

HONOAPI'ILANI HIGHWAY IMPROVEMENTS PROJECT,  
WEST MAUI: UKUMEHAME TO LAUNIUPOKO

# Appendix 3.6 – Archaeological and Architectural Historic Properties – Supplemental Information

December 2024

*Prepared for*



Honoapi'ilani Highway  
Improvements

*Prepared by*





# Contents

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WSP USA Inc. Reconnaissance Level Architectural Historic Resource Survey (RLS)

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Draft Programmatic Agreement





**WSP USA Inc**  
**Reconnaissance Level Architectural Historic**  
**Resource Survey (RLS)**

# Reconnaissance Level Architectural Historic Resource Survey (RLS) for the Honoapi'ilani Highway Improvements, West Maui, from Launiupoko to Ukumehame, Lāhainā District, Hawai'i



Prepared for:



Honoapi'ilani Highway  
Improvements

Prepared by:



October 2024



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**Reconnaissance Level Architectural  
Historic Resource Survey (RLS) for the  
Honoapi'ilani Highway Improvements,  
West Maui, from Launiupoko to  
Ukumehame, Lāhainā District, Hawai'i**

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# ABSTRACT

Between April 3 and 7, 2023, at the request of the Hawai'i Department of Transportation (HDOT), Secretary of the Interior's (SOI) Qualified WSP Environment and Infrastructure architectural historian professionals conducted a Reconnaissance Level Architectural Historic Resource Survey (RLS) for the proposed realignment of Honoapi'ilani Highway (State Route 30) in Maui County, Hawai'i (Project). Periodic flooding and coastal erosion threaten the highway, and the proposed Project's goal is to improve the route by reducing its vulnerability to coastal hazards; thus, providing a reliable transportation facility in West Maui. The Project area, consisting of four proposed alignment corridors, is focused on the segment of Honoapi'ilani Highway from Ukumehame, at approximately milepost 11, in the vicinity of Pāpalaua Wayside Park to Launiupoko, at milepost 17, which is the existing southern terminus of Lāhainā Bypass.

This survey was conducted to meet the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R. Part 800), as well as Hawai'i Revised Statutes (HRS) § 6E and its administrative provisions at Hawai'i Administrative Rules (HAR) § 13-275 and guidelines developed by the Hawai'i State Historic Preservation Division (SHPD) (SHPD 2018). The purpose of the survey was to identify aboveground properties 35 years of age and older located within the Area of Potential Effects (APE); to evaluate these properties relative to their eligibility for listing in the National Register of Historic Places (NRHP) and the State Register of Historic Places (SRHP) individually, as a historic district by applying the Criteria for Evaluation (36 C.F.R. § 60.4 and HAR § 13-275-6). The APE differs from the project area, by taking into consideration a potential viewshed, and thus includes all buildings and structures located within parcels surrounding the four proposed alternatives. The total area surveyed included approximately 970 acres.

A total of forty architectural properties 35 years of age and older were identified within the APE. Of these resources, eight were previously surveyed and evaluated and thirty-two properties were newly identified. The properties previously evaluated were revisited in this survey to reevaluate individual eligibility, as well as possible significance as contributing resources to a proposed or previously identified historic district. The forty revisited and newly identified resources included thirteen residential and commercial buildings, one religious building/cemetery complex, one cemetery, two landings/wharfs, one bridge, two historic freight corridors, two roadway networks, six boundary wall structures, one water tower structure, one well, a series of agricultural push piles, and nine water control structures or series of water control structures. Of these forty properties, three are recommended as individually eligible for listing in the NRHP and SRHP. Moreover, ten properties, while not individually eligible, are identified as contributing resources to this report's recommendation of proposing an NRHP-eligible Olowalu Sugar Plantation Historic District. It is important to note that the Olowalu Sugar Plantation Historic District is a proposed expansion of the previously recorded Olowalu Sugar Mill Complex Historic District (SIHP NO. 1602).

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# 1.0 INTRODUCTION

## 1.1 Project Background

At the request of the State of Hawai'i Department of Transportation (HDOT), and in coordination with the Federal Highway Administration (FHWA), Secretary of the Interior's Qualified WSP Environment and Infrastructure (WSP) architectural historian professionals conducted a Reconnaissance Level Architectural Historic Resource Survey (RLS) for the proposed realignment of Honoapi'ilani Highway (State Route 30) in Maui County, Hawai'i. The primary purpose of the Honoapi'ilani Highway Improvements Project, West Maui, Ukumehame to Launiupoko (the Project), is to provide a reliable transportation facility in West Maui and improve Honoapi'ilani Highway's resilience by reducing its vulnerability to coastal hazards.

The project area, which consists of four proposed build alternatives, is located in West Maui (Maui Konohana) in the area served by the existing Honoapi'ilani Highway between milepost 11 and milepost 17 (**Figure 1.1**). A viewshed Area of Potential Effects (APE) was established to account for impacts to aboveground historic architectural resources that are within a designated buffer surrounding the four proposed alternative corridors. The proposed southeastern terminus of the Project APE at milepost 11 is in Ukumehame within the vicinity of Pāpalaua Wayside Park and the Pali, and the northwestern terminus of the Project APE is at milepost 17 in Launiupoko, where Honoapi'ilani Highway intersects the southern terminus of Lāhainā Bypass. The approximately 6-mile-long and 0.75-mile-wide APE is composed predominantly of a coastal plain that includes the ahupua'a of Ukumehame, Olowalu, and Launiupoko.

The National Environmental Policy Act (NEPA) and Hawai'i Environmental Policy Act (HEPA) require the evaluation of reasonable alternatives with the goal of selecting a Preferred Alternative based on an understanding of the environmental consequences, including adverse or beneficial effects on cultural resources. The Project has considered a No-Build Alternative as well as four Build Alternatives (**Figure 1.2**).

## 1.2 Regulatory Context

Because the FHWA plans to fund the Project, it is an undertaking subject to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108) and its implementing regulations (36 C.F.R. Part 800), as well as Hawai'i Revised Statutes (HRS) § 6E and its administrative provisions at Hawai'i Administrative Rules (HAR) § 13-275 and guidelines developed by the Hawai'i State Historic Preservation Division (SHPD) (SHPD 2018).

Research, field investigations, and consultation for Section 106 and HRS § 6E compliance are being conducted concurrently to the extent possible.

### 1.2.1 Section 106

Under Section 106, historic properties are defined as prehistoric and historic sites, buildings, structures, districts, and objects listed in or eligible for listing in the NRHP, as well as artifacts, records, and remains related to such properties. Section 106 regulations require that the lead federal agency consult with the SHPO, Consulting Parties, and the public during planning and development of a proposed project. The federal ACHP is also invited to participate in the consultation. These agencies, groups, and individuals may participate in developing a Memorandum of Agreement or Programmatic Agreement to avoid, minimize, or mitigate adverse effects as applicable.

As part of the Section 106 process, agency officials apply the NRHP Criteria for Evaluation. A property is eligible for the NRHP if it is significant under one or more of the following criteria defined in 36 CFR Section 60.4 as:

“the quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association and that:

A: Are associated with events that have made a significant contribution to the broad patterns of our history; or

B: Are associated with the lives of persons significant in our past; or

C: Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or

D: Have yielded, or are likely to yield, information important in prehistory or history.”

Built resources are typically evaluated under Criteria A, B, and C; Criterion D applies primarily to archaeological resources. According to guidance in the NRHP bulletin, *How to Apply the National Register Criteria for Evaluation*, different aspects of integrity may be more or less relevant, depending on why a specific historic property was listed in or determined eligible for listing in the NRHP. Generally, only properties that are 50 years or older are identified and evaluated for NRHP eligibility.

Once historic properties have been identified, project effects are assessed by applying the criteria of adverse effect through the process described at 36 CFR Section 800.5. Consultation will continue with SHPO and Consulting Parties to seek ways to avoid, minimize, or mitigate adverse effects and may include development of a project-specific Memorandum of Agreement or Programmatic Agreement to memorialize these decisions and conclude the Section 106 process.

### 1.2.2 HRS § 6E

The Hawai'i HRS § 6E requirements are an equivalent, but not identical, compliance process to Section 106. Under the statute's implementing regulations at HAR § 13-275, historic properties are defined as any building, structure, object, district, area, or site, including heiau and underwater site, which is over 50 years old. Significant historic properties are defined as any historic property that meets the criteria of the Hawai'i Register of Historic Places (HRHP or SRHP) or the criteria enumerated in subsections 13-275-6(b) or 13-284-6(b). Like Section 106, HRS § 6E requires the agency to consult with the SHPD, Consulting Parties, and the public throughout Project planning and development.

To determine whether an identified historic property is a significant historic property, the agency evaluates significance according to the criteria described at HAR § 13-275-6. These criteria are equivalent to those found in federal law, are denoted using lowercase letters, and include one additional criterion specific to Hawaii:

e: Have an important value to the native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts—these associations being important to the group's history and cultural identity.

Once significant historic properties are identified, the agency determines effects to these properties and applies one of two effect determinations.

The summary table below provides a comparison of the federal Section 106 and state HRS § 6E processes and terminology.

**Table 1.1: Section 106 and 6E Comparison Summary**

<b>Section 106</b>	<b>6E</b>
Initiate the Section 106 Process	Notify the SHPD of the Project
Determine the Area of Potential Effects	Propose a Project Area
Identify Historic Properties/Apply Criteria for Evaluation	Identify and Inventory Historic Properties/Evaluate Significance
Assess Effects	Determine Effects
Resolve Adverse Effects	Propose Mitigation

**1.3 Secretary of the Interior’s Professional Qualification Standards**

WSP’s staff maintains the current standards and specifications for architectural assessments, and our principal investigators, archival researchers, and preservation specialists meet or exceed the Secretary of Interior’s specifications for architectural historians and historians. The architectural fieldwork was conducted by Mr. Matthew Prybylski, MHP. Mr. Prybylski also served as principal investigator for the historic architectural assessment. Ms. Mekenzie Davis, MA served as preservation specialists, archival researcher, and lead author for the Reconnaissance Level Architectural Historic Resource Survey. Mr. Guy Blanchard, MHP provided quality assurance / quality control (QA/QC) for the deliverables.



**Figure 1.1. Project area consisting of proposed Build Alternatives and Reconnaissance Level Architectural Historic Resource Survey APE for the proposed Honoapi'ilani Highway improvements.**



## 2.0 METHODOLOGY

### 2.1 Area of Potential Effects

As defined at 36 C.F.R. § 800.16(d), the Area of Potential Effects (APE) is “the geographic area or areas which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist”. The APE was developed in coordination with the project team and SOI-qualified professionals who reviewed the APE before submitting it to the State of Hawai‘i, SHPD. During three public scoping meetings, including two virtual meetings held on December 14, 2022, and one in-person meeting held on December 15, 2022, Consulting Parties were also given the opportunity to comment on the proposed APE, but no comments were submitted requesting a change. The APE was submitted to SHPD on January 25, 2023, and in a letter dated March 21, 2023, SHPD responded that it had no objections to the proposed APE as it was defined. It should be noted that, since previously documented and/or eligible resources, most particularly the Olowalu Mill Complex Historic District, were located immediately adjacent to the project, the survey includes all buildings and structures located within these parcels. As such, the survey includes a few resources that lay outside the established APE to account for impacts to aboveground historic architectural resources that are adjacent to the project.

### 2.2 Setting

The APE is located in West Maui (Maui Komohana) in the area served by the existing Honoapi‘ilani Highway between milepost 11 and milepost 17. Honoapi‘ilani Highway, which is part of Maui’s Belt Road system, is a two-lane principal arterial highway that provides the main access between communities along Maui’s west coast and the rest of the island. The proposed southeastern terminus of the Project at milepost 11 is in Ukumehame within the vicinity of Pāpalaua Wayside Park, and the northwestern terminus of the Project is at milepost 17 in Launiupoko, where Honoapi‘ilani Highway intersects the southern terminus of Lāhainā Bypass. Realignment of the highway is among the alternatives considered for the Project; therefore, the project study area extends from the mountains to the sea along this corridor, from the base of the West Maui Mountains to the existing highway along the coastline. The approximately 6-mile-long and 0.75-mile-wide project area is composed predominantly of a coastal plain that includes the ahupua‘a of Ukumehame, Olowalu, and Launiupoko. The APE consists of a largely rural setting, with small concentrated residential and commercial areas and a few scattered religious buildings and cemeteries among beaches, wooded areas, grasslands, modern biking/walking trails, as well as modern housing and infrastructure development in Olowalu.

### 2.3 Background Research

#### 2.3.1 Previously Surveyed Properties

The NRHP was reviewed to determine if any resources in the APE were already listed. Site file and database checks for architectural properties were provided by SHPD on February 24, 2023, with information on known and listed resources as well as previously surveyed properties that are located within the APE. A total of nine previously documented architectural properties are within the APE, seven of which were determined NRHP-eligible as part of prior surveys (**Table 3**). The previously recorded architectural properties included a cemetery, a church and cemetery complex, portions of a road, stone walls, a water reservoir, and the ruins of a sugar mill. It should be noted that the reservoir was documented in 2012 by Cultural Surveys Hawaii, Inc. (CSH); however, it has not received a State Inventory of Historic Places designation. Instead, it was designated only by a field site number and is the only property previously unassessed for NRHP eligibility.

