
Draft for Review

**Cultural Impact Assessment for the Farrington Highway
Intersection Improvements Project, Nānākuli and Lualualei
Ahupua‘a, Wai‘anae District, O‘ahu Island
TMK (1) 8-9-001, 002 and 005; 8-7-008:por. 036 and 037**

**Prepared for
Parsons Brinckerhoff**

**Prepared by
Shannon K.K. Lincoln, M.A.
and
Hallett H. Hammatt, Ph.D.**

**Cultural Surveys Hawai‘i, Inc.
Kailua, Hawai‘i
(Job Code: NANAKULI 6)**

November 2009

O‘ahu Office
P.O. Box 1114
Kailua, Hawai‘i 96734
Ph.: (808) 262-9972
Fax: (808) 262-4950

www.culturalsurveys.com

Maui Office
1993 Main St.
Wailuku, Hawai‘i 96793
Ph: (808) 242-9882
Fax: (808) 244-1994

Management Summary

Reference	Cultural Impact Assessment for the Farrington Highway Intersection Improvements Project in Nānākuli and Lualualei Ahupua‘a, Wai‘anae District, O‘ahu Island. TMK (1) 8-9-001, 002 and 005; 8-7-008: por. 036 and 037 (Lincoln and Hammatt 2009)
Date	November 2009
Project Number (s)	Cultural Surveys Hawai‘i Inc. (CSH) Job Code: NANAKULI 6
Project Location	The project is located on the leeward side of O‘ahu Island in Nānākuli Town along a portion of the Farrington Highway between the intersections of Nānākuli Avenue and Helelua Street, Nānākuli and Lualualei Ahupua‘a, Wai‘anae District, O‘ahu Island, TMK (1) 8-9-001, 002 and 005; 8-7-008: por. 036 and 037. This area is depicted on the (1998) U.S. Geological Survey 7.5 Minute Series Wai‘anae and Schofield Barracks Topographic Quadrangles (Figure 1).
Land Jurisdiction and Project Funding	Hawai‘i Department of Transportation (HDOT) and Federal Highways Administration (FHWA). All work is anticipated within the HDOT current 90-101 ft. right-of-way.
Agencies	Hawai‘i State Historic Preservation Division (SHPD), HDOT, FHWA, and the Hawai‘i State Office of Environmental Quality Control (OEQC)
Project Description	The project involves widening the portion of Farrington Highway from Helelua Street to the northwestern bank of Nānākuli Stream in order to accommodate an auxiliary lane. The auxiliary lane would facilitate left turns at Nānākuli Avenue and Haleakalā as well as improve overall intersection performance and safety. Other proposed improvements include utility relocations, a shared-use path along the <i>makai</i> (ocean) side of the highway, highway lighting, and drainage. Widening would occur on the <i>makai</i> portion of the highway, however, some sidewalk and drainage improvements would also occur on the <i>mauka</i> (inland) portion of the project area.
Project Acreage	Approximately 9.0 acres
Area of Potential Effect (APE)	For the purposes of this Cultural Impact Assessment (CIA), the project’s area of potential effect (APE) is defined as the entire nine-acre project area within the larger context of Nānākuli Ahupua‘a. The APE includes the Nānākuli Ahupua‘a and the island of O‘ahu, within the larger context of Hawaiian beliefs (e.g., <i>mo‘olelo</i> , or stories/oral histories, and <i>wahi pana</i> , or legendary places), resources and practices.
Document Purpose	The project requires compliance with the State of Hawai‘i environmental review process (Hawai‘i Revised Statutes [HRS] Chapter 343), which requires consideration of a proposed project’s effect on cultural practices and resources. At the request of Parsons

	<p>Brinckerhoff, CSH is conducting this CIA. Through document research and ongoing cultural consultation efforts, this report provides information pertinent to the assessment of the proposed projects' impacts to cultural practices and resources (per the <i>OEQC's Guidelines for Assessing Cultural Impacts</i>) which may include Traditional Cultural Properties (TCP) of ongoing cultural significance that may be eligible for inclusion on the State Register of Historic Places, in accordance with Hawai'i State Historic Preservation Statute (Chapter 6E) guidelines for significance criteria (HAR § 13-275) under Criterion E. The document is intended to support the project's environmental review and may also serve to support the project's historic preservation review under HRS Chapter 6E-8 and Hawai'i Administrative Rules (HAR) Chapter 13-275.</p>
Results of Background Research	<p>The background research reveals the following salient information:</p> <ol style="list-style-type: none"> 1. Located within the Nānākuli Ahupua'a, the project area is associated with many <i>mo'olelo</i> and <i>'olelo no 'eau</i> (proverbs or poetical sayings), including stories of the demigod Māui. These <i>mo'olelo</i> place the project site within a cultural context, linked with the names and stories of the <i>ahupua'a</i>. 2. It is in the district of Wai'anae that the famous exploits of Māuiakalana (Māui) originated. Māui-mua, Māui-waena, Māui-ki'iki'i, and Māui-akalana were born at Ulehawa and Kaolae. Pu'u Heleakalā is where Hina, Māui's mother, lived in a cave and made her <i>kapa</i> (cloth). Other areas of significance in Wai'anae include: the place where Māui's adze was made, the magic fishhook, Mānaiakalani, and his kite flying expedition. 3. McAllister's, Site 148, the Māui <i>pōhaku</i> (rock), is located on Farrington Highway, in the Garden Grove condo complex. The rock is very large, and split in half. It was here that Māui reposed and sunned himself. 4. The name Nānākuli is defined in many ways. The common definitions include: "to look at the knees" or "to look deaf." A different interpretation contends that the original name of this <i>ahupua'a</i> was Nānā-i-ka-ule. This name means "to look at a man's testicles," which refers to the shape of the Nānākuli mountain range. 5. During the Māhele there were five applications that were brought before the Land Commission. Of those five, not one land claim was awarded. These lands consisted of house lots, streams, ponds, cultivated land areas filled with sweet potatoes, <i>wauke</i> (paper mulberry), and firewood. 6. Nānākuli was an area that lacked fresh water, and the ability

	<p>to cultivate land. However, ocean resources such as fish, <i>limu</i> (seaweed), ‘<i>opihi</i> (limpet), <i>pīpīpī</i> (small mollusks), and <i>kūpe‘e</i> (marine snail) were in abundance.</p> <ol style="list-style-type: none"> 7. The beaches used by the <i>kama‘āina</i> (locals) of Nānākuli include but are not limited to: Lanikūhonua, Kahe Beach, Kahe Point Beach Park, Hawaiian Electric Beach Park, Manner’s Beach, Nānākuli Beach Park, Pili o Kahe, Zablan Beach, and Kalaniana‘ole Beach Park. From the creation of the Hawaiian Islands through the present day, people of Nānākuli have used these beaches for various activities such as collecting freshwater, fishing, diving, and swimming. 8. In 1917, the State of Hawai‘i gave 31.6 acres of land to the U.S. Government for military use. The land was located at the current location of Ka Waihona o ka Na‘auao Charter, and extended <i>mauka</i> into the valley. This parcel was named Camp Andrews and was used as a rest and recreation (R&R) area for military personnel before and during World War II. 9. In 1920s and 1930s, a wave of homesteaders flocked to Nānākuli under the Hawaiian Homes Commission Act. By the late 1930s over 200 residential lots had been taken. 10. During the 1920s and 1930s, the Territorial Government did not fulfill its promise to supply water to the people of Nānākuli, and competition between the Wai‘anae Sugar Plantation and homesteaders caused friction. Homesteaders had to haul in their own water from flumes located at the sugar plantations. Because water was so scarce, many people lost their crops.
Consultation Effort	<p>CSH contacted 31 individuals (government agency or community organization representatives, or individuals such as cultural and lineal descendants, and cultural practitioners) for this CIA. After receiving the initial contact letter, nine provided referrals to other individuals; and seven participated in a total of three formal interviews.</p>
Results of Community Consultation	<p>The results of community consultations indicate that there are a few key cultural concerns regarding potential adverse impacts on cultural and natural resources and associated beliefs and practices as result of the proposed development. Participants also raised several ancillary issues and provided recommendations regarding the design and implementation of the proposed Intersection Improvements Projects. Community consultation yielded the following:</p> <ol style="list-style-type: none"> 1. Natural/cultural resources and practices. Interview participants discussed a few past and present cultural resources and activities in and near the project area including: fish (e.g., <i>menpachi</i>, <i>uhu</i>, <i>akule</i>, ‘<i>āweoweo</i>); <i>limu</i>

	<p>(seaweed, algae) (e.g., <i>līpēpē</i>, <i>limu kohu</i>, <i>waiwai'ole</i>); plants (<i>kiawe</i>, <i>lehua</i>, and <i>honohono</i> grass); fishing, surfing, canoe paddling, <i>limu</i> gathering and salt collection (at the salt pond that was located at Keaulana beach).</p> <ol style="list-style-type: none"> 2. Iwi kūpuna (human remains). One respondent and the SHPD commented on the possibility of human remains in or near the project area. One respondent recommends that if the sand on the <i>makai</i> side of Farrington Highway is impacted, there should be (cultural) monitoring of the construction area. 3. Public Access to Beaches. A few respondents and the SHPD are concerned that the community be able to continue cultural practices and activities such as fishing, laying-net, diving, surfing, canoe paddling, and honoring their <i>kūpuna</i> who they have laid to rest at sea. This includes making sure there is access to, and ample parking at, beach areas fronting the proposed project area throughout the construction phase. 4. Train Tracks. One respondent proposes that the OR&L train tracks be preserved. 5. Property. Two respondents propose the acquisition of private property be taken into consideration when doing improvements to Farrington Highway for this and any future projects. 6. Berms and Sidewalks. One respondent proposes that the City and County of Honolulu remove all of the berms lining the <i>mauka</i> side of Farrington Highway, and replace the berms with an elevated sidewalk. 7. Extending the Auxiliary Lane. Two respondents recommend the auxiliary lane be extended beyond the currently proposed length. One respondent proposed that the auxiliary lane should extend to Lualualei Naval Road; the other respondent recommends the auxiliary lane begin at the entrance of Nānākuli Beach Park, and finish at Lualualei Naval Road. 8. Flooding. Two respondents state that coastal flooding is an issue along Farrington Highway because of the decrease in sand along Nānākuli's beaches. Therefore, the project should make an effort not to impact the sand, sand dunes, and overall beach landscape, in order to avoid adverse affects. 9. Pedestrian Safety. Two respondents addressed pedestrian safety; one proposes a pedestrian overpass be constructed, so that children may cross Farrington Highway safely; one
--	---

	<p>recommends the traffic lights in the school area be synchronized to ensure the safety of pedestrians crossing in school zoned areas.</p> <p>10. Speed Limit. Two respondents believe that speeding is a problem along Farrington Highway, especially in school-zoned areas that have reduced speeds of 35 mph.</p>
Recommendations	<p>Based on background research and community consultation detailed in the CIA report, CSH recommends the following measures to mitigate potentially adverse effects of the proposed project on the community, cultural resources, practices, and lifestyle:</p> <ol style="list-style-type: none"> 1. Personnel involved in development activities in the Project area should be informed of the possibility of inadvertent cultural finds, including, but not limited to, human remains. If cultural or burial sites are identified during ground disturbance, all work should immediately cease, and the appropriate agencies should be notified pursuant to applicable law. It is advised that, should the sandy area be disturbed during ground-breaking and construction, a cultural monitor be on hand. 2. Ensure that community have continued access to beach areas for cultural and recreational practices such as swimming, diving, fishing, laying-net, surfing, and gathering of ocean resources. 3. Preserve the OR&L train tracks which are a significant historic property listed on the National Register of Historic Places and important to the history of Hawai'i. 4. Generally, it is recommended that project proponents continue to consult with community members about cultural and related concerns throughout the planning and implementation of the project. Study participants raised several issues and presented ideas that may be used to inform project design, namely: <ol style="list-style-type: none"> a. Elevating and widening sidewalks to accommodate multiple pedestrians including people in wheelchairs. b. Extending the proposed auxiliary lane from the entrance of Nānākuli Beach Park to Lualualei Naval Road, in order to alleviate the traffic congestion and vehicular accidents. c. Ensuring that temporary and permanent highways including a pedestrian walkway or overpass to ensure the safety of people along Farrington Highway. d. Reducing the speed limit in school zones from 35 mph to

	<p>25 mph.</p> <ul style="list-style-type: none">e. Considering the potential for coastal flooding and runoff problems that could affect homes, businesses, and schools along Farrington Highway.f. Considering the impact to the property of businesses and residences along Farrington Highway to ensure that encroachment is minimal or addressed prior to the bidding of a project.
--	--

Draft

Table of Contents

Management Summary	i
Section 1 Introduction	1
1.1 Project Background	1
1.2 Document Purpose	1
1.3 Scope of Work	2
1.4 Environmental Setting	2
1.4.1 Natural Environment.....	2
1.4.2 Built Environment	3
Section 2 Methods	17
2.1 Archival Research.....	17
2.2 Community Consultation.....	17
2.2.1 Sampling and Recruitment.....	17
2.2.2 Field Visit	18
2.2.3 Informed Consent Protocol.....	18
2.2.4 Interview Techniques.....	19
2.2.5 In-depth Interviews and Oral Histories.....	19
2.3 Compensation and Contributions to Community	19
Section 3 Traditional Background.....	21
3.1 Overview.....	21
3.2 The Ahupua‘a of Nānākuli	21
3.3 Place Names.....	21
3.3.1 Nānākuli.....	22
3.3.2 Hāpai.....	22
3.3.3 ‘Ilihune.....	22
3.3.4 Pālehua.....	23
3.3.5 Pili o Kahe	23
3.3.6 Pu‘u Heleakalā.....	23
3.3.7 Pu‘u Manawahua	23
3.4 Mo‘olelo (Stories) Concerning Specific Place Names	23
3.4.1 Mo‘olelo for the name Nānākuli.....	23
3.4.2 The Māui Legends	25
3.4.3 The Māui Pōhaku (Rock or stone).....	26
3.5 ‘Ōlelo No‘eau (Hawaiian Proverbs)	26
3.6 Subsistence and Settlement.....	27
3.7 Trails.....	27
3.8 Beaches	28
3.8.1 Lanikūhonua	28
3.8.2 Kahe Beach	29
3.8.3 Kahe Point Beach Park	29
3.8.4 Hawaiian Electric Beach Park	29
3.8.5 Manner’s Beach	30
3.8.6 Nānākuli Beach Park	30
3.8.7 Pili o Kahe	30
3.8.8 Zablan Beach	30
3.8.9 Kalaniana‘ole Beach Park.....	30
3.9 Heiau.....	31

Section 4 Historical Background	32
4.1 Pre-Contact to 1800	32
4.2 Early 1800s	32
4.3 Mid 1800s	32
4.4 Late 1800s	33
4.5 1900s	36
4.5.1 Sugar and Cattle	36
4.5.2 Homesteading	36
4.5.3 O'ahu Railway and Land Company	37
4.5.4 The Military	38
4.5.5 Modern Land Use	38
Section 5 Archaeological Research	44
5.1 Overview	44
5.2 Early Archaeological Studies	44
5.3 Previous Archaeological Research	45
5.4 Studies in the Vicinity of the Current Study Area	57
5.5 Background Summary	57
Section 6 Community Consultation	62
6.1 Community Consultation Effort	62
6.2 Agency Response Letters (SHPD and OHA)	68
Section 7 Summaries of <i>Kama'āina</i> "Talk Story" Interviews	69
7.1 Overview	69
7.2 Barrett 'Ohana (Family)	69
7.3 Fred Cachola	73
7.3.1 Fred Cachola's interview with Ka'ohulani McGuire for 1999 CIA	73
7.3.2 Fred Cachola's interview with Shannon Lincoln for 2009 CIA	76
7.4 Alvin Parker	78
Section 8 Cultural Landscape of Nānākuli	80
8.1 Overview	80
8.2 Wahi Pana and Mo'olelo	80
8.2.1 The naming of Nānākuli	80
8.2.2 The Māui Pōhaku	80
8.3 Plant and Water Resources	81
8.4 Beaches	82
8.5 Historic and Cultural Properties	82
Section 9 Summary and Recommendations	84
9.1 Results of Background Research	84
9.2 Results of Community Consultations	85
9.3 Recommendations	86
Section 10 References Cited	88
Appendix A Authorization and Release Form	A-1
Appendix B SHPD Response Letter	B-1
Appendix C OHA Response Letter	C-1

List of Figures

Figure 1. Portions of 1998 U.S.G.S 7.5-minute series topographic maps, Wai‘anae, and Schofield Barracks topographic quadrangles, showing the Farrington Highway project area	4
Figure 2. Tax Map for the project area, which includes TMK (1) 8-9-001, 002, and 005 and 8-7-008: por. 036 and 037	5
Figure 3. Map of the project area indicating parcels potentially affected by the current undertaking (PB 2009).....	6
Figure 4. List of parcels that overlap the project area.....	7
Figure 5. Aerial photograph showing the project area (U.S. Geological Survey Orthoimagery 2005)	8
Figure 6. Conceptual Roadway Plan overlain on an aerial photograph, north portion, showing vicinity of Farrington Highway and Helelua Street (HDOT 2008)	9
Figure 7. Conceptual Roadway Plan overlain on an aerial photograph, south portion, showing vicinity of Farrington Highway and Nānākili Avenue (HDOT 2008).....	10
Figure 8. Conceptual Roadway Plan, north portion, showing vicinity of Farrington Highway and Helelua Street (HDOT 2008).....	11
Figure 9. Conceptual Roadway Plan, south portion, showing vicinity of Farrington Highway and Nānākuli Avenue (HDOT 2008).....	12
Figure 10. Typical Sections, north portion, showing vicinity of Farrington Highway and Helelua Street (HDOT 2008)	13
Figure 11. Typical Section, south portion, showing vicinity of Farrington Highway and Nānākuli Avenue (HDOT 2008)	14
Figure 12. Soils map showing Coral Outcrop and Mamala Stony Silty Clay Loam in the project area (Foote et al. 1972; U.S. Department of Agriculture 2001)	15
Figure 14. View of project area, facing south, at the intersection of Farrington Highway and Haleakalā Avenue	16
Figure 15. Portion of an 1899 Government Survey Map (Beasley and Taylor 1899) showing portions of Nānākuli and Lualualei Ahupua‘a.....	39
Figure 16. Portion of a 1919 War Department map showing the current project area. Note the presence of the railroad.....	40
Figure 17. Portion of a 1927 U.S. Geological Survey map showing the project area. Note development of the area	41
Figure 18. 1943 War Department map showing the current project area. Note development of the area northeast of the project.....	42
Figure 19. 1954 U. S. Geological Survey map showing the project area. Note the development of Nānākuli Town and Lualualei homesteads	43
Figure 20. A portion of McAllister’s 1933 map indicating locations of the sites he encountered during his survey. Note proximity of Sites 147 and 148 to the current project area	46
Figure 21. Previous archaeological studies in the vicinity of the project area	52
Figure 22. Portion of the OR&L railway that will be impacted by the current project, view north.....	60
Figure 23. Portion of the OR&L railroad showing basalt siding, view north.....	60
Figure 24. Portion of the OR&L railroad showing rail and ties still in place, view west.....	61

List of Tables

Table 1. Kuleana Claims (All Unsuccessful) in Nānākuli Ahupua‘a	35
Table 2. Previous Archaeological Research Conducted in the Vicinity of the Project Area.....	47
Table 3. Community Consultation.....	63

Draft

Section 1 Introduction

1.1 Project Background

At the request of Parsons Brinckerhoff (PB), Cultural Surveys Hawai'i (CSH), Inc. conducted a Cultural Impact Assessment (CIA) for the Farrington Highway Intersection Improvement Project in Nānākuli Town on Farrington Highway, Nānākuli and Lualualei Ahupua'a, District of Wai'anae, Island of O'ahu, TMK (1) 8-9-001, 002 and 005; 8-7-008: por. 036 and 037. The project area is depicted on the 1998 U.S. Geological Survey 7.5 minute series Wai'anae and Schofield Barracks topographic quadrangles (Figure 1), a tax map (Figure 2), a map showing all affected parcels (Figure 3), a list of parcels that overlap the project area (Figure 4), and an aerial image (Figure 5). The project is funded by the State of Hawai'i Department of Transportation (HDOT) and the Federal Highways Administration (FHWA). All work is expected to occur within HDOT's current 90-101 ft. right-of-way (ROW).

The project involves widening the Farrington Highway between Helelua Street and the northwestern bank of Nānākuli Stream to accommodate an auxiliary lane that will facilitate left turns at Nānākuli and Haleakalā Avenues, as well as improve overall intersection performance and safety (Figure 6-Figure 11). Other proposed improvements include utility relocations, a path along the *makai* side of the highway, highway lighting, and drainage. Widening would occur on the *makai* portion of the highway, however, some sidewalk and drainage improvements would also occur on the *mauka* portion of the project area.

The highway and infrastructure improvements will impact an existing bike and pedestrian path, as well as a portion of State Inventory of Historic Properties (SIHP) No. 50-80-12-9714, the Oahu Railway and Land Company (OR&L) railroad tracks. The project area measures approximately 0.8 miles in length and 9.0 acres in total area.

1.2 Document Purpose

The project requires compliance with the State of Hawai'i environmental review process (Hawai'i Revised Statutes [HRS] Chapter 343), which requires consideration of a proposed project's effect on cultural practices. CSH is conducting this CIA at the request of PB. Through document research and ongoing cultural consultation efforts this report provides information pertinent to the assessment of the proposed project's impacts to cultural practices and resources (per the *Office of Environmental Quality Control's Guidelines for Assessing Cultural Impacts*), which may include Traditional Cultural Properties (TCP) of ongoing cultural significance that may be eligible for inclusion on the State Register of Historic Places, in accordance with Hawai'i State Historic Preservation Statute (Chapter 6E) administrative rules for significance criteria (HAR §13-275) under Criterion E which states to be significant an historic property shall:

Have an important value to the Native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional

beliefs, events or oral accounts—these associations being important to the group's history and cultural identity.

The document is intended to support the project's environmental review and may also serve to support the project's historic preservation review under HRS Chapter 6E and Hawai'i Administrative Rules (HAR) Chapter 13-275.

1.3 Scope of Work

The scope of work for this CIA includes:

1. Examination of cultural and historical resources, including Land Commission documents, historic maps, and previous research reports, with the specific purpose of identifying traditional Hawaiian activities including gathering of plant, animal, and other resources or agricultural pursuits as may be indicated in the historical record.
2. Review of previous archaeological work at and near the subject parcel that may be relevant to reconstructions of traditional land use activities and to the identification and description of cultural resources, practices, and beliefs associated with the parcel.
3. Consultation and interview with knowledgeable parties regarding cultural and natural resources and practices at or near the parcel, present and past uses of the parcel, and/or other practices, uses, or traditions associated with the parcel and environs.
4. Preparation of a report that summarizes that result of these research activities and provides recommendations based on findings.

1.4 Environmental Setting

1.4.1 Natural Environment

The project area is located on the leeward side of O'ahu, and receives less than 20 inches of rain annually (Juvik and Juvik 1998:56). Foote et al. (1972) classify the soil as coral outcrop in the northern two-thirds of the project area and Mamala Stony Silty Clay Loam in the southern third of the project area (Figure 12). Coral outcrop consists of coral or cemented calcareous sand with a thin over layer of friable red soil material present in cracks, crevices and depressions within the outcrop. This thin layer is similar to the Mamala Series. Mamala Stony Silty Clay Loam is characterized by 0 to 12 percent slopes and stones are common in the profile. Calcareous sand and coral limestone underlie the Mamala soil at depths of 8 to 20 inches (Foote et al. 1972).

Local vegetation observed in the vicinity of the project area includes large *kiawe* (*Prosopis pallida*), coconut (*Cocos nucifera*), and *hau* (*Hibiscus liliaceous*) trees along with hibiscus (*Koki drynarioides*) plants and a variety of grasses.

1.4.2 Built Environment

The project area is a built highway. The OR&L tracks parallel Farrington Highway on the *makai* side. These railroad tracks were the only surface historic properties observed within the project area (Figure 13 and Figure 14). Other modern infrastructure present in the vicinity includes Ka Waihona o ka Na'auao Charter School, Nānāikapono School, Nānākuli Beach Park, private residences, and local businesses.



Figure 1. Portions of 1998 U.S.G.S 7.5-minute series topographic maps, Wai'anae, and Schofield Barracks topographic quadrangles, showing the Farrington Highway project area



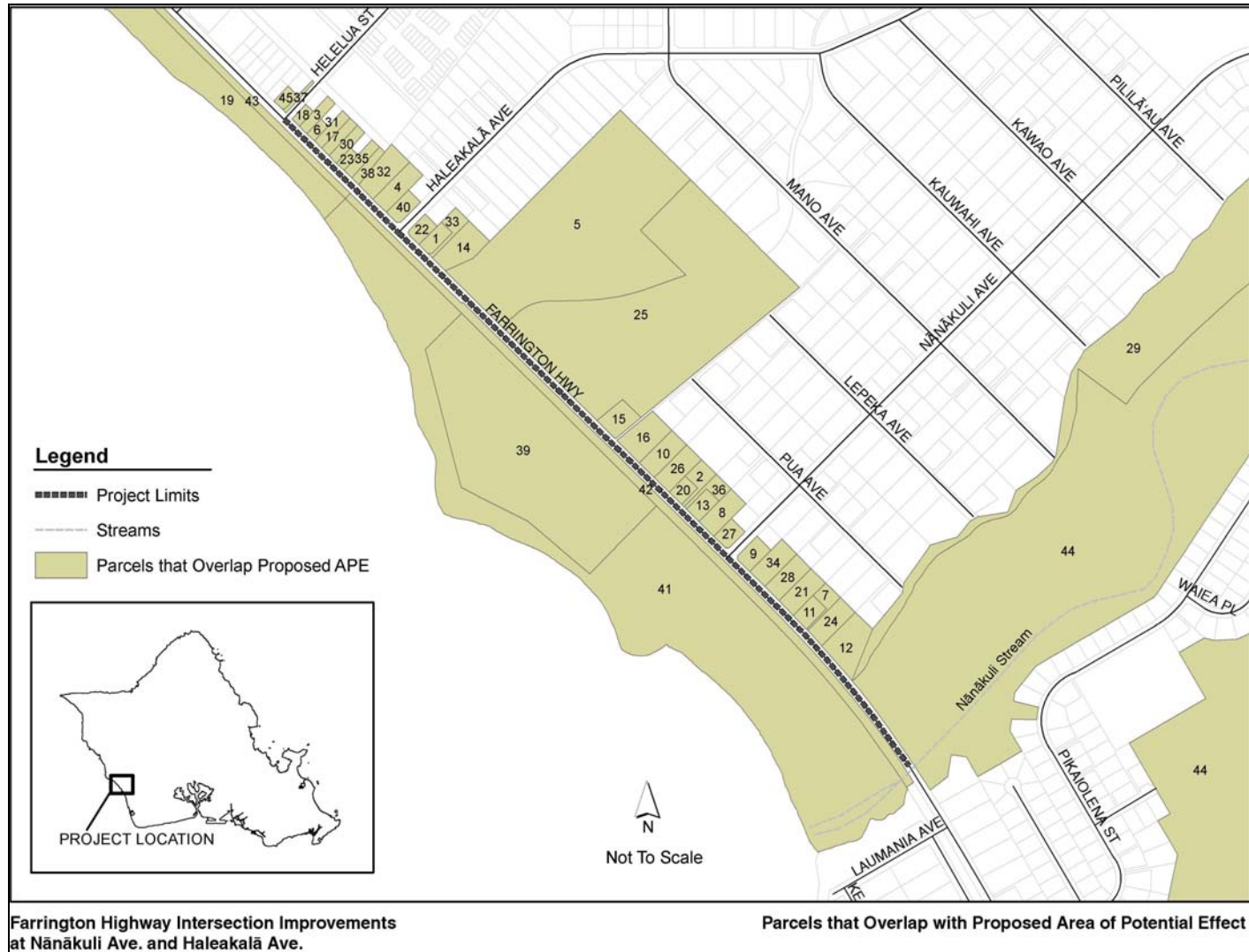


Figure 3. Map of the project area indicating parcels potentially affected by the current undertaking (PB 2009)

**Farrington Highway Intersection Improvements
at Nanakuli Ave. and Haleakala Ave:
TMK List of Parcels that Overlap with APE**

Map Identifier	Tax Map Key	Site Address	Owner	Owner Type	Tax Year
1	89002003	89-48 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
2	89005011	89-216 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
3	87008007	87-109A Helelua St	R C J Corporation	Fee Owner	2009
4	89002030	89-14 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
5	89002065		State Of Hawaii	Fee Owner	2009
6	87008006	87-2196 Farrington Hwy	Benicta, Teofilo C	Fee Owner	2009
7	89005003	89-298A Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
8	89005009	89-232 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
9	89005007	89-115 Nanakuli Ave	Hawaiian Home Lands	Fee Owner	2009
10	89005013	89-196 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
11	89005087	89-298 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
12	89005001	89-318 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
13	89005010	89-226 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
14	89002002	89-56 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
16	89005014	89-188 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
17	87008028	87-2210 Farrington Hwy	Crowning Touchstone Llc	Fee Owner	2009
18	87008008	87-2186 Farrington Hwy	Ho, Sonny	Fee Owner	2009
19	87008026	87-2021 Farrington Hwy	State Of Hawaii	Fee Owner	2009
20	89005084	89-210 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
21	89005004	89-286 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
22	89002049	89-38 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
23	87008069	87-2220 Farrington Hwy	Barrett, Henry K	Fee Owner	2009
24	89005002	89-308 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
25	89002001	89-102 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
26	89005012	89-206 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
27	89005008	89-106 Nanakuli Ave	Hawaiian Home Lands	Fee Owner	2009
28	89005005	89-280 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
29	89007004		Hawaiian Home Lands	Fee Owner	2009
30	87008004	87-2214 Farrington Hwy	Barrett, Wesley N	Fee Owner	2009
31	87008005	87-2204 Farrington Hwy	Chung, Lee J	Fee Owner	2009
32	89002031	89-8 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
33	89002056	89-50 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
34	89005006	89-270 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
35	87008002	87-2224 Farrington Hwy	Yuen Grocery & Liquor Co Lt	Fee Owner	2009
36	89005090		Hawaiian Home Lands	Fee Owner	2009
37	87008080		City And County Of Honolulu	Fee Owner	2009
38	87008001	87-2230 Farrington Hwy	Yuen Grocery & Liquor Co Lt	Fee Owner	2009
39	89001004	89-199 Farrington Hwy	Hawaiian Home Lands	Fee Owner	2009
40	89002029	89-40 Haleakala Ave	Hawaiian Home Lands	Fee Owner	2009
41	89001002	89-269 Farrington Hwy	State Of Hawaii	Fee Owner	2009
42	89001003		State Of Hawaii	Fee Owner	2009
43	87008027		State Of Hawaii	Fee Owner	2009
44	89007002	89-216 Hulikala Pl	Hawaiian Home Lands	Fee Owner	2009
45	87008055	87-2180 Farrington Hwy	Stockholm Deutsche Capital Inv Corp	Fee Owner	2009

Source(s): City and County of Honolulu, Dept. of Planning and Permitting, HOLIS, "Tax_Parcel.shp"(2008), "siteaddress.dbf"(2008), and "vownalltype.dbf"(2008).

