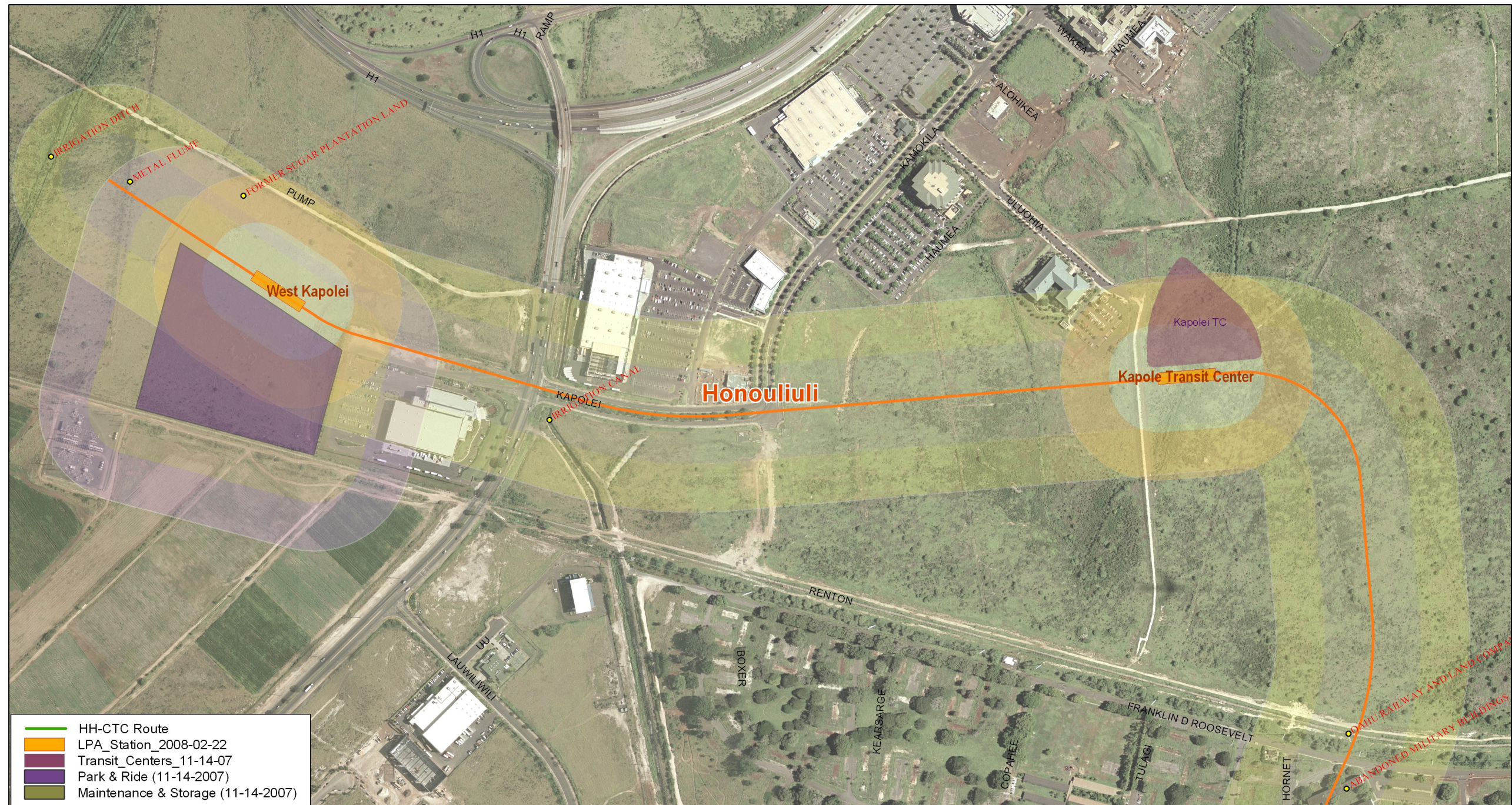


Figure 1
Cultural Resources - Kapolei Extension
within 500 foot Area of Potential Effect (APE)