**Table 2.1. Previously Surveyed Properties within the APE.**

<b>SIHP (50-50-08-) Number</b>	<b>Name/Address</b>	<b>Style/Form/Description</b>	<b>NRHP Eligibility</b>
01602	Olowalu Sugar Mill Complex Historic District (Olowalu Landing, houses, and Wharf)/810 Olowalu Road	Agricultural Processing/ Industrial Facility	Eligible (Historic District)
01603	Lanakila Historic Church (Olowalu Church and Cemetery)/801 Olowalu Village Road	Church and Cemetery	Eligible
04695	Retaining Wall	Erosion Control	Eligible
04696	Road/Old Government Road	19th–20th Century Road	Not Eligible
04717	Rock Wall	Boundary Demarcations	Eligible
04719	Rock Wall	Boundary Demarcations	Eligible
04720	Rock Wall	Boundary Demarcations	Eligible
04758	Awalua Cemetery	Cemetery	Eligible
CSH 4	Reservoir	Water Control	Unassessed

Source: State Historic Preservation Division

SIHP = State Inventory of Historic Places; NRHP = National Register of Historic Places; CSH = Cultural Surveys Hawai'i, Inc Field site number

### **2.3.2 Archival Research**

Archival research, which included local histories, historic maps, aerial photographs, Maui County tax assessor records, and other pertinent information, was conducted to identify specifications of existing buildings and to gain a better understanding of the history and development of the project area.

## **2.4 Field Survey**

A qualified architectural historian conducted survey fieldwork April 3 through 7, 2023, in coordination with project archaeologists. Forty architectural resources (AR) 35 years of age or older were identified within the APE. Of these resources, 9 were previously surveyed and evaluated and 31 resources were newly identified (Section 3.6, Archaeological and Architectural Cultural Resources, Table 3.6-4). These resources comprise 13 residential and commercial buildings, 1 cemetery, 1 religious building/cemetery complex, 2 landings/wharfs, 1 bridge, 2 roadways, 6 boundary wall structures, 2 freight corridors, 1 water tower, 1 well, a series of agricultural clearing push piles, and 9 water control structures or series of structures.

## 3.0 HISTORICAL OVERVIEW

The historical overview for this report is drawn from Munekiyo Hiraga's *Proposed Olowalu Town Master Plan* from October 2015; Lee-Greig et. al. *Consultation Plan for Assessing Potential Cultural Impacts for the Proposed Olowalu Town Master Plan, Olowalu Ahupua'a, Lāhainā District, Island of Maui, TMK: (2) 4-8-003: 84, 98 through 118, and 124* from February 2012; Hawaiian Sugar Planters' Association Plantation Archives historic summary of the Pioneer Mill Company; and other resources. Pre-contact Hawaiian History is discussed in the archaeology documentation prepared for this Project.

### 3.1 Early European Settlement and Contact

The 19th century brought a multitude of commercial, demographic, social, and religious changes to Hawai'i. In 1810, with the help of guns—and from Englishmen Davis and Young—Kamehameha unified the Hawaiian islands under his leadership. He had already made Lāhainā his capital in 1802. Kamehameha died in 1819, the same year the first whaling ships arrived in Hawaiian waters. Lāhainā Harbor became a primary port of call for provisioning ships in the islands. Kamehameha II ruled from 1819 to 1824.

Closely following the arrival of the first whaling ships, the first Protestant missionaries and their families arrived in Lāhainā in 1823. They soon established Protestant missions in Lāhainā and Olowalu, the latter mission serving as an outstation to the people of Ukumehame. The sugar cane in the environs of Lāhainā in the 1820s would become the basis for a commercial venture that would reshape the landscape along the alluvial plains during the second half of the 19th century.

The whaling trade flourished until the 1860s and gave impetus to the development and growing population of Lāhainā. Between 1824 and 1861, 4,747 whale ship arrivals were recorded for Lāhainā, representing 47% of the total arrivals in all ports of the Hawaiian Islands. Figures from an 1846 census of Lāhainā documents the following changes brought to the area midway through the nineteenth century: 3,445 Hawaiians, 112 foreigners, 600 seamen, 155 adobe houses, 822 grass houses, 59 straw and wooden houses and 529 dogs. With an increasing population of foreigners entering Lāhainā, there was a need to increase the traditional agricultural surplus that fell primarily under the control of the ali'i class, for economic trade.

By the mid-19th century, the Lāhainā area had been infiltrated by a growing community of foreign business entrepreneurs, transient whalers, and Calvinist-minded missionaries; all of whom had personal interests to protect and virtues to impress upon the traditional Hawaiian people. Encouraged by these foreign factions, the division of lands, based on a western model of fee simple land ownership, was instigated during the reign of Kamehameha III (Kauikeaouli). The series of acts to "Organize the Executive Ministry"—known commonly as the Organic Acts of 1845 and 1846—initiated the process of the Māhele, or division of Hawaiian lands, which would introduce private property ownership into Hawaiian society. This process also transformed the governance of the Kingdom from a full monarchy to a constitutional monarchy.

#### 3.1.1 Plantation Era

In 1864, King Kamehameha V joined with Ferdinand W. Hutchison and Rose Ranch owner James Makee in the formation of the West Maui Sugar Association, also called the West Maui Sugar Company. The West Maui Sugar Association planted sugar on crown lands in Olowalu and Ukumehame leased from Kamehameha V. Although the West Maui Sugar Association grew sugar in Olowalu, it sent its harvest to the Lāhainā Sugar Company to be processed in its mill. In 1869, the West Maui Sugar Association took over the Lāhainā Sugar Company mill. The sugar industry slumped in the 1870s. Struggling to survive, the Olowalu venture received a major blow when King Kamehameha V died in 1872. Two years later, the West Maui Sugar Association sold both its plantation and mill to the owners of the Pioneer Mill Plantation, which was founded in 1862.

### 3.2 Olowalu Sugar Company

In 1875, anticipating that the sugar industry would rebound, businessperson Milton Philip started to acquire land in Olowalu and Ukumehame. In 1875, Hawai'i signed a reciprocity treaty with the United States. And by 1876, the sugar industry was on its way to recovery. Another Maui resident, Goodale Armstrong, also acquired Olowalu property and together with Philip started the Olowalu Plantation in 1876 utilizing former crown and *kuleana* land. Philip and Armstrong formally organized the Olowalu Sugar Company in 1881 on lands given up by the West Maui Plantation. The sugar venture was originally represented by the agency of McFarlane & Co., with shares in the Olowalu Sugar Company purchased by Theophilus Harris Davies, who became the agent for the enterprise in the late 1880s.

The development of the Olowalu Sugar Company included the construction of a mill, wharf, railroad connection to Lāhainā, and an irrigation system for processing cane from other fields in Olowalu and Ukumehame. The Maunalei Sugar Company, based on Lāna'i, also shipped cane to Olowalu for processing between 1899 and 1901. During this period, the plantation also began employing Chinese, Japanese, and Puerto Rican laborers. Labor needs attracted many immigrant workers to the islands, with the largest number being from Japan (LOC ND; MacLennan 1995). Japanese immigrants were the largest segment of the Hawaiian population by 1923 (LOC ND). Cemeteries like Awalua Cemetery reflect the influence of the local Japanese population. Originally, the cemetery was considered a traditional Hawaiian burial area with a single Native Hawaiian interment. But during the sugar plantation era, the site was expanded to include predominantly Japanese interments (Fredericksen and Fredericksen 2000; R. M. Towill Corporation 2008).

In May of 1931, Olowalu Company was sold to American Factors, Ltd. (Amfac), owner of the larger adjoining Pioneer Mill Company, established in 1862, which resulted in milling shifting to Lāhainā. The Pioneer Mill Company's operations spanned between Launiupoko, Olowalu, and Ukumehame.

### 3.3 Pioneer Mill Company

James Campbell, who had been in the carpentry business in Lāhainā for some ten years, started a sugar plantation there in 1860. The small mill was powered by mules and, together with cane from Campbell's fields, manufactured sugar on shares for small cane growers in the vicinity. One of these small growers was W.Y. Horner, who had a planting agreement with the new plantation for several years circa 1882.

Soon after the establishment of the new plantation, Henry Turton and James Dunbar joined Campbell. Under the name of Campbell & Turton, the company grew cane and manufactured sugar. Dunbar left the company in 1865 and the plantation became known as Pioneer Mill Company. By 1874, Campbell and Turton had added the Lāhainā Sugar Company and the West Maui Sugar Company, a venture of Kamehameha V, to the holdings of Pioneer Mill Company.

In 1885, Pioneer Mill Company was cultivating 600 of the 900 acres owned by the company and by 1910, 8,000 acres were devoted to growing cane. In 1877, James Campbell sold his half interest to partner Henry Turton for \$500,000 with agents Hackfeld & Company holding a second mortgage of \$250,000. The company's charter was dated in 1882, but by 1885, Mr. Turton declared bankruptcy and sold the property back to James Campbell and to Paul Isenberg, who was associated with Hackfeld & Co. Mr. C. F. Horner was selected to manage the plantation. In 1889, Mr. Campbell sold his interest to Mr. Horner, leaving Horner and Isenberg holding 3,000 shares of Pioneer Mill Company stock worth \$600,000. They incorporated Pioneer Mill Company on June 29, 1895. Increasing rapidly in value over the years, Pioneer Mill Company was owned by 1,500 individual stockholders and valued at \$5,000,000 by 1916. In 1918, Horner sold his interest to American Factors, formerly Hackfeld & Co., and Pioneer Mill Company became a wholly owned subsidiary of the agent company in 1960.

When Campbell and Turton were starting the plantation, the small sugar mill consisted of three wooden rollers set upright, with mules providing the power to turn the heavy rollers. The cane juice ran into a series of boiling kettles that originally had been used on whaling ships. In 1864, the Pacific Commercial Advertiser reported that Pioneer Mill Company had manufactured about 300 tons of the best sugar during the year. By 1876, the annual production had increased to 1,708 tons of raw sugar and the World's Fair in Philadelphia awarded Pioneer Mill a prize for fine quality sugar that year. In 1882, Honolulu Iron Works

was building an iron three-roller mill for Pioneer Mill's factory and soon there were six boilers generating steam power to drive the machinery. In 1899, a nine-roller mill was erected, followed by a 12-roller mill in 1912, which was housed in a new steel factory building. By 1924, a 15-roller mill helped produce Pioneer Mill's largest sugar crop of 34,980 tons.

Pioneer Mill Company was one of the earliest plantations to use a steam tramway for transporting harvested cane from the fields to the mill. Cane from about 1,000 acres was flumed directly to the mill cane carrier with the rest coming to the mill by rail. In 1937, mechanically harvested cane was bringing so much mud to the factory that Pioneer Mill Company began to design an original cane cleaner. The cleaner was operating satisfactorily by 1939. Between 1948 and 1951, a rock removal program rehabilitated 3,153 acres of Pioneer land to permit mechanical planting, cultivating, and harvesting. This rock removal program often destroyed Native Hawaiian field systems, habitation, and ceremonial sites. The rocks were pushed into large piles (pushpiles), which still dot the landscape. In 1952, the railroad was eliminated and a year later new feeder tables were conveying cane directly from cane trucks into the factory. In 1964, the Silver Ring diffusion process was underway at Pioneer Mill Company.

Irrigation of Pioneer Mill Company's fields, an area approximately ten miles long and one- and one-half miles wide with altitudes between ten and 700 feet, was accomplished with water drawn from wells and water transported from the West Maui Mountains. The McCandless brothers drilled the first well on Maui for Pioneer Mill Company in 1883. By 1935, over \$3,000,000 had been spent on water development, including gravity systems and underground supplies. Although rocky, Pioneer fields were favorable to the growth of sugar cane and some of the best fields kept producing cane without replowing or replanting for as long as ten years. Water diverted for cane often decreased the supply for Hawaiian taro lo'i, and changed the traditional irrigation systems that fed the lowland lo'i.

In 1910, there were 1600 laborers employed by Pioneer Mill Company—half were contract laborers and half were day workers. Plantation children attended schools on the plantation and in Lāhainā. The company sponsored a kindergarten for approximately 800 to 1,000 children by 1914. In 1932, the largest number of "old time" Japanese sugar workers in the Hawaiian Islands were employed at Pioneer Mill.

Lāhainā Light and Power Company, Lāhainā Ice Company, the Lāhainā and Puukoolii Stores, and the Pioneer Mill Hospital were associated with the plantation, providing services to employees as well to Lāhainā residents. World War II caused a severe labor shortage, forcing Pioneer Mill Company to drop over 1,000 acres from cultivation.

### **3.4 Plantation Community**

As plantation laborers from other countries increased, the proportion of Hawaiians in the community decreased. Although the majority of laborers worked for the plantation and lived in community-provided housing, there were individuals that sought other opportunities. Kintaro and Kise Kawasaki purchased land and operated a truck farm in Olowalu. They also ran a store called the Olowalu *Nihonjin Shokai*, or Olowalu Japanese store. By 1910, a Japanese Language School was started to teach Japanese children the language and culture of their homeland.

A Roman Catholic Church and a Church of Jesus Christ and Latter-day Saints were established in 1916 and 1921, respectively, joining the Olowalu Hawaiian Protestant Church. By the 1930s, a theater and various sports clubs provided diversion, entertainment, and activity for the community at large.

### **3.5 The End of Sugar**

Following World War II, changes in West Maui began to transform its plantation economy and society. One of the first developments came from motorization, which started in the 1930s but accelerated after the war. The gravel Pali Road to Lāhainā began to be paved in 1938 and was then part of the larger Sunset-Skyline Highway construction project that began in 1950 and became the Honoapi'ilani Highway, which included Hawaii's first highway tunnel.

Road construction and mass motorization signaled a shift away from the plantation economy and society as agricultural lands became residential subdivisions and tourism replaced cash crops as the primary

economic engine of the archipelago. The Pioneer Mill closed in 1999, marking an end of an era. Since then, however, diversified agricultural establishments have taken hold in West Maui to diversify its economy.

## 4.0 HISTORIC PROPERTY IDENTIFICATION AND EVALUATION

The RLS for the proposed realignment of Hawai'i State Highway 30 (Honoapi'ilani Highway) was developed in consultation with the HDOT cultural resources staff and the Hawai'i SHPD and was based on a review of the density of the setting, the Project's potential for direct and visual effects upon historic resources, as well as an understanding of the specifications of the proposed undertaking. Within the APE, all parcels were examined (**Figure 4.1** and **Figure 4.2**). A total of 40 resources 35 years of age and older were identified within the APE. Of these resources, eight were previously surveyed and evaluated and 32 were newly identified (**Table 4.1**). The resources previously evaluated were revisited in this survey to reevaluate individual eligibility.