Figure 4. List of parcels that overlap the project area

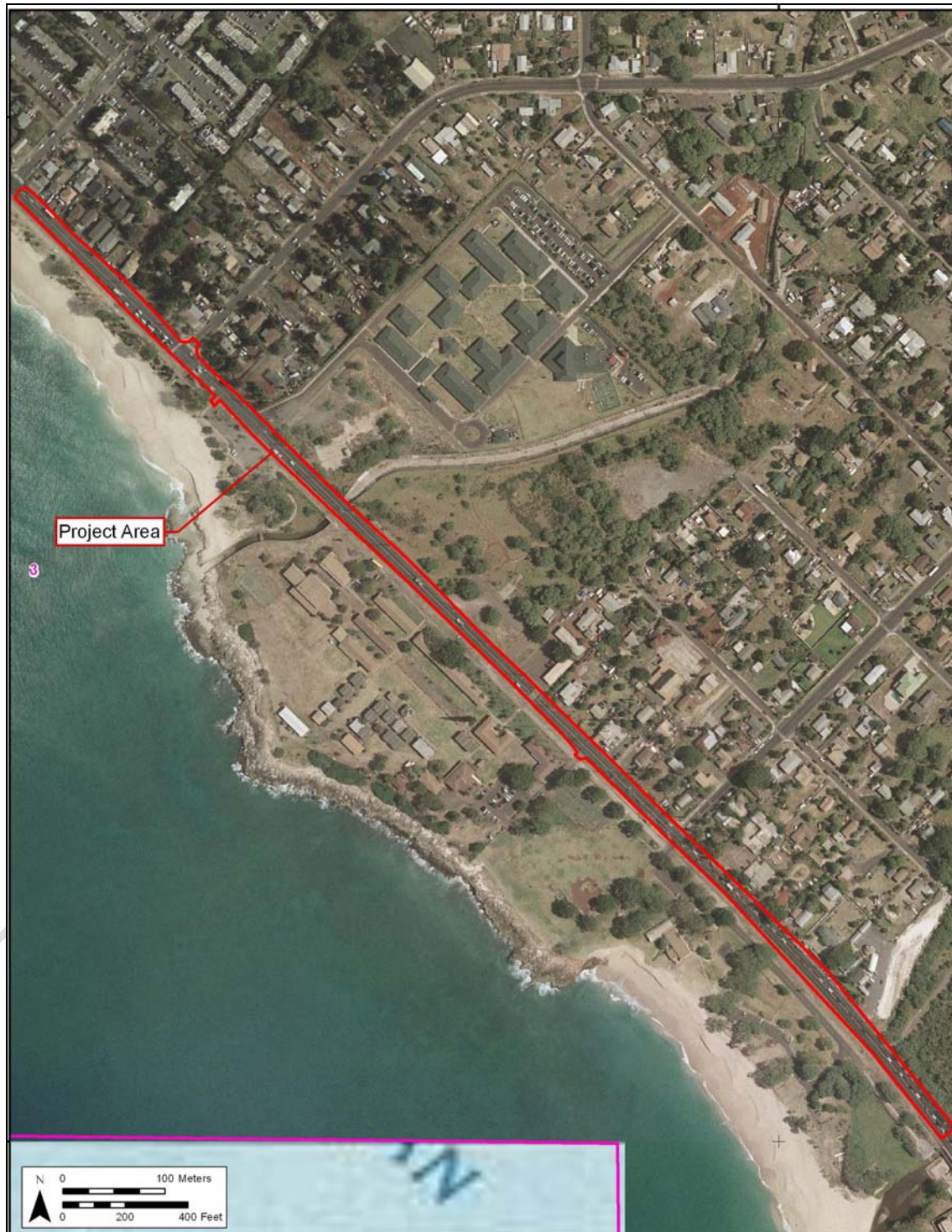


Figure 5. Aerial photograph showing the project area (U.S. Geological Survey Orthoimagery 2005)



Figure 6. Conceptual Roadway Plan overlain on an aerial photograph, north portion, showing vicinity of Farrington Highway and Helelua Street (HDOT 2008)



Figure 7. Conceptual Roadway Plan overlain on an aerial photograph, south portion, showing vicinity of Farrington Highway and Nānākili Avenue (HDOT 2008)

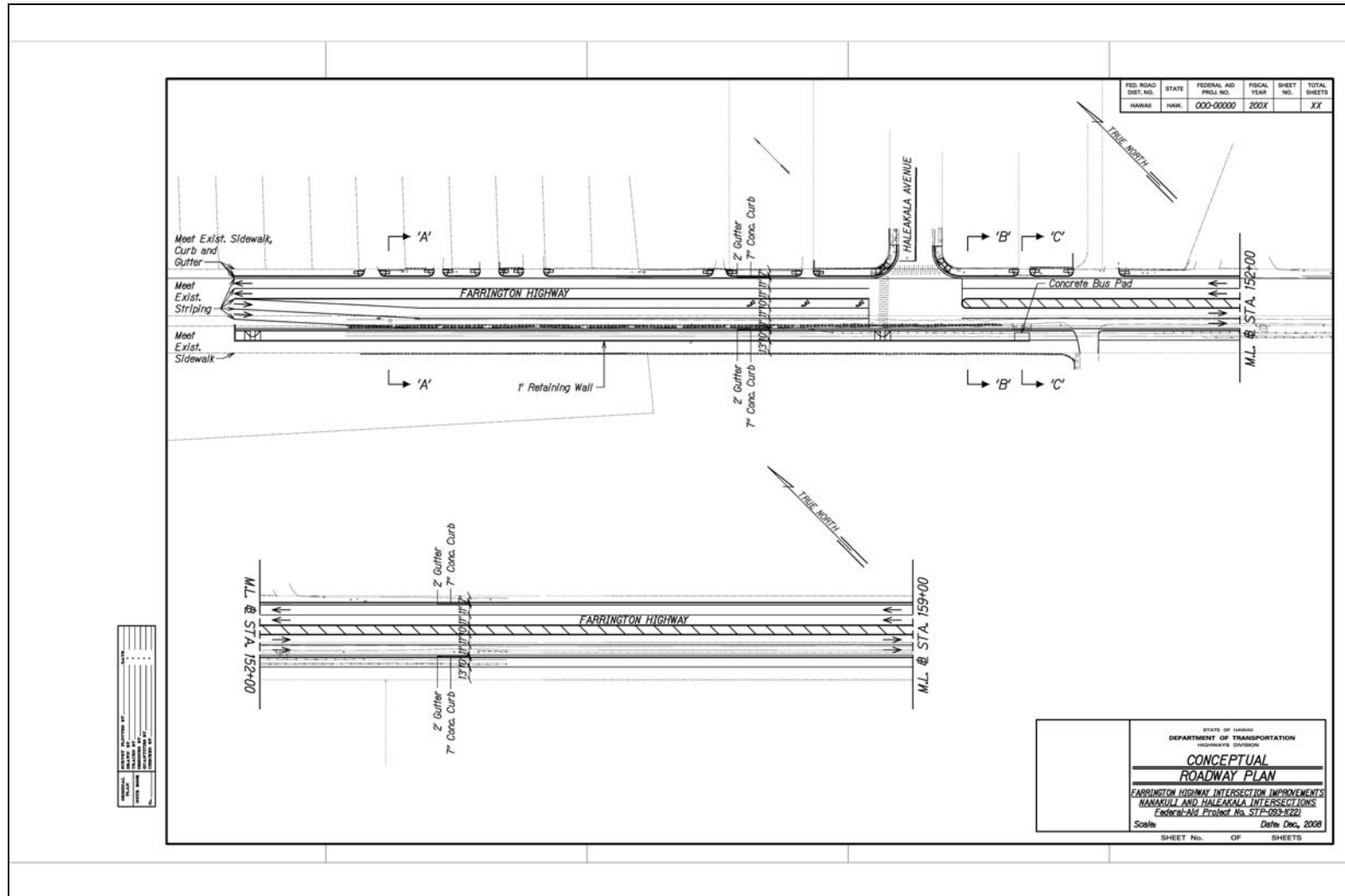


Figure 8. Conceptual Roadway Plan, north portion, showing vicinity of Farrington Highway and Helelua Street (HDOT 2008)

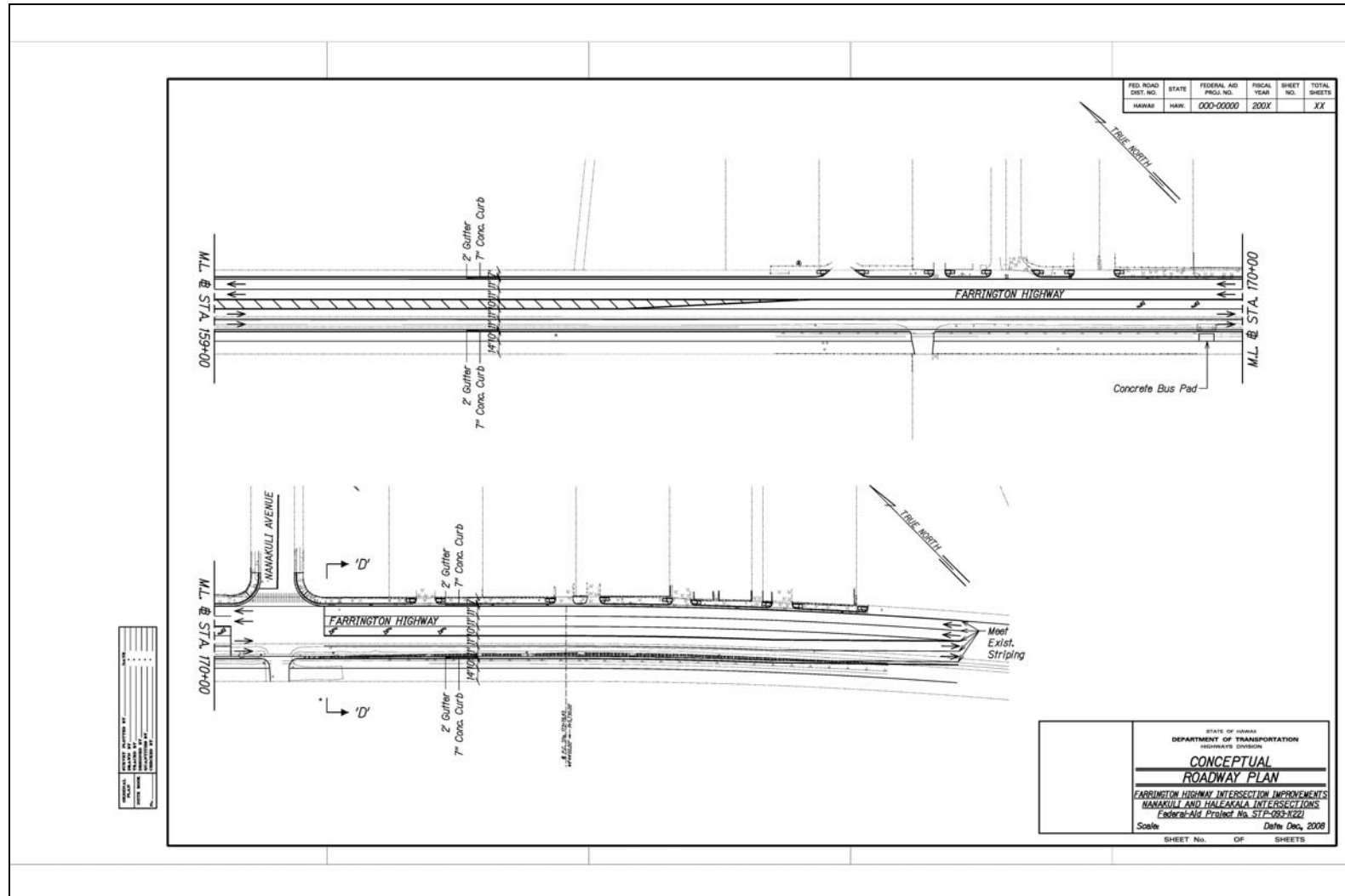


Figure 9. Conceptual Roadway Plan, south portion, showing vicinity of Farrington Highway and Nānākuli Avenue (HDOT 2008)

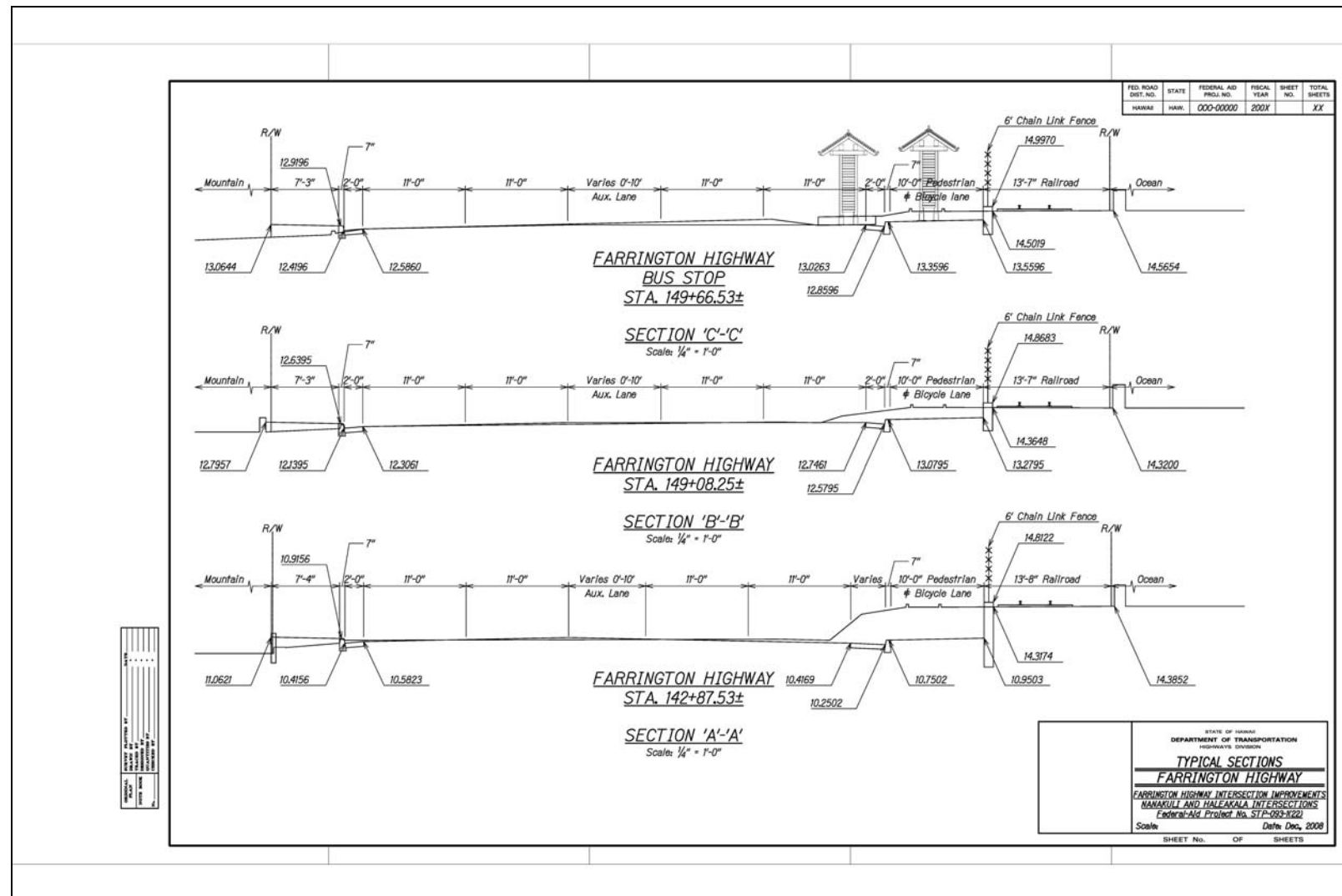


Figure 10. Typical Sections, north portion, showing vicinity of Farrington Highway and Helelua Street (HDOT 2008)

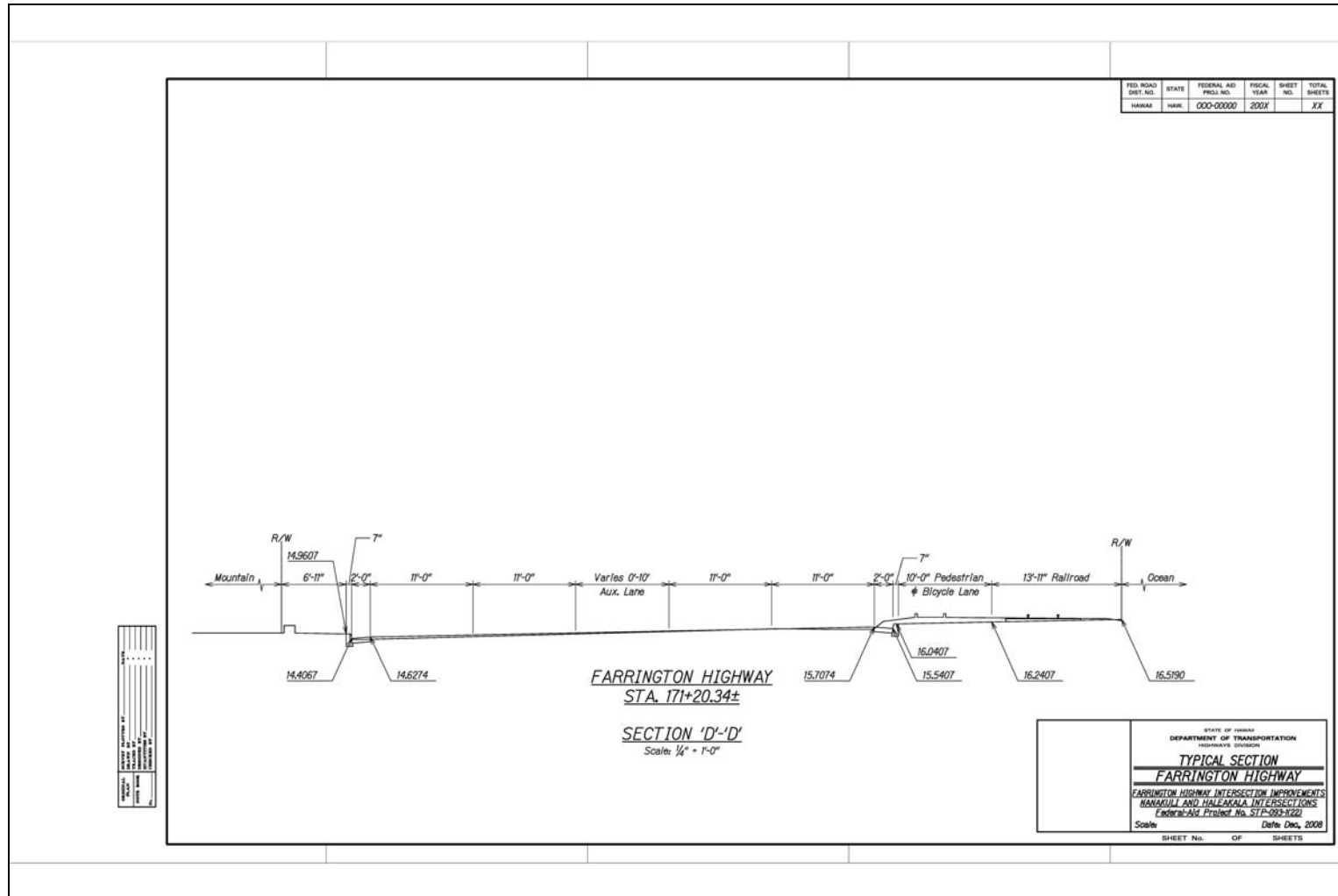


Figure 11. Typical Section, south portion, showing vicinity of Farrington Highway and Nānākuli Avenue (HDOT 2008)

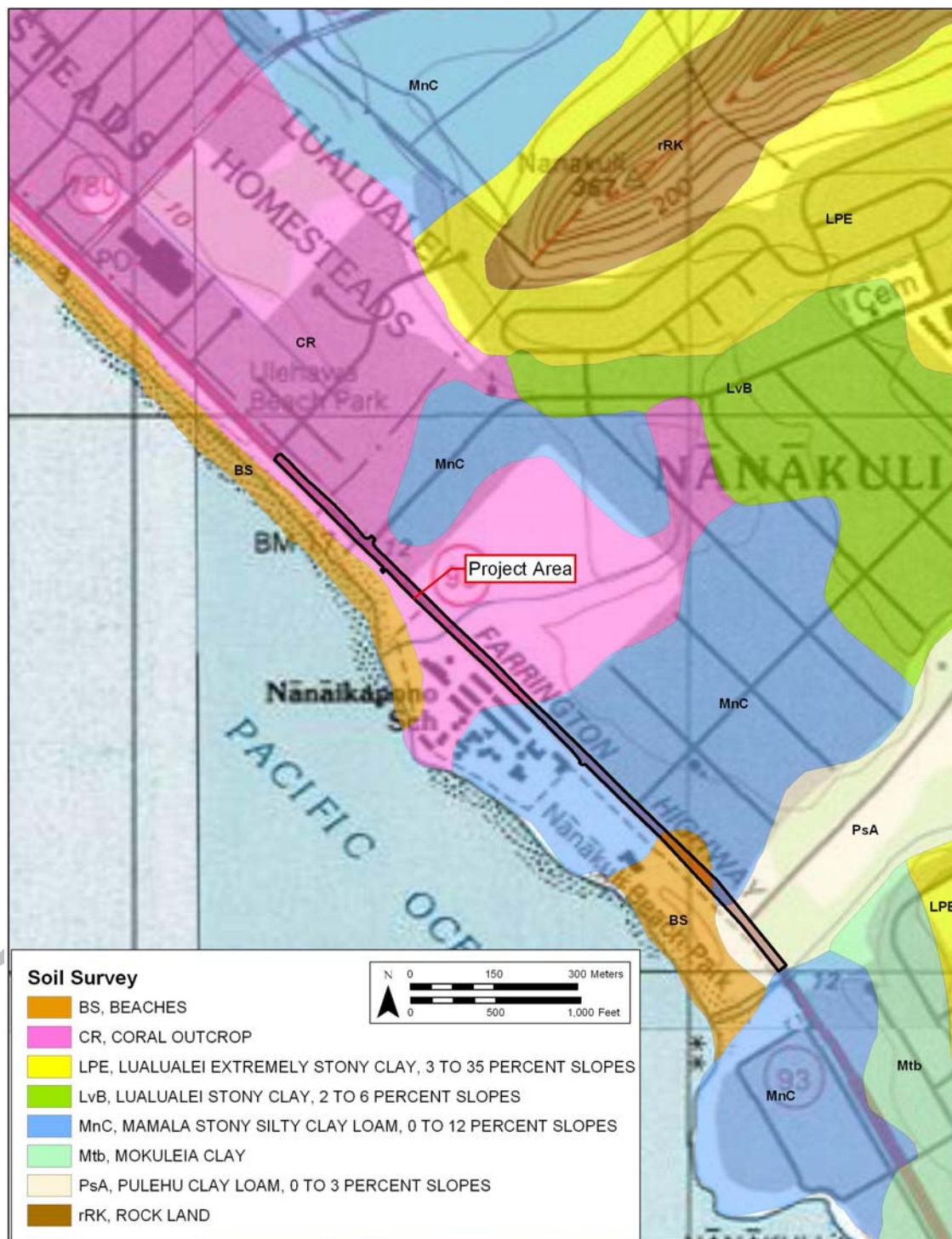


Figure 12. Soils map showing Coral Outcrop and Mamala Stony Silty Clay Loam in the project area (Foote et al. 1972; U.S. Department of Agriculture 2001)



Figure 13. View of project area, facing north, at the intersection of Farrington Highway and Nānākuli Avenue



Figure 14. View of project area, facing south, at the intersection of Farrington Highway and Haleakalā Avenue

Section 2 Methods

2.1 Archival Research

Historical documents, maps and existing archaeological information pertaining to Nānākuli were researched at the CSH library. In addition, historic and archival research included the University of Hawai'i at Mānoa's Hamilton Library, the State Historic Preservation Division (SHPD) library, the Hawai'i State Archives, the State Land Survey Division, and the archives of the Bishop Museum. Previous archaeological reports for the area were reviewed, as were historic maps and photographs and primary and secondary historical sources. Information on Land Commission Awards was accessed through Waihona 'Aina Corporation's Māhele Data Base (www.waihona.com) as well as a selection of CSH library resources.

For cultural studies, research for the Traditional Background section centers on Hawaiian activities including: religious and ceremonial knowledge and practices; traditional subsistence land use and settlement patterns; gathering practices and agricultural pursuits; as well as Hawaiian place names and *mo'olelo* (stories), *mele* (song), *'ōlelo no'eau* (proverbs) and more. The Historical Background section focuses on land transformation, development and population changes beginning in the early post-European Contact era to the present day (see Scope of Work above).

2.2 Community Consultation

2.2.1 Sampling and Recruitment

A combination of qualitative methods, including purposive, snowball, and expert (or judgment) sampling, are used to identify and invite potential participants to the study. These methods are used for intensive case studies, such as CIAs, and they are used to recruit people that are hard to identify, or are members of elite groups (Bernard 2006:190). Our purpose is not to establish a representative or random sample. It is to "identify specific groups of people who either possess characteristics or live in circumstances relevant to the social phenomenon being studied....This approach to sampling allows the researcher deliberately to include a wide range of types of informants and also to select key informants with access to important sources of knowledge" (Mays and Pope 1995:110).

We begin with purposive sampling informed by referrals from known specialists and relevant agencies. For example, we contact the SHPD, Office of Hawaiian Affairs (OHA), O'ahu Island Burial Council (OIBC), and community and cultural organizations for their brief response/review of the project and to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the project area and vicinity; and to identify cultural and lineal descendants and other appropriate community representatives and members. Based on their in-depth knowledge and experiences, these key respondents then refer CSH to additional potential participants who are added to the pool of invited participants. This is snowball sampling, which entails asking a few key individuals (including agency and organization representatives) to provide their comments and referrals to other locally recognized experts or stakeholders who would be likely candidates for the study (Bernard

2006). CSH also employs expert or judgment sampling which involves assembling a group of people with recognized experience and expertise in a specific area (<http://www.socialresearchmethods.net/kb/samprnon.php>; Bernard 2006). CSH maintains a database that draws on over two decades of established relationships with community consultants: cultural practitioners and specialists, community representatives and cultural and lineal descendants. The names of new potential contacts are also provided by colleagues at CSH and from the researchers' familiarity with people who live in or around the study area. Researchers often attend public forums (e.g., Neighborhood Board, Burial Council and Civic Club meetings) in (or near) the study area to scope for participants. A discussion of the consultation process can be found in Section 6 on Community Consultations. Please refer to Table 2, Section 6 for a complete list of individuals and organizations contacted.

CSH focuses on obtaining in-depth information with a high level of validity from a focused group of relevant stakeholders and local experts. Our qualitative methods do not aim to survey an entire population or subgroup. A depth of understanding about complex issues cannot be gained through comprehensive surveying. Our qualitative methodologies do not include quantitative (statistical) analyses, yet they are recognized as rigorous and thorough. Bernard (2006:25) describes the qualitative methods as "a kind of measurement, an integral part of the complex whole that comprises scientific research." Depending on the size and complexity of the project, CSH reports include in-depth contributions from about one-third of all participating respondents. Typically this means three to twelve interviews.

2.2.2 Field Visit

Initially, CSH researchers visit the project area to become familiar with the land and recognized (or potential) cultural places and historic properties in preparation for interviews. All field activities are performed in a manner so as to minimize impact to the natural and cultural environment in the project area. Where appropriate, Hawaiian protocol is used before going on to the study area and may include the offering of *ho'okupu* (offering, gift), *pule* (prayer) and *oli* (chant).

2.2.3 Informed Consent Protocol

An informed consent process is conducted as follows: (1) before beginning the interview the CSH researcher explains to the participant how the consent process works, the project purpose, the intent of the study and how his/her information will be used; (2) the researcher gives him/her a copy of the Authorization and Release Form to read and sign (Appendix A); (3) if the person chooses to participate by way of signing the consent form *or* providing oral consent, the researcher begins the interview; (4) the interviewee receives a copy of the Authorization and Release Form for his/her records, while the original is stored at CSH; (5) after the interview is summarized at CSH (and possibly transcribed in full), the study participant is afforded an opportunity to review the interview notes (or transcription) and summary and to make any corrections, deletions or additions to the substance of his/her testimony/oral history interview; this is accomplished primarily via phone, post or email follow-up and secondarily by in-person visits; (6) participants receive the final approved interview, photographs and the audio-recording and/or transcripts of their interview if it was

recorded. They are also given information on how to view the draft report on the OEQC website and offered a hardcopy of the report once the report is a public document.

Should an interviewee agree to participate on the condition that his/her name is withheld, procedures are followed to protect his/her confidentiality (see Protection of Sensitive Information below).

2.2.4 Interview Techniques

To assist in discussion of natural and cultural resources and cultural practices specific to the study area, CSH initiates “talk story” sessions (i.e., unstructured and semi-structured interviews as described by Bernard 2006) by asking questions from the following broad categories: gathering practices and *mauka* and *makai* resources, burials, trails, historic properties and *wahi pana* (storied or legendary places). The interview protocol is tailored to the specific natural and cultural features of the landscape in the study area identified through archival research and community consultation. For example, the translation of Nānākuli, ocean practices and resources and historical sites were emphasized for this CIA. These interviews and oral histories supplement and provide depth to consultations from government agencies and community organizations that may provide brief responses, reviews and/or referrals gathered via phone, email and occasionally face-to-face commentary.

2.2.5 In-depth Interviews and Oral Histories

Interviews are conducted at a place of the study participant's choosing (usually at the participant's home or at a public meeting place). Following the consent protocol outlined above, interviews may be recorded on tape and in handwritten notes, and the participant photographed. The interview typically lasts one to four hours, and records the—who, what, when and where of the interview. In addition to questions outlined above, the interviewee is asked to provide biographical information (e.g., connection to the study area, genealogy, professional and volunteer affiliations, etc.).

2.3 Compensation and Contributions to Community

Many individuals and communities have generously worked with CSH over the years to identify and document the rich natural and cultural resources of these islands for cultural impact, ethno-historical and, more recently, Traditional Cultural Properties (TCP) studies. CSH makes every effort to provide some form of compensation to individuals and communities who contribute to cultural studies. This is done in a variety of ways: individual interview participants are compensated for their time in the form of a small honorarium and/or other *makana* (gift); community organization representatives (who may not be allowed to receive a gift) are asked if they would like a donation to a Hawaiian charter school or nonprofit of their choice to be made anonymously or in the name of the individual or organization participating in the study; contributors are provided their transcripts, interview summaries, photographs and—when possible—a copy of the CIA report; CSH is working to identify a public repository for all cultural studies that will allow easy access to current and past reports; CSH staff do volunteer work for community initiatives that serve to preserve and protect historic and cultural resources (for example, in Lānaʻi and Kahoʻolawe). Generally,

our goals are to provide educational opportunities to students through internships, to share our knowledge of historic preservation and cultural resources and the State and Federal laws that guide the historic preservation process, and, through involvement in an ongoing working group of public and private stakeholders, to improve and strengthen the Chapter 343 (environmental review) process.