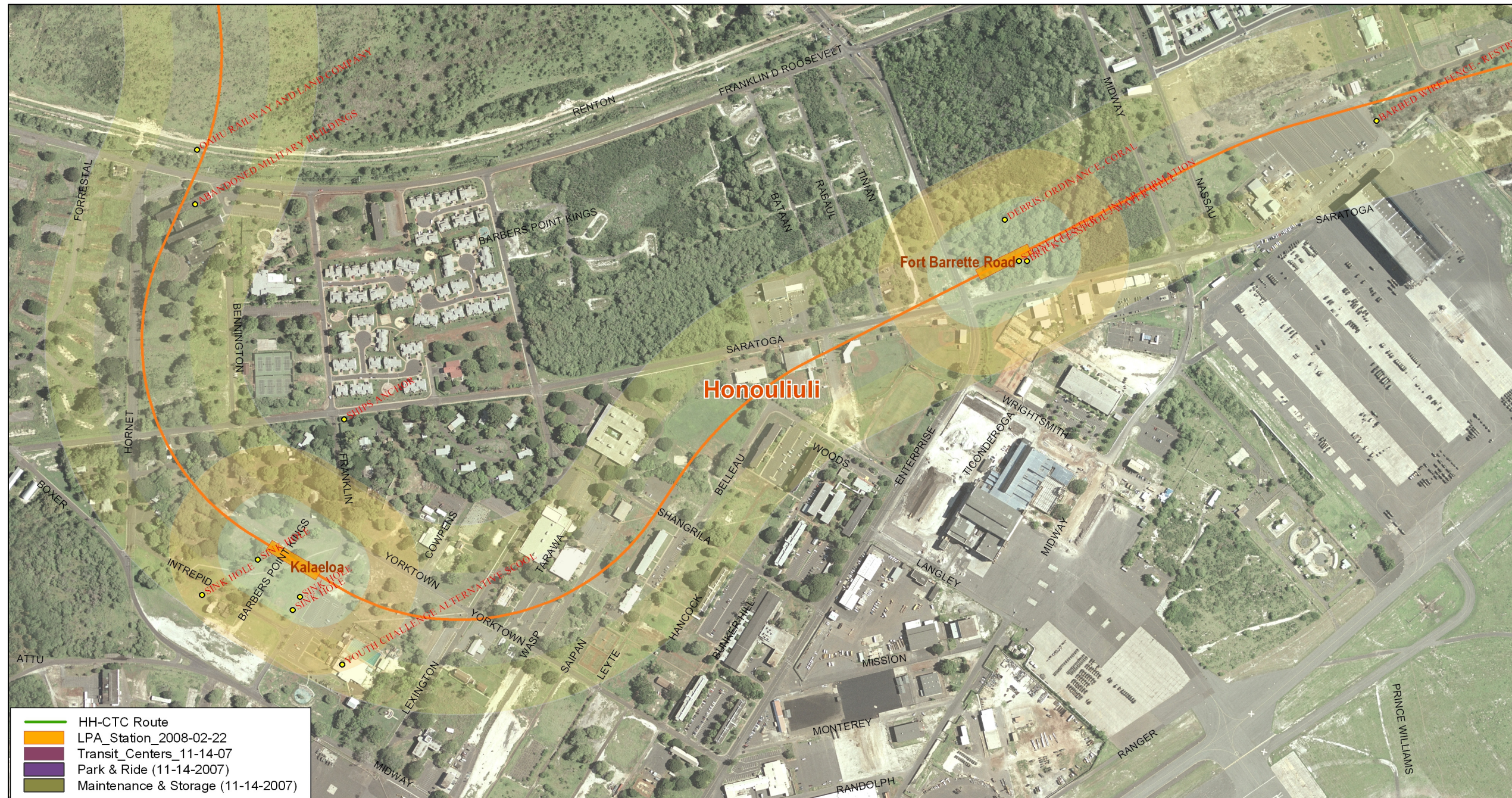


Figure 2
Cultural Resources - Kapolei Extension
within 500 foot Area of Potential Effect (APE)