The 40 resources located within the APE included 13 residential and commercial buildings, 1 religious building/cemetery complex, 1 cemetery, 2 landings/wharfs, 1 bridge, 2 historic freight corridors, 2 roadway networks, 6 boundary wall structures, 1 water tower structure, 1 water well, a series of agricultural push piles, and 9 water control structures or series of water control structures. As part of the fieldwork, all resources were documented and individually photographed. SOI-qualified professionals assessed the buildings and structures individually and according to several overarching architectural and historical themes developed and defined by archival research. These themes included the development of the area, including the establishment and operation of the Olowalu Sugar Company and the Pioneer Mill Company, (Criterion A), the association with early settlers and community leaders within Launiupoko, Olowalu, and Ukumehame (Criterion B), and the evaluation of architecture within the region (Criterion C). The historic resources were also assessed collectively to determine if there was potential for a historic district and if further evaluation was warranted.

The Olowalu Sugar Mill Complex Historic District (SIHP 1602), including the wharf, landing, plantation manager house, and other housing, was previously evaluated as a historic district according to information provided by SHPD. During this study, the district was also reevaluated and recommended to be expanded into the Olowalu Sugar Plantation Historic District with a proposed period of significance of 1880 to 1951 to include both the Olowalu Sugar Company (1880-1931) and subsequent Pioneer Mill Company (1931-1951). The historic district was developed according to National Park Service Bulletin 15, *How to Apply the National Register Criteria for Evaluation*, and includes contributing resources that retain sufficient integrity to convey the district's significance. Of the 39 identified resources within the survey, 10 are recommended as eligible as contributing resources to the proposed Olowalu Sugar Plantation Historic District.

Although architectural historic properties related to the plantation era were identified within Ukumehame and Launiupoko, the area no longer reflects the influence of the local sugar industry in the way the interconnected resources do in Olowalu. Many of the buildings and structures related to the period are no longer extant, and the remaining architectural features hold less historical and architectural significance and have lost integrity of materials, workmanship, design, setting, feeling, association. Therefore, no individually NRHP-eligible historic properties or historic districts were identified for either the Ukumehame or Launiupoko areas.

**Table 4.1. Evaluated Properties in APE and Significance Evaluations**

AR and SIHP (50-50-08-) Number	Address/Name	Locality	Style/Form	Significance Evaluation
AR 1 04758	Awalua Cemetery	Olowalu	Cemetery	<ul style="list-style-type: none"> <li>Individually eligible (NRHP Criteria A and D; Criteria Consideration D and SRHP Criterion a, d, and e).</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A and D; Criteria Consideration D).</li> </ul>
AR 2 09132	820A Olowalu Road	Olowalu	Plantation/Bungalow	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Not eligible as a contributing resource to a historic district due to a lack of historic and architectural significance.</li> </ul>
AR 3 09133	820 Olowalu Road	Olowalu	Commercial	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Not eligible as a contributing resource to a historic district due to a lack of historic and architectural significance.</li> </ul>
AR 4 01602	807 Olowalu Road	Olowalu	Plantation/Bungalow	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
AR 5 01602	808 Olowalu Road	Olowalu	Plantation/Bungalow	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
AR 6 01602	810 Olowalu Road (Olowalu Plantation House)	Olowalu	Plantation/Bungalow	<ul style="list-style-type: none"> <li>Not individually eligible due to a loss of integrity.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
AR 7 01602	810 Olowalu Road	Olowalu	Plantation/Bungalow	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>



AR and SIHP (50-50-08-) Number	Address/Name	Locality	Style/Form	Significance Evaluation
AR 8 01602	Olowalu Sugar Mill Complex Historic District (Olowalu Landing and Wharf)	Olowalu	Agricultural Processing/Industrial Facility	<ul style="list-style-type: none"> <li>• Properties are not previously individually but were previously recommended eligible as a historic district.</li> <li>• Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
AR 9 09134	Reservoir	Olowalu	20th Century Water Control	<ul style="list-style-type: none"> <li>• Not individually eligible due to a lack of historic and architectural significance.</li> <li>• Not eligible as a contributing resource due to a lack of historic, architectural, and material integrity.</li> </ul>
AR 10 09135	832 Olowalu Village Road	Olowalu	Contractor Modern/Hawaiian Ranch	<ul style="list-style-type: none"> <li>• Not individually eligible due to a lack of historic and architectural significance.</li> <li>• Not eligible as a contributing resource to a historic district due to a lack of historic and architectural significance.</li> </ul>
AR 11 09136	804 Olowalu Village Road	Olowalu	Styled Ranch (Spanish)	<ul style="list-style-type: none"> <li>• Not individually eligible due to a lack of historic and architectural significance.</li> <li>• Not eligible as a contributing resource to a historic district due to a lack of historic and architectural significance.</li> </ul>
AR 12 09137	804A Olowalu Village Road	Olowalu	Contractor Modern/Hawaiian Ranch	<ul style="list-style-type: none"> <li>• Not individually eligible due to a lack of historic and architectural significance.</li> <li>• Not eligible as a contributing resource to a historic district due to a lack of historic and architectural significance.</li> </ul>
AR 13 09138	806A Olowalu Village Road	Olowalu	Modified Plantation	<ul style="list-style-type: none"> <li>• Not individually eligible due to a lack of historic and architectural significance.</li> <li>• Not eligible as a contributing resource to a historic district due to a lack of historic and architectural significance.</li> </ul>

AR and SIHP (50-50-08-) Number	Address/Name	Locality	Style/Form	Significance Evaluation
AR 14 09139	803 Kana Place or Olowalu Village Road	Olowalu	Dutch Colonial Revival	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Not eligible as a contributing resource to a historic district due to a lack of historic and architectural significance.</li> </ul>
AR 15 09140	837 Olowalu Village Road/ 4132 Honoapi'ilani Highway	Olowalu	Contractor Modern/ Hawaiian Ranch	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Not eligible as a contributing resource to a historic district due to a lack of historic and architectural significance.</li> </ul>
AR 16 09141	802 Olowalu Village Road	Olowalu	Plantation/Bungalo w	<ul style="list-style-type: none"> <li>Individually eligible (NRHP Criterion A, and SRHP a).</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
AR 17 01603	Lanakila Historic Church (Olowalu Church and Cemetery)	Olowalu	Religious Structure and Cemetery	<ul style="list-style-type: none"> <li>Individually eligible (Criteria A and D; Criteria Consideration D and SRHP Criterion a, d, and e).</li> <li>Not eligible as a contributing resource to a historic district due a lack of association.</li> </ul>
AR 18 09142	Small Wharf (Honoapi'ilani Highway, Mile Marker 14)	Olowalu	20th Century Transportation/Ship ping	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Not eligible as a contributing resource to a historic district.</li> </ul>
AR 19 09143	Water Tower	Olowalu	20th Century Water Control	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C and D).</li> </ul>
AR 20 09144	Bridge	Olowalu	Early 20th century steel stringer/multibeam bridge	<ul style="list-style-type: none"> <li>Not individually eligible due to loss of integrity.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C and D).</li> </ul>
AR 21 09145	Push Piles	Olowalu	Agricultural Field Clearance	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Not eligible as a contributing resource due to a lack of historic and architectural significance and material integrity.</li> </ul>

AR and SIHP (50-50-08-) Number	Address/Name	Locality	Style/Form	Significance Evaluation
AR 22 09146	Irrigation Ditches ('auwai)	Olowalu	20th Century Water Control	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>Not eligible as a contributing resource to a historic district due to loss of integrity and lack of architectural significance.</li> </ul>
AR 23 09147	Cane Haul Roads	Olowalu	Agricultural Transportation	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>Not eligible as a contributing resource due to a lack of historic and architectural significance and material integrity.</li> </ul>
AR 24 09148	Irrigation Flume ('auwai)	Olowalu	19th Century Water Control	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>Not eligible as a contributing resource to a historic district due a lack of association.</li> </ul>
AR 25 09149	Kuahulu Place/ Freight Corridor	Olowalu	19th-20th Century Freight Transportation	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Not eligible as a contributing resource due to a lack of historic and architectural significance and material integrity.</li> </ul>
AR 26 09150	Beach Access Road/Freight Corridor	Olowalu	19th-20th Century Freight Transportation	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Not eligible as a contributing resource due to a lack of historic and architectural significance and material integrity.</li> </ul>
AR 27 04695	Retaining Wall	Olowalu	Erosion Control	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>Not eligible as a contributing resource due to a lack of historic and architectural significance and material integrity.</li> </ul>
AR 28 04717	Rock Wall	Olowalu	Boundary Demarcations	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>Not eligible as a contributing resource due to a lack of historic and architectural significance and material integrity.</li> </ul>

AR and SIHP (50-50-08-) Number	Address/Name	Locality	Style/Form	Significance Evaluation
AR 29 04719	Rock Wall	Olowalu	Boundary Demarcations	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>Not eligible as a contributing resource due to a lack of historic and architectural significance and material integrity.</li> </ul>
AR 30 04720	Rock Wall	Olowalu	Boundary Demarcations	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>Not eligible as a contributing resource due to a lack of historic and architectural significance and material integrity.</li> </ul>
AR 31 09151	Reservoir	Olowalu	20th Century Water Control	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
AR 32 09152	Irrigation Ditches	Pinch point Launiupoko and Olowalu	20th Century Water Control	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>Not eligible as a contributing resource to a historic district due to loss of integrity and lack of association.</li> </ul>
AR 33 09153	Rock Wall (AA2216-25)	Launiupoko	Boundary Demarcations	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>Not eligible as a contributing resource to a historic district due to lack of association.</li> </ul>
AR 34 09154	Irrigation ditch	Launiupoko	20th Century Water Control	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>Not eligible as a contributing resource to a historic district due to loss of integrity and lack of association.</li> </ul>
AR 35 09033	Well	Ukumehame	20th Century Water Control	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>Not eligible as a contributing resource to a historic district due to lack of association.</li> </ul>

AR and SIHP (50-50-08-) Number	Address/Name	Locality	Style/Form	Significance Evaluation
AR 36 09155	Sluice gate	Pinch Point Olowalu and Ukumehame	20th Century Water Control	<ul style="list-style-type: none"> <li>• Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>• Not eligible as a contributing resource to a historic district due to lack of association.</li> </ul>
AR 37 09156	Irrigation ditch	Pinch Point Olowalu and Ukumehame	20th Century Water Control	<ul style="list-style-type: none"> <li>• Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>• Not eligible as a contributing resource to a historic district due to loss of integrity and lack of association.</li> </ul>
AR 38 (AR 38.1 - 38.2) 09157	Cane Haul Roads	Ukumehame	Agricultural Transportation	<ul style="list-style-type: none"> <li>• Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>• Not eligible as a contributing resource to a historic district due to loss of integrity and a lack of association.</li> </ul>
AR 39 (AR 39.1 - 39.17) 09158	Irrigation ditches	Ukumehame	20th Century Water Control	<ul style="list-style-type: none"> <li>• Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>• Not eligible as a contributing resource to a historic district due to loss of integrity and lack of association.</li> </ul>
AR 40 09159	Rock Wall	Launiupoko	Boundary Demarcations	<ul style="list-style-type: none"> <li>• Not individually eligible due to a lack of historic and architectural significance and loss of integrity.</li> <li>• Not eligible as a contributing resource to a historic district due to lack of association.</li> </ul>

AR = WSP Aboveground Resource Filed Site; SIHP = State Inventory of Historic Places

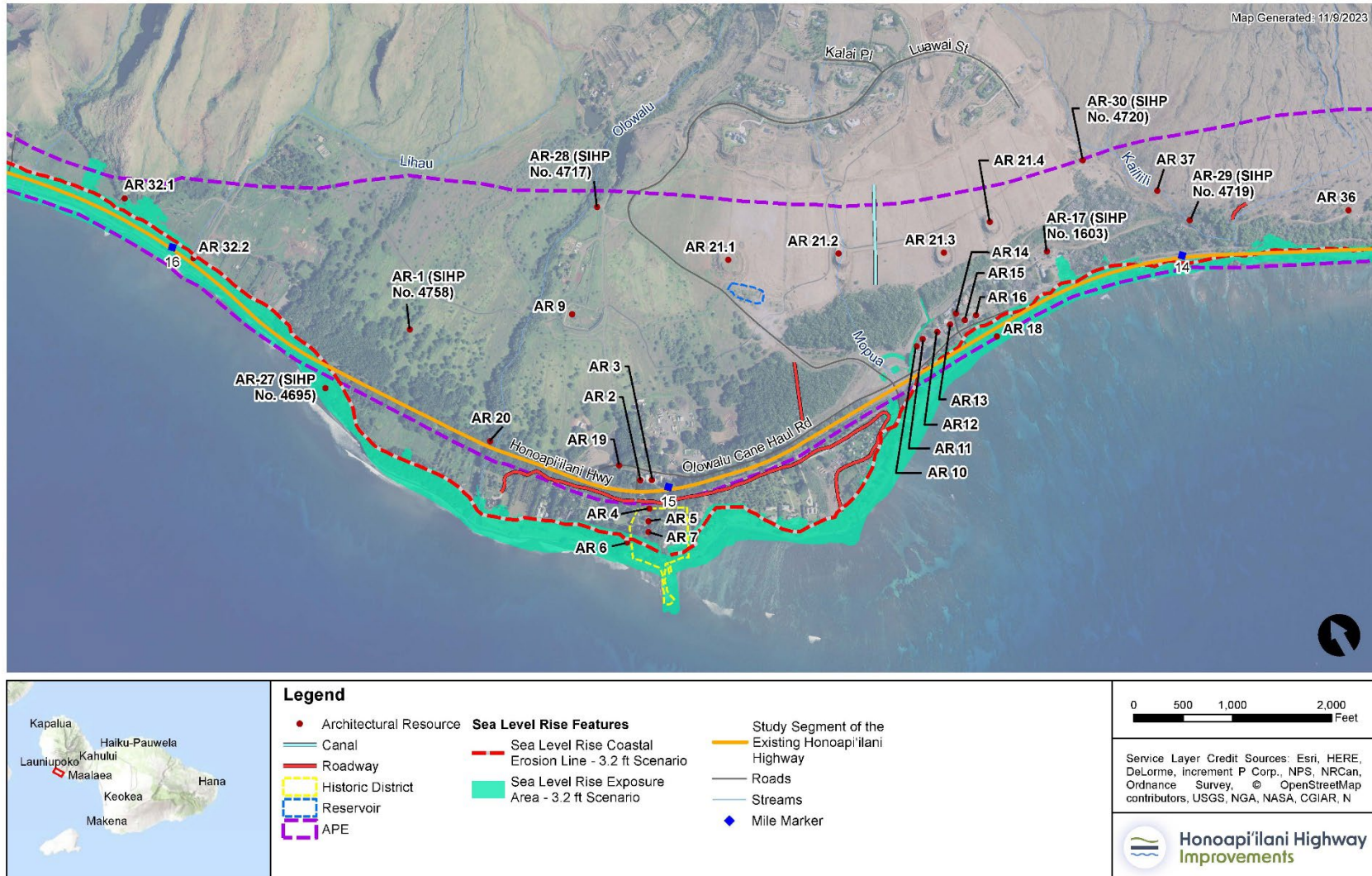


Figure 4.1. Aerial map showing the APE and the documented historic resource locations in Olowalu.