Draft

Section 3 Traditional Background

3.1 Overview

Nānākuli is situated within the larger geographic land section known as Wai'anae. As it was in distant times, Wai'anae is one of six major *moku* (districts) on the island of O'ahu and borders the 'Ewa District on the southeast and extends to Ka'ena on the northwest. Today, Wai'anae consists of nine *ahupua'a*. These nine *ahupua'a* are (in order from southeast to northwest) Nānākuli, Lualualei, Wai'anae, Mākaha, Kea'au, 'Ōhikilolo, Mākua, Kahanahāiki and Keawa'ula.

In ancient times, the Wai'anae District was known for its multitude of fish and especially for deep sea fishing off Ka'ena where the ocean currents meet. The meaning of Wai'anae (mullet water) also implies an abundance of fish ('*anae*), which is the full-grown mullet (Pukui et al. 1974). Handy and Handy (1972) attribute the naming of Wai'anae to a large fresh water pond for mullet called Pueha [sic] [Puehu]. Today, Wai'anae is still considered one of the best fishing grounds on O'ahu.

3.2 The Ahupua'a of Nānākuli

The *ahupua'a* of Nānākuli encompasses 1,062 acres and is bounded on the east by Honouliuli Ahupua'a in the 'Ewa District and on the west by Lualualei Ahupua'a in the Wai'anae District. The leeward area between Mākua and Nānākuli is especially noted for its susceptibility to drought and famine. In valleys such as Nānākuli, where perennial streams are lacking, agricultural resources would have been sparse due to poor water and land resources. It is probable that there were small, scattered settlements here and there whose main subsistence was the '*uala* (*Ipomoea batatas*) or sweet potato.

The eastern slopes of the southern end of the Wai'anae Mountains below Pu'u Puna were famous for sweet potato growing. Although there was a little taro grown in the valleys of Wai'anae-uka, sweet potatoes grown on the *kula* lands were the main food of the people here. On the other side of the Wai'anae Mountains sweet potatoes were planted on the dry slopes of Nānākuli, Lualualei, Wai'anae-kai, and the other small valleys as far as Mākua. With the exception of Wai'anae-kai, the sweet potato was the staple for the inhabitants of this dry section....(Handy 1940:156)

To make up for this agricultural deficit, the coastal areas were rich in marine resources. There was always an abundant supply of fish to be had for the catching (Handy and Handy 1972:275, 277).

3.3 Place Names

Place names discussed in the following section were compiled using Lloyd Soehren's "Hawaiian Place Names" database on the internet (<http://www.ulukau.org>), from historic maps, and from place name texts (Pukui et al. 1974; Clark 1977; Thrum 1922). The definitive source for Hawaiian place names is considered the book *Place Names of Hawai'i*, by Mary

Kawena Pukui, Samuel Elbert, and Esther Mo'okini (Pukui et al. 1974). Their translations are based not only on literal, phonetic translations of the words, but also from documents and oral history from families in each area. John Clark has many coastal names in his book *The Beaches of O'ahu*, that he gathered from knowledgeable residents of each coastal section. When no meanings for place names are given in Pukui et al. (1974), Lloyd Soehren sometimes translates simple place names based on the *Hawaiian Dictionary* (Pukui and Elbert 1986). Thomas Thrum, noted early history chronicler, published a list of Hawaiian place names in the 1922 edition of Lorrin Andrews' *A Dictionary of the Hawaiian Language*. His translations are based on literal, phonetic translations of the words only, with no background written or oral history testimony. Hawaiian words can be translated in a variety of ways, depending on the correct pronunciation. Commenting on Thrum's work, Mary Pukui (Pukui et al. 1974:235-236) cautioned that Thrum's translations were sometimes "unreliable" and "questionable." His place name meanings (attributed to him) will be presented here only when no other source is available. Translations presented without attribution in this subsection are from Pukui et al. (1974), unless otherwise indicated.

3.3.1 Nānākuli

There are several meanings to the name Nānākuli, "to look at knee" or "look deaf" (Pukui et al 1974: 162). The first translation "to look at knee" is said in honor of Ka'opulupulu, the priest of Kahāhana. Ka'opulupulu had given Kahāhana advice that fell upon deaf ears, and thus Ka'opulupulu looked at his knees as a sign of rebuking Kahāhana. The second definition of Nānākuli is to "look deaf", this was said of the people of Nānākuli. Water and vegetation were scarce, and thus when strangers would pass through the people of Nānākuli would stare at them as if they were deaf and mute because they were ashamed of their inability to be hospitable (Sterling and Summers 1978:62).

3.3.2 Hāpai

An *'ili* (a subdivision of an *ahupua'a*; a small land section) in Nānākuli, and mentioned in Native Register 5:342. Exact meaning unknown, but the word "*hāpai*" can mean any of the following (Pukui and Elbert 1986:59):

- 1) to carry, lift;
- 2) pregnant, conceive;
- 3) a native variety of banana with trunk of medium height, the fruit maturing within it, about two-thirds of the way up. The fruits are small, finger length, and ten or less; their skin is yellow, and the flesh yellow, sweet, and edible raw;
- 4) to encourage, support

3.3.3 'Ilihune

A *heiau* (a stone platform used for worship) in Nānākuli that was identified by T.G. Thrum and described as "A small walled heiau of pookanaka class; used in 1860 by Frank Manini as a cattle pen, for which natives prophesized his poverty and death" (McAllister 1933:110). *Lit.*,

tiny skin. It can also mean “poor, destitute; poverty, poor person” (Pukui and Elbert 1986:98; Sterling and Summers 1978:62).

3.3.4 Pālehua

Land division, hill (2,566ft.), and road. *Lit.*, *lehua* flower enclosure. Also: The hill with grown *lehua* that overlooks Nānākuli on the Waialua side. It is on the boundary of Nānākuli and Honouliuli (Pukui et al 1974: 177). When the *lehua* is in bloom there it resembles a red wreath. King Kalākaua composed “Sweet Lei Lehua” with this hill in mind (David Malo Kupihea in Kelsey notes on *O‘ahu Place Names*).

3.3.5 Pili o Kahe

Land section. *Lit.*, clinging to Kahe. Kāne and Kanaloa threw a stone to determine the district boundary for ‘Ewa. The stone was found at Pili o Kahe, where the two small hills of the Wai‘anae Range come down parallel on the boundary between Honouliuli and Nānākuli. It was believed the ‘Ewa side of the hill was male and the Wai‘anae side female. The name refers to the Wai‘anae side of the hill (*kahe* means “to flow”) (Sterling and Summers 1978:1). Also: it is a “ridge that divides in two at the shore (one side represents a woman with menses) where Mrs. Alice Kamokila Campbell lives. There is a bridge and a wharf by Pili o Kahe. You look down upon a little bay, then cross over to Nānākuli ‘*Elua* on the other side of the big hill” (David Malo Kupihea in Theodore Kelsey Notes on *O‘ahu Place Names*.)

3.3.6 Pu‘u Heleakalā

Hill at Nānākuli. *Lit.*, snared by the sun (Sterling and Summers 1978:62).

3.3.7 Pu‘u Manawahua

Peak (2,401 ft.) in Nānākuli. *Lit.*, great grief hill, nausea hill (Pukui et al 1974:202).

3.4 Mo‘olelo (Stories) Concerning Specific Place Names

3.4.1 Mo‘olelo for the name Nānākuli

There are several stories which attempt to explain the origin of the name Nānākuli. A *mo‘olelo* about the meaning of Nānākuli refers to Ka‘opulupulu, a *kahuna* who lived during the rule of Kahāhana, a *kapu* (sacred) chief of O‘ahu (Kamakau 1992:128). The meaning of Nānākuli is in reference to Kahāhana’s turning a deaf ear to advice, for which, Ka‘opulupulu tattooed his knees as an expression of his disapproval.

Kahahana dug up bones from their burial places “to make arrows for rat-shooting and hooks for fishing. The bones of chiefs were bartered for skirts for chiefesses and handles for *kāhili*. Ka‘opulupulu pleaded with him in vain to stop this disrespectful deed, but Kahahana turned a deaf ear to Ka‘opulupulu’s pleas. As a sign of protest, Ka‘opulupulu, his followers, relatives and members of his household all tattooed their knees to signify Kahahana’s unwillingness to listen to his advice. [The word *kuli* means both “knee” and “deaf”] (Kamakau 1992:133)

Another story comes from Mary Kawena Pukui, while she was working at the Bishop Museum. It was told to her by Simeona Nawa'a in 1945 who heard it from Kanui, a woman and *kama 'āina* from Wai'anae:

...In the olden days, this place was sparsely inhabited because of the scarcity of water. The fishing was good but planting very poor. When it rained, some sweet potatoes would be put into the ground, but the crops were always poor and miserable.

There were a few brackish pools from which they obtained their drinking water and it is only when they went to the upland of Wai'anae that they were able to get fresh water. They carried the water home in large calabashes hung on mamaka or carrying sticks and used their water very carefully after they got it home. They spent most of their time fishing and most of the fish they caught were dried as gifts for friends and relatives in the upland. Sometimes they carried dried and fresh fish to these people in the upland and in exchange received poi and other vegetable foods. As often as not, it was the people of the upland who came with their products and went home with fish.

Because of the great scarcity of water and vegetable food, they were ashamed to greet passing strangers. They remained out of sight as much as possible. Sometimes they met people before they were able to hide, so they just looked at strangers with expressionless faces and acted as though they were stone deaf and did not hear the greeting. This was so that the strangers would not ask for water which they did not have in that locality.

The strangers would go to other places and mention the peculiar, deaf people who just stared and they would be told that the people were not deaf but ashamed of their inability to be hospitable. So the place they lived was called Nana, or "look", and kuli, "deaf" -- that is, Deaf mutes who just look. (Sterling and Summers 1978: 61-62, referring to Hawaiian Ethnological Notes at the B.P. Bishop Museum, March 6, 1945)

An old time resident of the area, William Z.H. Olepau, shared a different definition for *kuli* in the context of defining the name Nānākuli. This *kūkākūkā* (discussion) took place on March 20, 1933:

There were two women who went up the hill of Pu'u Hakila or Pu'u Hela [probably Pu'u Heleakalā] to dry their kapas. While the kapas were being dried they left and went down the hill to the pool for some water. They heard dogs barking, so they stood, looking around for the barking was deafening.

The play on the word *kuli* is obvious. *Kuli* can also mean a "loud, deafening noise". From this story, Mr. 'Olepau gave the following explanations for Nānākuli and its relationship to the word "knee".

- (1) Women used to go to the top of the hill to dry their *kapa*, and when they got there they looked at their knees - *nānā kuli*.

(2) Royalists of the valley used to sit with their knees up and watch their knees - *nānā kuli* (In Sterling and Summers 1978: 62).

A further explanation of the name Nānākuli is reprinted from Thrum's *Hawaiian Annual*, ([1922: 87] in Sterling and Summers [1978:62]):

The name of "Nānākuli", a section of Wai'anae, meaning "knee examination", is said to relate to an incident in the travels of the famous Kualī'i, when his attendants wished to see and press his knees, to relieve the king's fatigue after the journey.

In an interview with, Fred Cachola, a *kama'āina* who has worked and lived in the Wai'anae District for many years, brought forth another *mo'olelo* and possible meaning for Nānākuli (McGuire and Hammatt 1999: 53-54). Mr. Cachola learned the *mo'olelo* of Nānākuli from other *kama'āina* who knew the name of this *ahupua'a* (land division, typically from the mountain to the sea) as "Nānā-i-ka-ule". The shape of one mountain ridge is similar to an *ule* [penis] in one area and the testicles in another place. Nānāikaule literally means, "looking at a man's testicles", or "looking at his penis". According to Mr. Cachola, the first principal of Nānāikapono School, Reverend Awai, was *ma'a* (accustom) with the name Nānāikaule. However, due to the explicit nature of the name Nānāikaule, Reverend Awai, named the school Nānāikapono, or "look to the way of righteousness."

3.4.2 The Māui Legends

Numerous Hawaiian legends, in addition to archaeological evidence, reveal the Wai'anae coast and *mauka* interior to be an important center of Hawaiian history. It is here, in Wai'anae, that the famous exploits of Māuiakalana (Māui) are said to have originated. Famous accounts tell of the place where Māui's adzes were made, and of the magic fishhook Mānaiakalani, the snare for catching the sun, and his kite flying expedition. It was at Pu'u Heleakalā where Hina, Māui's mother, lived in a cave and made her *kapa* (Sterling and Summers 1978: 62).

According to Samuel Kamakau, Māui's genealogy can be traced from the 'Ulu line thru Nana'ie:

Wawena lived with Hina-mahuia, and Akalana, a male, was born;

Akalana lived with Hina-kawea, and Māui-mua, Māui-waena, Māui-ki'iki'i, and Māui-akalana, all males, were born.

Ulehawa and Ka'ōlae, on the south side of Wai'anae, O'ahu, was their birthplace. There may be seen the things left by Māui-akalana and other famous things: the tapa-beating cave of Hina, the fishhook called Mānaiakalani, the snare for catching the sun, and the places where Māui's adzes were made and where he did his deeds. However, Māui-akalana went to Kahiki after the birth of his children in Hawai'i. (Kamakau 1991:135-136)

3.4.3 The Māui Pōhaku (Rock or stone)

The Māui Pōhaku, Site 148 in McAllister’s *Archaeology of O‘ahu*, is located within the Garden Grove complex at 87-1550 Farrington Highway in Lualualei. In 1930 when McAllister conducted his fieldwork he noted:

...it was here that Māui reposed and sunned himself...The large rock is now split in half and adorned with many small, oddly shaped rocks. It is said to be bad fortune to build one’s house across a line drawn directly from the rock to the shore. (McAllister 1933:110)

The “small, oddly shaped rocks” McAllister speaks of are no longer present and cannot be seen today. The Māui Pōhaku is currently overgrown with young Chinese banyan saplings (*Ficus retusa*), grasses and weeds.

3.5 ‘Ōlelo No‘eau (Hawaiian Proverbs)

‘Ōlelo No‘eau—Hawaiian proverbs and poetical sayings—are integral parts of the Hawaiian language and culture. These proverbs were written for people, places, animals, trees, plants, and the natural surroundings of places. Some proverbs spoke of various activities that took place, times of the year that was good for harvesting or fishing, as well as the everyday emotions within a human beings life.

The following ‘ōlelo no‘eau are derived from Mary Kawena Pukui’s *‘Ōlelo No‘eau Hawaiian Proverbs & Poetical Sayings*. These ‘ōlelo no‘eau listed below are not specifically for the *ahupua‘a* of Nānākuli, however they do cover the *moku* (district) of Wai‘anae.

363 E nui ke aho, e ku‘u keiki, a moe i ke kai, no ke kai la ho‘i ka ‘āina.

Take a deep breath, my son, and lay yourself in the sea, for then the land shall belong to the sea.

Uttered by the priest Ka‘opulupulu at Wai‘anae. Weary with the cruelty and injustice of Kahāhana, chief of O‘ahu, Ka‘opulupulu walked with his son to Wai‘anae, where he told his son to throw himself into the sea. The boy obeyed, and there died. Ka‘opulupulu was later slain and taken to Waikīkī where he was laid on the sacrificial at Helumoa.

1524 Kapakahi ka lā ma Wai‘anae.

Lopsided is the sun at Wai‘anae.

Used to refer to anything lopsided, crooked, or not right. First uttered by Hi‘iaka in a rebuke to Lohi‘au and Wahine‘ōma‘o for talking when she warned them not to.

2495 Ola Wai‘anae i ka makani Kaiaulu.

Wai‘anae is made comfortable by the Kaiaulu breeze.

Chanted by Hi‘iaka at Ka‘ena O‘ahu, after her return from Kaua‘i.

3.6 Subsistence and Settlement

Captain George Vancouver was one of the first foreign observers to see and document Hawai'i and its people. In 1793, Vancouver was on his ship approaching the coast of Wai'anae from Pu'uloa (Pearl Harbor) and wrote his impression in the ship's log:

The few inhabitants who visited us [in canoes] from the village earnestly entreated our anchoring. And [they] told us that, if we would stay until morning, their chief would be on board with a number of hogs and a great quantity of vegetables; but that he would not visit us then because the day was taboo poorly [a *kapu* day]. The face of the country did not however, promise an abundant supply [of water]; the situation was exposed. (Vancouver quoted in McAllister 1933:112)

The only village Vancouver observed was “at Wai'anae, located in a grove of coconut and other trees on the southern side of a small sandy bay” (McAllister 1933:112). Along the rest of the coast he reported seeing only “a few straggling fishermen's huts” and “a small grove of shabby cocoanut trees” (Handy and Handy 1972:270-71).

Vancouver, influenced by the arid coastal environment, continued onward and did not anchor at Wai'anae. He described the Wai'anae coast as “...one barren rocky waste, nearly destitute of verdure, cultivation, or inhabitants, with little variation all the way to the west point [Ka'ena] of the island” (Handy and Handy 1972:112). Vancouver would have been surprised had he chosen to anchor at the village of Wai'anae. Even though the dry, arid coast presented a dismal forecast, the ocean provided an abundant supply of fish, the lowlands provided 'uala (*Ipomoea batatas*) and niu (*Cocos nucifera*), and the inland valley areas were planted in kalo (*Colocasia esculenta*) and wauke (*Broussonetia papyrifera*). The upland forest regions provided various woods for weapons, canoes, access to birds for their feathers and other forest resources. By this time, there was probably a small variety of introduced vegetables being planted in the upper valleys, as well. Handy and Handy write about Wai'anae:

...Wai'anae Valley supported a number of areas where wet taro was planted, watered by stream from Wai'anae range, streams whose flows were probably constant owing to the high bogs on top of the mountains ... Undoubtedly there were also small settlements subsisting mainly on sweet potato, in the valley where constant streams were lacking (Nānākuli and Makua). ... In famine times, then, there was reef fishing, and the Wai'anae Mountains had wild bananas, *ti*, fern, and other roots that were edible... (Handy and Handy 1972:275-276)

3.7 Trails

Trails served to connect the various settlements throughout O'ahu. John Papa 'Ī'i mentioned three ancient trails that led to Wai'anae. In the early 1800s, when 'Ī'i was a little boy, these trails were still being used. These trails were: “...one by the way of Pu'u o Kapolei, another by way of Pōhākea, and the third by way of Kolekole ('Ī'i 1959:97).”

He goes on to describe the trails:

From Kunia the trail...met with the trails from Wahiawa and Waialua. The trail continued to the west of Mahu, to Mālanui, and up to Kolekole, from where one can look down to Pōka'i and Wai'anae Uka. There was a long cliff trail called Elou from Kalena and Hale'au'au on the east side of Ka'ala coming down to Wai'anae. There was also a trail called Kūmaipō which went up and then down Mākaha Uka.

Below Kūmaipō trail in the olden days was a stronghold named Kawīwī...[and it] was part of a mountain ridge lying between Wai'anae and Mākaha and overlooking Kamaile. The trail Kūmaipō, went down to the farms of Mākaha and the homes of the land. A branch trail which led up Mount Ka'ala and looked down on Waialua and Mokulē'ia could be used to go down to those level lands. It was customary to have dwelling places along the mountain trails that led downward from here into Kamaile, as well as long the beach trail of Mākaha.

...Pu'u o Kapolei [trail]...joined the beach trail from Pu'uloa and from Waimānalo (1959:97).

This last trail was the one John Papa 'Ī'i used as a child to visit his aunt, Kāneiakama, when she was at Nānākuli (1959:29).

An Archaeological Inventory Survey report conducted by Ross Cordy et al. (1990) for the Department of Hawaiian Home Lands (DHHL) suggests a possible trail that led from upper Nānākuli Valley and crossed over into Lualualei. No specific historical documentation was given for this suggested trail. As with the above three trails, this posited *mauka* trail lies outside of the proposed project area.

3.8 Beaches

There are various beaches that *kama'āina* of Nānākuli would visit. Some of these beaches were strictly for surfing, fishing, gathering *limu* (seaweed), or for all of the above. Today, we view these areas as distinctive locations that we point out as being in a specific district. However, resource management has called forth that people travel great distances to gather food, water, and other resources necessary for survival which included going into the current day 'Ewa District. Some of these beach locations listed, go beyond the boundaries of Nānākuli and the Wai'anae District.

3.9 Lanikūhonua

The beach area Lanikūhonua (where the heavens meet the earth) has been given many names over the years. Some of these names include: Brown's Camp, Lanikuaka'a, West Beach, and Paradise Cove. Alice Kamokila Campbell, a daughter of James Campbell, and the Campbell Estate leased 37 acres of beachfront property. Here Ms. Campbell built a beautiful home, and gave this area the name that it has today (Clark 1977:76-77; Nahulu 1991:2).

There was a freshwater flume that ran down from the ocean to this area. People of the neighboring Wai'anāe District would come and retrieve water here. It was the only water for miles that was not brackish. In a story by Genevieve Nahulu she speaks of "Brown's Camp" and the flume that ran through this area.

A flume came down there, and the road was alongside the railroad tracks. Sometimes we would get water from the flume, and there was cold, good spring water there too. The plantation did not use insecticides, so the water was safe for us to drink then. We washed clothes there and brought home drinking water in gallon containers if we didn't have any from Honolulu. (Nahulu 1991:26)

The shoreline of Lanikūhonua is comprised of lava rock and a raised coral reef. There is a small beach area, and large saltwater ponds. This area is known for *limu*, *'opihi* (limpets), *pipipi* (small mollusks), *moi* (threadfish), and crab.

3.9.1 Kahe Beach

Kahe (to flow) Beach, is comprised of three smaller beaches. These beaches include: Kahe Point Beach Park, Hawaiian Electric Beach Park, and Manner's Beach. Kahe Beach is located at the end of 'Ewa, next to the Wai'anāe District and separates the two districts. There were two drainage ditches that ran from *mauka* to *makai*. The ocean where the gulch ran off was named Keone'ō'io (the sandy [place with] bonefish) and Limaloa (long arm) (Pukui et al 1974: 108, 133). Campbell Estate first owned the Kahe area before turning it over to the State in 1960 for the construction of the current Hawaiian Electric power plant (Clark 1977:77-78).

3.9.2 Kahe Point Beach Park

Kahe Point Beach Park is located on the cliffs of Kahe Point. There is a small cove on the eastern end, with various water activities available to patrons. Some of these include: diving, pole fishing, snorkeling, surfing, and swimming (Clark 1977:77-78).

There were three ponds that were used for swimming. The waves from the ocean would spill water in these ponds, making the ponds a safe area for kids to swim. The beach was full of *kiawe* trees, making it very difficult to walk through without being poked by a thorn. Amongst the resources that were found here were *limu*, fish, and turtle. Before it was banned, *kama 'āina* would come here to catch turtle for food (Nahulu 1991:64).

3.9.3 Hawaiian Electric Beach Park

The Hawaiian Electric Beach Park is located on Farrington Highway in front of the Hawaiian Electric power plant. Situated in 'Ewa, but was highly used by people of Nānākuli. This beach park is ideal for diving, shore casting, surfing, bodysurfing, and swimming. On occasion the current in this area can be very dangerous when there is large surf offshore (Clark 1977:78).

3.9.4 Manner's Beach

Manner's Beach, also known as Sunset is the last section that comprises Kahe Point Beach Park. This beach was named after Francis J. Manner, belovedly called Kekai by the *kama'āina* of the Wai'anae District. Mr. Manner leased the land from Campbell Estate, and constructed a shack. Mr. Manner was also the first person to construct a home on Mā'ili Point (Nahulu 1991:26-27).

The water conditions here are relatively the same as the rest of the beaches comprising Kahe Point Beach Park. Diving, shore casting, and swimming are the more popular activities to do here, and for the most part it is relatively safe to swim. But do be aware of strong currents when there are large swells (Clark 1977:78-79).

3.9.5 Nānākuli Beach Park

Nānākuli Beach Park is made up of Pili o Kahe, Zablan Beach, and Kalaniana'ole Beach Park. The current name Nānākuli Beach Park has only been in existence recently, when the City and County of Honolulu began giving inclusive names to beach areas.

3.9.6 Pili o Kahe

Pili o Kahe (clinging to Kahe) is on the southern end of Nānākuli Beach Park (Pukui et al 1974:185). The nickname for this area is "Keaulana's". The Keaulana 'Ohana (family) was the first people to live on the *makai* side of Nānākuli since the early 1920s or 30s. This was a good area to go diving for *wana* (sea urchin), looking for shells, and fishing. The swimming conditions were not as suitable as that of its neighboring beach, Zablan Beach (Nahulu 1990:28).

Pili o Kahe is located on a sea cliff above a cove. This cove is suitable for swimming during certain times of year. The deep water is clear, and ideal for diving and snorkeling. However, Pili o Kahe is very dangerous in the winter to swim, dive, or surf because of the large surf and strong current (Clark 1977:84).

3.9.7 Zablan Beach

Zablan Beach is the little bay area located right above Pili o Kahe. The beach was named after the Zablan family who resided on this beach front property. Zablan beach is the safest area for children to swim. The beach is sandy, and does not have as strong of a current as Pili o Kahe or Kalaniana'ole Beach Park. Nonetheless, beach goers should be aware of large surf in the winter months (Clark 1977:84).

3.9.8 Kalaniana'ole Beach Park

Kalaniana'ole Beach Park was named after Jonah Kūhiō Kalaniana'ole, the creator of the Hawaiian Homes Commission Act. Because most of Nānākuli is comprised of homesteaders, the community petitioned the Mayor to name the park after Jonah Kūhiō Kalaniana'ole, and on March 26, 1940, the park was given its name.

The beach area is located on the northern end of Nānākuli Beach Park, and is situated between two limestone points. There is a long, extensive beach area, measuring

approximately 500 ft. in length. Swimming conditions are calm, but do become very dangerous in the winter months when there is large waves, rip currents, and big shore break (Clark 1977:84).

3.10 Heiau

In the early 1930s, J. Gilbert McAllister conducted a survey of important archaeological sites. One of his tasks was to relocate the *heiau* Thrum had recorded some twenty years earlier. McAllister also relied on long-time residents and did not physically visit each site. He relocated some of the sites Thrum listed as still standing or in ruins, noted that some *heiau* had been destroyed after 1909 when Thrum completed his O'ahu *heiau* list, and recorded new informant information on *heiau* Thrum did not discuss. There were some *heiau* that McAllister could not relocate. McAllister provided detailed descriptions and made field sketches of those *heiau* with significant remnants.

‘Ilihune Heiau is listed by McAllister as Site 147. According to Thrum, this site is “[a] small walled heiau of pookanaka class [that is, a sacrificial *heiau* typically constructed only be a *mō‘ī*, or king]; used about 1860 by Frank Manini as a cattle pen, for which natives prophesied his poverty and death” (McAllister 1933).

It is interesting to note that the word *‘ilihune* means “to cause poverty,” suggesting that ‘Ilihune may be a more modern name for the *heiau*, which may have been known by another name prior to 1860.

Section 4 Historical Background

4.1 Pre-Contact to 1800

The coast of Nānākuli appears, up to late pre-Contact/early post-Contact times, to have sustained a sparse population, which was limited to isolated, perhaps temporary, habitations supported by marine resources. Environmental components including the dry climate (Armstrong 1973:56) and geologic limitations of shallow soil (Haun 1991:310) were likely determinative constraints upon population density along the coast. Although these and various other historic accounts describe the coastal regions of Nānākuli as relatively uninhabited because of their limited subsistence resources, archaeological evidence suggests that late prehistoric and early historic land usage occurred inland of the coastline.

Accounts of early foreign observers give only a generalized picture of the late pre-Contact/early historic patterns of population and activity within the Waiʻanae District and Nānākuli Ahupuaʻa. Captain George Vancouver, sailing along the Waiʻanae Coast in 1793, noted: "The face of the country did not...promise an abundant supply [of water]; the situation was exposed. He described the coast as "one barren rocky waste nearly destitute of verdure, cultivation or inhabitants (Krauss 1993:17)."

The only village Vancouver observed was "at Waianae, located in a grove of coconut and other trees on the southern side of a small sandy bay (Krauss 1993:17)." It is probably this village that was visited in 1815 by John B. Whitman, who described the western coast of Oʻahu between Waiʻanae and Honolulu: "after proceeding for some time over an uncultivated plain, we arrived at a small village situated on the sea shore. It consisted of about twenty huts occupied by fishermen (Holt 1979:82)."

The "uncultivated plain" Whitman observed before reaching Waiʻanae likely included Nānākuli.

4.2 Early 1800s

Following western encroachment on the Waiʻanae Coast, a swift decline in population occurred due to disease and a "tendency to move to the city where there was more excitement" (McGrath et al. 1973:25). In 1835, a missionary census listed 1,654 residents on the Waiʻanae Coast. The population of the Waiʻanae Coast was decimated by a smallpox epidemic in late 1853. In 1855, the Waiʻanae tax collector recorded 183 taxpayers on the leeward coast, which is thought to represent a total population of about 800 people. This catastrophic depopulation facilitated the passing of large pieces of land into the hands of a few landholders and led to the decline of the traditional economy that once supported the region (Hammatt et al. 1993:10-11).

4.3 Mid 1800s

The Organic Acts of 1845 and 1846 initiated the process of the Māhele – the division of Hawaiian lands – that introduced the concept and legal reality of private property into Hawaiian society. In 1848, the crown and the *aliʻi* (royalty) received their land titles. Kuleana

awards to commoners for individual parcels within the *ahupua'a* were subsequently granted in 1850. At the time of the Māhele, the *ahupua'a* of Wai'anae, which at that time, included Nānākuli, was listed as Crown lands and claimed by King Kamehameha III as his personal property (Board of Commissioners 1929: 28). As such, the land was under direct control of the King. Many of the chiefs had run up huge debts to American merchants throughout the early historic period and continuing up into the mid 1800's. A common practice at the time was to lease (or mortgage) large portions of unused land to other high chiefs and foreigners to generate income in order to pay off their debts. In many cases, commoners were denied access to the land, upland agriculture ended, and traditional life was greatly altered. Members of the Manini, Jarrett, J. Robinson, Judd, and Dowsett families held such leases. Nānākuli was generally used as an annex ranch; ranch headquarters were not located in the *ahupua'a* (Cordy 1997:6).

In 1850, the Privy Council passed resolutions that would affirm the rights of the commoners or native tenants. To apply for fee-simple title to their lands, native tenants were required to file their claim with the Land Commission within the specified time period of February 1846 and February 14, 1848. The Kuleana Act of 1850 confirmed and protected the rights of native tenants. Under this act, the claimant was required to have two witnesses who could testify they knew the claimant and the boundaries of the land, knew that the claimant had lived on the land for a minimum of two years, and knew that no one had challenged the claim. The land also had to be surveyed.

Not everyone who was eligible to apply for *kuleana* lands did so and, likewise, not all claims were awarded. Some claimants failed to follow through and come before the Land Commission, some did not produce two witnesses, and some did not get their land surveyed. Out of the potential 2,500,000 acres of Crown and Government lands "less than 30,000 acres of land were awarded to native tenants (Chinen 1958:31)."