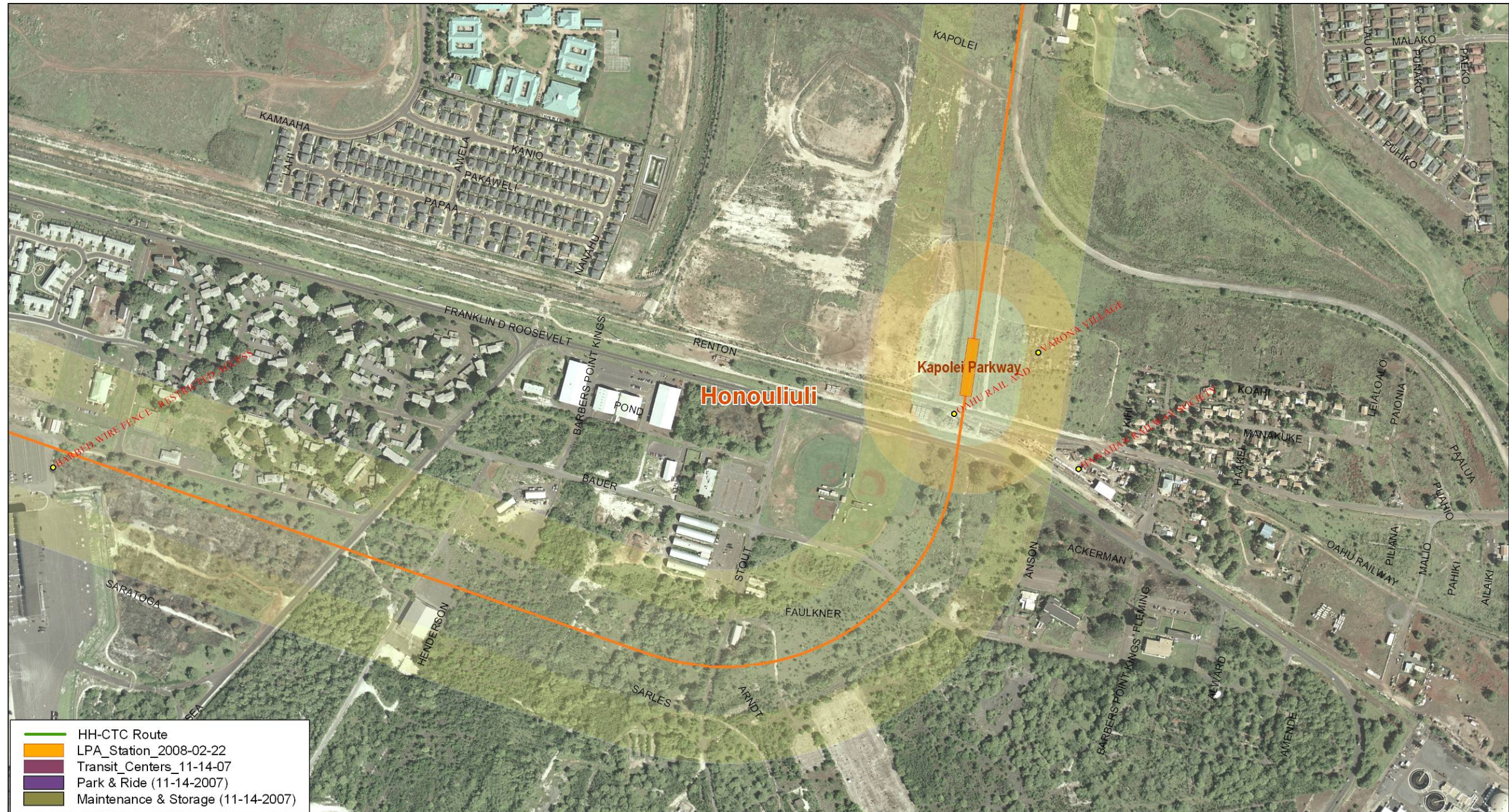


Figure 3
Cultural Resources - Kapolei Extension
within 500 foot Area of Potential Effect (APE)



Figure 4
Cultural Resources - Kapolei Extension / Section 1
within 500 foot Area of Potential Effect (APE)