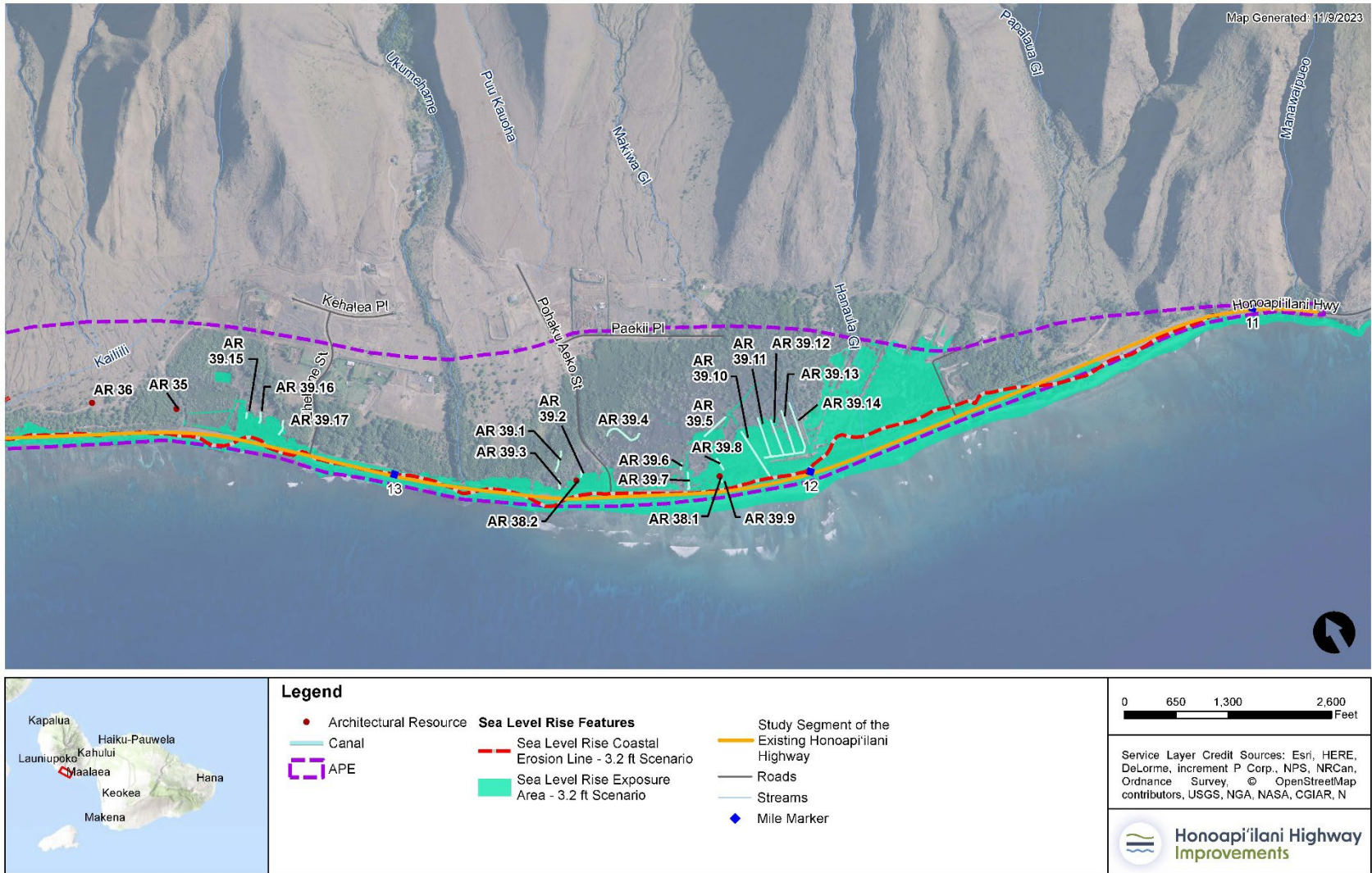


Figure 4.2. Aerial map showing the APE and the documented historic resource locations in Ukumehame.

#### 4.1 AR 1 (SIHP No. 4758): Awalua Cemetery

AR 1, previously recorded as SIHP No. 4758, is the Awalua Cemetery located on the east side of Honoapi'ilani Highway. The cemetery sits on an open grassy area dotted with trees and enclosed within a metal wire fence (Table 4.2, Figures 4.3 and 4.5). The site is also known as the "Japanese" Cemetery and also as Puha Cemetery (Lee-Grieg and Hammatt 2012).

According to the County of Maui tax assessor's database, AR 1 sits on 25.211 acres and is currently owned by Olowalu Mauka Lot 30 Condo Master. The cemetery is to the north of a dirt access road that runs along the southern boundary. The cemetery is marked with a metal sign bolted into a concrete base, and the perimeter of the cemetery is marked with metal wire fencing and a metal gate. An informational sign is posted at the gate. The earliest inscribed marker dates to 1938, 70 after the first Japanese immigrants arrived in Hawaii, and approximately 50 years after the influential second wave of Japanese migrants landed in 1885. The cemetery is labeled on the 1955 Olowalu, Hawai'i topographic map and shown on the 1949 aerial image, which are the earliest images available and corroborate the 1938 establishment date. However, a number of interments are marked with uninscribed markers or use Japanese characters.

Originally, the cemetery was considered a traditional Hawaiian burial area with a single Native Hawaiian interment. But during the sugar plantation era, the site was expanded to include predominantly Japanese interments (Fredericksen and Fredericksen 2000; R. M. Towill Corporation 2008). This suggests that the cemetery was established prior to 1938, likely in the 19th century. The cemetery was further expanded in 2002, following the discovery of fragmented human skeletal remains at SIHP NOS 4820 and 4821, during a survey by Xamanek Researchers and Olowalu Elua Associates LLC (Fredericksen and Fredericksen 1999, 2001; Lee-Grieg and Hammatt 2012; R. M. Towill Corporation 2008).

**Table 4.2. Summary of AR 1 (SIHP No. 4758): Awalua Cemetery**

<b>Address</b>	Honoapi'ilani Highway (State Highway 30)
<b>TMK</b>	4-8-003:113
<b>County</b>	Maui County
<b>Date Established</b>	circa 19th Century
<b>Acreage</b>	25.211
<b>Owner</b>	Olowalu Mauka Lot 30 Condo Master
<b>Architectural Type</b>	Cemetery
<b>Number of Interments</b>	Approximately 60 (although additional unmarked interments are possible)
<b>Earliest Interment</b>	Early 19th century
<b>Integrity</b>	AR 1 was in fair to good condition. Retains much of its integrity of location, setting, design, workmanship, association, feeling, and materials.
<b>Section 106 Significance Evaluation</b>	AR 1 is recommended as eligible individually (NRHP Criteria A and D; Criteria Consideration D) and as a contributing resource to the Olowalu Sugar Plantation Historic District (NRHP Criteria A and D).
<b>HRS 6E Significance Evaluation</b>	AR 1 is recommended as eligible individually (SRHP Criteria A, D, and E).

##### 4.1.1 Cemetery Site Description

The cemetery measures approximately 80 by 30 meters with an estimated minimum of 60 interments (Shefcheck and Dega 2007). The interments appear to be mostly within uniform rows, running northeast to southwest, and are identified with southwest-facing markers of a variety of types, including upright wooden posts, upright basalt markers with concrete bases, flat and upright concrete monuments, and stacked stone mounds (Figures 4.4- 4.5). The concrete and basalt markers are inscribed with personal information in both English text and Japanese characters (Fredericksen and Fredericksen 2000; R. M. Towill Corporation 2008). Additional unmarked interments may be present. The earliest burial inscribed in English dates to 1938, and the most recent dates to 1940. While the majority of the headstone's text were in Japanese, surnames observed in English include Kakazu and Fujishiro.



#### **4.1.2 Current Condition and Integrity**

At the time of the survey, AR 1 was in fair to good condition. Some markers are displaced, and others exhibit minor signs of fire damage. In 2007, large brush fires impacted the cemetery, causing cracking and spalling of some of the headstones (Lee-Grieg and Hammatt 2012; Shefcheck and Dega 2007). The cemetery appears to have been previously maintained but was overgrown with vegetation at the time of survey. Despite previous fire damage, AR 1 retains its integrity of location, setting, design, workmanship, association, feeling, and materials.

#### **4.1.3 Significance Evaluation**

AR 1 was previously recommended as individually eligible for HRS 6E under Criteria d and e. Following the current survey, AR 1 is recommended as individually eligible for listing in the NRHP under Criteria A and D, Criteria Consideration D, along with SRHP Criteria a, d, and e.

AR 1 is recommended as eligible under NRHP Criterion A and SRHP Criterion a. The cemetery is related to the Japanese population in Maui, whose presence in the region is directly related to the labor demands of the sugar plantation industry. Subsequently, the cemetery is also associated with the local sugar plantation industry, the Pioneer Mill Company, and their impact on the development of Olowalu from the late-19th century to the mid-20th century. No connections to individual people of historic significance in relation to AR 1 were identified; therefore, the resource is not considered individually eligible under NRHP Criterion B or SRHP Criterion b.

Under NRHP Criterion C and SRHP Criterion c, the cemetery is not eligible because it has no elements that make it a unique example of its architectural style or form. NRHP Criterion D and SRHP Criterion d are typically considered when assessing archaeological sites, but buildings and structures may qualify if they have the potential to contribute important information to our understanding of history. AR 1 is recommended eligible under NRHP Criterion D and SRHP Criterion d because of its potential to yield information important in history related to the Japanese immigrant population in West Maui and their association with the sugar plantation industry and its impact on the development of the region and Olowalu.

Under NRHP Criteria Consideration D, the cemetery is recommended for its association with the settlement of a particular cultural group, specifically the Japanese population, and its potential to yield important information on individuals such as demography, variations in mortuary practices, or the study of the cause of death correlated with nutrition or diseases. Under SRHP Criterion e, the cemetery is recommended as individually eligible given its close ties to the Japanese people that settled in the area. Moreover, the funerary practices show associations with traditional beliefs and events that are important to the settlers' history and cultural identity.

AR 1 is also recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District. The site is determined as significant for its direct association with the Pioneer Mill Company and the local sugar plantation industry and their impact on the development of Olowalu from the late-19th century to the mid-20th century, under NRHP Criterion A and Criterion D.



		MAP BY: daniel.conn	LEGEND:  Aboveground Resources	TIME: 11:17:23 PM
		CHK'D BY: MW		DATE: 6/8/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 NAD83	PROJECT #: 7361231386.01
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**Figure 4.3. Aerial image showing the location of AR 1 (SIHP No. 4758).**





**Figure 4.4. View of AR 1, facing north.**



**Figure 4.5. Overview of upright, basalt markers with inscribed with Japanese characters.**

## 4.2 AR 2 (SIHP No. 09132): 820 A Olowalu Road (Olowalu Village Road)

AR 2, newly recorded as SIHP No.09132, is a residential property located at 820A Olowalu Road, also known as Olowalu Village Road, (Table 4.3; Figure 4.6). The building is bounded by commercial properties to the east and west, Honoapi'ilani Highway to the south, and Olowalu Village Road to the north. AR 2 sits on a level, sandy terrain with numerous ornamental plants and several trees. A short rock wall runs along the south boundary of the property with a metal gate and a sidewalk leading to the front entrance. A metal chain-link fence also runs along a section of the east boundary between the house and the adjacent commercial property and along the northern boundary. The house is associated with a small outbuilding.

According to the County of Maui tax assessor's database, AR 2 sits on 0.50 acres, is currently owned by Olowalu Ohana LLC, and was built in 1956.

While attempts to contact the Owner of Record were made prior to and during fieldwork, consent to enter the property was not obtained. All documentation for AR 2 was conducted from the public right-of-way, except for observations made while attempting to contact the Owner of Records.

**Table 4.3. Summary of AR 2 (SIHP No. 09132)**

	820A Olowalu Road
	4-8-003:031
<b>County</b>	Maui County
<b>Date of Construction</b>	By 1956
<b>Square Footage</b>	1,332
<b>Acreage</b>	0.50
<b>Owner</b>	Olowalu Ohana LLC
<b>Architectural Type/Style</b>	Modified Plantation
<b>Integrity</b>	AR 2 is in fair to good condition. AR 2 has undergone alterations resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 2 is not individually eligible and not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District due to lack of architectural and historic significance and loss of integrity.
<b>HRS 6E Significance Evaluation</b>	AR 2 is not individually eligible and not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District due to lack of architectural and historic significance and loss of integrity.