There appears to have been five applications, though unsuccessful, for quiet title to lands in Nānākuli during the time of the Māhele (Table 1). Below is an example of a land claim to the Land Commission. Even though this award was not granted, it does give some insight into land use in Nānākuli Valley:

To the Land Commissioners: Ili of Hapai, Ahupuaa Nanakuli, Waianae District, Oahu. I, the one whose name is below, have a muliwai, a pond, a cultivated kula, and for firewood also, a valley planted in wauke mauka, [and] a house lot. Kuluahi, X his mark. (Native Register Vol. 5:342).

A total of twelve land claims were made in Lualualei, however only six were actually awarded. In addition, dry land crops were grown on the *kula* (plains), *wauke* was being cultivated, and one claimant was making salt.

4.4 Late 1800s

In the mid-1800s, the back of Nānākuli Valley appears to have been used solely for ranching purposes and probably did not support permanent habitation. Tax records from the mid-1800s for coastal Nānākuli indicate that possibly as many as 50 people resided along the

shore. The population in the area dropped precipitously during the 1800s, and in 1888, the Hawaiian Island Directory referenced only four residents of Nānākuli (Cordy 1997:7).

Draft

Table 1. Kuleana Claims (All Unsuccessful) in Nānākuli Ahupua'a

Claim #	Claimant	Ahupua'a	'Ili	Land Use	Landscape Feature(s)
830	Mahiki	Nanakuli	n.a.	3 land & house	Cairn on north, east & west stream, south other houses.
833	Kahananui	Nanakuli	Nanakuli Kaape	2 land claims & house 1 land claim	North cairn, east stream, south wall west other houses.
846	Awa	Nanakuli	n.a.	4 lands scatter	Pali & stream
7455	Kuluahi	Nanakuli	Hapai	Muliwai, pond, cultivated kula & firewood, valley of house lot.	n.a.
8153	Haulula	Nanakuli	Kuamookahi	Kula of sweet potatoes, upland for wauke & firewood houses in kula.	n.a.

n.a. = not applicable (no relevant information mentioned)

4.5 1900s

4.5.1 Sugar and Cattle

By 1901, the Wai'anae Sugar Company had obtained a five-year lease on 3,332 acres of land at Lualualei to be used for raising cane as well as for ranching (Commissioner of Crown Lands 1902). Sugar and ranching continued to dominate the Lualualei landscape during the early years of the 20th century. The determining factor in the success of Lualualei for sugar production was always the water.

Throughout the first half of the 20th century, the Wai'anae Sugar Company continued cultivating their sugar lands in Lualualei. By the 1940s, Wai'anae Sugar Company could no longer compete with foreign labor. This, in addition to drought problems, labor unions, and land battles, caused the undermining of Wai'anae Sugar Company. In 1946, the Company was liquidated and the land was sold.

4.5.2 Homesteading

There were two waves of homesteading on the Wai'anae Coast. The first had more of an impact on Lualualei, while the second resulted in the development of Nānākuli as a residential area.

After the overthrow of the Hawaiian monarchy in 1893, Crown Lands and Government Lands were combined to become Public Lands. In 1895, the Republic of Hawai'i decided to open up lands for homesteading in the hopes of attracting a "desirable class of immigrants", Americans and those of Caucasian descent (Kuykendall and Day 1961:204). The Dowsett-Galbraith ranch lease was set to expire in 1901, and the Hawaiian Government intended to auction off these lands to the highest bidder.

In 1902, the Hawaiian Government ran advertisements in the local newspapers stating their intent to open up land in Lualualei for homesteads. The lots were classified as second class pastoral land, rather than agricultural land, because of the lack of water. A five-year installment payment plan of one-fifth down during the first year and the balance of payments over a period of four years was the incentive to attract prospective homesteaders. There were other stipulations as well, in which the homesteader was required to make specific improvements to the property over the five-year period (Hawaii Department. of the Interior, October 6, 1902, Hawai'i State Archives).

Homesteads were sold in three series: the first series consisted of nine lots, which were sold between 1903 and 1909. These lots were much larger than the second and third series of lots sold. Seven of these lots averaged about 585 acres each. The two largest lots were 1,479.1 acres and 1,149.9 acres. The big-name families that obtained homestead lots at this time were Von Holt, McCandless and Dowsett. The majority of the Dowsett land was used to pasture cattle, with other portions being leased to the Sandwich Island Honey Company for apiaries (Commission on Boundaries 1862: 376: 237; 288: 324,331).

The second series of eleven lots were much smaller and consisted of 50 to 60 acres each. These were situated mauka of the main road, near the coast and were sold following 1907.

The third series consisted of 116 lots, some on land used by Wai'anae Sugar Company to grow cane. The lots varied in size from 4.86 acres to 18.18 acres. These lots were opened up in 1912, and by the early 1920s, about forty families had settled there (Haun 1991:331-332).

The Territorial Government did not fulfill its promise to supply water. What little water existed was not enough to go around. Competition between the plantation and homesteaders for water caused friction within the community. The lack of water placed a hardship on the homesteaders. Water had to be carried in and many families lost their crops. The Wai'anae Sugar Company had a lease with the Government to take 2.5 million gallons of water daily from Government lands. But even after their lease had expired, the plantation continued to take the water. In 1924, the Government made an agreement with the plantation to release 112,000 gallons of water daily for the homesteaders.

The early wave of homesteading passed by dry, barren Nānākuli. Because of its water shortage, parched Nānākuli had never attracted many residents. It remained a kiawe wilderness. Yet, the very fact that nobody wanted it turned the area into a kind of informal public park. Its magnificent beaches attracted a growing colony of squatters from all over O'ahu who were running out of places to camp... The entire island had been hung with Kapu signs. But not Nānākuli. There the tawny, crescent beaches were open to anyone. Some came for the summer. Others camped all year round. Most of them were Hawaiians. (McGrath et al. 1973:103)

In the mid-1920's, not counting squatters, there were only ten residents in all of Nānākuli. (McGrath 1973:107)

Under the Hawaiian Homes Commission Act, a second wave of homesteading occurred in the late 1920s and 1930s. This law established almost 200,000 acres for homesteaders of Hawaiian blood. Previous leases of Nānākuli land had expired by this time, and the land was subdivided for residential lots. By 1930, over 200 residential lots had been taken. Whether there would be sufficient water for the new homesteads, particularly because of continued consumption by the Wai'anae Plantation, was in question. Water came in through a two-inch pipe from the Lualualei water system, which was often dry (McGrath et al. 1973:108-118). The struggle over water found homesteaders embroiled in a water rights issue with Wai'anae Plantation that took several years of litigation to settle.

4.5.3 O'ahu Railway and Land Company

Benjamin Dillingham, a prominent business man and developer, envisioned populating the western side of O'ahu by introducing agriculture; however, the lack of water proved to be an obstacle until the discovery of artesian water solved the issue in the early 1880s. Dillingham saw that reliable transportation was needed to move crops from the west side of the island into Honolulu. With the help of several other businessmen and the Hawai'i state legislature, Dillingham formed the OR&L in February 1889. The first few miles of track were laid and functional by the end of that year. The OR&L stretched as far as Kahuku by 1899 and agricultural interests were using the rail to ship produce to Honolulu, for the benefit of all (Figure 15). By 1914 track had been laid to Wahiawa to ship pineapple from the Dole Plantation.

The military also used the rail system during development of Pearl Harbor and Schofield Barracks, and during World War II the OR&L carried ammunition, supplies, troops and defense workers. Passenger fares also added to the profitability of the OR&L in the early part of the 20th century.

After World War II the railroad was utilized less as the use of motorized vehicles became more economical. By 1947 all rail operations ceased outside of Honolulu, and the Department of the Navy took over the OR&L in 1950. The remnants of the OR&L, which consist of approximately 15 miles of track from Barbers Point to the Lualualei Naval Station, are the longest set of surviving tracks in Hawai'i (Cummins 1974; Conde and Best 1973).

4.5.4 The Military

In 1917, the State of Hawai'i gave the U.S. Government 31.6-acres for military use. This 31.6-acre parcel was located where Ka Waihona o ka Na'auao Charter School is presently located, and extended mauka into the valley. This site was named Camp Andrews and was used as a rest and recreation (R&R) area for military personnel, both prior to and during World War II (Figure 16 through Figure 19). Since then, the Federal Government has transmitted the Camp Andrews parcel back to the State of Hawai'i, which is the current landowner (Nakamura and Pantaleo 1994:19).

By 1929 over 8,184 acres of the McCandless Cattle Ranch land, "the area which now constitutes the Lualualei branch" (Haun and Kelly 1984:41) had been purchased by the U.S. military for the construction of a Naval Ammunition Depot for the ships of Pearl Harbor Naval Base (McGrath et al. 1973:113-118).

World War II greatly affected the Wai'anae coast. Military troops were sent in to train and practice maneuvers. Concrete bunkers and gun emplacements were built on the beaches and ridges, and barbed wire was strung along the beaches.

4.5.5 Modern Land Use

After World War II ended, the lower portions of Nānākuli and Lualualei Valleys were further developed into residential lots. In Nānākuli, the land *mauka* of the current residential area continues to be leased and utilized for animal husbandry including cattle grazing, horse ranches, and pig and poultry operations.

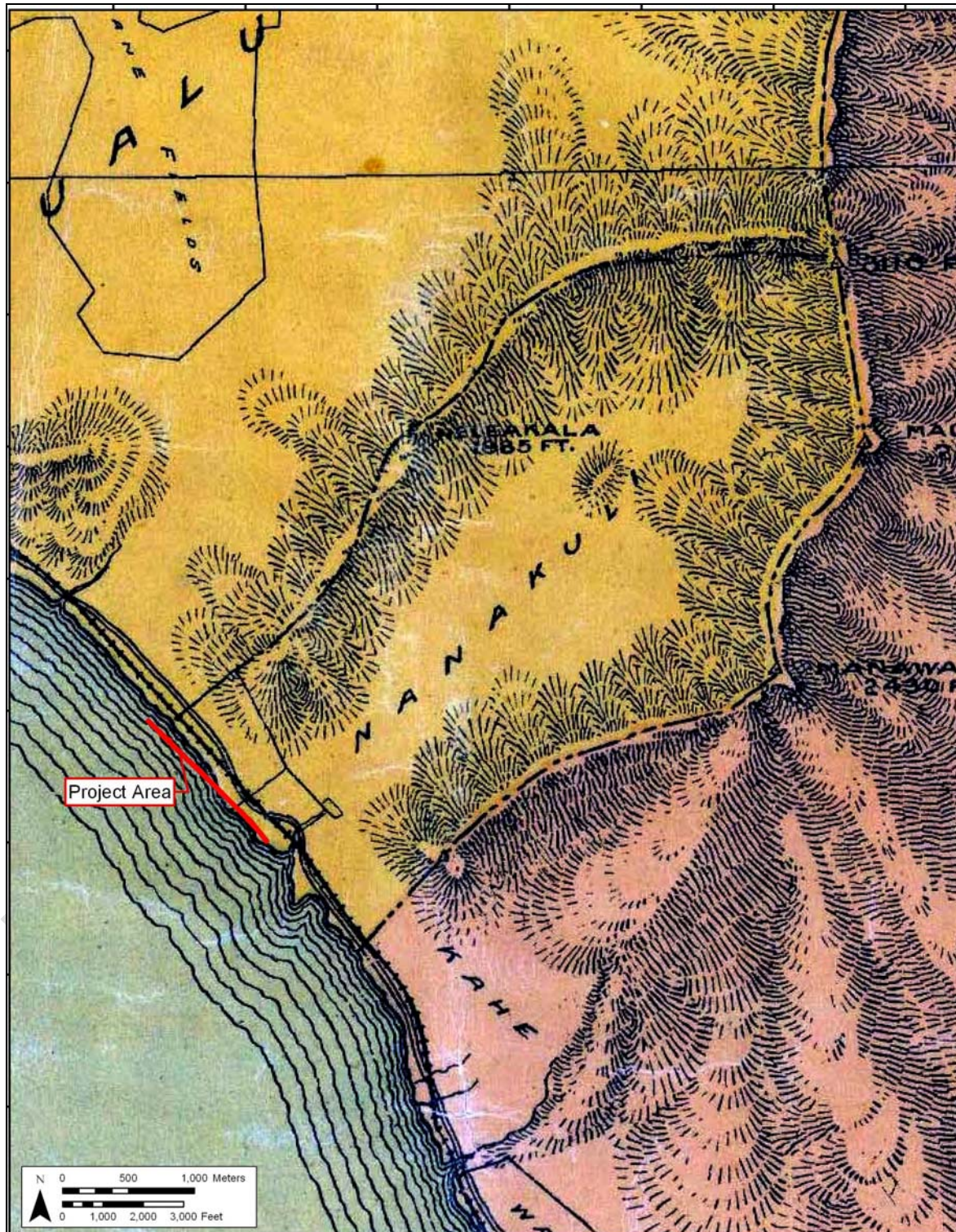


Figure 15. Portion of an 1899 Government Survey Map (Beasley and Taylor 1899) showing portions of Nānākuli and Lualualei Ahupua'a

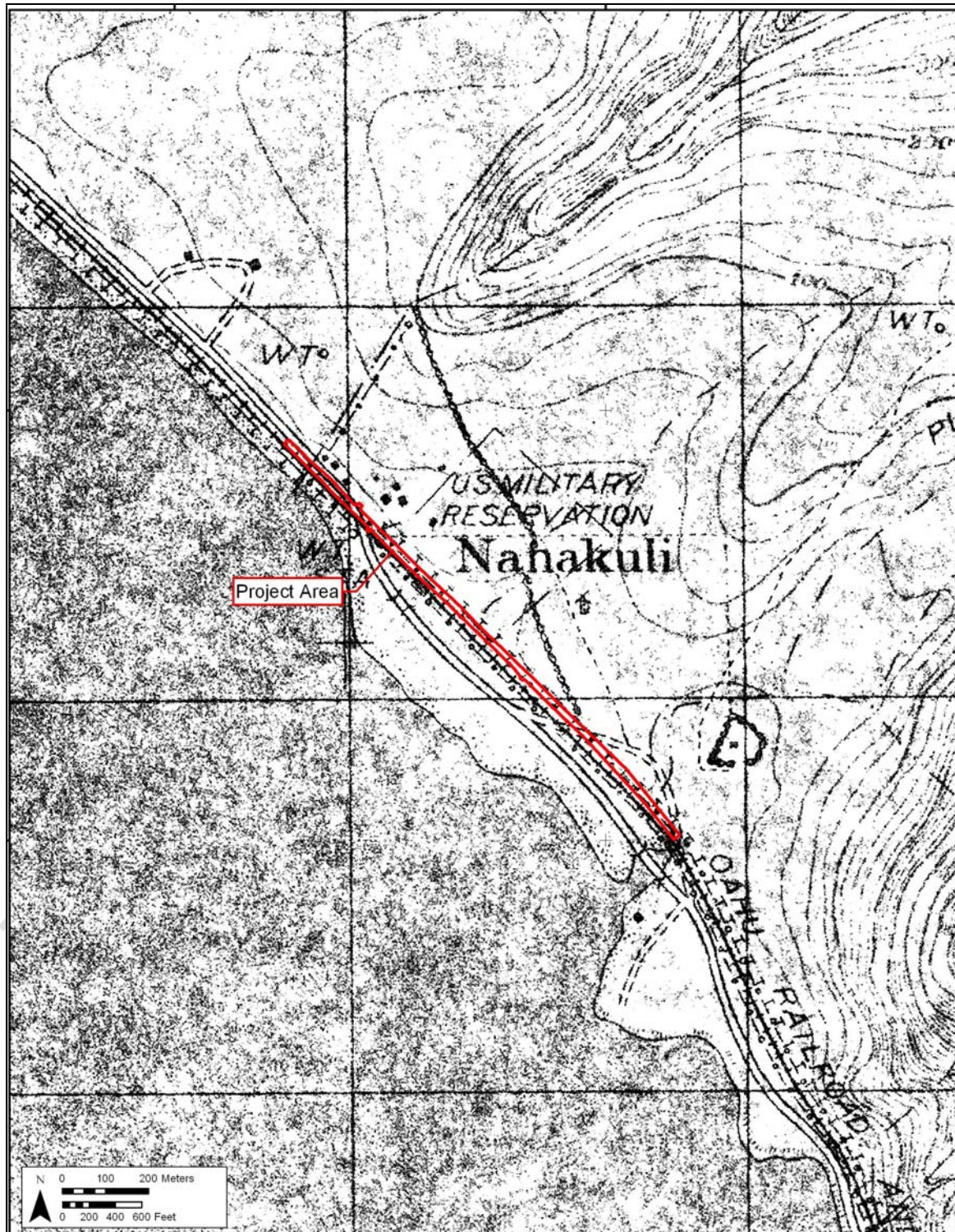


Figure 16. Portion of a 1919 War Department map showing the current project area. Note the presence of the railroad

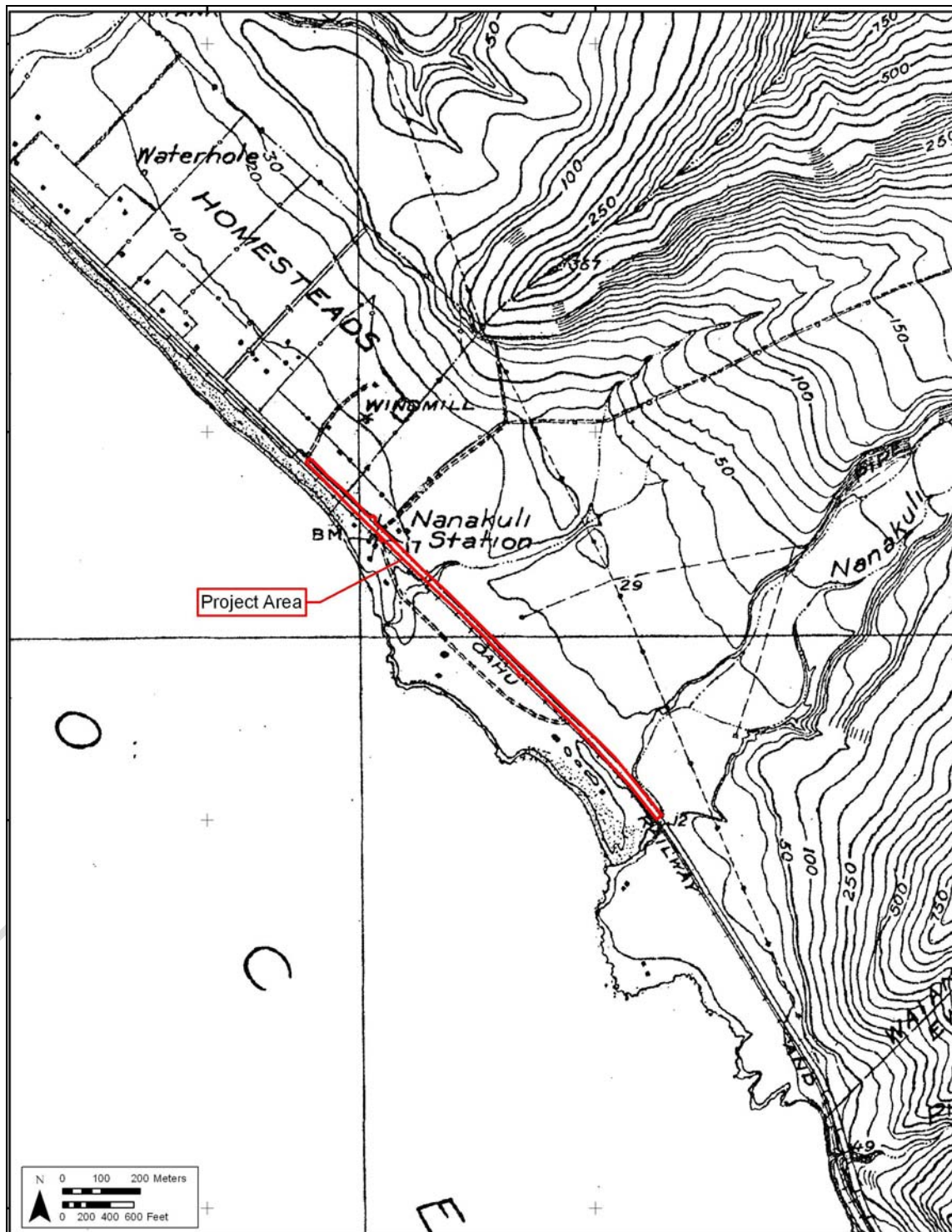


Figure 17. Portion of a 1927 U.S. Geological Survey map showing the project area. Note development of the area

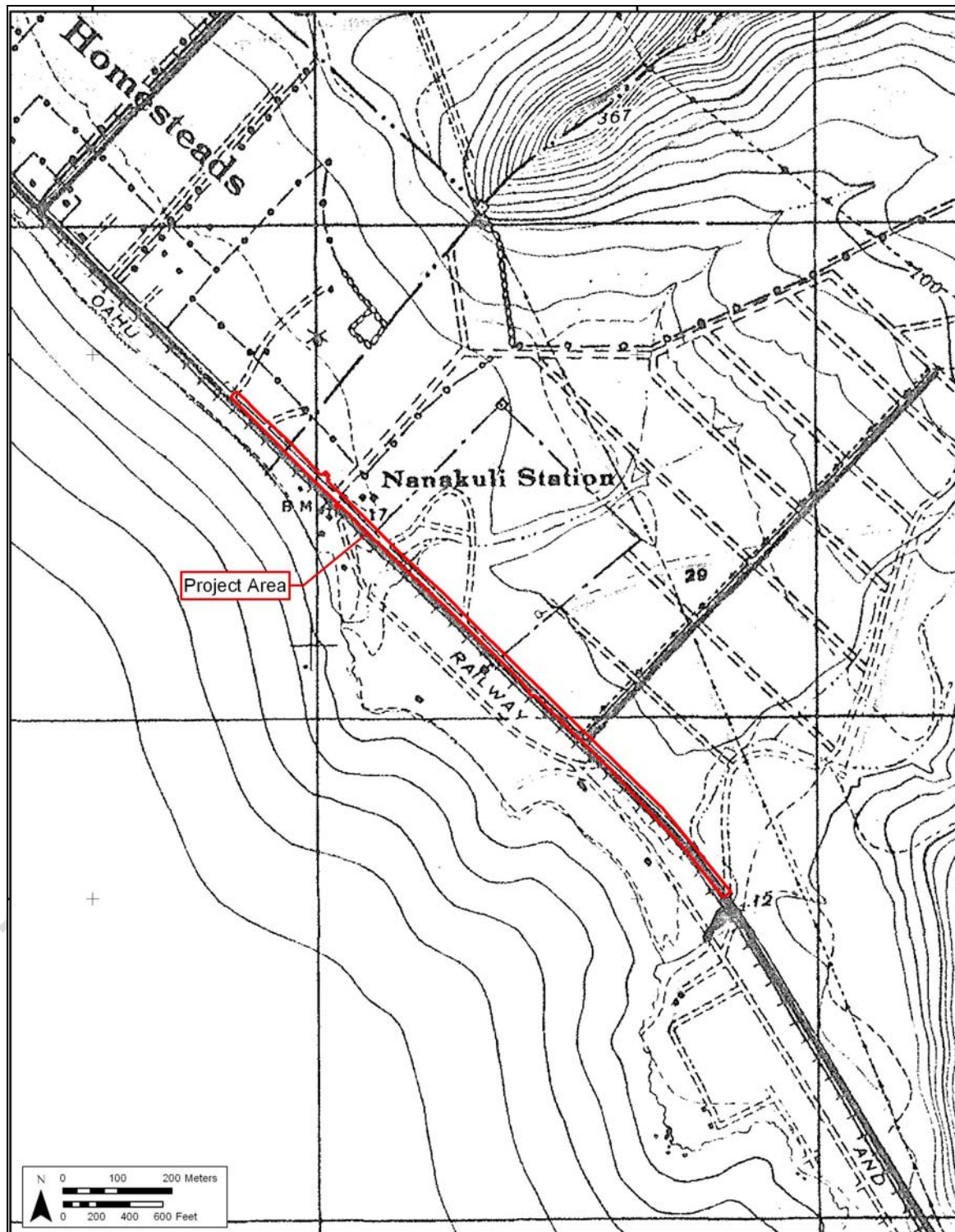


Figure 18. 1943 War Department map showing the current project area. Note development of the area northeast of the project

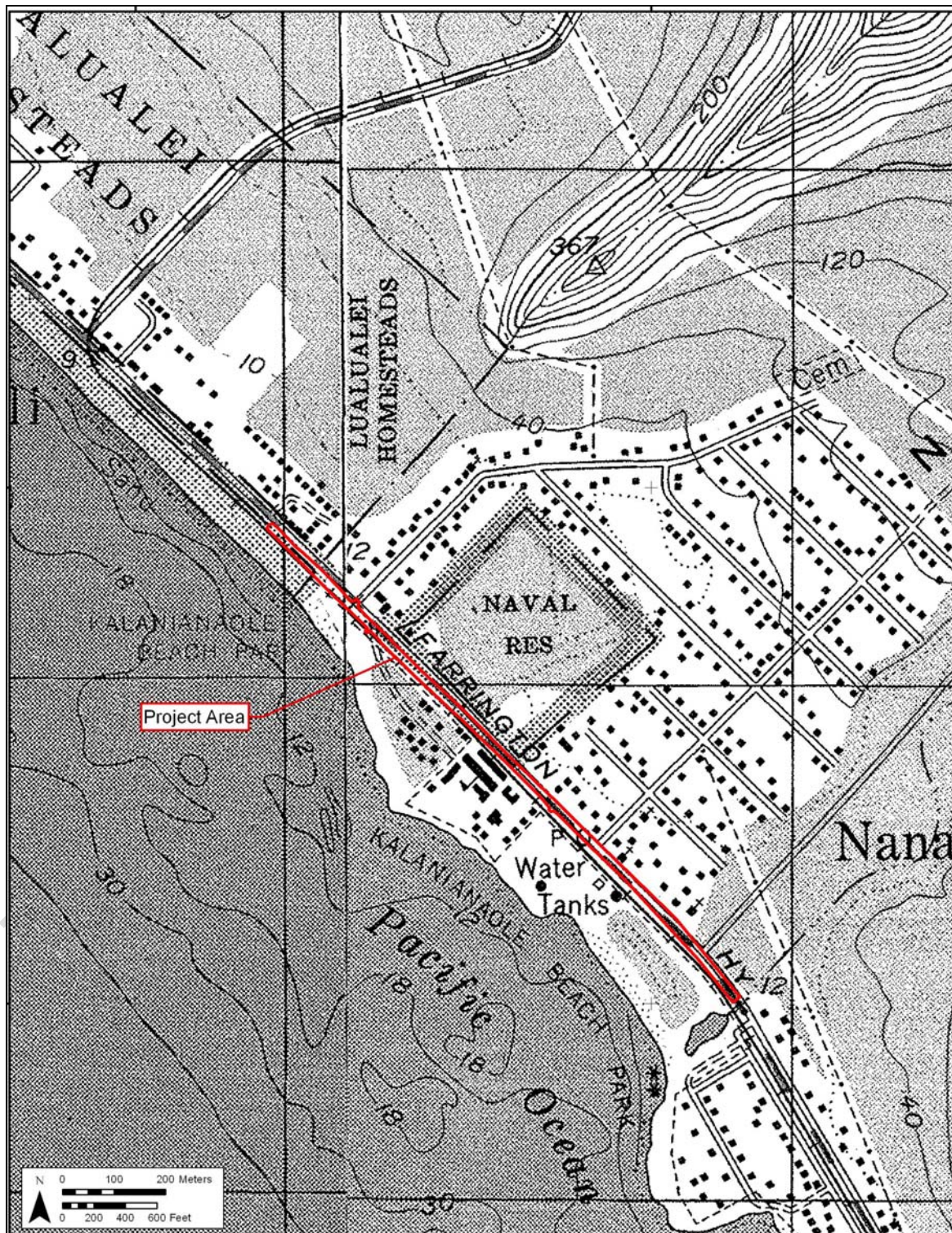


Figure 19. 1954 U. S. Geological Survey map showing the project area. Note the development of Nānākuli Town and Lualualei homesteads

Section 5 Archaeological Research

5.1 Overview

It is thought that Nānākuli Valley was initially settled as early as A.D. 1300 (Pak and Cordy 1990:4). As a relatively dry and arid area, Nānākuli was likely one of last places settled in the Wai'anae District. Early habitation likely occurred along the sandy coast, as abundant marine resources were readily available. Today, in and around the project area, these coastal areas, including the sand beach, low dunes and sand flats, have been significantly altered, and are covered by Ka Waihona o ka Na'auao Charter School, Nānākuli Beach Park, Farrington Highway, and nearby houses and other structures *mauka* of the Highway (Cordy 1997:12). To date, there has been minimal archaeological investigation in the beach areas of Nānākuli, and no sites have been previously recorded on Nānākuli Beach.

Interestingly, data from the tsunami that struck the Islands on April 1, 1946, indicate the surge reached a height of approximately 20 feet at Nānākuli. It is possible that this and/or previous tsunami events had a significant impact on the sand beaches and any burials or cultural materials they may have contained (Shepard et al. 1950:423). However as Cordy (1997:14) notes, "...although no sites were studied in the lower valley and along the sand shoreline, it should not be concluded that no sites are present here because these parts of Nānākuli are urbanized. Sites are still likely to be present in [this] area..."

According to a study of Nānākuli Valley in the 1930s by Handy (1940:83), there were at that time remnants of Hawaiian habitation at the head of the valley, in the form of abandoned terraces, stone platforms, and paving stones. This generalization, that most of the identifiable sites in Nānākuli are located in the upper valley, beyond where the streams converge, has been recently confirmed. According to Cordy (1997:8) and Pak and Cordy (1990:2), nearly all of the flat land between the west and east branches of Nānākuli Stream is covered with the ruins of agricultural fields. The extensive nature of these ruins indicates the entire upper valley floor, as well as the side valley, was landscaped to catch water run-off and create soil pockets. In addition to ruins of agricultural fields, this survey recorded remnants of other large enclosures, permanent and temporary habitation sites, field shelters, and work areas (Cordy 1997:8). A total of 26 permanent habitation sites were identified in the upper portion of Nānākuli Valley. Only two possible religious sites were identified and include one small shrine and a large structure interpreted to be a possible *heiau* (Cordy 1997: 10). The sites identified in Nānākuli are thought to be excellent examples of sites of their type in the Wai'anae District and may reflect broad patterns of settlement and development of dry-land agriculture systems (Pak and Cordy 1990:6).

5.2 Early Archaeological Studies

The first systematic archaeological survey of Nānākuli and Lualualei Ahupua'a was conducted in 1929 and 1930 by J. Gilbert McAllister as part of an island-wide survey of archaeological sites on O'ahu. McAllister identified only one site in Nānākuli and four sites in Lualualei (Figure 20).

In Nānākuli, McAllister's Site 147 is the now destroyed 'Ilihune Heiau, which was located at the mouth of Nānākuli Valley on the southeastern slope of Pu'u Heleakalā (Sterling and Summers 1978:80). The remnants of 'Ilihune Heiau were apparently used around 1860 as a cattle pen (McAllister 1933:110). Site 147 would have been located less than 500 feet south of the current project area (see Figure 20).