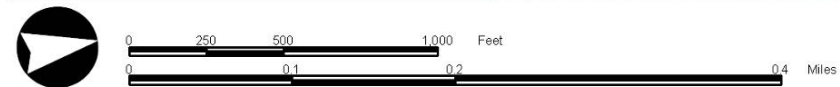
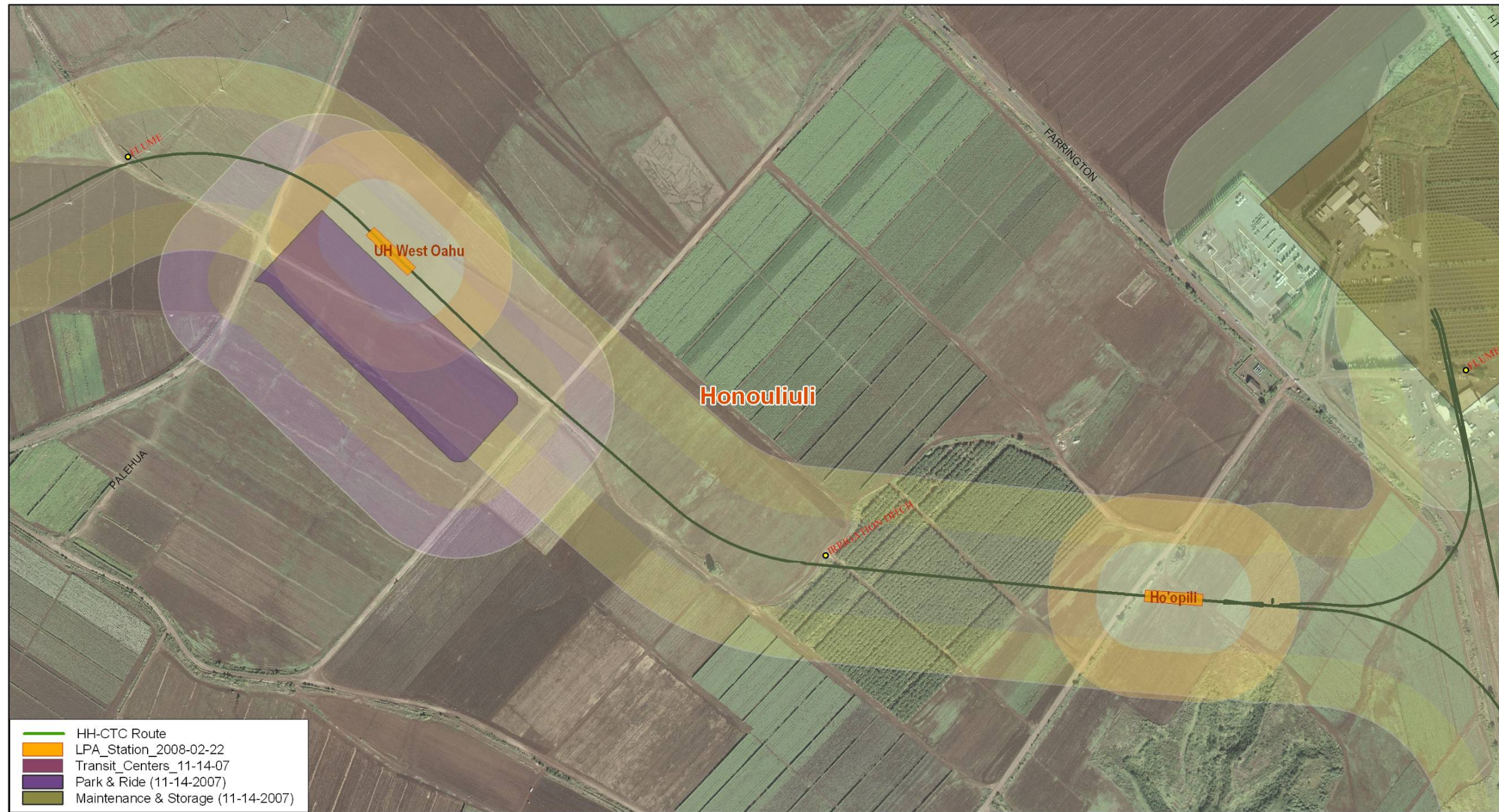


Figure 5
Cultural Resources - Section 1
within 500 foot Area of Potential Effect (APE)



Figure 6
Cultural Resources - Section 1
within 500 foot Area of Potential Effect (APE)



Figure 7
Cultural Resources - Section 1- 2
within 500 foot Area of Potential Effect (APE)