### 4.2.1 Building Description

The residential building associated with AR 2 is a southwest-facing, one-story, single-family, Modified Plantation house topped with a cascading-hip roof covered with corrugated metal (Figure 4.7 – 4.8). The house is clad in Masonite hardboard or pressboard that extends down to grade. An entryway porch adorns the main entrance and features a short, hipped roof overhang covered in matching corrugated metal and supported with slim, metal posts. A small wooden deck with ramp extends out from the entryway porch. A two-car garage is attached to the north (rear) elevation, clad in wood vertical board and topped with a flat roof that extends from the main roofline. The associated outbuilding is located north of the attached garage. A flat roof extends north from the garage to the outbuilding, creating a small carport. The roofing material of the carport and attached garage is also corrugated metal. Aerial images indicate that the attached garage was added to the building between 1950 and 1975.

The south (front) elevation has three wall openings. From west to east, the elevation has a pair of double-hung wood windows, a single door with metal framed screen door, and a second pair of double-hung wood windows. The east elevation has three wall openings, but this elevation was partially obscured from the public right-of-way. On the south end, there is a single double-hung wood window, and on the north end, there is a single door and a pair of double-hung wood windows. The north (rear) elevation has two wall openings along the main block, including a single double-hung wood window and a single wooden door. The north elevation of the attached garage has a row of three wood windows with indeterminate sash operations, which are covered by aluminum framed window screens. The west elevation has four wall openings but is partially obscured by vegetation. From north to south, the elevation

has two corrugated metal overhead garage doors, a single wood panel door, and two double-hung wood windows.

#### **4.2.2 Associated Outbuilding**

AR 2 is associated with one outbuilding, a small frame shed, which sits on the northwest corner of the property behind the house. The shed is topped with a corrugated metal, flat roof and has vertical wood board walls. The south (front) elevation has a single wood paneled door and a pair of double-hung wood windows with multi-lights. Aerial images indicate the shed was added to the property between 1950 and 1975.

#### **4.2.3 Current Condition and Integrity**

AR 2 is in fair to good condition. The roofing material and wall material of the attached garage exhibit signs of deterioration. The house has also undergone alterations, including the addition of the attached garage and the replacement of roofing material. The shed is in fair condition. The exterior wall and roofing material show signs of deterioration. While the property retains its integrity of location and setting, given the alterations, AR 2 has lost much of its integrity of design, material, workmanship, feeling, and association.

#### **4.2.4 Significance Evaluation**

AR 2 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of material integrity. Under Criterion A and SRHP Criterion a, there is no evidence or archival information that suggests that any historically significant event or pattern of events that shaped the local region occurred at or is associated with the building. The resource does not provide important information on the impact of the local technologies or depict the early settlement of the township or county. Moreover, while the building does retain its integrity of location and setting, it has lost its integrity of feeling, design, workmanship, materials and association. Although the building is related to the local sugar plantation industry and the Pioneer Mill Company, due to the lack of integrity, the resource does not individually embody this association and its historical significance.

Under NRHP Criterion B and SRHP Criterion b, AR 2 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance. Under NRHP Criterion C and SRHP Criterion c, the building is not individually eligible because the resource has no elements that make it a unique example of its architectural style or form, and the house is not the work of an expert builder or craftsman. In addition, AR 2 has undergone alterations, such as the addition of the large two-car garage, resulting in loss of integrity of materials and design.

HRHP Criterion D and SRHP Criterion d are typically considered when assessing archaeological sites, but buildings and structures may qualify if they have the potential to contribute important information to our understanding of history. However, AR 2 does not have the potential to yield additional information regarding local and regional development or other themes of historical significance. Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 2 is recommended as a non-contributing resource to the proposed Olowalu Sugar Plantation Historic District. Although the residential building was constructed during the period of significance for the historic district, the house shows signs of deterioration and has undergone alterations, resulting in loss of integrity of materials and design.





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WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 NAD83	PROJECT #: 7361231386.01
			PROJECTION: NAD 1983 HARN UTM Zone 18N	
		SCALE: 1 in=100 ft		

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**Figure 4.6. Aerial image showing the location of AR 2.**





**Figure 4.7. South (front) elevation of AR 2, facing northeast.**



**Figure 4.8. North (rear) elevation of AR 2, facing southwest.**

### 4.3 AR 3 (SIHP No. 09133): 820 Olowalu Road

AR 3, newly recorded as SIHP No.09133, is a commercial property located at 820 Olowalu Road (**Table 4.4; Figure 4.9**). The building is bounded by a parking lot to the east, a residential property (AR 2) to the west, Honoapi'ilani Highway to the south, and Olowalu Village Road to the north.

According to the County of Maui tax assessor's database, AR 3 sits on 0.50 acres, is currently owned by Olowalu Ohana LLC, and was built in 1929. But the tax records also show that the building has an effective year-built date of 1940. A review of historic maps and aerials suggests it was built circa 1935. AR 3 sits on a level, sandy terrain with a parking lot along the south and east elevations and a small grassy area to the north of the building. A chain-link fence runs along the northern boundary of the property and along sections of the west boundary between AR 3 and AR 2.

**Table 4.4. Summary of AR 3 (SIHP No. 09133)**

<b>Address</b>	820 Olowalu Road
<b>TMK</b>	4-8-003:031
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1935
<b>Square Footage</b>	5,577
<b>Acreage</b>	0.50
<b>Owner</b>	Olowalu Ohana LLC
<b>Architectural Type/Style</b>	Commercial
<b>Integrity</b>	AR 3 is in good condition but has undergone moderate alteration resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 3 is not individually eligible and not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District due to lack of architectural and historic significance and loss of material integrity.
<b>HRS 6E Significance Evaluation</b>	AR 3 is not individually eligible and not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District due to lack of architectural and historic significance and loss of material integrity.

#### 4.3.1 Building Description

AR 3 is a southwest-facing, one- and two-story, commercial building. Two additions were added to the original block of the building (**Figure 4.10 – 4.14**). The original block is the one-story, flat-roofed, rectangular section on the southwest of the building's plan, which currently houses the Olowalu General Store. This section has wood vertical board siding and a concrete foundation, and the roof is covered in corrugated metal. A concrete sidewalk runs along the south elevation, which is covered with a flat roof overhang that extends out from the main roof.

The first addition was the one-story, flat roofed, L-shaped section to the east of the original block, which was added to the building between 1960 and 1975. This section is occupied by a restaurant, Leoda's Kitchen and Pie Shop. The sidewalk along the main block also extends along the south elevation of this addition but is covered with a sloped, corrugated roof overhang that is supported with multiple brackets. A short wooden railing extends along the edge of the sidewalk along sections of this addition. A raised parapet extends along the roofline of the south (front) elevation, supported with exposed brackets. The walls are clad in pressboard designed to look like vertical wood board.

Added during the same period, the second addition is the two-story, front gable section on the northwest corner of the building's plan. The second level is supported with tall piers of concrete block, leaving the first level an open storage area. The second level is clad in pressboard designed to resemble vertical wood board. The roof has wide eaves and is covered in corrugated metal. AR 3 is also associated with one outbuilding that sits adjacent to the building along the east elevation. A tall concrete wall runs between the two buildings and is attached to the first addition of AR 3.



The south (front) elevation has four wall openings along the original block and eight wall openings along the first addition. From west to east, the south elevation of the main block has a single sliding window, large, fixed windows with transoms, a pair of metal framed glass doors with transoms, and a single metal framed glass door. The first addition has a single two-paneled wood door with multi-lights and multi-light transom, a pair of six-over-one double-hung windows, a row of six-over-one double-hung windows, a single four-over-one double-hung window, a pair of two paneled wood doors with multi-lights, a single four-over-one double-hung window, and two single six-over-one double-hung windows. The second addition was partially obscured, but five wall openings were identified on the second level, including three metal vents, a pair of double-hung windows, and a single fixed window.

The west elevation was also partially obscured. Five wall openings were recorded along the original block, including two metal doors with square transoms and three fixed windows. The first addition has three wall openings, including a row of three windows, a single door with transom, and a single window. The west elevation of the second addition has four wall openings on the second level. From south to north, there is a row of three fixed windows, a single door, a pair of double-hung windows, and single double-hung window. A small balcony with short wooden railing protrudes from this elevation of the second addition.

The north (rear) elevation of the original block is obscured but a pair of double-hung windows, a single large window, a single door, and a row of four windows were recorded. The first addition is also largely obscured but a metal door and two windows were observed on this elevation. The north elevation of the second addition has three wall openings, including two single double-hung windows and a metal vent.

The east elevation of the original block is attached to the first addition, and the first addition has no wall openings on this elevation. The east elevation of the second addition is partially obscured, but a single window, a single door, a single rectangular window, and double-hung window were observed on the second level.

#### **4.3.2 Associated Outbuilding**

AR 3 is associated with an outbuilding that sits just to the southeast of the east elevation. A tall concrete block wall runs north and south between the two buildings and a short wooden wall connects the two buildings on the south elevation. The building is a one-story, front gable storage building built prior to 1950 (according to aerial images). The roof has wide eaves with exposed brackets and is covered in corrugated metal. The walls are clad in corrugated metal and plywood. The south (front) elevation has a pair of large wood doors (**Figure 4.14**). The west elevation was not fully viewable, but no wall openings were observed. On the north end of the east elevation, the building has a single wood door with transom and sliding window, and a single corrugated metal, overhead garage door on the north elevation.

#### **4.3.3 Current Condition and Integrity**

AR 3 is in good condition, but the building has undergone multiple alterations, such as the two additions and the replacement of roofing and wall material. While the property retains its integrity of location and setting, given that AR 3 has undergone multiple alterations, it has lost its integrity of design, material, workmanship, feeling, and association.

#### **4.3.4 Significance Evaluation**

AR 3 is recommended as not individually eligible for listing in the NRHP or HRS § 6E due to a lack of historic and architectural significance and loss of material integrity. Under Criterion A and SRHP Criterion a, there is no evidence or archival information that suggests that any historically significant event or pattern of events that shaped the local region occurred at or is associated with the building. The resource does not provide important information on the impact of the local technologies or depict the early settlement of the township or county. Moreover, while the building does retain its integrity of location and setting, it has lost its integrity of feeling, design, workmanship, materials and association. Although the building is related to the local sugar plantation industry and the Pioneer Mill Company, due to the lack of integrity, the resource does not individually embody this association and its historical significance.

Under NRHP Criterion B and SRHP Criterion b, AR 3 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance. Under

NRHP Criterion C and SRHP Criterion c, the resource is not individually eligible because the building has no elements that make it exemplary of their architectural style or form. AR 3 is not the work of an expert builder or craftsman and is a type of commercial building found across the region.

NRHP Criterion D and SRHP Criterion d are typically considered when assessing archaeological sites, but buildings and structures may qualify if they have the potential to contribute important information to our understanding of history. However, AR 3 does not have the potential to yield additional information regarding local and regional development or other themes of historical significance. Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 3 is recommended as a non-contributing resource to the proposed Olowalu Sugar Plantation Historic District. Although the resource was extant during the sugar plantation period, the building does not embody the historical significance of the proposed historic district. AR 3 has undergone multiple unsympathetic alterations that have negatively impacted the building's integrity of materials and design.

The outbuilding is not individually eligible for the NRHP and does not contribute to the overall eligibility of AR 3. This type of building is found throughout the region and does not hold architectural or historic significance.



		MAP BY: daniel.conn	LEGEND:  Aboveground Resources	TIME: 11:15:57 PM
		CHKD BY: MW		DATE: 6/7/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 NAD 83	PROJECT #: 7361231386.01
E:\WSP\Cultural\HDOT\RscAerial.mxd		PROJECTION: NAD 1983 HARN UTM Zone 49N	SCALE: 1 in=100 ft	Imagery: HI.GOV Orthophotography

**Figure 4.9. Aerial image showing the location of AR 3.**





**Figure 4.10. South (front) and east elevations of AR 3, facing northwest.**



**Figure 4.11. West and south (front) elevations of AR 3, facing northeast.**



**Figure 4.12. North (rear) elevation of AR 3, facing west-southwest.**



**Figure 4.13. East and north (rear) elevations of the second addition of AR 3, facing west-southwest.**





**Figure 4.14. East and north (rear) elevations of AR 3, facing southwest.**

#### 4.4 AR 4 (SIHP NO. 1602): 807 Olowalu Road

AR 4 (SIHP No. 1602) is a residential property at 807 Olowalu Road (**Table 4.5; Figure 4.15**). Along with AR 5, AR 7, and AR16, the property was determined eligible as a contributing resource to the "Olowalu Sugar Mill Comple Historic District" in 1974. The building is bounded by a wooded area to the east, Honoapi'ilani Highway to the north, Olowalu Road to the west, and a residential building to the south. AR 4 sits on a level, grassy terrain with ornamental plants and several trees. The property is surrounded by a wooden fence with a metal gate. The house is associated with an outbuilding.

According to the County of Maui tax assessor's database, AR 4 sits on 28.894 acres, is currently owned by Olowalu Elua Associates LLC, was built in 1923, and has an address of 11493 Honoapi'ilani Highway. However, the building is also shown on an 1881 map of Olowalu along with several other structures in the APE, suggesting that AR 4 may have been constructed by 1881. The house was originally associated with the Olowalu Sugar Company, and later with the Pioneer Mill Company, who operated the first commercial sugar plantation and mill in Lāhainā. According to a 1906 map of the Olowalu Plantation, the residence, along with other homes clustered nearby, served as the home for plantation managers (Hawaiian Sugar Planters' Association 2004; Lahaina News 2010; Lahaina Restoration Foundation ND; Pitzer 2021; Young 2021). The house is shown again in a later map of the Pioneer Mill Company holdings.

While attempts to contact the Owner of Record were made prior to and during fieldwork, consent to enter the property was not obtained. As such, all documentation was conducted from the public right-of-way, except for observations made while attempting to contact the Owners of Record.