McAllister recorded four sites in Lualualei. The first of these, Site 148, is located approximately 1,000 ft. northeast of the current project area (see Figure 20). McAllister described these four sites as follows:

Site 148. Large rock said to be named Maui, about 1.1 mile from Nanakuli station toward Pu'u o Hulu...it was here that Maui reposed and sunned himself. In the bluff just northeast of the rock is a shelter in which he lived, and in the vicinity was a spring where he obtained water. The large rock is now split in half and adorned with many small, oddly-shaped rocks. It is said to be bad fortune to build one's house across a line drawn directly from the rock to the shore. (McAllister 1933: 110)

Site 149. Nioiula Heiau, Halona Ridge in Lualualei. The northern portion has been almost completely destroyed, the stones having been used for a cattle pen on the McCandless property... A paved and walled heiau said to be of the pookanaka class...The temple is said to have been very ancient, belonging to the chief, Kakuihewa. The heiau is in remnant condition due to stones being taken from the site to be used for a cattle pen. (McAllister 1933:111)

Site 150. House sites or heiau, middle of Lualualei at the foot of the cliffs in Pahoa...the cattle have scattered many a wall and terrace in grazing. (McAllister 1933:110)

Site 151. Kakioe heiau [destroyed] was located at Puhawai, Lualualei. A small heiau of which nothing now remains but its sacred spring. (McAllister 1933:110)

5.3 Previous Archaeological Research

Table 2 summarizes previous archaeological investigations in Nānākuli and Lualualei Ahupua'a. Figure 21 shows the location of previous archaeological projects in and around the subject project area.

In 1975, William Barrera conducted an archaeological site survey of approximately 80 acres at Mā'ili. Barrera recorded six sites including five stone configurations and a single midden scatter. Of these, four of the stone structures were thought to be either of modern origin or too amorphous to assess. However, one site, Site Ch-Oa-1, was thought to be, "quite probably an ancient religious structure (Barrera 1975:9)."

In October 1975, Ross Cordy conducted an archaeological excavation of Site Ch-Oa-1. Cordy observed no cultural deposits and concluded the structure was not of ancient religious significance, but rather a quite recent structure, likely built no earlier than 1930 or 1940, of unknown function (Cordy 1975).

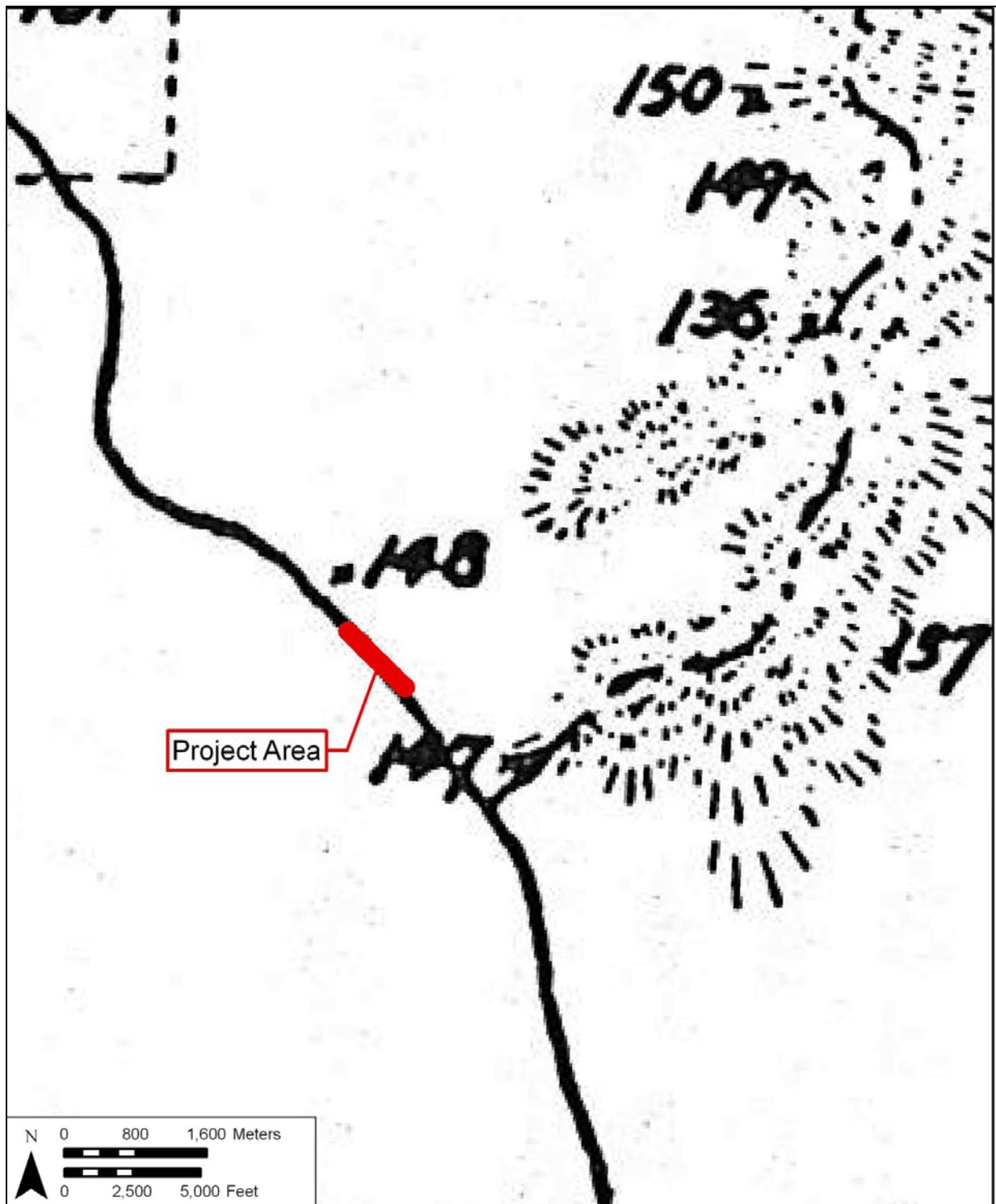


Figure 20. A portion of McAllister's 1933 map indicating locations of the sites he encountered during his survey. Note proximity of Sites 147 and 148 to the current project area

Table 2. Previous Archaeological Research Conducted in the Vicinity of the Project Area

REFERENCE	LOCATION	DESCRIPTION AND RESULTS
McAllister 1933	Nānākuli and Lualualei Ahupua'a	Island Wide Survey: McAllister recorded eight sites in or near Lualualei: Site 147, 'Ilihune Heiau; Site 148, rock called Māui; Site 149, Nioiula Heiau on Hālona Ridge; Site 150, House sites or <i>heiau</i> at Pāhoa Cliffs; Site 151, Kakioe Heiau at Pūhāwai; Site 152, Pu'u Pāhe'ehe'e Heiau; Site 153, Kū'īlioloa Heiau; and, Site 162, Mauna Kūwale Burial Cave; house sites and a petroglyph rock in the Ulehawa Beach Park
Barrera 1975	Mā'ili, Kaiser Pacific Prop. Corp. Land	Archaeological Site Survey: six sites found including a religious structure; C-shaped feature; two house sites; a possible site; and a midden scatter
Cordy 1975	Mā'ili, Kaiser Pacific Prop. Corp. land	Excavation of Site CH-0A-1: the religious structure in Barrera's (1975) report was excavated. This excavation found no evidence to confirm the site was a religious structure. Cordy concluded it was a modern structure built no earlier than 1930 or 1940
Bordner 1977	Lualualei Ahupua'a TMK 8-7-9	Reconnaissance Survey: performed on the proposed site for the Nānākuli landfill. The area included land on both sides of Lualualei Naval Road, continuing upslope to Pu'u Heleakalā. No historic properties were observed
Kennedy 1983	Mā'ili, TMK 8-7-06:32	Reconnaissance Survey: no archaeological sites were found on or within 50 feet of the proposed Wai'anae Corporation Yard Site
Hammatt and Shideler 1990	Mā'ili, Liopolo Street Burial, Site 50-80-08-4244	Archaeological Monitoring and Osteological Analysis: seven burials discovered in calcareous beach sand during installation of a Board of Water Supply 8-inch water main. Five burials were removed, and two were left in situ
Cordy et al. 1990	Nānākuli Ahupua'a TMK 8-9	Status Report 3 of the archaeological survey of Nānākuli Ahupua'a; covered the undeveloped areas of the valley and is summarized in Cordy 1997
Haun 1991	Naval Magazine and Naval Communications Area Transmission Facility TMK 8-6; 8-7; 8-8-01	Archaeological Reconnaissance Survey: included an 8,184-acre parcel, and a 700-acre parcel encompassing the entire inland portion of Lualualei Valley. 131 sites and 1,004 features identified; features are related to habitation, rituals, ceremonies, agriculture, lithic material procurement, and stone tool manufacture. Historical and recent structures associated with cattle ranching and military use were also identified

REFERENCE	LOCATION	DESCRIPTION AND RESULTS
Pak and Cordy 1990	Nānākuli Ahupua'a TMK 8-9-07, 08	Status Report 4 of the archaeological inventory survey of Nānākuli Ahupua'a; covered the undeveloped areas of the valley and is summarized in Cordy 1997
Chiogioji and Hammatt 1993	Lualualei Ahupua'a TMK 8-7-21:17	Archaeological Survey and Testing: (revised from the 1992 'Archaeological Investigations' report). This five acre parcel, formerly a basil farm, is situated between Pu'u o Hulu Ulehawa Stream. No historic properties were observed
Hammatt et al. 1993	Lualualei Ahupua'a Lualualei Golf Course TMK 8-7-9:2; 8-7-10:6&10; 8-7-19:1	Archaeological Inventory Survey: identified eight sites within the project area; two traditional Hawaiian sites including one habitation complex and the remnants of one wall, and six historic sites including a cattle wall, a furnace, wells, a house lot, and cement foundation structure.
Cordy 1993	Nānākuli Ahupua'a TMK 8-9	Archaeological Inventory Survey: 73 historic sites were observed and are summarized in Cordy 1997.
Jimenez 1994	Mā'ili Kai TMK 8-7-10:2	Additional Inventory Survey: conducted at four previously inventoried sites in the Mā'ili Kai project area. This inventory identified intact prehistoric and historic cultural deposits at two of the sites. A total of 25 of the 26 sites were considered significant for scientific information content and required no additional data collection. The remaining site was considered significant and recommended for additional data collection.
Mayberry and Rosendahl 1994	Mā'ili TMK 8-7-10:2, 14	Reconnaissance Survey: A total of 26 sites were located; 24 of these sites dated to the 20th century. A total of two of the 24 sites dated to the early to late 20th century, and the other 22 sites dated from 1930 to present. The remaining two sites consisted of rock features, possibly pre-dating the 20th century.
Nakamura and Pantaleo 1994	Nānākuli & Lualualei Ahupua'a	Reconnaissance Survey: 11 candidate sites for two State of Hawai'i projects indicated that there had been extensive surface disturbance in the region. This report anticipates the discovery of mainly historic era surface features related to agriculture, ranching, and military activities.
Ogden 1995	Nānākuli Ahupua'a TMK 8-9	Archaeological Subsurface Testing: in conjunction with Milcon P-313, Range Operations Center Naval Undersea Warfare Engineering Station Detachment, Lualualei. No significant prehistoric or historic cultural deposits were identified. All strata have 20 th century components which indicate recent land use.

REFERENCE	LOCATION	DESCRIPTION AND RESULTS
Ogden 1997	Lualualei Ahupua'a Lualualei Navel Magazine	Cultural Resource Literature Review: reviewed existing information on sites in the previously listed locations. Sites reviewed within NAVMAG-LLL included 197 sites with 1020 recorded features, and an additional 400 sites previously reported but not recorded; five sites with 11 features in NAVMAG-Waialeale; two sites in NAVMAG-West Loch; and Kolekole Rock was located near NAVMAG-LLL. Three sites listed in the National Register of Historic Places (NRHP) were located in the project area. They include the Nioiula Heiau in NAVMAG-LLL; 'Oki'okiolepe Fishpond in NAVMAG-West Loch; and the Pearl Harbor National Historic Landmark, Site 50-80-13-9992
Cordy 1997	Nānākuli Ahupua'a TMK 8-9	archaeological Inventory Survey: undeveloped portions of Nānākuli Valley (up to the Forest Reserve Line) revealed extensive ruins of agricultural sites, scattered permanent and temporary house sites, and possible religious structures in the upper portion of the valley. Very few sites were located in the lower portions of the valley. This report did not include the beach areas, as they have been urbanized, but did postulate that these sandy areas likely contain sites.
Dega 1998	Ulehawa Beach Park	Letter report regarding archival research and field reconnaissance
Ogden 1998	Lualualei Ahupua'a Radio Transmission Facility	Archaeological Reconnaissance Survey: A total of three sites were located on a 260-acre parcel. Site -5591 is composed of features associated with the sugarcane industry of the 19th and 20th centuries. Sites -1886 and -5592 are considered traditional Hawaiian sites; they include a permanent habitation site and a rock mound.
Hammatt et al. 1999	Nānākuli Ahupua'a	Archaeological Assessment: 15-acre parcel on the eastern, <i>mauka</i> , side of Farrington Highway. The parcel was formerly a portion of Camp Andrews, and pre-WWII installation. No pre-Contact Hawaiian sites were noted during the survey.
McDermott and Hammatt 1999	Nānākuli Ahupua'a TMK 8-9-08:3	Archaeological Inventory Survey: covered a proposed reservoir site at 242 ft. above sea level and the transmission main leading down to Farrington Highway. No significant historic properties were found.

REFERENCE	LOCATION	DESCRIPTION AND RESULTS
McDermott and Hammatt 2000	57.65 Acre Ulehawa Beach Park Parcel, Lualualei Ahupua'a TMK:8-7--05:01,03 and 05; 8-7-06:03; 8-7-07:01, 8-7-08:26.	Archaeological Inventory Survey: 4.85 kilometer long Ulehawa Beach Park extended as far south as the Lualualei and Nānākuli Ahupua'a boundary approximately 250 m north of Nānāikapono School. Identified four historic properties: 50-80-12-9714, the tracks of the OR&L railroad; 50-80-07-5761, three concrete World War II bunkers and two concrete foundations; 50-80-07-5761 and -5762 two discrete subsurface cultural layers
McDermott et al. 2001	Nānākuli Ahupua'a TMK 8-9-02:65	Archaeological Inventory Survey: 15-acre parcel on the eastern, <i>mauka</i> , side of Farrington Highway. The parcel was formerly a portion of Camp Andrews. Cultural and paleontological deposits, and a human burial are reported.
Sinoto and Pantaleo 2002	Nānākuli Ahupua'a TMK 8-9-01:02	Archaeological Monitoring Plan: site improvements at Nānākuli Beach Park. The improvements include reconstruction of all paved roads and reconstruction of the horseshoe pit just south of the community center. No surface archaeological features were observed during the site visit.
Whitehead and Cleghorn 2003	Nānākuli Water System Improvements, Nānākuli Avenue	Archaeological Monitoring for Nānākuli Water System Improvements, Nānākuli Avenue; no historic properties observed.
Yorck and Hammatt 2003	Nānākuli IV Elementary School Project, Nānākuli Ahupua'a TMK: (1) 8-9-02:65	Archaeological Monitoring Report: no historic properties observed.
Tulchin et al. 2003	Lualualei Ahupua'a, Pu'u Mā'ili'ili	Archaeological Inventory Survey: for the proposed Wai'anae 242 Reservoir and Access Road project area, on the northeast ridge of Pu'u Mā'ili'ili. A total of two possible field shelters and a cave were investigated, but there was little evidence that these were traditional Hawaiian sites.
Jones and Hammatt 2005	DHHL Subdivision in Nānākuli Ahupua'a TMK: [1] 8-9; 8-9-02:23, 36, 38; 8-9-03:63; 8-9-04:78, por. 79; 8-9-07:01	Archaeological Monitoring Report: no historic properties observed.

REFERENCE	LOCATION	DESCRIPTION AND RESULTS
LeSuer and Cleghorn 2005	Nānākuli Beach Park (Zablan Beach Park) Parking Lot Improvements	Archaeological Monitoring Report for Nānākuli Beach Park (Zablan Beach Park) Parking Lot Improvements Project; no historic properties observed.
Ostroff and Diselets 2005	Waterline installation on Farrington Highway TMK 8-7-07, 08, 17, 26, 31, 33-35, 44 and 8-9-01, 02, 05-07	Archaeological Monitoring Report: identified a charcoal enriched sand deposit possibly associated with previously recorded Site 50-80-07-5763, as well as four other charcoal deposits. No artifacts were observed in association with any of the deposits.
McIntosh and Cleghorn 2006	Ulehawa Beach Park TMK: (1) 8-7-005:001	Archaeological Monitoring Report: identified Site 50-80-07-6771 including a pre-Contact component of at least two human burials and a post-Contact component of two recent trash pits.
O'Leary and McDermott 2006	Lualualei Ahupua'a, southwestern slopes of Pu'u Heleakalā	Archaeological Inventory Survey; a total of two historic properties identified including SIHP No. 50-80-08-6699 (pre-Contact rock shelter) and SIHP No. 50-80-08-6681 (WWII concrete bunker)
Stein and Hammatt 2006	Nānākuli Ahupua'a TMK: (1) 8-9-001:002	Archaeological Monitoring Report: no historic properties observed.
Tulchin and Hammatt 2007	Mā'ili TMK: [1] 8-7-010:007	Archaeological Assessment: no historic properties observed.
Tulchin et al. 2007	Wai'anae Sustainable Communities Plan Project TMK [1] 8-7-023:060	Archaeological Assessment: no historic properties observed.
Yucha and Hammatt 2008	Nānākuli Beach Park (School Location) TMK: (1) 8-9-001:002	Archaeological Monitoring Report for a Sewer Connection: No archaeological deposits were identified as a result of the project's monitoring program. The project area's subsurface deposits appear to have been disturbed by construction and landscaping, which included extensive earthmoving activity and importation of fill sediments into the project area.

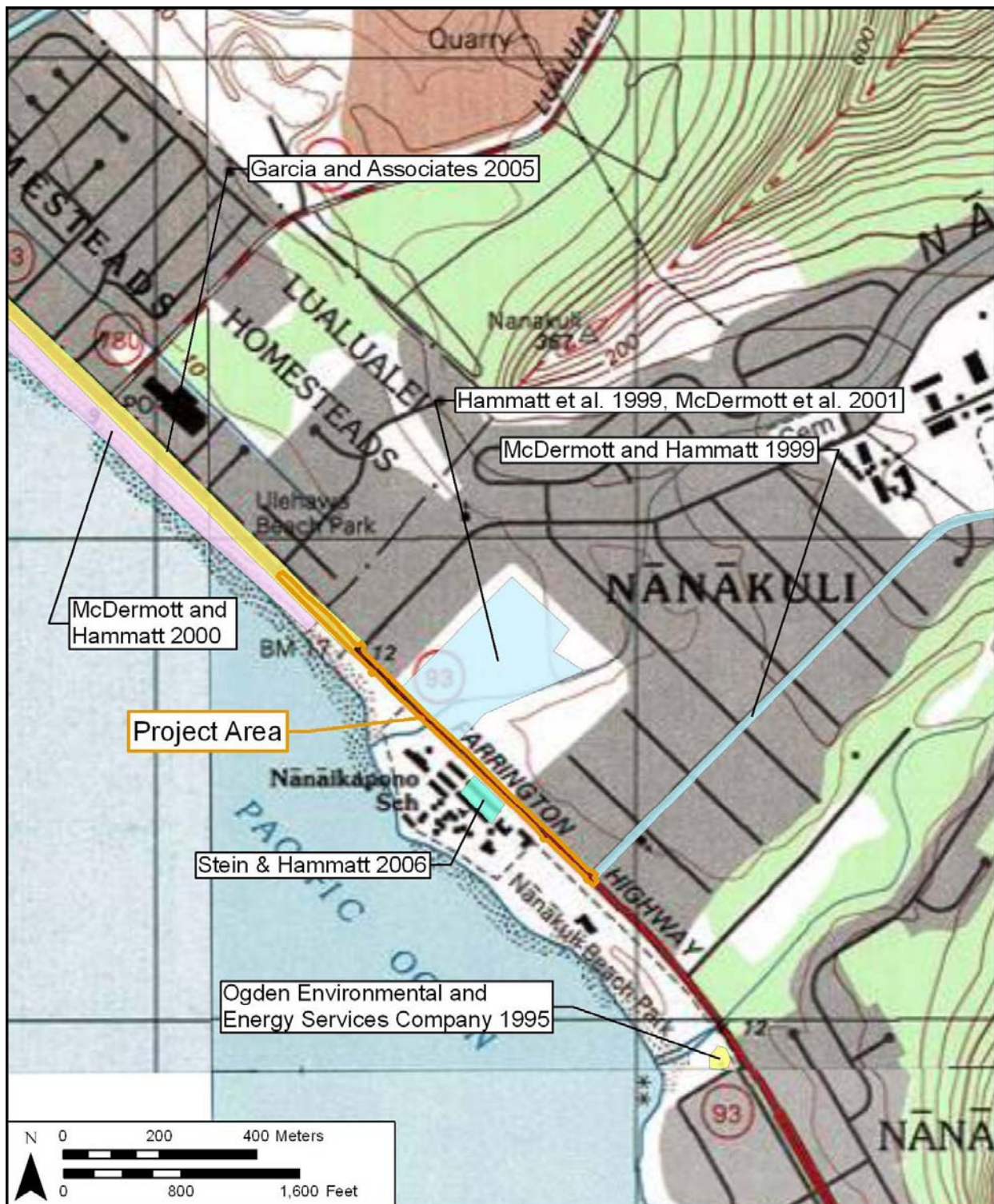


Figure 21. Previous archaeological studies in the vicinity of the project area

Also in 1975, Cordy conducted an archaeological survey of an additional 130 acres at Mā'ili. As a result, Cordy identified 19 sites including stone walls, mounds, enclosures, platforms, C-shapes, a trench with bridge, and a trail. Cordy notes that much of the surveyed land had been recently impacted by bulldozing activity for quarrying purposes and concluded "Most of the sites found in this survey are walls, highly disturbed sites, or seemingly recent (ca. AD 1890-1970) sites (Cordy 1976:21)." His conclusions are largely based on associated historic or modern surface artifacts. He recommended archaeological test excavations of a C-shape enclosure, five platforms, and a rock enclosure.

No archaeological sites were observed during a 1977 reconnaissance survey for the proposed Nānākuli landfill (Bordner 1977). The survey area included land on both sides of Lualualei Naval Road, continuing upslope to Pu'u Heleakalā. Bordner observed that the landscape had been extensively altered either by quarrying or ranching operations.

An archaeological reconnaissance survey for the proposed Wai'anae Corporation Yard was completed in 1983 (Kennedy 1983). No archaeological sites were found in the project area, which was on the coast along Mā'ili Point, well north of the present study area.

The areas surveyed by Barrera and Cordy in the 1970s were subsumed in a 415-acre "Mā'ili Kai Property project area" (TMK 8-7-10: 2, 14) that was the subject of an archaeological reconnaissance survey conducted by Paul H. Rosendahl, Inc., in December 1987. The survey report (Mayberry and Rosendahl 1988) noted "large scale ranching, land clearing, and quarrying from 1851 to the present have been destructive to the natural and cultural environments" of the project area (Mayberry and Rosendahl 1994). The report documented 12 new sites and the reinvestigation of 14 sites previously recorded by Barrera and Cordy. A total of 24 of the 26 sites in the project area were dated to the 20th century. Only two small sites, rock features without associated artifacts, may predate the 20th century (Mayberry and Rosendahl 1988:ii). A total of five sites were recommended for subsurface testing including Site SIHP #50-80-08-3344, a platform; Site SIHP #50-80-08-3750, a C-shape enclosure; Site SIHP #50-80-08-3755, a rock mound/platform; Site SIHP #50-80-08-3335, a sink well and wall; and Site SIHP #50-80-08-3339, a stone enclosure and wall.

In 1990, several burials were inadvertently discovered during excavation work associated with improvements to the Mā'ili water system (Hammatt and Shideler 1990). The water main work uncovered seven burials found in calcareous beach sand. A total of five of the burials were removed and two were left in situ. The five sets of removed human remains were examined to determine ethnicity and all were found to be Polynesian. The report concludes that the concentration of burials indicates a "specific burial ground for one or more Hawaiian families of the Mā'ili area during prehistoric or early historic times" (Hammatt and Shideler 1990:23).

An archaeological reconnaissance survey of the "Naval Magazine, Lualualei (NAVMAG LLL) and Naval Communications Area Master Station Eastern Pacific Radio Transmitting Facility, Lualualei (RTF LLL)" was conducted in the mid-1980s. The survey encompassed more than 9,000 acres, "the entire half of the large amphitheater-shaped valley, and approximately one-third of the coastal half" (Haun 1991:4). A total of 131 sites, consisting of 1,004 features, were identified during the survey. Indigenous Hawaiian feature types were recorded and include alignments, C-shapes, L-shapes, U-shapes, walls, terraces, enclosures,

mounds, platforms, walled terraces and paved terraces. The features recorded relate to activities including habitation, rituals, ceremonies, agriculture, the procurement of lithic raw material, and the manufacture of stone tools. Historical and modern structures associated with cattle ranching and military activities were also identified. A total of 14 shovel probes provided datable material (charcoal and volcanic glass), as well as cultural materials (artifacts and midden). Radiocarbon dates range from A.D. 1420 to 1950. It is suggested that the interior of Lualualei Valley was initially occupied on a temporary basis by people cultivating the area. This may have begun as early as the mid-1400s, and continued to the early 1800s. Permanent habitation sites were occupied, and population of the valley evidently increased rapidly, based on the dense distribution of habitation and agricultural features (Haun 1991:vii).

Cultural Surveys Hawai'i conducted an archaeological study on a 5-acre parcel, formerly a basil farm; no archaeological remains were documented (Chiogioji and Hammatt 1993). The parcel was situated between Pu'u o Hulu and Ulehawa, north of the current study area.

An archaeological inventory survey of an approximately 170-acre parcel, located southeast of the Naval Magazine, was conducted by Cultural Surveys Hawai'i (Hammatt et al. 1993). The parcel is described as comprising "vacant, unused lands. It is undeveloped and contains several remnant and abandoned historic structures (Hammatt et al. 1993:7)." A total of eight archaeological sites were identified, including "two traditional Hawaiian sites and six historic sites related to ranching and military activities (Hammatt et al. 1993:i)." The two traditional Hawaiian sites, SIHP #50-80-08-4366 (a site complex) and SIHP #50-80-08-4367 (a wall remnant), were attributed to traditional Hawaiian activity, with one site, SIHP #50-80-08-4366, likely representing prehistoric, recurrent habitation at the foothills of Pu'u Heleakalā. This is demonstrated by the presence of a hearth feature within the site complex. Site SIHP #50-80-08-4367, a remnant wall section present adjacent to an intermittent streambed, indicates agricultural usage, and was likely constructed to retain or divert water. Given the weathered condition of the structure, the site is likely pre-Contact in age (Hammatt et al. 1993:28).

In 1993, Jimenez conducted subsurface testing of the sites recommended for further testing during the Rosendahl study (Jimenez 1994). The sink well and wall (SIHP #50-80-08-3335) had been destroyed during Phase I of the development, so no further archaeological testing could be conducted on that site. Of the remaining sites tested, only one, SIHP #50-80-08-3750, produced evidence of pre-Contact use. This C-shaped enclosure yielded small amounts of lithics, midden, and charcoal. Radiocarbon dates indicate the site was used as a temporary habitation during the late prehistoric period. Further data collection was recommended for this site.

The central lowlands, including the currently developed areas, are highly eroded and generally lack evidence of archaeological sites (Ogden Environmental and Energy Services, Inc. 1995:9). If surface structures related to such agricultural pursuits did exist in the lower valley portions of Nānākuli Ahupua'a, historic cattle ranching and development activities most likely eradicated them.

A literature review and reconnaissance survey was conducted by Ogden Environmental and Energy Service Co., Inc. (1997) within NAVMAG-LLL and included 197 sites with

1,020 recorded features, and an additional 400 sites that had been reported but not recorded. These included 5 sites with 11 features in NAVMAG-Waialeale; 2 sites in NAVMAG-West Loch; and Kolekole Rock was located near NAVMAG-LLL. A total of three sites listed on the National Register of Historic Places (NRHP) were located in the project area. They include Nioiula Heiau in NAVMAG-LLL; 'Okī'okīolepe Fishpond in NAVMAG-West Loch; and the Pearl Harbor National Historic Landmark, NRHP Site 50-80-13-9992.

An archaeological survey of 260 acres of the Lualualei Ahupua'a Radio Transmission Facility was carried out to locate archaeological sites and incorporate them into a Cultural Resource Management Plan (Ogden Environmental and Energy Services Co., Inc. 1998). A total of three sites were located including Sites 50-80-08-5591, 50-80-08-5592 and 50-80-08-1886. Site 50-80-08-5591 is composed of features that are associated with the sugarcane industry of the 19th and 20th centuries. Site 50-80-08-5592, a permanent habitation site, and Site 50-80-08-1886, a rock mound, are considered traditional Hawaiian sites. The report indicates that areas inland from the coast may once have been more heavily settled.

In 1999, McDermott and Hammatt (2000) conducted an inventory survey on a 57.65-acre parcel of Ulehawa Beach Park. A total of two subsurface cultural layers, designated Sites SIHP #50-80-08-5762 and SIHP #50-80-08-5763, were encountered during test excavations which covered approximately 2% of the project area. The deposits consisted of midden (marine shell, fish bone, etc.) and both indigenous (fish hooks, volcanic and basalt flakes) and historic (glass, metal, and concrete fragments) artifacts. Of particular interest was a nearly complete, barbless pearl shell fishhook with an unusually deep v-bend reminiscent of Marquesan or Tahitian hooks. This type of fishhook is considered atypical for Hawaiian fishhooks. Both cultural layers appeared to date to late pre-Contact or very early post-Contact times. The scant midden and artifact assemblages recovered indicate there is little evidence of permanent or recurrent habitation along the coastal area and further enforce the consensus that traditional Hawaiian settlement was concentrated inland.

Also noted in the McDermott and Hammatt report, there is an area identified by a local informant to contain burials and cultural deposits (McDermott and Hammatt 2000:43). Mr. Walter Kamanā's comments:

The land from the bathrooms, just north of Ulehawa drainage, on around Mā'ili point is all *kapu* [taboo] ground. The night marchers are active at this place. There have been problems associated with that area, including violence and tragedy, including car wrecks. There were lost souls at that place in Hawaiian times. It is likely that you will find Hawaiian remains in the area. There are burials there on the *makai* side of Farrington Highway. A testing crew went in there to test the area, but Mr. Kamanā did not know what for. Bones were found, but the public was not informed.