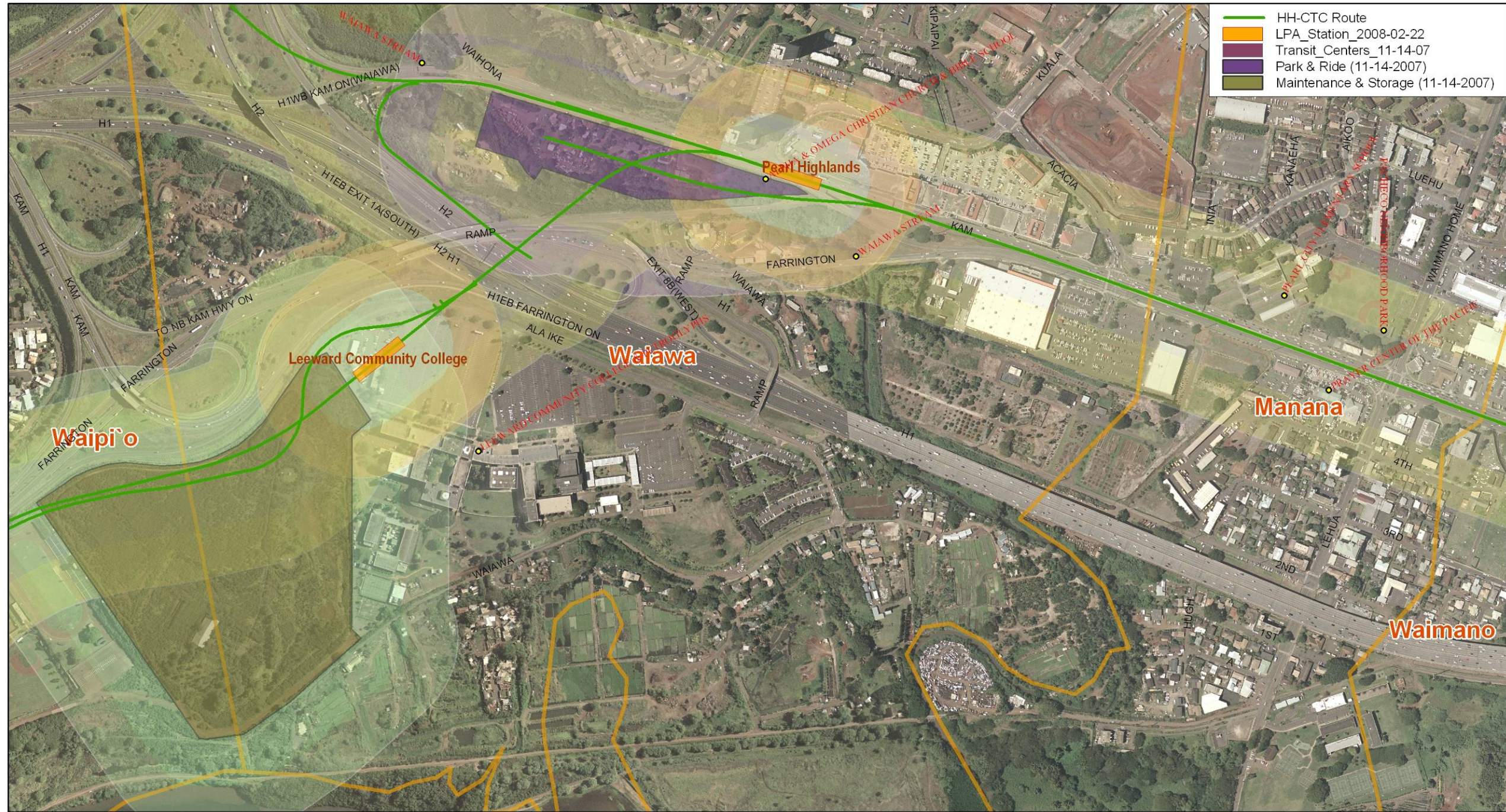


Figure 9
Cultural Resources - Section 2
within 500 foot Area of Potential Effect (APE)



Figure 10
Cultural Resources - Section 2
within 500 foot Area of Potential Effect (APE)



Figure 12
Cultural Resources - Section 3
within 500 foot Area of Potential Effect (APE)



Figure 13
Cultural Resources - Section 3
within 500 foot Area of Potential Effect (APE)



Figure 16
Cultural Resources - Section 4
within 500 foot Area of Potential Effect (APE)