**Table 4.5. Summary of AR 4 (SIHP NO. 1602)**

<b>Address</b>	807 Olowalu Road (11493 Honoapi'ilani Highway)
<b>TMK</b>	4-8-003:084
<b>County</b>	Maui County
<b>Date of Construction</b>	1923
<b>Square Footage</b>	1,500
<b>Acreage</b>	28.894
<b>Owner</b>	Olowalu Elua Associates LLC
<b>Architectural Type/Style</b>	Plantation House/Bungalow
<b>Integrity</b>	AR 4 is in good condition but has undergone multiple alterations resulting in loss of integrity of design, material, and workmanship.
<b>NRHP Significance Evaluation</b>	Recommended as not individually eligible but is recommended as eligible as a contributing resource to the Olowalu Sugar Plantation Historic District (Criteria A and D).
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.4.1 Building Description

AR 4 is a northwest-facing, one-story, single-family, bungalow house topped with a hipped roof with wide eaves and covered with asphalt shingles (**Figure 4.16 – 4.18**). The house is clad in redwood/cedar and rests on wood posts. The posts are concealed behind decorative wooden boards. An entryway porch with wooden railings adorns the main entrance on the west (front) elevation that is protected with a short roof overhang covered in matching asphalt shingle and supported with brackets. A second entryway porch with wooden railings and short asphalt shingle roof overhang adorns the south elevation.

The west (front) elevation has four wall openings. From north to south, the elevation has a pair of double-hung vinyl windows, a single wood door with a metal-framed screen door, a row of double-hung vinyl windows, and a large triangular vent. The south elevation was only partially viewable from the public right-of-way, but a single door, a double-hung vinyl window, and a pair of vinyl sliding windows were

observed. The north elevation was also only partially viewable, but a pair of double-hung vinyl windows were recorded. The east elevation was not viewable.

#### **4.4.2 Associated Outbuilding**

AR 4 is associated with a frame outbuilding, a garage that sits to the north of the house. The building is topped with a front gable roof covered in corrugated metal and has walls constructed of pressboard designed to resemble vertical wood board. The roof has wide eaves and exposed rafters. The west (front) elevation has a large multi-paneled overhead garage door. The south elevation was partially obscured, but a fixed window, a single door, and a pair of double doors were observed. The north and east elevations were not viewable.

#### **4.4.3 Current Condition and Integrity**

AR 4 is in good condition but has undergone some alterations, such as the replacement of windows, wall material, and roofing material. While the property retains its integrity of location, setting, feeling, and association, AR 4 is not individually eligible because it has undergone multiple unsympathetic alterations and lost its integrity of design, material, and workmanship. Despite these alterations, contributing resources have a lower threshold of integrity than individually eligible properties must have. As such, retaining integrity of setting, feeling, and association allows it to still reflect the historic character of a property belonging to the Olowalu Sugar Plantation Historic District.

#### **4.4.4 Significance Evaluation**

AR 4 is recommended as not individually eligible for listing in the NRHP or HRS § 6E. Under Criterion A and SRHP Criterion a, there is no evidence or archival information that suggests that any historically significant event or pattern of events that shaped the local region occurred at or is associated with the building. The resource does not provide important information on the impact of the local technologies. While the resource is related to the local sugar plantation industry and the Pioneer Mill Company, due to the lack of integrity, the resource does not individually embody this association and its historical significance. While the building does retain its integrity of location and setting, it has lost its integrity of feeling, design, workmanship, materials and association.

No ties or links were identified between the resource and people of cultural or historic significance; thus, AR 4 is not recommended eligible under NRHP Criterion B or SRHP Criterion b. Under NRHP Criterion C and SRHP Criterion c, the resource is recommended as not individually eligible because it is not exemplary of its architectural style or form and is a common type found across the region. The building is not the work of an expert builder or craftsman.

NRHP Criterion D and SRHP Criterion d are typically considered when assessing archaeological sites, but buildings and structures may qualify if they have the potential to contribute important information to our understanding of history. However, AR 4 does not have the potential to yield additional information regarding local and regional development or other themes related to the sugar plantation industry and the Pioneer Mill Company.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 4 was previously recommended as a contributing resource to the Olowalu Sugar Mill Complex Historic District under NRHP Criteria A and Criteria D. And following this survey, AR 4 is recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District under NRHP Criteria A, C, and D. It is important to note that the Olowalu Sugar Plantation Historic District is a proposed expansion of Olowalu Sugar Mill Complex Historic District (SIHP NO. 1602). The resource is associated with the local sugar plantation industry and the Pioneer Mill Company and their impact on the development of Olowalu from the late-19th century to the mid-20th century. As a result of this association, AR 4 has potential to contribute to further understanding of this history as part of the historic district.



Under Criterion A, AR 4 is recommended as eligible as a contributing resource. The building is directly associated with the Pioneer Mill Company and the sugar plantation industry and is representative of this association. Under Criterion B, AR 4 is recommended as not eligible because no ties or links were found between the building and people with cultural or historic significance. Under Criterion C, the building is recommended as eligible as a contributing resource based on its association with Hawai'i's plantation era and the associated architectural developments needed for worker housing, which was integral to the physical development and land uses of the Olowalu Sugar Plantation Historic District. Under Criterion D, as a contributing resource to the Olowalu Sugar Plantation Historic District, AR 4 has the potential to yield additional information regarding its association with the Pioneer Mill Company and the local sugar plantation industry and their impact on the development of Olowalu and the surrounding region.

The outbuilding is not individually eligible for the NRHP and does not contribute to the overall eligibility of AR 4. The outbuilding is a common type found across the region and does not hold architectural or historic significance.



		MAP BY: daniel.conn	<b>LEGEND:</b>  Aboveground Resources APE	TIME: 11:16:00 PM
		CHKD BY: MW		DATE: 6/7/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299  		DATUM: North American 1983 NAD83  PROJECTION: NAD 1983 HARN UTM Zone 48N  SCALE: 1 in=100 ft	PROJECT #: 7361231386.01	
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**Figure 4.15. Aerial image showing the location of AR 4.**





**Figure 4.16. West (front) and south elevations of AR 4, facing east.**



**Figure 4.17. North and west (front) elevations of AR 4, facing southeast.**





**Figure 4.18. West (front) and south elevations of outbuilding associated with AR 4, facing east.**

## 4.5 AR 5 (SIHP NO. 1602): 808 Olowalu Road

AR 5 (SIHP NO. 1602) is a residential property at 808 Olowalu Road (**Table 4.6; Figure 4.19**) that is bounded by a wooded area to the east, a residential building (AR 4) to the north, Olowalu Road to the west, and a residential building to the south. Along with AR 4, AR 6, AR 7, AR 8, and AR16, the property was determined eligible as a contributing resource to the "Olowalu Sugar Mill Comple Historic District" in 1974. AR 5 sits on a level, grassy terrain with several ornamental plants and trees, and a wooden fence encloses the property. The house is associated with an outbuilding.

According to the County of Maui tax assessor's database, AR 5 sits on 10.561 acres, is currently owned by Olowalu Elua Associates LLC, and was built in 1923. However, the building is also shown on an 1881 map of Olowalu along with several other structures in the APE, suggesting that AR 5 may have been constructed as early as 1881. The parcel is also associated with AR 6 and AR 7, which are discussed separately. The house was originally associated with the Olowalu Sugar Company, and later with the Pioneer Mill Company, who operated the first commercial sugar plantation and mill in Lāhainā. According to a 1906 map of the Olowalu Plantation, the residence, along with other homes clustered nearby, served as the home for plantation managers (Hawaiian Sugar Planters' Association 2004; Lahaina News 2010; Lahaina Restoration Foundation ND; Pitzer 2021; Young 2021). The house is shown again in a later map of the Pioneer Mill Company holdings.

While attempts to contact the Owner of Record were made prior to and during fieldwork, consent to enter the property was not obtained. As such, all documentation was conducted from the public right-of-way, except for observations made while attempting to contact the Owners of Record.

**Table 4.6. Summary of AR 5 (SIHP NO. 1602)**

<b>Address</b>	808 Olowalu Road
<b>TMK</b>	4-8-003:005
<b>County</b>	Maui County
<b>Date of Construction</b>	1923
<b>Square Footage</b>	1,252
<b>Acreage</b>	10.561
<b>Owner</b>	Olowalu Elua Associates LLC
<b>Architectural Type/Style</b>	Plantation House/Bungalow
<b>Integrity</b>	AR 5 is in good condition but has undergone moderate alteration resulting in loss of integrity of design, material, and workmanship.
<b>NRHP Significance Evaluation</b>	Recommended as not individually eligible but is recommended as eligible as a contributing resource to the Olowalu Sugar Plantation Historic District (Criteria A and D).
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

### 4.5.1 Building Description

AR 5 is a northwest facing, one-story, single-family, bungalow house topped with an asphalt shingle hipped roof with wide eaves (**Figure 4.20**). The house is clad in redwood/cedar and rests on wood posts, which are concealed behind decorative wooden boards. A porch adorns the recessed section of the façade, which is protected by the main roof. The roof overhang is supported with wood posts and has wooden railings. The west (front) elevation has six wall openings. From north to south, the elevation has a pair of two six-over-six double-hung vinyl windows and the remainder of the elevation is recessed with a single wood door with metal storm door and three six-over-six double-hung vinyl windows. A large triangular metal vent sits above the main entrance beneath the roofline. The remaining elevations were not viewable from the public right-of-way.

#### **4.5.2 Associated Outbuilding**

AR 5 is associated with an outbuilding, which is a garage that sits just to the southwest of the house. The garage is topped with a low-rise, front gable roof covered in metal siding. The outbuilding is wood frame construction and clad in painted plywood or pressboard siding. The west (front) elevation has a large multi-paneled overhead garage door. The remaining elevations were not viewable from the public right-of-way.

#### **4.5.3 Current Condition and Integrity**

AR 5 is in good condition but has undergone some alterations, such as the replacement of windows, wall material, and roofing material. While AR 5 retains its integrity of setting, feeling, and association, it is not individually eligible because it has undergone multiple unsympathetic alterations and lost its integrity of design, material, and workmanship. Despite these alterations, contributing resources have a lower threshold of integrity than individually eligible properties must have. As such, the retaining integrity of location, setting, feeling, and association allows it to still reflect historic character of a property belonging to the Olowalu Sugar Plantation Historic District.

#### **4.5.4 Significance Evaluation**

AR 5 is recommended as not individually eligible for listing in the NRHP or HRS § 6E. Under Criterion A and SRHP Criterion a, there is no evidence or archival information that suggests that any historically significant event or pattern of events that shaped the local region occurred at or is associated with the building. The resource does not provide important information on the impact of the local technologies. While the resource is related to the local sugar plantation industry and the Pioneer Mill Company, due to the lack of integrity, the resource does not individually embody this association and its historical significance. While the building does retain its integrity of location and setting, it has lost its integrity of feeling, design, workmanship, materials and association.

Under NRHP Criterion B and SRHP Criterion b, no ties or links were identified between the resource and people of cultural or historic significance. Under NRHP Criterion C and SRHP Criterion c, AR 5 is recommended as not individually eligible because it is not exemplary of its architectural style or form, and is a common type found across the region. The building is not the work of an expert builder or craftsman.

Under NRHP Criterion D and SRHP Criterion d, AR 5 is recommended as not individually eligible due to a lack of potential to yield additional information regarding local and regional development or other themes related to the sugar plantation industry and the Pioneer Mill Company. Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 5 was previously recommended as a contributing resource to the Olowalu Sugar Mill Complex Historic District under NRHP Criteria A and D. The current study concurs with this recommendation but as a contributing resource to the proposed Olowalu Sugar Plantation Historic District under Criteria A, C, and D. It is important to note that the Olowalu Sugar Plantation Historic District is a proposed expansion of Olowalu Sugar Mill Complex Historic District (SIHP NO. 1602). The resource is associated with the local sugar plantation industry and the Pioneer Mill Company and their impact on the development of Olowalu from the late-19th century to the mid-20th century. As a result of this association, AR 5 has potential to contribute to further understanding of this history as part of the proposed historic district.

Under NRHP Criterion A, AR 5 is recommended as eligible as a contributing resource because the building is associated with the Olowalu Sugar Company, the Pioneer Mill Company, and the sugar plantation industry. The residence was used as a manager's home and is representative of this association. Under NRHP Criterion B, AR 5 is recommended as not eligible as a contributing resource because no ties or links were found between the building and people with cultural or historic significance. Under NRHP Criterion C, AR 5 is recommended as eligible as a contributing resource based on its association with Hawai'i's plantation era and the associated architectural developments needed for

worker housing, which was integral to the physical development and land uses of the Olowalu Sugar Plantation Historic District.

Under NRHP Criterion D, as a contributing resource to the Olowalu Sugar Plantation District, AR 5 has the potential to yield additional information regarding local and regional development or other themes of historical significance. The outbuilding is not individually eligible for the NRHP and does not contribute to the overall eligibility of AR 5. The outbuilding is a common type and does not hold architectural or historic significance.



		MAP BY: daniel.conn	<b>LEGEND:</b>  Aboveground Resources APE	TIME: 11.16.03 PM
		CHK'D BY: MW		DATE: 6/7/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 NAD83	PROJECT #: 7361231386.01
E:\WSP\Cultural\HDOT\RscAerial.mxd		PROJECTION: NAD 1983 HARN UTM Zone 48N	SCALE: 1 in=100 ft	Imagery: HI.GOV Orthophotography

**Figure 4.19. Aerial image showing the location of AR 5.**





**Figure 4.20. West (front) elevation of AR 5, facing southeast.**

## 4.6 AR 6 (SIHP NO. 1602): 510 Olowalu Road (Olowalu Plantation House)

AR 6 (SIHP NO. 1602) is a commercial property at 810 Olowalu Road (**Table 4.7; Figure 4.21**). Along with AR 4, AR 5, AR 7, AR 8, and AR16, the property was determined eligible as a contributing resource to the "Olowalu Sugar Mill Comple Historic District" in 1974. The building is bounded by an open grassy area to the north, the beach and ocean to the south, a wooded area to the west, and a residential building to the east. AR 6 sits on a level, manicured lawn with several ornamental plants and trees.