Just beyond Hakimo Road, on the *makai* side of Farrington Highway, is a place called by the Japanese "Takamina", where the Japanese shrine stands today [a "fishing marker" approximately 500 m north of Hakimo Road]. The Japanese shrine is not only important because of the Japanese culture and beliefs, but because of Hawaiian culture and beliefs as well. It was formerly a shrine area for the Hawaiians, but the shrine area has been largely forgotten by local

Hawaiian residents. The shrine area should be respected at all times. Mr. Kamanā mentions it as a “Point to Point (?) burial ground.” That place must be respected. (McDermott and Hammatt 2000:43)

In 2000, an archaeological inventory survey of 57.65 acres was conducted in Ulehawa Beach Park, Lualualei Ahupua'a (McDermott and Hammatt 2000). The survey was located roughly north of the current project area with the southern portion of the survey just west of the current project area on Ulehawa Beach. Fieldwork conducted included a pedestrian survey and subsurface testing of 44 backhoe trenches and 11 shovel test units. Two historic sites including a railroad line (SIHP # 50-80-12-9714) and military related structures with component features (SIHP # 50-80-07-5761) were identified. Additionally, two subsurface cultural layers (SIHP# 50-80-07-5762, and SIHP # 50-80-07-5763) were identified that yielded approximately 60 basalt and volcanic glass flakes and two fish hook fragments. One of these fishhook fragments was nearly complete and considered more reminiscent of certain Marquesan or Tahitian hooks. A total of two shovel tests were conducted just west of the current project area in Ulehawa Beach Park between Helelua Street and the *ahupua'a* boundary line; however no cultural material was observed, and only mixed strata and fill were observed in the stratigraphic sequence. A portion of the OR&L railroad was also recorded in this area.

An archaeological inventory survey was conducted at Nānākuli IV Elementary School, within former Camp Andrews lands just inland from Ka Waihona o ka Na'auao Charter School. Paleontological and cultural deposits and human remains within pit caves (“sinkholes”) of the raised reef limestone were observed (McDermott et al. 2001). More recent studies at the former Nānāikapono School, (present name is Ka Waihona o ka Na'auao Charter School) (Yorck and Hammatt 2003) and the Nānākuli Beach Park Recreation Center Project (Stein and Hammatt 2006) have reported minimal finds.

CSH (Tulchin et al. 2003) conducted an inventory survey of the proposed Wai'anae 242 Reservoir and Access Road project area, on the northeast ridge of Pu'u Mā'ili'ili. A total of two possible field shelters and a cave were investigated, but little evidence was observed to indicate these were traditional Hawaiian sites.

In 2005, Garcia and Associates (Ostroff and Desilets 2005) monitored installation of a water line along Farrington Highway between Hakimo Road and Haleakalā Avenue. As a result, one charcoal enriched sand deposit possibly associated with previously recorded Site 50-80-07-5763, as well as four other charcoal deposits, were identified. No artifacts were observed in association with any of the deposits. This project area overlaps the current project area between Haleakalā Avenue and Helelua Street. One charcoal deposit, BWS-4, is also present between these streets.

In 2006 McIntosh and Cleghorn documented archaeological monitoring that identified Site 50-80-07-6771, which included a pre-Contact component of at least two human burials and a post-Contact component of two recent trash pits. Charcoal associated with one of the burials was dated between AD 1300 and 1430.

In 2007, CSH conducted an archaeological assessment of an approximately 6-acre parcel. No historic properties were observed. Tulchin and Hammatt concluded that disturbances

associated with historic land use activities including historic agriculture and military activities, as well as modern trash dumping and bulldozing, have removed the presence of any surface historic properties and/or artifacts that may have been present within the project area (Tulchin and Hammatt 2007).

In 2007, CSH conducted subsurface testing for the Wai'anae Sustainable Communities Plan Project (Tulchin et al. 2007). The fieldwork included excavation of 16 backhoe trenches distributed throughout the project area to provide representative coverage and assess the stratigraphy and potential for subsurface cultural resources within the project area. They concluded that extensive disturbance associated with the dredging of a drainage canal, the filling of marshlands, and the construction of a now defunct subdivision would have removed or destroyed any historic properties that may have been present within the project area. Additionally any subsurface cultural deposits that may have been present would have been severely disturbed or completely destroyed by the installation of subsurface utilities (water, sewer, electric, etc.) within the project area associated with the construction of the subdivision.

5.4 Studies in the Vicinity of the Current Study Area

One CSH archaeologist, Kendy Altizer, B.A., completed the field inspection on May 20, 2009, which confirmed that the project area is in an urban "built environment" and will impact a portion of the OR&L, SIHP # 50-80-12-9714, which is listed on the National Register of Historic Places (Figures 22 through Figure 24). No other historic properties were observed.

The railroad tracks at the intersection of Farrington Highway and Haleakalā appear to be in overall good condition. Grass has overgrown the tracks in some areas; however railroad ties and base course are still visible in most areas. This section of the track is bermed from the road by lava rock, approximately 1 course high. The distance between the berm and the white stripe of Farrington Highway is approximately 6 ft., and the tracks are approximately 12 ft. from the white stripe of the road. The berm elevates the tracks approximately 2 ft. above the road surface in this area. The railroad tracks at the intersection of Farrington Highway and Nānākuli Avenue appear to be in similar condition on the southern side of the intersection. The berm is approximately 10 ft. from the white stripe of the road, and the tracks are approximately 14 ft. from the white stripe of the road.

The tracks on the northern side of the intersection are at a similar elevation to the road surface, there is no visible berm in this area, and the grass is cleared in this section of track. The ties and base course are more visible in this section of track, though sand is partially covering them. A bus stop is present on this side of Nānākuli Avenue, between Farrington Highway and the railroad tracks.

5.5 Background Summary

Cordy (1998) has provided a synthesis of the settlement patterns and prehistory of the Wai'anae District that places the settlement of Wai'anae into the wider context of the settlement of O'ahu. The windward side of O'ahu was found most appealing to early

inhabitants because of well watered agricultural lands, abundant marine resources and close proximity to forest resources. Foraging trips to the dryer areas of the island would have occurred, and were most likely associated with, recurrent temporary habitation used during resource procurement. The rich marine resources of the Wai'anae District, particularly the fishing grounds off shore, would have been a strong draw for early O'ahu inhabitants. As population in the windward areas increased, permanent settlements began to populate the well watered regions of the leeward side as well. Eventually, with further population expansion, permanent settlement spread to the less watered regions of the leeward side, which included much of the Wai'anae District and all of the current project area (Cordy 1998: 1-6).

Prehistorically, land use in Nānākuli was most fruitful near the sea and particularly in the mountainous interior, where there was sufficient rainfall for agriculture and forest resources. The intervening lands between the sea and the mountains were dry scrubland. Although potentially useful for dry land agriculture in the wet winter months, it is unlikely that Hawaiians would have largely utilized this area. The settlement pattern prior to western contact for this region was likely dispersed residences concentrated at the sea and in the mountains. Prior research indicates one residence per family. It is suggested by an account provided by Pukui (cited in McGrath et al. 1973: 10), that there existed an informal exchange network whereby coastal dwellers traded marine resources for the agricultural and forest resources of inland dwellers.

Archaeological investigations (Sterling and Summers 1978; Cordy 1997; Pak and Cordy 1990; McDermott and Hammatt 2000) of the upper portions of Lualualei and Nānākuli Valleys have located the remains of habitation, ceremonial, and agricultural structures. The extensive archaeological survey of the *mauka* portions of these valleys is offset by a paucity of archaeological investigation in their coastal portions. However, based on information from long-time residents of the area, traditional accounts and context, it is likely that the coastal areas of Nānākuli will contain cultural deposits related to habitation, including human burials.

Available radiocarbon dates indicate that by A.D. 600-800, there was temporary coastal habitation on the Wai'anae coast. This dated sample comes from the area fronting Pōka'i Bay, one of the only areas along the Wai'anae Coast to have a perennial stream reach the coast, and undoubtedly one of the more attractive areas for early temporary and later, permanent settlement (Cordy 1998: 6). Radiocarbon dates from permanent inland habitation contexts within Nānākuli indicate that permanent settlement began by A.D. 1200-1400 (Cordy 1997: 9). Extensive archaeological survey of inland Lualualei has yielded radiocarbon dates from permanent habitation contexts dating to A.D. 1620, with earlier dates (mid 1400's) for temporary habitation structures (Haun 1991: 237).

Although we have no early coastal dates for Nānākuli and adjacent Lualualei, the early coastal date from Pōka'i Bay and the *mauka* dates from Lualualei and Nānākuli provide a plausible temporal context for coastal settlement within the current project area. The current project area is less watered than the area of Pōka'i Bay. However, the marine resources were likely equally abundant in both areas. Accordingly, it is likely that the first temporary habitation of the current project area was later than the A.D. 600-800 time frame for Pōka'i Bay. However, if there is inland settlement and resource procurement by circa A.D. 1200-

1400, it is likely that initial coastal temporary habitation, associated with marine resource procurement, predated this inland settlement.

By the mid-1800s, the traditional Hawaiian lifestyle in the Nānākuli declined. The sandalwood trade, which ended circa 1829, undoubtedly had a negative effect on the Native Hawaiian population. Beginning at this time, both areas began their cattle ranching periods. The introduction of sugar plantations and the construction of the OR&L railroad, which was linked to Wai'anae in 1895, brought more foreigners. Based on the scarcity of LCAs claimed within these *ahupua'a* and early population figures, it appears the Hawaiian population was quite low in the latter half of the 19th century.

Population numbers slowly increased when homesteading was instituted in the early 1900s. Military use of the land began in 1917 and WWII greatly affected the landscape of the Wai'anae coast by placing bunkers, gun emplacements and barbed wire along the waterfront.



Figure 22. Portion of the OR&L railway that will be impacted by the current project, view north



Figure 23. Portion of the OR&L railroad showing basalt siding, view north



Figure 24. Portion of the OR&L railroad showing rail and ties still in place, view west

Section 6 Community Consultation

6.1 Community Consultation Effort

Throughout the course of this CIA, an effort was made to contact and consult with Hawaiian cultural organizations, government agencies, and individuals who might have knowledge of, or concerns about, cultural practices and resources related to the proposed project. This effort was made by letter, email, telephone and in person. In the majority of cases, letters along with a map and an aerial photograph of the project area were mailed with the following text:

At the request of Parsons Brinckerhoff, Cultural Surveys Hawai'i (CSH) is conducting a Cultural Impact Assessment (CIA) for the Farrington Highway Intersection Improvements, Nānākuli Avenue and Helelua Street Project in Nānākuli and Lualualei Ahupua'a, Wai'anae District, Island of O'ahu (multiple TMK). The 0.8-mile project area encompasses Helelua Street to Nānākuli Stream. The taper for the auxiliary lane would start at Helelua Street and end near the western bank of Nānākuli Stream. Work would be within the 101-ft. right-of-way.

The Hawai'i Department of Transportation (HDOT) is proposing to:

Widen Farrington Highway on the makai side in order to accommodate an auxiliary lane that would facilitate left turns at Nānākuli Avenue and Haleakalā Avenue;

Construct a shared-use path along the makai side within HDOT right-of-way [anticipated to connect up with a separate HDOT project (the Leeward Bike Plan) that goes up to Lualualei Naval Road];

Provide drainage improvements (including addition of curbs and gutters along the mauka side; culvert extension on the makai side, etc.);

Install highway lighting and possible utility relocations within the right-of-way.

The purpose of this CIA is to evaluate potential impacts to cultural practices and resources as a result of the proposed development in Nānākuli Ahupua'a. We are seeking your kōkua and guidance regarding the following aspects of our study:

- General history and present and past land use of the project area.
- Knowledge of cultural sites which may be impacted by future development of the project area - for example, historic sites, archaeological sites, and burials.
- Knowledge of gathering practices in the project area both past and ongoing.
- Cultural associations of the project area, such as legends and traditional uses.

- Referrals of kūpuna or elders and kama'āina who might be willing to share their cultural knowledge of the project area and the surrounding ahupua'a lands.
- Any other cultural concerns the community might have related to Hawaiian cultural practices within or in the vicinity of the project area.

Several (3-5) attempts were made to contact individuals, organizations, and agencies apposite to the CIA for the Farrington Highway Intersection Improvements Project. The results of all consultations are presented in Table 3. Excerpts from more extensive interviews and statements specifically related to the project are presented in Section 7 below.

Table 3. Community Consultation

Name	Affiliation	Comments
Ailā William	Hui Mālama I Nā Kūpuna 'o Hawai'i Nei	CSH mailed initial letter on September 8, 2009. CSH followed up via email on September 14, 2009.
Awana, Karen Leinani	State Representative for Nānākuli	CSH mailed initial letter on August 25, 2009. Awana called on August 25, 2009, and will forward a list of referrals. CSH mailed updated letters and revised maps on August 26, 2009. CSH followed up via email on September 2, 2009. Received an email on September 9, 2009 acknowledging the updated materials. CSH followed up via email and by phone on September 10, 2009.
Ayau, Halealoha	Hui Mālama I Nā Kūpuna 'o Hawai'i Nei	CSH mailed initial letter on August 19, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via email on September 2, 2009.
Barrett, Henry and Katherine	Family has lived in Nānākuli for five generations.	Barrett contacted CSH by phone on September 9, 2009. CSH mailed initial letter on September 14, 2009. CSH conducted an interview on September 17, 2009. CSH mailed interview summary on September 28, 2009. Barrett returned corrected interview summary on November 5, 2009. See Section 7 below for interview summary.

Barrett, Jojan	Family has lived in Nānākuli for five generations.	Barrett contacted CSH by phone on September 9, 2009. CSH mailed initial letter on September 14, 2009. CSH conducted an interview on September 17, 2009. CSH mailed interview summary on September 28, 2009. Barrett returned corrected interview summary on November 5, 2009. See Section 7 below for interview summary.
Bento, Snowbird	Kumu Hula for Ka Pā Hula o Ka Lei Lehua	CSH mailed initial letter on August 25, 2009. Bento emailed stating she received our materials on August 25, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via email on September 14, 2009.
Cachola, Fred	Educator for Nānāikapono Elementary School	CSH mailed initial letter on August 25, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH conducted an interview on September 9, 2009. CSH mailed interview summary on September 16, 2009. Cachola returned corrected interview summary on October 12, 2009. See Section 7 below for interview summary.
Cayan, Phyllis "Coochie"	SHPD, History and Culture Branch Chief	CSH mailed initial letter on August 19, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via email on September 2, 2009. Cayan replied via email on September 2, 2009. Cayan's letter was received on September 8, 2009. See summary below this table. Full letter is in Appendix B.
Cope, Aggie	Native Hawaiian Traditional Healing Center, Kūpuna Council	CSH mailed initial letter on September 8, 2009. CSH followed up via phone and left a message on September 24, 2009.

Greenwood, Alice	Moku representative for O'ahu Island Burial Council	CSH mailed initial letter on August 19, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via phone on September 2, 2009. CSH followed up via email on September 28, 2009.
Hanabusa, Colleen	21 st Senatorial District Representative	CSH mailed initial letter on August 19, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via email on September 2, 2009.
Ho'ohuli, Black	Cultural Practitioner	CSH mailed initial letter on August 25, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via phone on September 2, 2009.
Josephides, Analu Kame'eiamoku	Ex-representative for Wai'anae Moku, O'ahu Island Burial Council	CSH mailed initial letter on August 19, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via phone and left a message on September 2, 2009.
Kanahele, Kamaki	Director of Native Hawaiian Traditional Healing Center	CSH mailed initial letter on August 19, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via phone on September 2, 2009.
Kapakū, Lehua	Former curator of Nānāikapono Community School Museum	CSH mailed initial letter, previous interview, and consent form on September 15, 2009. CSH followed up via phone and left a message on September 30, 2009.
Keaulana, Kimo Akana	Kumu Hula, Hawaiian historian	CSH mailed initial letter on August 19, 2009. CSH mailed updated letter and maps on August 26, 2009. Keaulana replied via email on August 27, 2009. CSH followed up via email on September 2, 2009.
Kula Kaiapuni o Nānākuli	Native Hawaiian Immersion School in Nānākuli	CSH mailed initial letter on August 19, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via phone on September 2, 2009.

Levy, Henry Jr. & Brenda	Mr. Henry is a descendant of the Zablan family of Nānākuli. Brenda's family (Barrett) members are long time residents of Nānākuli.	Levy contacted CSH by phone on September 9, 2009. CSH mailed initial letter on September 14, 2009. CSH conducted an interview on September 17, 2009. CSH mailed interview summary on September 28, 2009. Levy returned corrected interview summary on November 5, 2009. See Section 7 below for interview summary.
Lindsey, Keola	Lead Advocate, Office of Hawaiian Affairs	CSH mailed initial letter on August 25, 2009. Lindsey requested that CSH forward a hardcopy on August 25, 2009. CSH mailed a hardcopy of the initial letter on August 26, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via email on September 7, 2009. Mr. Lindsey's letter was received on September 8, 2009. (See entry for Mr. Nāmu'o, below.)
Maunakea, Ruby	The President for Nānāikapono Hawaiian Civic Club	CSH mailed initial letter on August 19, 2009. CSH mailed updated letter and maps on August 26, 2009.
McKeague, Mark Kawika	Chair of O'ahu Island Burial Council	CSH mailed initial letter on August 25, 2009. McKeague emailed recommending that CSH contact Nettie Tiffany, Aggie Cope, and Alice Greenwood. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via email on September 7, 2009.
McQuivey, Jace	O'ahu Island Burial Council	CSH mailed initial letter on August 25, 2009. McQuivey emailed acknowledging that the material was received on August 25, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via email on September 7, 2009.
Nānākuli Hawaiian Homestead Community Association	Nānākuli Hawaiian Homestead Community Association	CSH mailed initial letter on August 19, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via phone on September 2, 2009.

Nāmu‘o, Clyde	Administrator, Office of Hawaiian Affairs	CSH mailed initial letter August 19, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via phone on September 2, 2009. Nāmu‘o replied via email on September 21, 2009. See summary below this table and Appendix C for Mr. Nāmu‘o’s letter.
Naone, Charlee	Long time resident of Nānākuli	CSH mailed initial letter on September 14, 2009. Initial letter was returned as undeliverable on September 17, 2009.
Paik, Linda Kaleo	SHPD, Cultural Specialist	CSH mailed initial letter on August 26, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via phone and left a message on September 2, 2009.
Parker, Alvin	Principal for Ka Waihona o ka Na‘auao Charter School	CSH phoned on September 2, 2009. CSH mailed initial letter on September 2, 2009. CSH followed up via phone and left a message on September 10, 2009. CSH followed up via phone and email on September 10, 2009. CSH conducted an interview on September 15, 2009. CSH mailed interview summary on September 21, 2009. Parker replied via email stating that he would review the interview summary on September 23, 2009. Parker returned corrected interview summary on October 12, 2009. See Section 7 below for interview summary.
Pilialoha, Darin	Principal for Nānākuli Intermediate and High School	CSH mailed initial letter on August 19, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via email on September 7, 2009.
Pililā‘au, James & Aggie	Long time residents of the Wai‘anae coast	CSH mailed initial letter on September 14, 2009. CSH followed up via phone on September 24, 2009.

Teruya, Patty	Nānākuli Neighborhood Board of Directors	CSH mailed initial letter on September 8, 2009. CSH followed up via email on September 24, 2009. Teruya emailed regarding DOT presentation to NB335 on October 5, 2009. CSH followed up via email on October 6, 2009.
Tiffany, Nettie Pualani	Kahu of Lanikuhonua at Ko'olina	CSH mailed initial letter on August 19, 2009. CSH mailed updated letter and maps on August 26, 2009. CSH followed up via phone on September 2, 2009.

6.2 Agency Response Letters (SHPD and OHA)

Written responses were received from Phyllis “Coochie” Cayan of the SHPD and Clyde Nāmu‘o of OHA (see Appendices B and C). In a letter dated 1 September 2009, Ms. Cayan states, “SHPD’s concern is with any ground disturbance activities which may reveal burials in the project area or as has been previously in nearby parcels and along the shoreline...the department is concerned that fisher folks, canoe paddlers, swimmers, other recreational users and cultural practitioners are not prohibited from accessing the shoreline throughout the construction phase.” The SHPD also recommends several potential individuals for further consultation. In a letter dated 10 September 2009, Mr. Nāmu‘o responds, “OHA has no comments on the CIA at this time. We do seek assurances that all appropriate best management practices will be established and implemented in order to protect near shore waters and marine species during project activities.”

Section 7 Summaries of *Kama'āina* "Talk Story" Interviews

7.1 Overview

Kama'āina and *kūpuna* with knowledge of Nānākuli and Lualualei Ahupua'a and the area in the vicinity of the proposed Farrington Highway Intersection Improvement Project participated in "talk story" sessions for this CIA. The approach of CSH to cultural resource studies affords community contacts an opportunity to review transcriptions and/or interview notes and to make any corrections, deletions or additions to the substance of their testimony.

A total of 31 individuals was contacted for this CIA (see Table 3); nine provided referrals to other individuals; and seven participated in a three formal interviews. Fred Cachola and Alvin Parker were individually interviewed for this project, while Henry, Jojan, and Katherine Barrett along with Brenda and Harold Levy were interviewed as a family. To assist in the discussion of natural and cultural resources and any cultural practices specific to the project area, CSH initiated the interviews with questions from five broad categories: Resource Gathering Practices, Marine and Freshwater Resources, Burials, Trails and Historic Properties. Presented below are summaries of participants' interviews which include their personal backgrounds, comments, and concerns about the proposed project area.

7.2 Barrett 'Ohana (Family)

The term "Barrett 'Ohana" includes all five family members that participated in this interview. These family members include: Henry, Jojan, and Katherine Barrett along with Brenda and Harold Levy. All interviewees are directly related to each other, and stem from the Barrett 'Ohana.

The Barrett 'Ohana has lived in Nānākuli for five generations, since the 1930s. Uncle Henry is a retired City and County of Honolulu firefighter, who was stationed in Nānākuli; his wife Katherine Barrett was a stay-at-home mom to their children. Their five children include two daughters interviewed by CSH, Jojan Barrett and Brenda Levy. Harold Levy, Jr., is the husband of Brenda Levy, and also a deacon at St. Rita's parish. CSH interviewed the Barrett 'Ohana on September 17, 2009 at the Barrett home on Farrington Highway.

The Barrett 'Ohana owned one of the only restaurants in the entire *ahupua'a* of Nānākuli. The restaurant was called "Barrett's Inn"; it was a long quonset hut, designed as a diner with bar stools on which to sit and eat at countertops. Hawaiian food was served, with patrons coming from Camp Andrews, the OR&L train, and residents of the Wai'anae coast. Barrett's Inn ceased operation after four years in 1946, due to economic reasons. Uncle Henry mentioned that besides his family's business, there were only four other stores in Nānākuli that people could go to, to eat or buy groceries. These stores were "Nakatani, Clover, Mahelona, and Aunty Pīnau's [Yuen's] store." Today, these stores are something of the past for the people of the area to remind themselves of the "good old days."

Uncle Harold Levy shared that his 'ohana is the Zablan family. The Zablan family moved to Nānākuli in the early 1900s to get away from the hustle and bustle of Honolulu. Uncle Harold's grandfather, Benjamin Zablan, a circuit court judge, transplanted the family here. A

beautiful home was built on the shore of the beach, near Nānākuli Stream. The beach where the family's home was located is named after the Zablan 'Ohana. Uncle Harold and the rest of the 'ohana would go to the family home by the ocean, to swim and enjoy each other's company.

Aunty Jojan grew up on Hawaiian homestead land in Nānākuli. Her 'ohana is the Kamaka family. The Kamaka's home was located on Pua Avenue, also known by the old timers as First Road. The Kamaka's resided in their home on Pua Avenue since the 1900s, in an area that was heavily used by the Army. This area was known as Camp Andrews, and was occupied with headquarter offices, military housing, and a recreational area for the army personnel. Later, Camp Andrews became Nānāikapono High School campus in the 1960s, and is now being slated for the new development of Nānākuli Village Center adjacent to the Farrington Highway.

The Barrett 'Ohana has an extensive array of 'ike (wisdom) regarding the *makai* and *kahakai* (beach or seashore) areas of Nānākuli. They are familiar with different surf areas, and the names by which the *kama'āina* identify these places. The first area, Nānā i kai (look to/at the ocean), is located behind the Ko'olina Resort security shack. The beach in front of the Hawaiian Electric power plant is called "Tracks," which is not an ideal surf spot because of the rocky conditions. Up north of Tracks is the surf spot known as "Manner's" beach. The area above Manner's beach is called "Keaulana," and then above Keaulana is the present day Nānākuli Beach Park. Nānākuli Beach Park is comprised of two beaches: Zablan beach is located on the south, and Kalaniana'ole Beach Park is located on the north side of the beach. Nānākuli Beach Park is known for its big waves, shore break, and strong current. The last beach before Wai'anae, in front of Yuen's store, is known as "Depots."

Aunty Brenda recalled that the *kama'āina* of Nānākuli would identify beaches by the different rock formations located in front of the beaches. She was unable to remember any of the older names of these beaches, but was confident that there were a lot more names for the beaches in Nānākuli. Uncle Harold recalled that, every summer during the 1950s and 60s, the City and County of Honolulu would take truckloads of sand from the beaches in Nānākuli, and haul it to Waikīkī. The City has removed so much sand from Nānākuli that the beaches are significantly different today than what they use to be.

When asked about the ocean resources in Nānākuli, both for fishing and *limu* gathering, Aunty Katherine said "yes, there were plenty of fish and *limu*... *menpachi*, *uhu*, *akule*, and 'aweoweo" were some of the fish that were found in Nānākuli. Aunty Katherine even mentioned that there was a variety of *limu* that grew on the reef. Some of the *limu* included "līpēpē, *limu kohu*, [and] *waiwai'ole*." Today, fish and *limu* are not as abundant due to over fishing and improperly picking *limu*. Aunty Brenda even mentioned that there used to be salt ponds located at Keaulana beach. In the past, people were able to collect salt from these ponds to use for cooking. However, these salt ponds are no longer usable due to people littering.

The OR&L train tracks represent the only known historic property that will be affected by the Farrington Highway Intersection Improvement Project. CSH invited the Barrett 'Ohana to share their *mana'o* about the train that used to travel through Nānākuli. Uncle Harold explained:

That's how this surf spot [the beach area in front of the Barrett's home] got the name Depots. It's because the train would stop right here in front of our house; the sailors and passengers used to get off and eat at our restaurant "Barrett's Inn." There was a train depot here. The train would fill up with water, to cool down the engines.

Aunty Jojan's archival pictures showed there used to be two sets of OR&L train tracks. One set of tracks was for going, and the other was for coming back. The train was used to transport people, along with ammunition from the U.S. Naval Ammunition Depot in Lualualei Valley a few miles north of Sack-N-Save. Aunty Katherine's father worked at the Naval Ammunition Depot.

Today, only one set of train tracks is visible. According to Uncle Harold "the other set of tracks must be under the sand." Many people used to ride the train. The Barrett 'Ohana showed pictures of the OR&L train back when it was the only mode of public transportation. In one image there were roughly 20 cars seen, with an estimate of a few hundred people exiting.

The Barretts were not *ma'a* (familiar) with the various plants, animals, or cultural sites located *mauka*. Aunty Jojan remembers there were "lots of *kiawe* trees, we used the beans to feed the cows, and the wood for cooking and heat." Aunty Brenda and Aunty Katherine did mention that they knew there was *lehua* (possibly, *Metrosideros macropus*), *honohono* grass (possibly, *Commelina diffusa*), and the Hawaiian tree snail (possibly, *Achatinella mustelina*). They were unsure what types of resources were upland because it was always so dry, barren, and lacked water. Uncle Harold mentioned that when he was growing up all the water in the area was brackish. So they would have to go every other day to get fresh water from the sugarcane fields.

The Barrett's shared their concerns with CSH regarding the Farrington Highway Intersection Improvement Project. Uncle Henry asked that the City and County of Honolulu get rid of the berms that are lining the highway sidewalks placed as a buffer between cars and pedestrians. As a former firefighter, Uncle Henry has seen many accidents and deaths when people hit these berms. When cars turn their wheel to avoid or get off the berms, they end up crossing the highway and facing oncoming traffic. The end result is a head-on collision. This has created many tragic accidents that have cost people their lives.

Uncle Henry suggests the HDOT and the City and County of Honolulu elevate and repair the sidewalks, so that the sidewalks are above street level as in other neighborhoods (i.e., Nānākuli Avenue). Uncle Henry also suggests making the sidewalks wide enough so children can safely walk to school whether the child attends Nānāikapono Elementary or Ka Waihona o ka Na'auao Charter School. The sidewalks should be wide enough to accommodate daily pedestrians, bikes, and wheelchairs so that they are able to function safely. The current situation is that there is not enough room between the telephone poles and the berms to fit more than one pedestrian. Because the sidewalk is not wide enough, it forces either the bike, wheelchair, or pedestrian to go into traffic on Farrington Highway in order to pass each other. This is not safe for any citizen needing to use the sidewalk along the highway. The safety concerns regarding the sidewalks in Nānākuli are of great importance to the community here.

Traffic is an overall concern of the Barrett 'Ohana. The City and County of Honolulu is making an effort to put in a fifth lane between Nānākuli Avenue and Haleakalā Avenue. However, the Barrett's suggested that the lane extend to the beginning of Nānākuli Beach Park all the way up to Lualualei Naval Road. These are highly used corridors in the neighborhood; therefore by extending the auxiliary lane, it will alleviate traffic congestion east bound on Farrington Highway. It is suggested that the fifth lane begin at the beginning of Nānākuli Beach Park because so many people illegally turn left to go into the beach. When motorists turn left at Nānākuli Beach Park, it congests traffic and increases the probability of being hit from behind. By extending the fifth lane to Nānākuli Beach Park it will allow traffic to continuously flow, and diminish the frequency of accidents from occurring.

The benefit of extending the fifth lane to Lualualei Naval Road is that it allows a safe area for cars to turn left onto this road, and around the Sack-N-Save shopping area. Currently there is no fifth lane for motorists to use when making left turns on Nānākuli Avenue, Haleakalā Avenue, or Lualualei Naval Road. This is a dangerous situation when crossing over a two lane on-coming highway that has a designated speed of 45 mph. By extending the fifth lane to the Lualualei Naval Road it will create a lane that is specifically for turning, thus reducing the probability of motorists and pedestrians being in a traffic accident.

Because the Barrett's residence is situated on Farrington Highway, they are concerned about the potential for flooding coming from the *makai* side of the highway where the Farrington Highway Intersection Improvement Project is being proposed. Auntie Jojan mentioned that the ocean already comes across the highway when there is high surf. "The beach is not as long as it used to be, there is no protection from the ocean flooding our home." With the road being extended on the *makai* side, the Barretts wanted to know what measures were going to be taken to prevent flooding from occurring. They are concerned with flooding because of the serious flooding situation that took place during Hurricane Iwa in the late 1980s.

When Hurricane Iwa took place the water from the ocean came through their property. There was sand over the entire road, *kiawe* trees, fish, crabs, and huge boulders from the ocean. It took the City and the community weeks to clean up before the road was completely clear of debris.

A major concern of the Barrett 'Ohana, is losing their property to road improvements and construction. Over the years, Farrington Highway has been extended and altered, wider and wider, causing the family and other homesteaders to lose some of their property inch by inch because of road improvements and construction. The Barrett 'Ohana owns four parcels of property located adjacent to each other. Each property was originally 5,000 square feet; however, these properties are currently at 4,997 square feet. They are not against construction or improvements to Farrington Highway because it will accommodate the growing population, and benefit all leeward residents. However, they are concerned with how much more the City and County of Honolulu, and the State of Hawai'i will continue to make improvements to Farrington Highway with no regard for those property owners located on the highway.