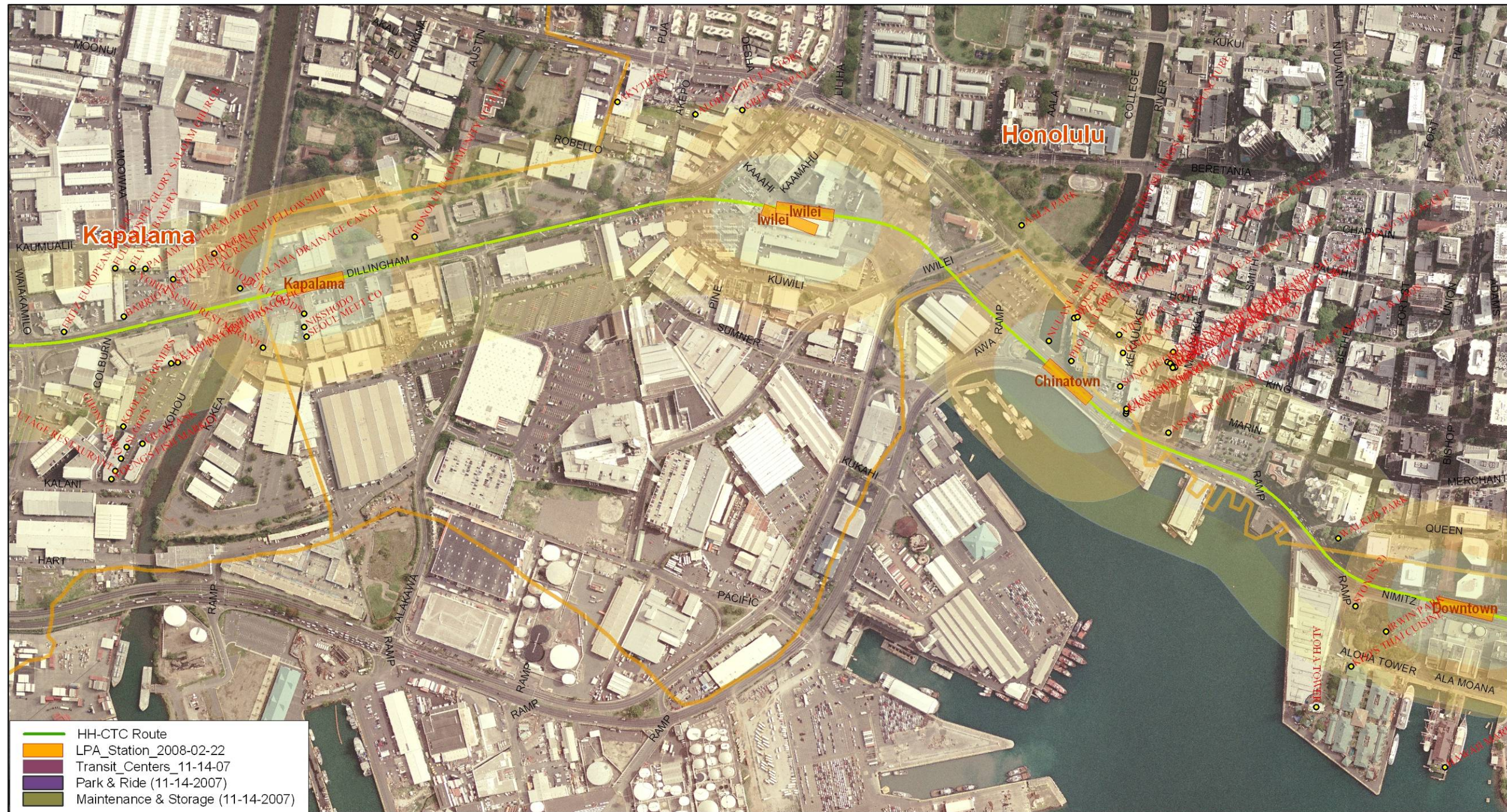


Figure 17
Cultural Resources - Section 4
within 500 foot Area of Potential Effect (APE)

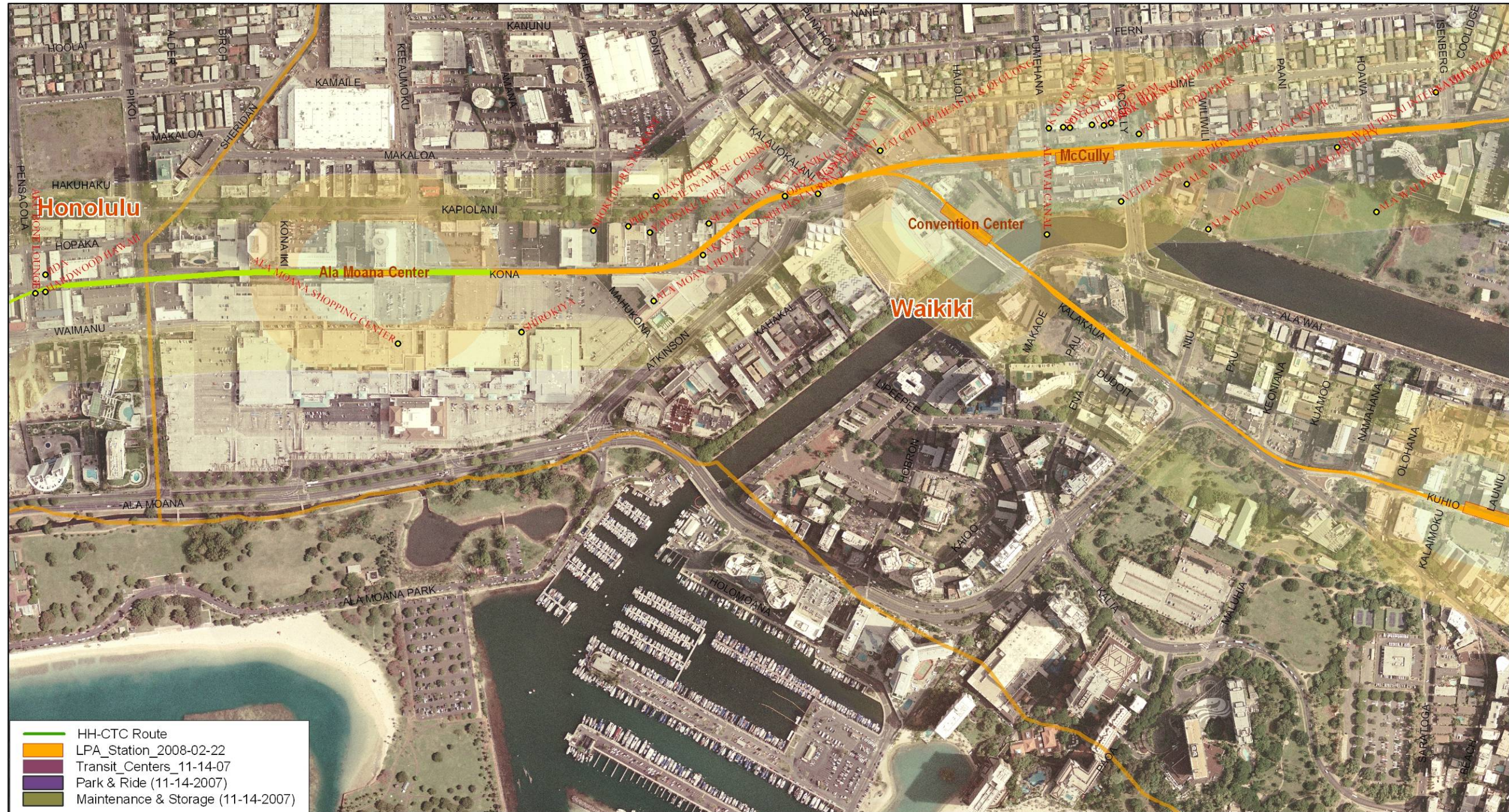


Figure 19
Cultural Resources - Section 4 - Waikiki - University
within 500 foot Area of Potential Effect (APE)