According to the County of Maui tax assessor's database, AR 6 sits on 10.561 acres, is currently owned by Olowalu Elua Associates LLC, and was built in 1923. However, the building is also shown on an 1881 map of Olowalu along with several other structures in the APE, suggesting that AR 6 could have been constructed by 1881. The house was originally associated with the Olowalu Sugar Company, and later with the Pioneer Mill Company, who operated the first commercial sugar plantation and mill in Lāhainā (Hawaiian Sugar Planters' Association 2004; Lahaina News 2010; Lahaina Restoration Foundation ND; Pitzer 2021; Young 2021). According to a 1906 map of the Olowalu Plantation, the residence, along with other homes clustered nearby, served as the home for plantation managers. (Hawaiian Sugar Planters' Association 2004; Lahaina News 2010; Lahaina Restoration Foundation ND; Pitzer 2021; Young 2021). The house is shown again in a later map of the Pioneer Mill Company holdings. The building is now used as a wedding venue.

**Table 4.7. Summary of AR 6 (SIHP NO. 1602)**

<b>Address</b>	810 Olowalu Road
<b>TMK</b>	4-8-003:005
<b>County</b>	Maui County
<b>Date of Construction</b>	By 1881
<b>Square Footage</b>	2,776
<b>Acreage</b>	10.561
<b>Owner</b>	Olowalu Elua Associates LLC
<b>Architectural Type/Style</b>	Plantation House/Commercial
<b>Integrity</b>	AR 6 is in excellent condition but has undergone multiple alterations resulting in loss of integrity of design, material, and workmanship.
<b>NRHP Significance Evaluation</b>	Recommended as not individually eligible but is recommended as eligible as a contributing resource to the Olowalu Sugar Plantation Historic District (Criteria A and D).
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

### 4.6.1 Building Description

AR 6 is a southwest facing, one-story, Plantation house topped with an asphalt shingle hipped roof with wide eaves. The house has walls of redwood/cedar, and the building is supported by wood posts. The posts are concealed behind decorative wooden boards. A full-width porch adorns the façade, which is protected by the wide eave of the main roof. The roof overhang is supported with several wooden posts. The porch is accessed via concrete steps, and a wooden railing runs along the outer perimeter of the porch.

The south (front) elevation has seven wall openings (**Figure 4.22**). From west to east, the elevation has a single double-hung vinyl window, a single door inset with four lights, a set of glass double-doors inset with two lights, a pair of six-over-one double-hung windows, a second set of glass double-doors inset with two lights, a single door inset with four lights, and a single six-over-one double-hung window (**Figure 4.23**). The east elevation has three wall openings, including a pair of six-over-one double-hung windows, a single double-hung window, and a second pair of six-over-one double-hung windows. The west and north (rear) elevations were not viewable from the public right-of-way.

### 4.6.2 Current Condition and Integrity

AR 6 is in excellent condition but has undergone alterations, such as the replacement of windows, doors, wall material, and roofing material. While AR 6 retains its integrity of setting, feeling, and association, it is not individually eligible because it has undergone multiple unsympathetic alterations and lost its integrity

of design, material, and workmanship. Despite these alterations, contributing resources have a lower threshold of integrity than individually eligible properties must have. As such, the retaining integrity of location, setting, feeling, and association allows it to still reflect historic character of a property belonging to the Olowalu Sugar Plantation Historic District.

#### **4.6.3 Significance Evaluation**

AR 6 is recommended as not individually eligible for listing in the NRHP or HRS § 6E. Under Criterion A and SRHP Criterion a, there is no evidence or archival information that suggests that any historically significant event or pattern of events that shaped the local region occurred at or is associated with the building. The resource does not provide important information on the impact of the local technologies. While the resource is related to the local sugar plantation industry and the Pioneer Mill Company, due to the lack of integrity, the resource does not individually embody this association and its historical significance. While the building does retain its integrity of location and setting, it has lost its integrity of feeling, design, workmanship, materials and association.

No ties or links were identified between the resource and people of cultural or historic significance; thus, AR 6 is not recommended eligible under NRHP Criterion B and SRHP Criterion b. Under NRHP Criterion C and SRHP Criterion c, the resource is recommended as not individually eligible because it is not exemplary of its architectural style or form, and is a common type found across the region. The building is not the work of an expert builder or craftsman.

Under NRHP Criterion D and SRHP Criterion d, AR 6 does not have the potential to yield additional information regarding local and regional development or other themes related to the sugar plantation industry and the Pioneer Mill Company. Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 6 was previously recommended as a contributing resource to the Olowalu Sugar Mill Complex Historic District under NRHP Criteria A and D. The current study concurs with this recommendation but as eligible as a contributing resource to the proposed Olowalu Sugar Plantation Historic District under Criteria A, C, and D. It is important to note that the Olowalu Sugar Plantation Historic District is a proposed expansion of Olowalu Sugar Mill Complex Historic District (SIHP NO. 1602). The resource is associated with the local sugar plantation industry and the Pioneer Mill Company and their impact on the development of Olowalu from the late-19th century to the mid-20th century. As a result of this association, AR 6 has potential to contribute to further understanding of this history as part of the historic district.

Under NRHP Criterion A, AR 6 is recommended as eligible as a contributing resource because the building is directly associated with the Pioneer Mill Company and the sugar plantation industry and is representative of this association. Under NRHP Criterion B, AR 6 is recommended as not eligible as a contributing resource because no ties or links were found between the building and people with cultural or historic significance. Under NRHP Criterion C, the building is recommended as eligible as a contributing resource based on its association with the Hawai'i's plantation era and the associated architectural developments needed for working housing, which were integral to the physical development and land uses of the Olowalu Sugar Plantation Historic District.

Under NRHP Criterion D, as a contributing resource to the Olowalu Sugar Plantation Historic District, AR 6 has the potential to yield additional information regarding its association with the Pioneer Mill Company and the local sugar plantation industry and their impact on the development of Olowalu and the surrounding region.



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E:\WSP\Cultural\HDOT\RscAerial.mxd		PROJECTION: NAD 1983 HARN UTM Zone 49	SCALE: 1 in=100 ft	Imagery: HI.GOV Orthophotography

**Figure 4.21. Aerial image showing the location of AR 6.**





**Figure 4.22. South (front) elevation of AR 6, facing northeast.**



**Figure 4.23. East elevation of AR 6, facing northwest.**

## 4.7 AR 7 (SIHP No. 1602): 810 Olowalu Road

AR 7 (SIHP No. 1602) is a residential property at 810 Olowalu Road (**Table 4.8; Figure 4.24**). Along with AR 4, AR 5, AR 6, AR 8, and AR16, the property was determined eligible as a contributing resource to the "Olowalu Sugar Mill Comple Historic District" in 1974. The building is bounded by a wooded area to the east, residential buildings to the north, a beach access road and the Olowalu Plantation House to the west, and the Olowalu landing and beaches to the south. AR 7 sits on a level, grassy terrain with ornamental plants and several trees. The property contains three historic buildings, three historic outbuildings, and three modern outbuildings. All residences and outbuildings are enclosed by a wooden fence with a metal gate that runs along the property boundaries. The house is associated with one outbuilding, which is accessed by a paved drive extending from the beach access road that terminates at a point along the southeast elevation of the house.

According to the County of Maui tax assessor's database, AR 7 sits on 10.561 acres, is currently owned by Olowalu Elua Associates LLC, and was built in 1923. However, the building is also shown on an 1881 map of Olowalu along with several other structures in the APE, suggesting that AR 7 may have been constructed as early as 1881. The house was originally associated with the Olowalu Sugar Company, and later with the Pioneer Mill Company, who operated the first commercial sugar plantation and mill in Lāhainā. According to a 1906 map of the Olowalu Plantation, the residence, along with other homes clustered nearby, served as the home for plantation managers (Hawaiian Sugar Planters' Association 2004; Lahaina News 2010; Lahaina Restoration Foundation ND; Pitzer 2021; Young 2021). The house is shown again in a later map of the Pioneer Mill Company holdings.

**Table 4.8. Summary of AR 7(SIHP No. 1602)**

<b>Address</b>	810 Olowalu Road (11493 Honoapi'ilani Highway)
<b>TMK</b>	4-8-003:005
<b>County</b>	Maui County
<b>Date of Construction</b>	1923
<b>Square Footage</b>	1,792
<b>Acreage</b>	10.561
<b>Owner</b>	Olowalu Elua Associates LLC
<b>Architectural Type/Style</b>	Plantation House/Bungalow
<b>Integrity</b>	AR 7 is in good condition but has undergone significant alterations resulting in loss of integrity of design, material, and workmanship.
<b>NRHP Significance Evaluation</b>	Recommended as not individually eligible but is recommended as eligible as a contributing resource to the Olowalu Sugar Plantation Historic District (Criteria A and D).
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

### 4.7.1 Building Description

AR 7 is a southwest facing, one-story, single-family, bungalow house topped with an intersecting gable-on-hip roof with wide eaves and covered with composition asphalt shingle (**Figure 4.25**). The house is clad in redwood/cedar. The foundation type is not documented in the tax assessor's database and is not visible from the public right-of-way due to the presence of a full-width porch. The porch features wooden railings and is accessed by a set of five wooden steps, which lead to the main entrance of AR 7 along the southwest (front) elevation. The main entry and additional elements comprising the façade of the house are covered by the substantial overhang of the principal roof, which is supported by six wood columns decorated with arched brackets. While the sections of the façade covered by the intersecting gable-on-hip roofs extending from the northwest and southeast elevations are recessed slightly from the original façade of AR 7, this indicates that the porch deck, eave overhangs, and roof supports are consistent in character with the porch seen along the original construction of the house.

The southwest (front) elevation has at least ten wall openings. From west to east, the elevation has a row of four double-hung wood windows; the main entrance, which consists of two double doors inset with 10 lights, framed on either side by two double-hung wood windows; a pair of double-hung wood windows, and a rectangular vent beneath the gable present along this elevation. The remaining portion of the

elevation, along the gable-on-hip roof projecting from the southwest elevation of the original construction cannot be seen from the public right-of-way. But it is likely that the series of four double-hung wood windows seen on the northwestern portion of the façade is replicated. The northwest elevation was only partially viewable from the public right-of-way, limiting observations to the façade of the house. The northwest elevation of the original construction, covered by the entry porch, features two wood, double-hung windows with a four-over-one light configuration. The southeast and northeast elevations were not visible from the public right-of-way, but it is likely that the wood, double-hung windows seen along the northwest elevation of the original construction is repeated along the southeast elevation.

#### **4.7.2 Associated Outbuilding**

AR 7 is associated with one non-historic frame outbuilding, a utility shed that sits to the east of the house (**Figure 4.25**). The building is topped with a front gable roof covered in composite asphalt shingles and has walls constructed of vertical wood board. The roof has wide eaves. The south (front) elevation has a set of two solid wood double doors. The west elevation was partially obscured, but a wood, fixed window was observed. The north and east elevations were not visible from the public right-of-way.

#### **4.7.3 Current Condition and Integrity**

AR 7 is in good condition but has undergone significant alterations, such as the construction of an attached garage and additions along the west and east elevations and the replacement of windows, wall material, and roofing material. While AR 7 retains its integrity of location, setting, feeling, and association, it is not individually eligible because it has undergone multiple unsympathetic alterations and has lost its integrity of design, material, workmanship. Despite these alterations, contributing resources have a lower threshold of integrity than individually eligible properties must have. As such, the retaining integrity of location, setting, feeling, and association allows it to still reflect historic character of a property belonging to the Olowalu Sugar Plantation Historic District.

#### **4.7.4 Significance Evaluation**

AR 7 is recommended as not individually eligible for listing in the NRHP or the State Register of Historic Places (SRHP). Under Criterion A and SRHP Criterion a, there is no evidence or archival information that suggests that any historically significant event or pattern of events that shaped the local region occurred at or is associated with the building. The resource does not provide important information on the impact of the local technologies. While the resource is related to the local sugar plantation industry and the Pioneer Mill Company, due to the lack of integrity, the resource does not individually embody this association and its historical significance. While the building does retain its integrity of location and setting, it has lost its integrity of feeling, design, workmanship, materials and association.

Under NRHP Criterion B and SRHP Criterion b, no ties or links were identified between the resource and people of cultural or historic significance. Under NRHP Criterion C and SRHP Criterion c, AR 7 is recommended as not individually eligible because it is not exemplary of its architectural style or form, and is a common type found across the region. The building is not the work of an expert builder or craftsman.