One of the other major concerns is access to beaches. Many Wai'anae coast residents patron the beaches to exercise their ocean cultural practices and activates; such as fishing,

laying-net, diving, surfing, canoe paddling, and honoring their *kūpuna* who they have laid to rest at sea. By widening this stretch of Farrington Highway from Nānākuli Avenue to Haleakalā Avenue it will preclude one of the few free activities the people of Nānākuli have, which is access to the beach. The Barrett 'Ohana is concerned that the proposed project plan for Farrington Highway will diminish the parking at Nānākuli Beach Park and Depots. This will severely hamper the communities' use of these beach park areas, and the Barrett 'Ohana would greatly appreciate it if the HDOT would allow for community input.

This summary represents the true and accurate concerns of the Barrett 'Ohana. They also recommended individuals they thought should be interviewed. These individuals include: Alvin Brook, Rita Akana, Merivna Cash, Henry Pelekai, and Edith VanGieson. However, due to time constraints these individuals were not contacted for interviews.

7.3 Fred Cachola

Mr. Cachola is of Hawaiian, Filipino, and Chinese heritage and was born in Kohala, Hawai'i. After finishing college in 1960, he was assigned to Wai'anae where he taught Hawaiian History at Wai'anae Intermediate. Mr. Cachola is *kama'āina* (acquainted) with the district of Wai'anae through his own personal experience of going into the natural and historical landscape and looking for cultural sites; by being involved in the community through the Wai'anae Hawaiian Civic Club and the Wai'anae Jaycees; and due to his residence in the *moku* for over 30 years.

CSH's interview with Mr. Cachola took place at his home in 'Ewa, on September 9, 2009. Before the start of the interview, CSH asked Mr. Cachola for permission to use a previous interview from June 13, 1999, with Ka'ohulani McGuire. The 1999 interview is special in that it unveils the rich *mo'olelo* of Nānākuli as well as oral traditions about the landscape of Nānākuli Ahupua'a. The previous interview described the naming of Nānākuli, the identification of, and *mo'olelo* associated with, the Māui *pōhaku*, legends about Māui, and the *menehune pōhaku*.

7.3.1 Fred Cachola's interview with Ka'ohulani McGuire for 1999 CIA

The name Nānākuli as defined by Mary Kawena Pukui in *Place Names of Hawai'i* is "to look to the knees." However, Mr. Cachola first learned another definition of the name Nānākuli while he was the principal at Nānāikapono. When he asked his secretary, Mrs. Brown, about the name, she preferred to have Mrs. Eli, a *kama'āina* in the Nānākuli Homestead, to meet with him to share her *mana'o*. She met with Mr. Cachola at his office and said that the traditional name was not Nānākuli, or look to the knees, or looking like deaf people...but rather Nānā-i-ka-ule or to *look at a man's testicles, looking at his penis*. She discreetly explained that in traditional times Nānākuli was known for being a place of promiscuity, thus the name Nānāikaule. Nānāikaule may have also derived from the shape and configuration of Nānākuli's western mountain ridge boundary that resembles a penis and testicles.

She also said that when the school was established it was given its name by Reverend Awai, the first principal of Nānāikapono. Reverend Awai was familiar with the traditional name of the *ahupua'a*, and the *kaona*, or hidden meaning, associated with the place. Thus, he

named the school Nānāikapono, or *to look to righteousness*... a more appropriate name and meaning for a school.

Mr. Cachola has never seen anything written regarding the name Nānāikaule, its definition, or origin. He does state that "it's very Hawaiian" for the *kānaka* (people) to give a more subtle name like Nānākuli. He states:

Hawaiians have this thing about names and the various meanings about names. You have to look at names and all of its ramifications and all of its possible contexts. Of course, the one about looking at the knees, and standing there looking deaf, may be more readily accepted. But all of that might have been "cultural camouflage." You know, our *kūpuna* did not want to say, our place name means *looking at a man's penis*. They're not gonna say [that]. They're gonna create other meanings for outsiders, *malihini*...and keep the *kaona* just to themselves.

Mr. Cachola also talks about the *menehune* stones on Nānākuli Avenue. When they were first constructing the road, strange things would happen. There were two stones, one big and one small stone, that always found their way back to a particular spot no matter how many times they were moved. The City and County tried moving the rocks numerous times, but the rocks continued to return to their original spot. Finally, the City and County of Honolulu decided to build the street around the two rocks. Today, these rocks are in the concrete and have not been moved since. Another version is the heavy equipment (big tractors) could not move the two stones...and for the Hawaiian workers...that meant that they should not be moved and should be left untouched.

The *menehune* stone is significant in that they are *kahuna* stones. Hawaiians believe that all things have life, including *pōhaku*. Mr. Cachola's first encounter with the *menehune pōhaku* took place one evening with his friend and *kahuna*, Black Ho'ohuli. Mr. Cachola had asked Black to show him where the *pōhaku* were, and so he did. When they arrived Mr. Cachola asked Black to feel the rocks. The large *pōhaku* was cool, but the small *pōhaku* was warm. To Mr. Cachola, it was a sign that the small *pōhaku* was alive; there was still *mana* (power) in it.

Through Mr. Cachola's experience in restoring Kū'īlioloa Heiau, and his association with Ed Kealanahale (whom Mr. Cachola considers both a Christian pastor and Hawaiian Kahuna about *pōhaku* and *heiau*), he was aware that when a *pōhaku* was warm or hot, it meant that there was still *mana* in it. This is how Mr. Cachola knew that the small *pōhaku* was still alive. Mr. Cachola was astonished at the warmth of the *pōhaku* that day, even though they were there late in the evening, long after the sun set. There are no markers or plaques that distinguish the *menehune pōhaku* from the rest, however, Mr. Cachola said he would be able to identify the stone if he went back.

While Mr. Cachola was the Hawaiian history teacher at Wai'anae Intermediate, he began educating himself about the local area through various resources, one of which was *Sites of Oahu* by McAllister. On one of Mr. Cachola's archeological expeditions he ventured out to find McAllister's site number 148, known as the Māui *pōhaku*. Mr. Cachola shared that the

Māui *pōhaku* is “an unusually big boulder or rock said to be where Māui landed when he traveled from Tahiti.”

One evening after work, Mr. Cachola asked his friend Black Ho'ohuli if he knew of any rocks in the Nānākuli area that were very large and seemed out of place. Mr. Ho'ohuli was only familiar with one, which was located by the “old haunted house.” The stone was located by an old mansion, with a big banyan tree and lots of weeds, and so much over growth that it was impossible to see the stone. But Black was aware of it.

So Mr. Cachola and Mr. Ho'ohuli went searching for the *pōhaku* late one evening. A night security guard found them entering the property. At the time, there were condos being built with a lot of machinery and building supplies in the area; hence the need for a security guard. Mr. Cachola and Mr. Ho'ohuli told the guard that they were looking for the Māui *pōhaku*. Surprisingly, the guard knew exactly what they were talking about and guided them just a short distance from the parking lot, where they stood in front of a massive *pōhaku*. The *pōhaku* was so gigantic, that it was even bigger than a car.

The guard explained that strange things happened at certain nights in this area...and that six former night watchmen quit abruptly...he was the seventh night watchman...but being Hawaiian, he knew what caused the strange happenings and was not afraid of building material levitating, or machines moving about. The guard informed the two gentlemen that there were also *pō kāne*, or night marchers, that came out at night. They would travel from the banyan tree saplings recently planted close to the parking lot *makai*, and march down to the ocean. Some times if the guard had parked his truck in their pathway, the *pō kāne* would bounce his truck violently and he would have to move it. The guard was knowledgeable about the area, and even invited Mr. Cachola and Mr. Ho'ohuli to return before sunrise if they wanted to see Māui. They thought he was referring to the island of Maui, which would be impossible to see from this site...but he was not.

Mr. Cachola and Mr. Ho'ohuli returned in the morning, just before sunrise and met with the security guard. Just as the sun was coming above the ridge the guard said, “There's Māui.” Here is Mr. Cachola's account of that historical encounter:

It was one of those “wow” moments, we were awed by a gigantic silhouette of a huge giant of a man, sleeping. The silhouette was just awesome, all the way from Halona ridge where his forehead and mouth were clearly visible, through Pu'u Heleakalā which was his barrel chest and extended legs stretching all the way to Kahe. It was just a magnificent mountain of a man...sleeping, as the first sun rays broke the eastern horizon. Folks talk about the sleeping giant on Kaua'i is merely a small *menehune* when compared to Māui the giant...right here in Nānākuli. Black and I just stared and stared and didn't say a word...we were simply dumb struck...more so because both of us had never ever heard of Māui the sleeping giant, or seen it before, even though Black lived there all of his life and I was in the area for almost 15 years. And that old Hawaiian watch man knew all about this... and was there to show it and tell us about Māui...the most popular and famous legendary hero in all of Polynesia. If Black and I did not go to look for it, and talk to this *kupuna* watchman, maybe this whole story about Māui... the sleeping giant at Nānākuli might have been

lost forever. And I have certainly told and shown Māui to many, many, students and adults over the years. It really is an awe-inspiring sight.

McAllister says that Māui is reposing, that this big rock is the rock that Māui reposed on. However, Mr. Cachola's *mana'o* is:

Maybe not, maybe from that rock you can see Māui reposing. From that rock, that rock marks the spot where early in the morning you can see that whole [silhouette of] Māui sleeping. So, who knows whether or not the Māui rock is called Māui because of that or that rock was the place from which you could see most clearly. The silhouette of Māui is comprised of Pu'u Heleakalā and Hālona Ridge. There are roughly four or five mountains ridges that make up Māui. Pu'u Heleakalā is the body, the foot is by Kahe, the chest and the abdomen is at Pu'u Heleakalā, Pāhoa Cliffs, and Hālona Ridges outline his head, forehead and open mouth. And this magnificent silhouette is only visible for a short time...when the sun is rising early in the morning, as it continues to raise, the silhouette changes. Then all you can see are the separate ridges, Māui is gone.

Because the district of Wai'anae has so many historical sites associated with Māui, Mr. Cachola's *mana'o* is that the epic *mo'olelo* of Māui, which tells of Māui snaring and slowing the sun, may have taken place within the district of Wai'anae rather than at Haleakalā on Maui, as most people believe. Haleakalā simply means "the house of the sun"—nothing related at all to Māui the demi-god. But the name Heleakalā means "the snaring of the sun, and it could also mean the scattering of the sun rays." Mr. Cachola's *mana'o* is that Māui did not snare and slow the sun at Haleakalā, Maui, but rather in the district of Wai'anae. Especially since there are other sites located within Wai'anae that are directly related to Māui. For example, Ulehawa Stream is the stream where Māui was born; the famous cave at Pu'u Heleakalā is where Māui's mother made *kapa*; Māui's siblings were born in the district of Wai'anae; and Ulehawa beach is where they launched their canoe and went fishing...where they fished out the islands with Māui's famous fishhook, Manaiākalanī.

Mr. Cachola also had some interesting *mana'o* regarding the streets in Nānākuli:

The local kids would call streets by roads. For example: First Road, Second Road, Third Road. They wouldn't use street names, but they would identify where they lived or directions by what road they lived on. Mr. Cachola explains that ...from Farrington Highway, the first street, the second street from the highway, and that's how the kids call it.

He is unaware of whether or not the kids still identify streets by roads, but he himself is unaware of why the kids identified streets in this manner. Mr. Cachola's only assumption is that the kids identify them by road because when the homestead was laid out there were just roads

7.3.2 Fred Cachola's interview with Shannon Lincoln for 2009 CIA

CSH's first question to Mr. Cachola was if he had any new *mana'o* to share regarding the *mo'olelo* of the Māui *pōhaku* or the *menehune pōhaku*. Mr. Cachola did not, but he did share

that the *mo'olelo* of Māui and his *'ohana* within the Wai'anae District are strong, and that CSH should focus its background research on the *mo'olelo* of Māui. CSH also inquired if there are any cultural sites that he may have become aware of since his interview in 1999. Mr. Cachola did not know of any new *heiau*, or cultural sites. However, he did express an interest to visit the *heiau* that have been "off limits" for many years within the U.S. Navy Magazine in Lualualei.

When CSH asked his *mana'o* regarding the Farrington Highway Intersection Improvement Project, Mr. Cachola had a lot to say concerning various stakeholders. Some of his concerns included: who had the right-of-way (ROW) for the OR&L railroad tracks...if the sand along side of Farrington Highway was going to be disturbed, and whether a pedestrian overpass was planned.

Mr. Cachola was interested in who had the ROW to the OR&L train tracks. He said:

Around 1967-68 when I was the principal at Nānāikapono School the train would pass by right along the *makai* classrooms...that would be kindergarten, first, second and third grades and parts of the new Nānākuli High School. Can you imagine how dangerous it was for trains to be hauling ammunition or secret cargo just a few feet from these classrooms? The buildings would shake, and it was so noisy. During the 60s I knew that the military had the right-of-way, and that they transported ammunition and other supplies to and from Lualualei and Pearl Harbor.

Mr. Cachola mentioned that the reason why they kept the train tracks intact all these years was because the military had said that they might still want to use the train tracks in the future.

Mr. Cachola also asked CSH "is the project going to tamper with or do any grading in the sandy area, *makai* of the project area?" CSH told him that they were "unsure." Mr. Cachola explained his concerns and said that,

...should the sandy area be disturbed, there should someone monitoring the construction area. There might be *iwi* in the sand. The sand also acts as a natural barrier too for the people who live just *mauka* and adjacent to Farrington Highway. If they [developers] knock down the sand, then when there are big waves they [the homes on Farrington Highway] might get flooded.

Mr. Cachola also mentioned that the sand acts a barrier for the waves when there are tsunamis.

As a former community resident and educator at Wai'anae Intermediate, Nānāikapono, and Nānākuli High School, Mr. Cachola was very concerned with the safety of the students who travel to school by foot. Mr. Cachola's *mana'o* is that "it's hard enough to cross Farrington Highway with four lanes. It'll be harder to do so with another lane. Maybe they should put a pedestrian overpass so that it's safer for the kids to go to school."

Mr. Cachola had expressed that people speed right through school areas even though the speed limit is reduced. He even shared that when he was the principal of Nānāikapono, he

tried to get the City and County of Honolulu to put in a pedestrian overpass but the City and County of Honolulu would not do it because they were worried that the kids would do *kolohe* (rascally) things or they would not climb the stairs to use the overpass and would rather try to run across Farrington Highway: "...so they opted for a traffic signal and marked cross walks to allow students to safely cross the highway to get to the school...and a sixth grade J.P.O. [crossing guard] would control the lights-imagine that!"

Mr. Cachola suggested that the City and County of Honolulu reconsider putting in a pedestrian overpass, and a median strip with a high chain-link fence so that the kids would not be able to run across Farrington Highway and would be forced to use the pedestrian overpass—similar to the chain link fence and landscaped median strip that the City and County constructed along parts of the Farrington Highway in Waipahu. This would also eliminate one of the traffic signals at the entrance of the school.

When CSH asked Mr. Cachola if there were other long time residents of Nānākuli that CSH could talk to regarding the history of Nānākuli, he provided a list of people to contact. They are: Aggie and James Pililā'au, Clancy Pi, Collette Kamanu Anderson, Black Ho'ohuli, Henry Barrett, Charlie Naone, Lei Rego, Rose Lau, and Marvin Cash. Some of these individuals were contacted to help contribute to this CIA, however, for various reasons such as coordination, time, and availability they were not interviewed for this report.

7.4 Alvin Parker

Mr. Parker is of Hawaiian and Chinese heritage. He was born and raised in Mānoa, and graduated from the Kamehameha School for Boys. Mr. Parker is the current principal for Ka Waihona o ka Na'auao Charter School located on Farrington Highway in Nānākuli, and has been living in Nānākuli for over 20 years.

Ka Waihona o ka Na'auao Charter School first opened its doors in 2002. The school began with 68 students for grades kindergarten through the third grade. Today there are 535 students who attend Ka Waihona in grades kindergarten through the eighth grade. It is projected that by year 2015 there will be 810 students enrolled at the school.

CSH's interview with Mr. Parker took place after school at Ka Waihona o ka Na'auao Charter School on September 15, 2009. Mr. Parker was selected as an interviewee because of the school's location situated between Nānākuli Avenue and Haleakalā Avenue. The Farrington Highway Intersection Improvement Project will encroach on the school's property, requiring the school's bus drop off to be pushed back.

CSH asked if Mr. Parker was *kama'āina* (acquainted) with any cultural sites or history in the area. He shared that the cesspool abandonment project paid for by the State of Hawaii had dug three, twelve-foot trenches on the school property so that they could change out the sewer lines and did not find anything. Mr. Parker also mentioned that he was unsure if there were any sites *mauka* of the project area, and that he did not know of any cultural sites within Nānākuli.

CSH asked Mr. Parker his thoughts on the Farrington Highway Intersection Improvement Project he replied simply with, "what's good for the community is good for the school." Mr. Parker further explained that

It's a good thing that they are putting a left lane to turn *mauka*, and a left lane to turn *makai*. It's so dangerous [at the moment] for people to make the left turn without getting into an accident. So, if I have to give something up to help the community, then I have to do it.

Mr. Parker further added that "the middle lane should extend all the way up to Lualualei by Sack-N-Save. There are so many people who make left hand turns going *mauka* that it is dangerous for people to do so without getting rear-ended or hit by oncoming traffic."

When asked how this project will affect Ka Waihona School, Mr. Parker explained that he will need to build a new bus lane on the school's property that will cost the school approximately \$200,000. However, he was optimistic that he would be able to come to an agreement with the HDOT. The agreement is that the HDOT will allow Ka Waihona School to complete the bus lane during the summer of 2011. Mr. Parker shared that Kamehameha Schools (KS) and the Department of Hawaiian Home Land (DHHL) are also stakeholders in this project.

DHHL owns the land that Ka Waihona School sits on, and the property across the street that is used as homestead land. According to Mr. Parker, DHHL is willing to have the *mauka* and *makai* turns be put in. (Although the HDOT would be putting in the roads, it means that DHHL will be allotting the land to expand the road.) KS and Ka Waihona are in favor of the *makai* left hand because it will make it easier and safer for parents to drop off their child at school without having to worry about getting into an accident.

As mentioned earlier, the new bus drop off will cost \$200,000 and will be built closer towards the Ka Waihona administration building entrance. Ka Waihona will be using \$200,000 out of the \$300,000 they received from KS seed money to make the new bus lane. Prior to Mr. Parker's knowledge of having to relocate the bus drop off, he had intended to use the \$300,000 as a 10% down payment to construct a new building for the school.

Due to the growing school population, and the projection that the school's population will reach 810 students in 2015, Mr. Parker had hoped to be proactive in adding adequate space to accommodate the student population. Mr. Parker has completed all of his building plans and submitted his permits, and will be putting the project out to bid on September 25, 2009. The new building that Mr. Parker projected to build would cost the school 3.5 to 4 million dollars, and afford eight new classes, allowing another 160 students to attend the school. Mr. Parker is putting the construction of the building on hold until he can locate funds for the 10% down payment.

Mr. Parker is hoping that with this Farrington Highway Intersection Improvement Project, the City will be willing to make the crosswalk and drop off area by the school safer, by synchronizing the traffic lights and reducing the speed limit. The speed limit in front of the school is 35 mph; however, because Farrington Highway's average speed limit is 55 mph, most people are going well above 35 mph. The speeding problem makes it difficult for pedestrians to safely cross the road. It is a "tragedy waiting to happen unless we address [add] the left turn [into the school]." Mr. Parker is hopeful that the HDOT will synchronize the traffic lights so that the children can cross Farrington Highway safely.

Section 8 Cultural Landscape of Nānākuli

8.1 Overview

Discussions of specific aspects of traditional Hawaiian culture as they may relate to the project area are presented below. This section examines resources and practices identified within the project area in the broader context of the encompassing Nānākuli Ahupua‘a landscape. Here information from Sections 3–7 is integrated and summarized, anticipating the final analysis and overall recommendations to follow in Section 9.

8.2 Wahi Pana and Mo‘olelo

Wahi pana and *mo‘olelo* reveal that the project area is located within a complex network of sacred sites connecting the Wai‘anae District with Nānākuli.

8.2.1 The naming of Nānākuli

In *Place Names of Hawai‘i* the name Nānākuli means “to look at the knee” or “look deaf” (Pukui et al. 1974:162).

Fred Cachola shared another version of the name Nānākuli as told to him by Mrs. Eli, a *kama‘āina* in the Nānākuli Homestead community.

She met with Mr. Cachola at his office and said that the traditional name was not Nānākuli, or look to the knees, or looking like deaf people...but rather Nana-i-ka-ule or to *look at a man’s testicles, looking at his penis*. She discreetly explained that in traditional times Nānākuli was known for being a place of promiscuity, thus the name Nānāikaule. Nānāikaule may have also derived from the shape and configuration of Nānākuli’s western mountain ridge boundary that resembles a penis and testicles.

Fred Cachola further explained the reason why Hawaiians use *kaona* to defined places.

Hawaiians have this thing about names and the various meanings about names. You have to look at names and all of its ramifications and all of its possible contexts. Of course, the one about looking at the knees, and standing there looking deaf, may be more readily accepted. But all of that might have been “cultural camouflage.” You know, our *kūpuna* did not want to say, our place name means *looking at a man’s penis*. They’re not gonna say [that]. They’re gonna create other meanings for outsiders, malihini...and keep the kaona just to themselves.

8.2.2 The Māui Pōhaku

Fred Cachola shared his *‘ike* regarding a rock that is associated with the demi-god Māui. The rock is “an unusually big boulder or rock said to be where Māui landed.” To support his point, Mr. Cachola referred to McAllister’s *Archaeology of Oahu* Site 148, known as the Māui *pōhaku*.

...it was here that Māui reposed and sunned himself...The large rock is now split in half and adorned with many small, oddly shaped rocks. It is said to be bad fortune to build one's house across a line drawn directly from the rock to the shore. (McAllister 1933:110)

Mr. Cachola suggested that McAllister's claim that Māui was reposing or reposing on this rock may be a variant interpretation. After Mr. Cachola's experience of viewing the silhouette of Māui (comprised of Pu'u Heleakalā and Hālonā Ridge, Kahe, and the Pāhoa Cliffs) he shared that:

From that rock [Māui *pōhaku*], that rock marks the spot where early in the morning you can see that whole [silhouette of] Māui sleeping. So, who knows whether or not the Māui rock is called Māui because of that or that rock was the place from which you could see most clearly.

8.3 Plant and Water Resources

Katherine Barrett and Brenda Levy shared their knowledge of plants in and around the project area. Some plants that they do remember in Nānākuli are: *kiawe*, *lehua*, and *honohono* grass. Throughout the entire book written by Nahulu she mentions *kiawe* trees in abundance in Nānākuli. Kiawe was so abundant that Mrs. Nahulu would even sell its seeds as feed to farmers (Nahulu 1991:33). In one excerpt she writes:

Most of the walk was within the *kiawe* grove. It was *kiawe*, *kiawe*, and more *kiawe*. The trees hung over, so we would have to duck the branches...We didn't have rubber slippers back then. We had rubber shoes, and sometimes the long *kukū* or *kiawe* thorns went through. (Nahulu 1991:34)

Katherine Barrett shared that "there were plenty of fish and *limu...menpachi*, *uhu*, *akule*, and 'āweoweo" were some of the fish that were found in Nānākuli. There was a variety of *limu* that grew on the reef. Some of them included "līpēpē, *limu kohu*, [and] *waiwai'ole*." The abundance of ocean resources is also discussed by Geneveive Nahulu:

We could get all the food we could eat from the shoreline. We would get different kinds of *limu*, and *opihi* and *pipipi*...And the fish. The fish that we didn't like we would throw back. (Nahulu 1991:30)

Brenda Levy mentions that there use to be salt ponds located at Keaulana beach. In the past they were able to collect salt from these ponds to use for cooking. Nahulu's observations are consistent with Mrs. Levy's *mana 'o*. Nahulu writes:

We collected salt too, in those small holes in the *papa*...Then when the tide would go down, the sea water in the small holes would evaporate and we'd collect that clean, fine, fine salt. (Nahulu 1991:31)

The water resources gathered near the project site and from distant beaches reveal a strenuous social system. Some of these resources, such as the 'āweoweo, continue to be gathered today. The impact of this project is not on these resources, per se (unless the project site expands *makai* in the sand area). Instead, the cultural impact involves maintaining an awareness of the resources throughout the Nānākuli Ahupua'a.

8.4 Beaches

Uncle Henry shared his familiarity with the beaches along parts of 'Ewa and Nānākuli. The names of these beaches are what the "locals" call these places, and refer to. He contends that:

Nānā i kai (look to/at the ocean), is located behind the Ko'olina Resort security shack. The beach in front of the Hawaiian Electric Power Plant is called "Tracks". Tracks was not a typical surf spot amongst the *kama'āina* because of the rocky conditions. Up north of Tracks is the surf spot known as "Manner's" beach. The area above Manner's beach is called "Keaulana," and then above Keaulana is the present day Nānākuli Beach Park. Nānākuli Beach Park is comprised of two beaches. Zablan beach is located on the south, and Kalaniana'ole Beach Park is located on the north side of the beach. Nānākuli Beach Park is known for its big waves, shore break, and strong currents. The last beach before Wai'anae, in front of Yuen's store is known as "Depots."

Nahulu contends that "Manners' Beach was named for Mr. Manners who spent a lot of time there at the ocean where he put up a shack...His other name was Kekai, but after he did some family research he became Mr. Manners" (Nahulu 1991:27).

Nahulu also discusses the name Keaulana: "Keaulana's house was the first one on the *makai* side...Where the Keaulana family lived was a good place to dive for *wana*, look for seashells, or fish" (Nahulu 1991:28).

As a Zablan descendent, Uncle Harold Levy shared his recollections about his family moving to this beach front property known as Zablan beach. He stated that:

The Zablans moved to Nānākuli in the early 1900s to get away from the hustle and bustle of Honolulu. Mr. Levy's grandfather, Benjamin Zablan, was a circuit court judge, who transplanted the family here. A beautiful home was built on the shore of the beach, near the Nānākuli stream.

According to Clark's (1977) *The Beaches of O'ahu*, and consistent with the recollections of Uncle Henry Barrett and Uncle Harold Levy, "Zablan beach was named after the Zablan family who resided on this beach front property. Zablan beach is the safest area for children to swim" (Clark 1977:84).

Clark also confirms the name for Kalaniana'ole Beach Park. On May 26, 1940, this beach areas was named after Jonah Kūhiō Kalaniana'ole, the creator of the Hawaiian Homes Commission Act. The beach area is located on the northern end of Nānākuli Beach Park, and is situated between two limestone points. Swimming conditions are calm, but do become very dangerous in the winter months when there are large waves, rip currents, and big shore breaks (Clark 1977:84).

8.5 Historic and Cultural Properties

Mr. Cachola shared the following information regarding the OR&L train:

Around 1967-68 when I was the principal at Nānāikapono School the train would pass by right along the *makai* classrooms...that would be kindergarten,

first, second and third grades and parts of the new Nānākuli High School. Can you imagine how dangerous it was for trains to be hauling ammunition or secret cargo just a few feet from these classrooms? The buildings would shake, and it was so noisy. During the 60s I knew that the military had the right-of-way, and that they transported ammunition and other supplies to and from Lualualei and Pearl Harbor.

To confirm Mr. Cachola's recollection, the website www.oahurailway.com for the book *Next Stop Honolulu! The Story of the Oahu Railway & Land Company* was consulted. The Oahu Railway web site states that during World War II "They lugged huge guns to hastily-erected emplacements, crates of ammo to reinforced underground hideouts, and soldiers and sailors to the bars, brothels and tattoo parlors of downtown Honolulu."

As a cultural property, the Māui *pōhaku* reflects the long history of the demi-god Māui in Nānākuli, as well as the greater Wai'anae District. The Māui *pōhaku* is significant in confirming Māui's ties to this land, as well as his family's presence. For example, Ulehawa Stream is the stream where Māui was born; the famous cave at Pu'u Heleakalā is where Māui's mother made *kapa*; Māui's siblings were born in the district of Wai'anae; and Ulehawa beach is where they launched their canoe and went fishing and caught the Hawaiian Islands.

From the naming of this land as Nānākuli, the cultural significance of Māui *pōhaku*, as well as the Oahu Railway & Land Company train, these tidbits all make up the greater *ahupua'a* of Nānākuli. Through cultural properties, historical accounts, and the community, Nānākuli will continue to offer insight into the traditional values and way-of-life as the culture continues to evolve.

Section 9 Summary and Recommendations

At the request of Parsons Brinckerhoff (PB), Cultural Surveys Hawai‘i (CSH), Inc. conducted a Cultural Impact Assessment (CIA) for the Farrington Highway Intersection Improvement Project in Nānākuli Town on Farrington Highway, Nānākuli and Lualualei Ahupua‘a, District of Wai‘anae, Island of O‘ahu, TMK (1) 8-9-001, 002 and 005; 8-7-008: por. 036 and 037 (see Figures 1 through 5). The project is funded by the State of Hawai‘i Department of Transportation (HDOT) and the Federal Highways Administration (FHWA). All work is expected to occur within HDOT’s current 90-101 ft. right-of-way.

The project involves widening the Farrington Highway between Helelua Street and the northwestern bank of Nānākuli Stream to accommodate an auxiliary lane that will facilitate left turns at Nānākuli and Haleakalā Avenues, as well as improve overall intersection performance and safety. Other proposed improvements include utility relocations, a path along the *makai* side of the highway, highway lighting, and drainage. Widening would occur on the *makai* portion of the highway, however, some sidewalk and drainage improvements would also occur on the *mauka* portion of the project area.

The highway and infrastructure improvements will impact an existing bike and pedestrian path, as well as a portion of State Inventory of Historic Properties (SIHP) No. 50-80-12-9714, the Oahu Railway and Land Company (OR&L) railroad tracks. The project area measures approximately 0.8 miles in length and 9.0 acres in total area.

9.1 Results of Background Research

The background research reveals the following salient information:

1. Located within the Nānākuli Ahupua‘a, the project area is associated with many *mo‘olelo* and *‘ōlelo no‘eau* (proverbs or poetical sayings), including stories of the demigod Māui. These *mo‘olelo* place the project site within a cultural context, linked with the names and stories of the *ahupua‘a*.
2. It is in the district of Wai‘anae that the famous exploits of Māuiakalana (Māui) originated. Māui-mua, Māui-waena, Māui-ki‘iki‘i, and Māui-akalana were born at Ulehawa and Kaolae. Pu‘u Heleakalā is where Hina, Māui’s mother, lived in a cave and made her *kapa* (cloth). Other areas of significance in Wai‘anae include: the place where Māui’s adze was made, the magic fishhook, Mānaiakalani, and his kite flying expedition.
3. McAllister’s, Site 148, the Māui *pōhaku* (rock), is located on Farrington Highway, in the Garden Grove condo complex. The rock is very large, and split in half. It was here that Māui reposed and sunned himself.
4. The name Nānākuli is defined in many ways. The common definitions include: “to look at the knees” or “to look deaf.” A different interpretation contends that the original name of this *ahupua‘a* was Nānā-i-ka-ule. This name means “to look at a man’s testicles,” which refers to the shape of the Nānākuli mountain range.