Figure 21
Cultural Resources - University
within 500 foot Area of Potential Effect (APE)

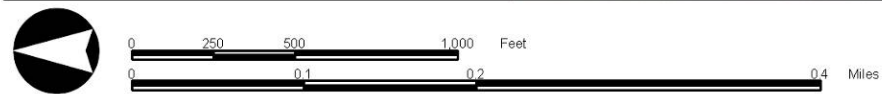
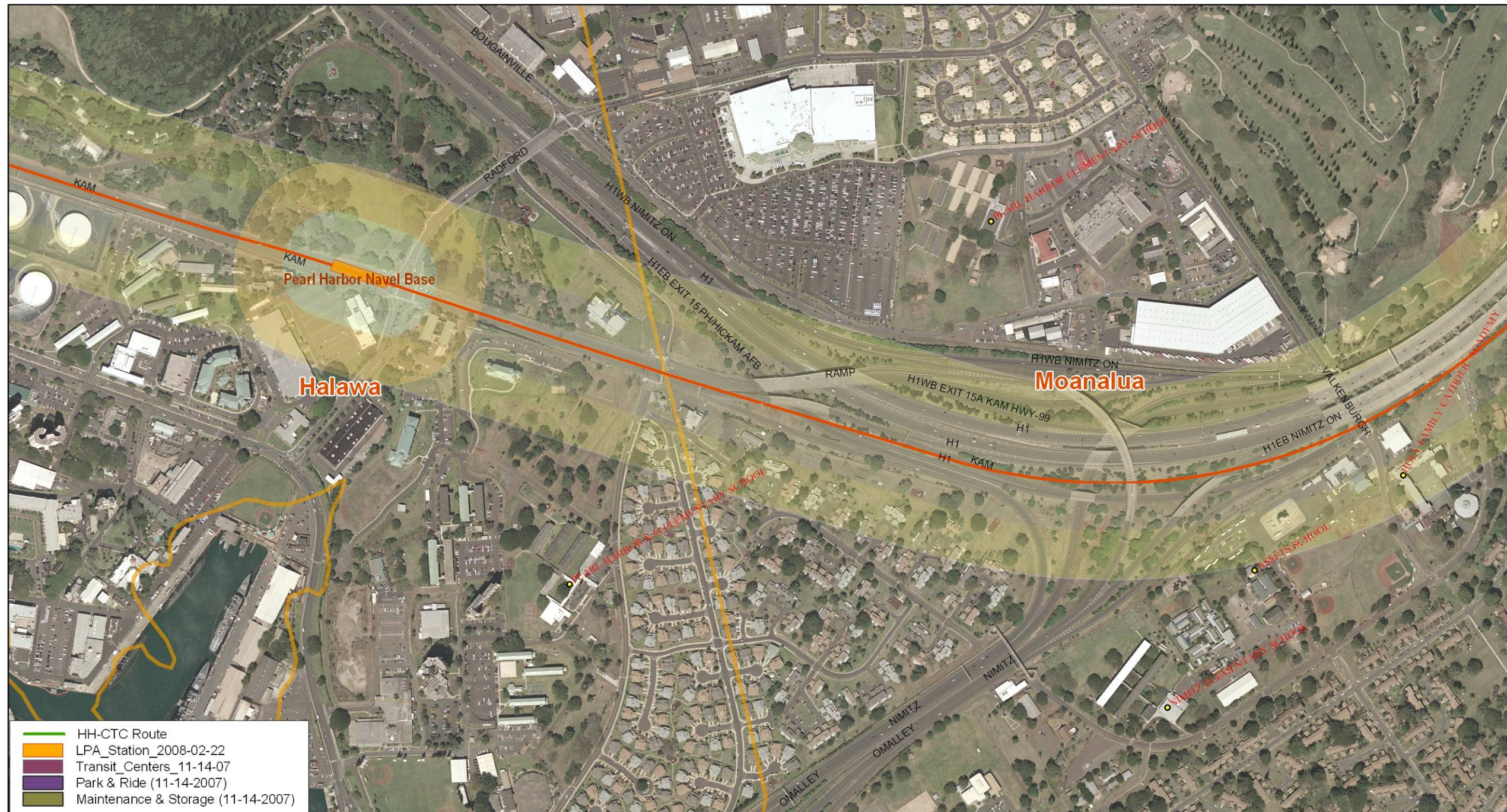