5. During the Māhele there were five applications that were brought before the Land Commission. Of those five, not one land claim was awarded. These lands consisted of house lots, streams, ponds, cultivated land areas filled with sweet potatoes, *wauke* (paper mulberry), and firewood.
6. Nānākuli was an area that lacked fresh water, and the ability to cultivate land. However, ocean resources such as fish, *limu* (seaweed), *‘opihi* (limpet), *pīpīpī* (small mollusks), and *kūpe‘e* (marine snail) were in abundance.
7. The beaches used by the *kama‘āina* (locals) of Nānākuli include but are not limited to: Lanikūhonua, Kahe Beach, Kahe Point Beach Park, Hawaiian Electric Beach Park, Manner’s Beach, Nānākuli Beach Park, Pili o Kahe, Zablan Beach, and Kalaniana‘ole Beach Park. From the creation of the Hawaiian Islands through the present day, people of Nānākuli have used these beaches for various activities such as collecting freshwater, fishing, diving, and swimming.
8. In 1917, the State of Hawai‘i gave 31.6 acres of land to the U.S. Government for military use. The land was located at the current location of Ka Waihona o ka Na‘auao Charter, and extended *mauka* into the valley. This parcel was named Camp Andrews and was used as a rest and recreation (R&R) area for military personnel before and during World War II.
9. In 1920s and 1930s, a wave of homesteaders flocked to Nānākuli under the Hawaiian Homes Commission Act. By the late 1930s over 200 residential lots had been taken.
10. During the 1920s and 1930s, the Territorial Government did not fulfill its promise to supply water to the people of Nānākuli, and competition between the Wai‘anae Sugar Plantation and homesteaders caused friction. Homesteaders had to haul in their own water from flumes located at the sugar plantations. Because water was so scarce, many people lost their crops.

9.2 Results of Community Consultations

CSH contacted 31 individuals for this CIA. After receiving the initial contact letter, five individuals recommended others for interviews; two provided responses in writing; and seven participated in a total of three formal interviews. Community consultation yielded the following findings:

1. Natural/cultural resources and practices. Interview participants discussed a few past and present cultural resources and activities in and near the project area including: fish (e.g., menpachi, uhu, akule, ‘āweoweo); *limu* (seaweed, algae) (e.g., līpēpē, *limu kohu*, waiwai‘ole); plants (kiawe, lehua, and honohono grass); fishing, surfing, canoe paddling, *limu* gathering and salt collection (at the salt pond that was located at Keaulana beach).
2. Iwi kūpuna (human remains). One respondent and the SHPD commented on the possibility of human remains in or near the project area. One respondent

recommends that if the sand on the makai side of Farrington Highway is impacted, there should be (cultural) monitoring of the construction area.

3. **Public Access to Beaches.** A few respondents and the SHPD are concerned that the community be able to continue cultural practices and activities such as fishing, laying-net, diving, surfing, canoe paddling, and honoring their kūpuna who they have laid to rest at sea. This includes making sure there is access to, and ample parking at, beach areas fronting the proposed project area throughout the construction phase.
4. **Train Tracks.** One respondent proposes that the OR&L train tracks be preserved.
5. **Property.** Two respondents propose the acquisition of private property be taken into consideration when doing improvements to Farrington Highway for this and any future projects.
6. **Berms and Sidewalks.** One respondent proposes that the City and County of Honolulu remove all of the berms lining the mauka side of Farrington Highway, and replace the berms with an elevated sidewalk.
7. **Extending the Auxiliary Lane.** Two respondents recommend the auxiliary lane be extended beyond the currently proposed length. One respondent proposed that the auxiliary lane should extend to Lualualei Naval Road; the other respondent recommends the auxiliary lane begin at the entrance of Nānākuli Beach Park, and finish at Lualualei Naval Road.
8. **Flooding.** Two respondents state that coastal flooding is an issue along Farrington Highway because of the decrease in sand along Nānākuli's beaches. Therefore, the project should make an effort not to impact the sand, sand dunes, and overall beach landscape, in order to avoid adverse affects.
9. **Pedestrian Safety.** Two respondents addressed pedestrian safety; one proposes a pedestrian overpass be constructed, so that children may cross Farrington Highway safely; one recommends the traffic lights in the school area be synchronized to ensure the safety of pedestrians crossing in school zoned areas.
10. **Speed Limit.** Two respondents believe that speeding is a problem along Farrington Highway, especially in school-zoned areas that have reduced speeds of 35 mph.

9.3 Recommendations

Based on background research and community consultation detailed in the CIA report, CSH recommends the following measures to mitigate potentially adverse effects of the proposed project on the community, cultural resources, practices, and lifestyle:

1. Personnel involved in development activities in the Project area should be informed of the possibility of inadvertent cultural finds, including, but not limited to, human remains. If cultural or burial sites are identified during ground disturbance, all work should immediately cease, and the appropriate agencies should be notified pursuant to applicable law. It is advised that, should the sandy

area be disturbed during ground-breaking and construction, a cultural monitor be on hand.

- 2 Ensure that community have continued access to beach areas for cultural and recreational practices such as swimming, diving, fishing, laying-net, surfing, and gathering of ocean resources.
- 3 Preserve the OR&L train tracks which are a significant historic property listed on the National Register of Historic Places and important to the history of Hawai'i.
- 4 Generally, it is recommended that project proponents continue to consult with community members about cultural and related concerns throughout the planning and implementation of the project. Study participants raised several issues and presented ideas that may be used to inform project design, namely:
 - a. Elevating and widening sidewalks to accommodate multiple pedestrians including people in wheelchairs.
 - b. Extending the proposed auxiliary lane from the entrance of Nānākuli Beach Park to Lualualei Naval Road, in order to alleviate the traffic congestion and vehicular accidents.
 - c. Ensuring that temporary and permanent highways including a pedestrian walkway or overpass to ensure the safety of people along Farrington Highway.
 - d. Reducing the speed limit in school zones from 35 mph to 25 mph.
 - e. Considering the potential for coastal flooding and runoff problems that could affect homes, businesses, and schools along Farrington Highway.
 - f. Considering the impact to the property of businesses and residences along Farrington Highway to ensure that encroachment is minimal or addressed prior to the bidding of a project.

Section 10 References Cited

Armstrong, Warwick

1973 *Atlas of Hawai‘i*. University of Hawaii Press, Honolulu, Hawai‘i.

Barrera, William M., Jr.

1975 *Archaeological Site Survey at Mā‘ili, O‘ahu*, Chiniago, Inc., Kamuela, Hawai‘i.

Beasley, T.D., and Jas.T. Taylor

1899 O‘ahu, Hawaiian Islands: compiled from maps of government surveys and other reliable sources.

Bernard, H. Russell

2006 *Research Methods in Anthropology: Qualitative and Quantitative Approaches*, Fourth Edition. Rowman Altamira, Lanham, Maryland.

Board of Commissioners to Quiet Land Titles in the Hawaiian Islands

1929 Indices of Awards by the Board of Commissioners to Quiet Land Titles in the Hawaiian Islands, Hawaii State Archives, Honolulu, Hawai‘i.

Bordner, Richard M.

1977 *Archaeological Reconnaissance of the Proposed Nanakuli Landfill Site, Wai‘anae, O‘ahu Island, ARCH #14-103*, Lawai, Kauai, Hawai‘i.

Chinen, Jon J.

1958 *The Great Māhele, Hawaii's Land Division of 1848*. University of Hawaii Press, Honolulu, Hawai‘i.

Chiogioji, Rodney, and Hallett H. Hammatt

1993 *Archaeological Investigations of a 5-acre Parcel in the Ahupua‘a of Lualualei, Island of O‘ahu (TMK 8-7-21:17)*. Cultural Surveys Hawai‘i, Kailua, Hawai‘i.

Clark, John R. K.

1977 *The Beaches of O‘ahu*. University of Hawaii Press, Honolulu, Hawai‘i.

Commission on Boundaries

1862 *Commission on Boundaries*. Hawai‘i State Archives, Honolulu, Hawai‘i.

Commissioner of Crown Lands

1902 *Reports of the Commissioner of Crown Lands, Provisional Government*. Hawai‘i State Archives, Honolulu, Hawai‘i.

Condé, Jesse C., and Gerald M. Best

1973 *Sugar Trains, Narrow Gauge Rails of Hawai‘i*. Glenwood Publishers, Felton, California.

Cordy, Ross

1975 *Archaeological Excavation of CH-OA-1 (Mā‘ili, O‘ahu)*, Unknown publisher.

1976 *An Archaeological Survey of Kaiser Pacific Properties' Land, Maili Kai, O‘ahu*. Manuscript on file; Department of Land and Natural Resources, State of Hawai‘i—Historic Sites Section.

- 1993 *Basic Planning Information from DLNR 1988-1990 Archeological Survey of the DHHL Nanakuli Lands*. State Historic Preservation Division, DLNR, State of Hawai'i, Honolulu.
- 1997 *Learning About Nanakuli's Past The 1988-1991 Archaeological Survey of Nanakuli*. State Historic Preservation Division, DLNR, State of Hawai'i, Honolulu, Hawai'i Resources..
- 1998 *Ka Moku O Wai'anae: He Mo'olelo O Ka Wa Kahiko*. State Historic Preservation Division, State of Hawai'i, Honolulu, Hawai'i.
- Cordy, Ross, W. Bruce Masse, Nathaniel Pak, Lou Jane, Moana Lee, and Carina Johnson**
1990 *Status Report 3 DHHL-DLNR Nanakuli Archaeological Survey*.
- Cummins, Gary**
1974 *National Register of Historic Places Nomination Form for the Historic O'ahu Railway and Land Company Right-of-Way*. Copies available from the State Historic Preservation Division, Kapolei, Hawai'i.
- Dega, Michael**
1998 *Letter Report Regarding an Archival and Field Reconnaissance of Ulehawa Beach Park Project. Nanakuli, Hawai'i*. Scientific Consulting Services, Honolulu, Hawai'i.
- Ellis, William**
1969 *Polynesian Researches, Hawaii*. Charles E. Tuttle Company, Rutland, Vermont.
- Elmore, Michelle, and Joseph Kennedy**
2003 *An Archaeological Mitigation plan for the Wai'anae Coast Emergency Access Road Nanakuli Makai Improvements (Phases 1 & 2), Wai'anae District, Island of O'ahu*. Archaeological Consultants of the Pacific, Inc.
- Foote, Donald E., E.L. Hill, S. Nakamura, and F. Stephens**
1972 *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii*. U.S. Dept. of Agriculture, U.S. Government Printing Office, Washington, D.C.
- Hammatt, Hallett H., and David Shideler**
1990 *Archaeological Monitoring at Liopolo Street, Mā'ili 8" Water System, Part III, Mā'ili, Wai'anae, O'ahu (With a Discussion of Burials S.S. No. 50-80-08-4244)*. Cultural Surveys Hawai'i, Kailua, Hawai'i.
- Hammatt, Hallett H., Matt McDermott, and Rodney Chiogioji**
1999 *Archaeological Assessment of an Approximately 15-Acre Parcel, Ahupua'a of Nānākuli, Wai'anae District, Island of O'ahu (TMK 8-9-02:65)*. Prepared for Wilson Odamoto and Associates. Cultural Surveys Hawai'i, Kailua, Hawai'i.

Hammatt, Hallett H., Jennifer Robins, and Mark Stride

- 1993 *An Archaeological Inventory Survey of a 170-Acre Parcel in the Ahupua'a of Lualualei, Wai'anae District, Island of O'ahu (TMK 8-7-9: portion 2; 8-7-10: 6 & 10; 8-7-19: portion 1)*. Prepared for Hida, Okamoto and Associates by Cultural Surveys Hawai'i, Kailua, Hawai'i.

Handy, E.S. Craighill

- 1940 *The Hawaiian Planter*, Volume 1, Bishop Museum Bulletin No. 161. B.P. Bishop Museum, Honolulu, Hawai'i.

Handy, E.S. Craighill and Elizabeth G. Handy

- 1972 *Native Planters in Old Hawaii: Their Life, Lore, and Environment*. B.P. Bishop Museum Bulletin 233, B.P. Bishop Museum, Honolulu, Hawai'i.

Haun, Alan E.

- 1991 *An Archaeological Survey of the Naval Magazine & Naval Communications Area Transmission Facility, Lualualei, O'ahu, Hawai'i*. Ms. 100191, B.P. Bishop Museum, Honolulu, Hawai'i.

Haun, Alan E., and Marion Kelly

- 1984 *Research Design for an Archaeological Survey of Naval Communication Area Radio Transmission Facility, Lualualei; and Naval Air Station, Barbers Point. Oahu, Hawaii*. Dept. of Anthropology, B.P. Bishop Museum, Honolulu, Hawai'i.

Hawaii Department of the Interior

- 1902 *Oct. 6th. 1902*. Interior Department Documents. Department of the Interior, Honolulu, Hawai'i.

Hawai'i TMK Service

- N. D. Hawai'i TMK Service, 222 Vineyard St Ste 401, Honolulu, Hawai'i. Tax Map Key [3] 7-5-010:64 and 7-5-017:20

Hawai'i Department of Transportation

- 2008 Conceptual Roadway Plan, Farrington Highway Intersection Improvements, Nanakuli and Haleakala Intersections, Federal-Aid Project No. STP-093-K22.

Holt, John Dominis, ed.

- 1979 *An Account of the Sandwich Islands: The Hawaiian Journal of John B. Whitman, 1813-1815*. Topgallant Publishing Co., LED & Peabody Museum of Salem, Honolulu, HI and Salem, Massachusetts.

I'i, John Papa

- 1959 *Fragments of Hawaiian History* (Pukui translation). Bishop Museum Press, Honolulu, Hawai'i.

Jimenez, Joseph A.

- 1994 *Additional Archaeological Inventory Survey, Maili Kai Project Area, Land of Lualualei, Waianae District, Island of O'ahu*. Paul H. Rosendahl, Ph.D., Inc., Hilo, Hawai'i.

Jones, C. Kulani and Hallett H. Hammatt

- 2005 *Archaeological Monitoring Report for the Fiber Optic Cable Installation of the DHHL Subdivision in Nānākuli Ahupua'a, Wai'anae District, Island of O'ahu TMK [1] 8-9; 8-9-02:23, 36, 38; 8-9-03:63; 8-9-04:78, por. 79; 8-9-07:01.* Cultural Surveys Hawai'i, Kailua, Hawai'i.

Juvik, Sonia P., and James O. Juvik, eds.

- 1998 *Atlas of Hawai'i.* Third Edition. University of Hawai'i Press, Honolulu. Department of Geography, University of Hawai'i at Hilo, Hawai'i.

Kamakau, Samuel Manaiakalani

- 1992 *Ruling Chiefs of Hawaii.* Revised Edition. The Kamehameha Schools Press, Honolulu, Hawai'i.

Kelly, Marion

- 1991 "Notes on the History of Lualualei", in: *An Archaeological Survey of the Naval Magazine & Naval Communications Area Transmission Facility*, by Alan E. Haun. Bishop Museum, Honolulu, Hawai'i.

Kennedy, Joseph

- 1983 *A Walk-Through Surface Survey of the Proposed Waianae Corporation Yard (TMK:8-7-06:32) at Lualualei, Island of Oahu.* Archaeological Consultants of Hawaii, Inc. Honolulu, Hawai'i.

Krauss, Beatrice H.

- 1993 *Plants in Hawaiian Culture.* University of Hawaii Press, Honolulu, Hawai'i.

Kuykendall, Ralph S., and A. Grove Day

- 1961 *Hawaii: A History From Polynesian Kingdom to American Statehood.* Prentice-Hall, Inc., Englewood Cliffs.

LeSuer, C. Celeste and Paul Cleghorn

- 2005 *Archaeological Monitoring for Nānākuli Beach Park (Zablan Beach Park) Parking Lot Improvements Project, Nānākuli, O'ahu Island, Hawaii (TMK: 8-9-06:01).* Pacific Legacy, Inc. Kailua, Hawai'i.

Mayberry, J.D. and P.H. Rosendahl

- 1994 *Archaeological Reconnaissance Survey for Environmental Impact Statement (EIS) Maili Kai Property, Land of Lualualei, Waianae District, Island of O'ahu (TMK: 8-7-10:2, 14).* Paul H. Rosendahl, Ph.D. Inc., Hilo.

Mays, Nicholas, and Catherine Pope

- 1995 Rigour and qualitative research. *British Medical Journal* **311**:109–112.

McAllister, J.G.

- 1933 *Archaeology of O'ahu.* Bishop Museum, Bulletin 104, Honolulu, Hawai'i.

McDermott, Matt, Rodney Chiogioji and Kaohulani McGuire

- 2001 *Archaeological Inventory Survey of the Proposed 15-Acre Nānākuli IV Elementary School Site (A Portion of the Former Camp Andrews), Nānākuli Ahupua'a, Wai'anae District, Island of O'ahu (TMK: 8-9-02:65).* Cultural Surveys Hawai'i, Kailua, Hawai'i.

McDermott, Matt, and Hallett H. Hammatt

- 1999 *Archaeological Inventory Survey of the Proposed Nanakuli 242 Reservoir Site, With Archaeological Assessment of the Proposed 20" Transmission Main Along Nānākuli Avenue, Nānākuli, Wai'anae District, Island of O'ahu (TMK: 8-9-8:3).* Cultural Surveys Hawai'i, Kailua, Hawai'i.
- 2000 *Archaeological Inventory Survey of the 57.65 Acre 'Ulehawa Beach Park Parcel, Ahupua'a of Lualualei, Wai'anae District, Island of O'ahu, (TMK:8-7--05:01,03 and 05; 8-7-06:03; 8-7-07:01, 8-7-08:26).* Cultural Surveys Hawai'i, Kailua, Hawai'i.

McGrath, E. J., Jr., K. M. Brewer, and Robert Krauss

- 1973 *Historic Wai'anae, A Place of Kings.* Island Heritage Ltd., Norfolk Island, Australia.

McGuire, Ka'ohulani, and Hallett H. Hammatt

- 1999 *Native Hawaiian Gathering Rights Assessment for the Proposed Nānākuli 242 Reservoir Site and 20" Transmission Main Along Nānākuli Avenue, Nānākuli, Wai'anae District, Island of O'ahu (TMK: 8-9-8:3).* Cultural Surveys Hawai'i, Kailua, Hawai'i.

McIntosh, James and Paul L. Cleghorn

- 2006 *Archaeological Monitoring Services During Construction at 'Ulehawa Beach Park, Ahupua'a of Lualualei, District of Wai'anae, Island of O'ahu (TMK: (1) 8-7-005:001)* Pacific Legacy, Inc.

Nahulu, Genevieve

- 1991 Genevieve Nahulu of Nanakul: a life history: as told to Yvonne Yarber. Department of Education, Honolulu, Hawai'i.

Nakamura, Barry, and Jeffrey Pantaleo

- 1994 *Aspects of the History of Lualualei and Nānākuli, Wai'anae, O'ahu.* Aki Sinoto Consulting.

Ogden Environmental and Energy Services, Inc.

- 1995 *Archaeological Subsurface Testing in Conjunction with Milcon P-313, Range Operations Center Naval Undersea Warfare Engineering Station Detachment, Lualualei at Nānākuli, O'ahu Island, Hawai'i (Pre-Final Report).* Prepared for the Department of the Navy, Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawai'i.
- 1997 *Final Report Cultural Resources Overview Survey Naval Magazine Lualualei, Island of O'ahu, Hawai'i, in Conjunction with Department of Defense Legacy Resources Management Program: Demonstration Project #70.* Prepared for the Department of the Navy, Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawai'i.
- 1998 *Final Archaeological Report, Phase I Reconnaissance Survey, Naval Radio Transmitter Facility Lualualei (RTF Lualualei), Oahu, Hawaii.* Ogden Environmental and Energy Services Co., Inc.

O'Leary and Matt McDermott

- 2006 *Archaeological Inventory Survey of 200 Acres for the Proposed Nānākuli B Site Materials Recovery Facility and Landfill*. Lualualei Ahupua'a, Wai'anae District, Island of O'ahu, Hawai'i. Cultural Surveys Hawai'i Inc., Kailua, Hawai'i.

Ostroff, Brad and Michael Desilets

- 2005 *Archaeological Monitoring Results for the Installation of a Waterline along Farrington Highway between Hakimo Road and Haleakala Avenue Intersections, Nanakuli and Lualualei Ahupua'a, District of Wai'anae, O'ahu Island, Hawai'i*. Garcia and Associates, Kailua, Hawai'i.

Pak, Nathaniel, and Ross Cordy

- 1990 *Status Report 4 DHHL-DLNR Nanakuli, Archaeological Inventory Survey (TMK 8-4-04:08)/(TMK 8-9-07:08)*.

Pukui, Mary K., Samuel H. Elbert and Esther Mookini

- 1974 *Place Names of Hawaii*. University of Hawaii Press, Honolulu, Hawai'i.

Schmitt, Robert C.

- 1973 *The Missionary Censuses of Hawaii*. Pacific Anthropological Records, 20, Honolulu, Hawai'i.

Shepard, F.P., G.A. Macdonald, and D.C. Cox

- 1950 *The Tsunami of April 1, 1946*. University of California Press, Berkeley, California.

Sinoto, Aki, and Jeffrey Pantaleo

- 2002 *Archaeological Monitoring Plan for the Proposed Site Improvements, Nanakuli Beach Park, Nanakuli, Wai'anae, O'ahu TMK: 8-9-001:002*. Prepared for the City and County of Honolulu c/o Engineers Surveyor's Hawaii, Inc. by Aki Sinoto Consulting, Honolulu, Hawai'i.

Stein, Erica and Hallett H. Hammatt

- 2006 *Archaeological Monitoring Report for the Nānākuli Beach Park Sewer Connection for the Recreation Center Project, Nānākuli Ahupua'a, Wai'anae District, O'ahu Island [TMK: (1) 8-9-001:002]*. Cultural Surveys Hawai'i, Kailua, Hawai'i.

Sterling, Elspeth P., and Catherine C. Summers (comp.)

- 1978 *Sites of O'ahu*. Dept. of Anthropology, B.P. Bishop Museum, Honolulu, Hawai'i.

Tulchin, Jon and Hallett Hammatt

- 2007 *Archaeological Assessment for the Leeward Coast Emergency Homeless Shelter Project, Lualualei Ahupua'a, Wai'anae District, Island of O'ahu, TMK: [1] 8-7-010:007*. Cultural Surveys Hawai'i, Kailua Hawai'i.

Tulchin, Jon, Kathryn Whitman, and Hallett Hammatt

- 2007 *Archaeological Assessment for the Waianae Sustainable Communities Plan Project, Lualualei Ahupua'a, Waianae District, O'ahu Island TMK [1] 8-7-023:060*. Cultural Surveys Hawai'i, Kailua Hawai'i.

Tulchin, Todd, Constance R. O'Hare and Hallett Hammatt

- 2003 *Archaeological Inventory Survey in Support of the Proposed Wai'anae 242 Reservoir and Access Road Project, Lualualei Ahupua'a, Wai'anae District, Island of O'ahu*. Cultural Surveys Hawai'i, Kailua Hawai'i.

U.S. Department of Agriculture

- 2001 Soils Survey Geographic Database (SSUGRO).

U.S. Geological Survey

- 1924 Wai'anae and Schofield Barracks Topographic Quadrangles 7.5 Minute Series Map.
- 1927 Wai'anae and Schofield Barracks Topographic Quadrangles 7.5 Minute Series Map.
- 1954 Wai'anae and Schofield Barracks Topographic Quadrangles 7.5 Minute Series Map.
- 1998 Wai'anae and Schofield Barracks Topographic Quadrangles 7.5 Minute Series Map.
- 2005 Orthoimagery of Wai'anae and Schofield Barracks Topographic Quadrangles.

U.S. War Department

- 1919 Map of O'ahu Island. Copies available from Cultural Surveys Hawai'i Library, Waimānalo, Hawai'i.
- 1943 Map of O'ahu Island. Copies available from Cultural Surveys Hawai'i Library, Waimānalo, Hawai'i.

Waihona 'Aina

- 2000 *The Māhele Database*. Electronic document, www.waihona.com.

Whitehead, Bonnie and Paul L. Cleghorn

- 2003 *Archaeological Monitoring of Nānākuli Water System Improvements, Nānākuli Avenue, Nānākuli, Island of O'ahu (TMK 8-9-005)*. Pacific Legacy, Inc. Kailua, Hawai'i

Wilkes, Charles

- 1845 *Narrative of the U.S. Exploring Expedition. During the Years 1838, 1839, 1840, 1841, 1842.....* Lea & Blanchard, Philadelphia.

Yorck, Jesse and Hallett H. Hammatt

- 2003 *Archaeological Monitoring Report for the Nānākuli IV Elementary School Project, Nānākuli Ahupua'a, Wai'anae District, Island of O'ahu [TMK: (1) 8-9-02:65]*. Cultural Surveys Hawai'i, Kailua, Hawai'i.

Yucha, Trevor and Hallett H. Hammatt

- 2007 *Archaeological Monitoring Report for the Nānākuli Beach Park (Cove Location) Sewer Connection, Nānākuli Ahupua'a, Wai'anae District, O'ahu Island [TMK: (1) 8-9-006:001]*. Cultural Surveys Hawai'i, Kailua, Hawai'i.

Yucha, Trevor and Hallett H. Hammatt

2008 *Archaeological Monitoring Report for the Nānākuli Beach Park (School Location) Sewer Connection, Nānākuli Ahupua'a, Wai'anae District, O'ahu Island [TMK: (1) 8-9-001:002]*, Cultural Surveys Hawai'i, Kailua, Hawai'i.

Draft

Appendix A Authorization and Release Form

Cultural Surveys Hawai'i, Inc.

Archaeological and Cultural Impact Studies
Hallett H. Hammatt, Ph.D., President



P.O. Box 1114

Kailua, Hawai'i 96734

Ph: (808) 262-9972

Fax: (808) 262-4950

Job code: NANAKULI 6

slincoll@culturalsurveys.com

www.culturalsurveys.com

AUTHORIZATION AND RELEASE FORM

Cultural Surveys Hawai'i (CSH) appreciates the generosity of the *kūpuna* and *kamā'āina* who are sharing their knowledge of cultural and historic properties, and experiences of past and present cultural practices in the Nānākuli Ahupua'a for the Cultural Impact Assessment CSH is preparing for the proposed Farrington Highway Intersection Improvement Project.

We understand our responsibility in respecting the wishes and concerns of the interviewees participating in our study. Here are the procedures we promise to follow:

1. The interview will not be tape-recorded without your knowledge and explicit permission.
2. You will have the opportunity to review the written transcript or notes of our interview with you. At that time you may make any additions, deletions or corrections you wish.
3. You will be given a copy of the interview transcript or notes for your records.
4. You will be given a copy of this release form for your records.

For your protection, we need your written confirmation that:

1. You consent to the use of the complete transcript and/or interview quotes for reports on cultural sites and practices, historic documentation, and/or academic purposes.
2. You agree that the interview shall be made available to the public.

Out of courtesy we would like to reconfirm that:

1. If you provided an interview to CSH in the past (for Nānākuli, Lualualei, or Wai'anae), we may include all or parts of the prior interview/s published in past reports in the current report.


I, _____, agree to the procedures outlined above and, by my
(Please print your name here)
signature, give my consent and release for this interview and/or photograph to be used as specified.


(Signature)

(Date)

Appendix B SHPD Response Letter

LINDA LINGLE
GOVERNOR OF HAWAII





STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

LAURA H. THIELLEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

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

September 1, 2009

LOG NO: 2009.3745
DOC. NO: 0909PC001

MEMORANDUM

TO: Angela Fa'anunu, Researcher
Cultural Surveys Hawai'i, P.O. Box 1114, Kailua, Hawai'i 96734

FROM: Phyllis Coochie Cayan, History and Culture Branch Chief
Phyllis Coochie Cayan

Subject: **NANAKULI 6: Cultural Impact Assessment (CIA) for THE Farrington Highway Intersection Improvements, Nanakuli Avenue and Helelua Street project in Nanakuli Ahupua'a, 'Ewa District, Island of O'ahu.**
TMK: Multiple.

This memo is in response to your request to help assess potential impacts to cultural practices as a result of the proposed Farrington Highway Intersection Improvements, Nanakuli Avenue and Helelua Street project in Nanakuli Ahupua'a with reference to the area maps provided. As you well know, this part of Nanakuli is heavily developed and utilized as the main road in and out of the Waianae Coast that parallels the shoreline.

SHPD's concern is with any ground disturbance activities which may reveal burials in the project area or as has been found previously in nearby parcels and along the shoreline. Although the project is for the highway area, the department is concerned that fisher folks, canoe paddlers, swimmers, other recreational users and cultural practitioners are not prohibited from accessing the shoreline throughout the construction phase.

Please talk story with the folks in the area who will be impacted by the construction and who best know the cultural resources therein. Other resource folks you may find helpful as you begin this planning process are:

1. Auntie Alice Greenwood, Commissioner for O'ahu Island Burials Council Cell: 808-371-8958
2. William Aila, Community & Cultural Resource person Cell: 808-216-5601
3. Kamaki Kanahale, Native Hawaiian Healing Center Phone: 697-3300
4. Auntie Aggie Cope, Native Hawaiian Healing Center, Kupuna Council Phone: 697-3300
5. Nanakuli Neighborhood Board of Directors (see City & County listing for contact info)

Any questions, please call me at 808-692-8015 or via email Phyllis.L.Cayan@hawaii.gov.

C: Pua Aiu, SHPD Administrator
Nancy McMahon, Deputy SHPO

Appendix C OHA Response Letter

PHONE (808) 594-1888



FAX (808) 594-1865

STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

HRD09/4331B

September 10, 2009

Shannon K.K. Lincoln
Cultural Surveys Hawai'i
P.O. Box 1114
Kailua, Hawai'i 96734

RE: Cultural Impact Assessment Consultation
Farrington Highway Intersection Improvements Project
Nānākuli Ahupua'a, 'Ewa District, O'ahu

Aloha e Shannon Lincoln,

The Office of Hawaiian Affairs (OHA) is in receipt of your August 25, 2009 letter initiating consultation ahead of a cultural impact assessment (assessment) for the proposed Farrington Highway Intersection Improvements project (project). Based on the information contained within your letter, the Hawai'i Department of Transportation is proposing to widen and construct a shared-use path on the makai side of Farrington Highway, implement drainage improvements and install highway lighting and possible utility relocations within the 0.8 mile project area.

OHA has no comments on the CIA at this time. We do seek assurances that all appropriate best management practices will be established and implemented in order to protect near shore waters and marine species during project activities. Thank you for initiating consultation at this early stage and we look forward to the opportunity to review the completed assessment. Should you have any questions, please contact Keola Lindsey, Lead Advocate-Culture at 594-1904 or keolal@oha.org.

‘O wau iho nō me ka ‘oia‘i‘o,

A handwritten signature in black ink, appearing to read "Clyde W. Nāmu'o".

Clyde W. Nāmu'o
Administrator