Figure 23
Cultural Resources - Airport
within 500 foot Area of Potential Effect (APE)



- HH-CTC Route
- LPA_Station_2008-02-22
- Transit_Centers_11-14-07
- Park & Ride (11-14-2007)
- Maintenance & Storage (11-14-2007)



Figure 24
Cultural Resources - Airport
within 500 foot Area of Potential Effect (APE)

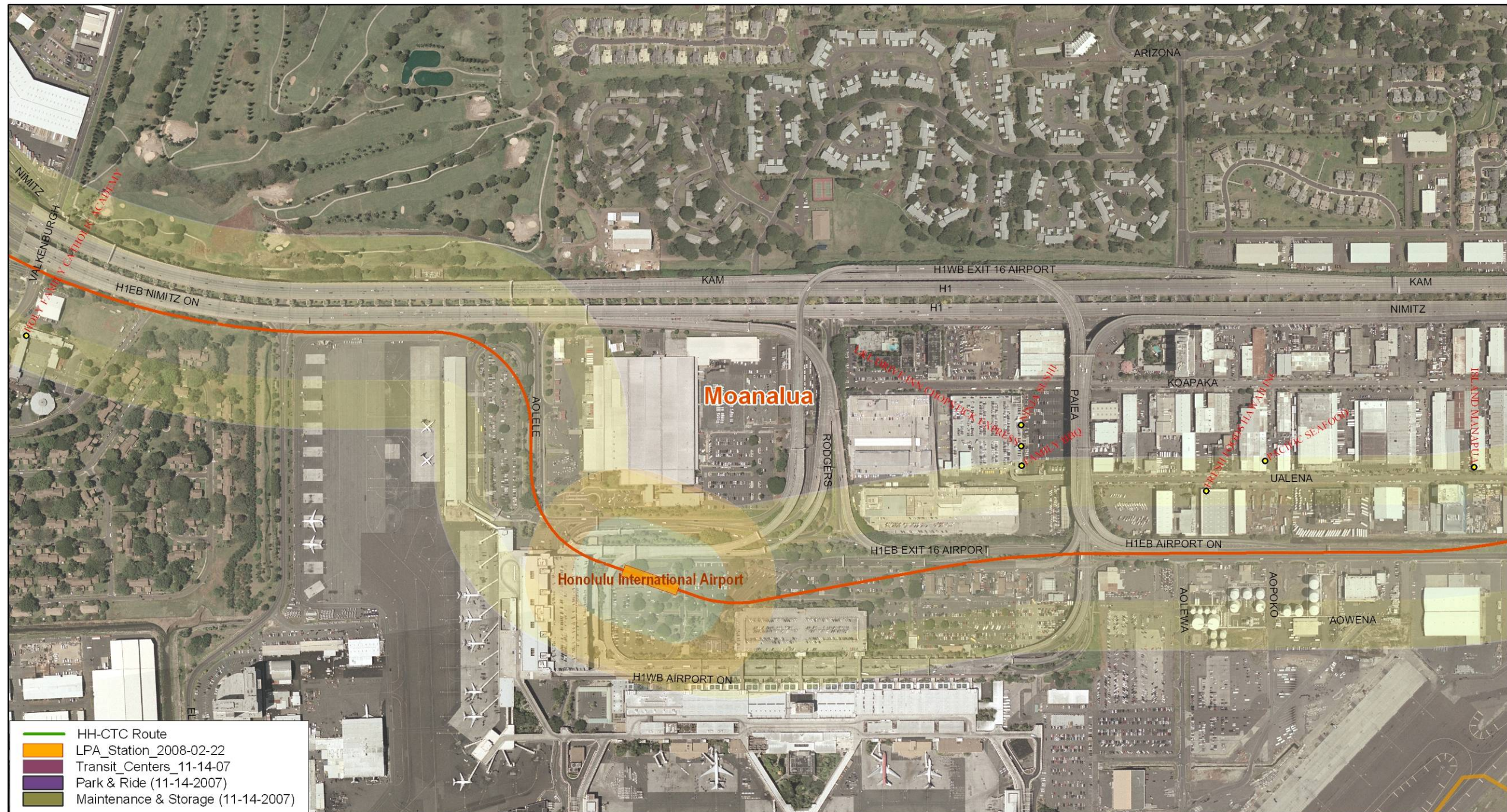


Figure 25
Cultural Resources - Airport
within 500 foot Area of Potential Effect (APE)



Figure 26
Cultural Resources - Airport
within 500 foot Area of Potential Effect (APE)



Figure 29
Cultural Resources - Kakaako
within 500 foot Area of Potential Effect (APE)