Under NRHP Criterion D and SRHP Criterion d, AR 7 does not have the potential to yield additional information regarding local and regional development or other themes related to the sugar plantation industry and the Pioneer Mill Company. Furthermore, AR 7 has undergone unsympathetic alterations, such as the construction of multiple additions and the replacement of windows, roofing material, and wall material, resulting in the loss of integrity of materials and design. Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 7 was previously recommended as a contributing resource to the Olowalu Sugar Mill Complex Historic District under Criteria A and D. The current study concurs with this recommendation but as a contributing resource to the proposed Olowalu Sugar Plantation Historic District under Criteria A, C, and D. It is important to note that the Olowalu Sugar Plantation Historic District is a proposed expansion of Olowalu Sugar Mill Complex Historic District (SIHP NO. 1602). The resource is associated with the local sugar plantation industry and the Pioneer Mill Company and their impact on the development of Olowalu from

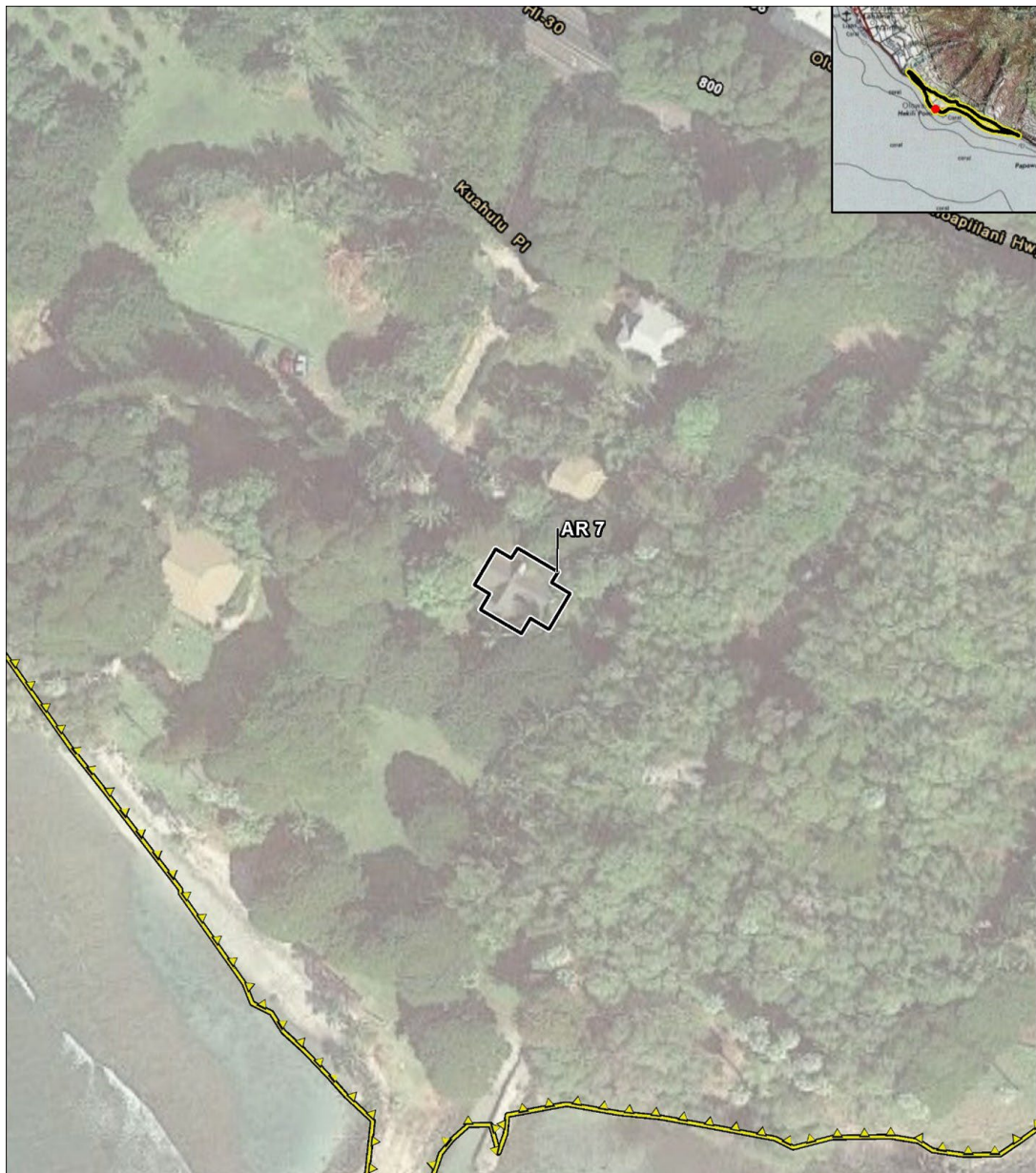
the late-19th century to the mid-20th century. As a result of this association, AR 7 has the potential to contribute to further understanding of this history as part of the proposed historic district.

Under NRHP Criterion A, AR 7 is recommended as eligible as a contributing resource because the building is directly associated with the Pioneer Mill Company and the sugar plantation industry and is representative of this association. Under NRHP Criterion B, AR 7 is recommended as not eligible as a contributing resource because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C, the building is recommended as eligible as a contributing resource based on its association with the Hawai'i's plantation era and the associated architectural developments needed for worker housing, which was integral to the physical development and land uses of the Olowalu Sugar Plantation Historic District. Under NRHP Criterion D, as a contributing resource to the Olowalu Sugar Plantation District, AR 7 has the potential to yield additional information regarding local and regional development or other themes of historical significance.

The outbuilding is not individually eligible for the NRHP and does not contribute to the overall eligibility of AR 7. The outbuilding is a common type and does not hold architectural or historic significance.





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**Figure 4.24. Aerial image showing the location of AR 7.**



**Figure 4.25. Southwest (front) and northwest elevations of AR 7 and associated outbuilding, facing northeast.**

## 4.8 AR 8 (SIHP No. 1602): Olowalu Mill Complex, Wharf, and Landing

AR 8 (SIHP No. 1602) consists of the structural remnants of the Olowalu Mill Complex, wharf, and landing and is located on the south side of Honoapi'ilani Highway (State Highway 30) (**Table 4.9; Figure 4.26**). The site is surrounded by mature kiawe trees and low-lying vegetation on the west, north, and east, and by Olowalu beach to the south. AR 8 sits on level terrain dotted with grasses and areas of sandy soil. The site is accessed by an unimproved beach access road extending from Honoapi'ilani Highway. A historic site marker with SIHP No. 1602 is located along the northern extent of the remnants of the mill complex, on the west side of the access road.

According to the County of Maui tax assessor's database, AR 8 sits on 10.561 acres, is currently owned by Olowalu Elua Associates LLC, and was built in 1910 with improvements and expansions to the mill and pier occurring between 1918 and 1919. Topographic maps show a building in the location of AR 8 in 1955 labeled as "Mill (Ruins)" and "Olowalu Wharf," (**Figure 4.27**). The aerial images show the mill foundations and wharf as early as 1949 (based on the earliest aerial image available). This suggests that AR 8 was built and deconstructed prior to 1949, which corroborates sources listing 1932 as the year that the mill was dismantled and relocated to the Philippines. The mill complex, landing, and wharf was originally associated with the Olowalu Sugar Company, which constructed and operated the first commercial sugar plantation and mill at the site prior to 1884 and (Hawaiian Sugar Planters' Association 2004; Lahaina News 2010; Lahaina Restoration Foundation ND; Pitzer 2021; Young 2021).

**Table 4.9. Summary of AR 8 (SIHP No. 1602)**

<b>Address</b>	810 Olowalu Road (809 Olowalu Road)
<b>TMK</b>	4-8-003:005
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1919
<b>Landscape Area</b>	Approximately 1.58 acres
<b>Acreage</b>	10.561
<b>Owner</b>	Olowalu Elua Associates LLC
<b>Architectural Type/Style</b>	Agricultural Processing/Industrial Facility (Ruins)
<b>Integrity</b>	AR 8 is in stable condition and retains its integrity recorded in previous surveys including integrity of location, setting, design, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 8 is not recommended as individually eligible but is recommended as eligible as a contributing resource to the Olowalu Sugar Plantation Historic District (Criteria A and D).
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

### 4.8.1 District Description

AR 8 contains the remains of the historic Olowalu Sugar Co. Mill Complex. The primary features include the foundations and ruins of the sugar mill and stable area as well as remnants of two rock piers that extend into the sea, perpendicular to the shoreline (R.M. Towill Corporation 2008). Many of the remaining structures are concrete and rebar construction, but the piers and remains of the molasses tanks display rock and mortar/concrete construction. The complex itself was a northeast-facing early-20th century industrial building that ran on steam and hydroelectric power derived from a plant in the mountains north of the mill. Water was supplied to the complex via extensive irrigation systems featuring 3-inch pipes (Sanborn Map Company 1919). Most of the remains of the sugar mill complex date to 1918, when the Olowalu Sugar company improved existing industrial buildings at the site. Extant features of SIHP No. 1602 include the foundations and remnants of the sugar warehouse, 12 roller mills, a machine shop, and molasses tanks (**Figures 5.28 through Figure 4.31**). Improvements continued through the early-20th century until 1932, when the mill was dismantled under the Pioneer Mill Company (R.M. Towill Corporation 2008).

Two rock piers extend out to sea from the landing and ruins of the complex. Constructed in 1919 to extend an existing pier, the westernmost pier is significantly longer than the first and terminates 300 feet beyond the shoreline (**Figure 4.32**). Due to the difficulties of loading sugar onto ships at low tide, the pier replaced a 200-foot rock and concrete structure and a wooden-frame derrick. The original structure was one of twelve landings on Maui that served as a regular stop for the Inter-Island Steamship Company.

The extant pier continued to facilitate trade and transport conducted by sea vessels and operated as a terminus for the Olowalu Sugar Co. Railroad until the complex was dismantled following the sale of the mill to the Pioneer Mill Company. The concrete foundations of a structure—likely a derrick or other sea/rail cargo infrastructure—can be seen at the end of the pier (**Figure 4.33**). The easternmost pier, also referred to as the small boat dock, extends approximately 90 feet from the shoreline and was constructed after 1919 as part of the concurrent mill improvements.

#### **4.8.2 Current Condition and Integrity**

At the time of the survey, AR 8 was in good condition. The integrity of the site is consistent with previous surveys of the SIHP and the surrounding area. There are no indications of litter or defacement of the historic features, but the area receives moderate foot traffic from patrons accessing the park and shoreline. Given these factors, the properties that make up AR 8 retain their integrity of location, setting, design, material, workmanship, feeling, and association.

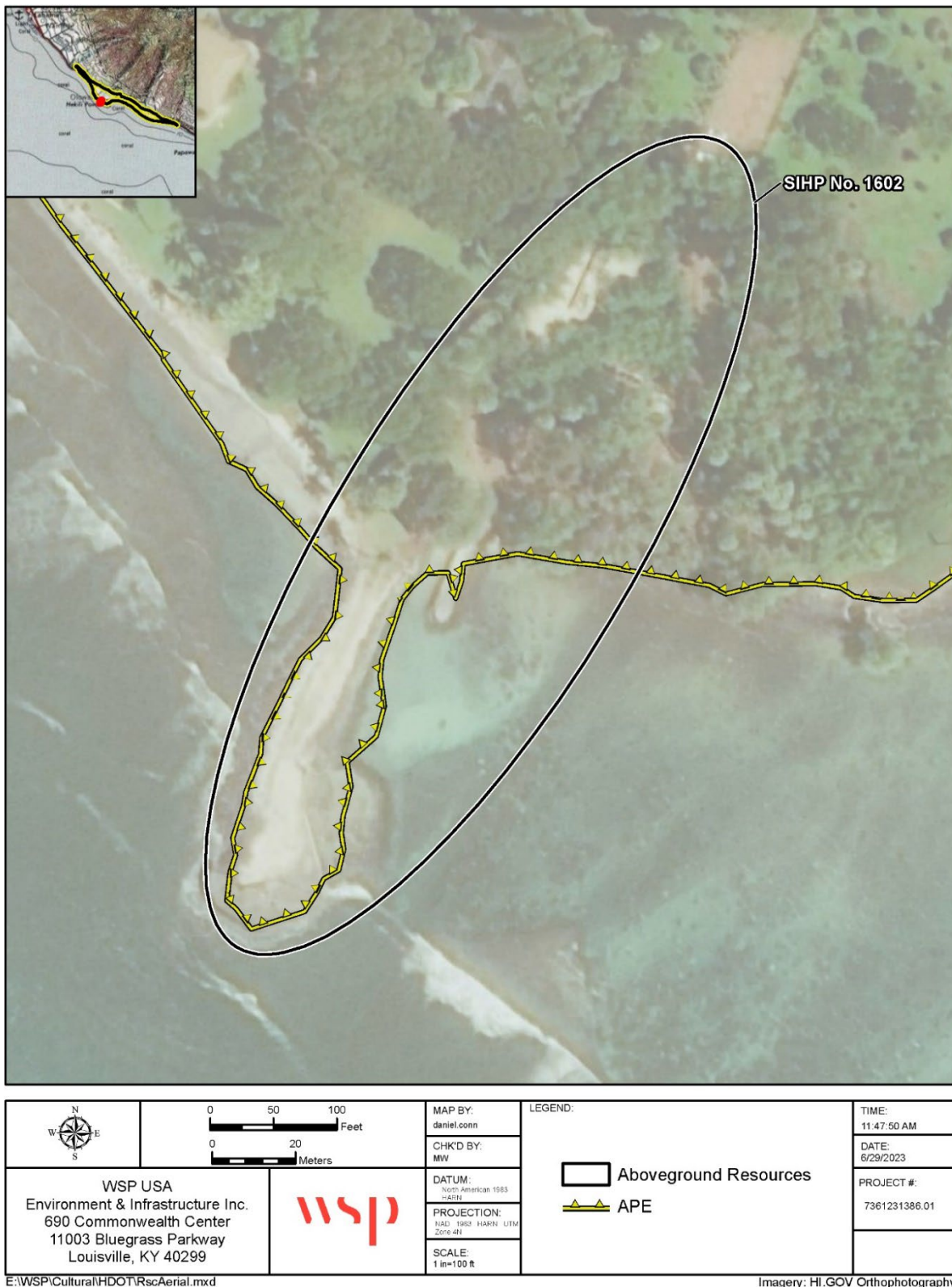
#### **4.8.3 Significance Evaluation**

AR 8 was previously recommended as a historic district referred to as the Olowalu Sugar Mill Complex Historic District under NRHP Criteria A and D, and the current study concurs with this recommendation. However, given the expanded study of plantation era properties, SOI-qualified professionals also recommend AR 8 as a contributing resource to the proposed Olowalu Sugar Plantation Historic District. It is important to note that the Olowalu Sugar Plantation Historic District is a proposed expansion of Olowalu Sugar Mill Complex Historic District (SIHP NO. 1602). AR 8 is directly associated with the sugar plantation industry in Olowalu and the Olowalu Sugar Company, which had a substantial role in the development of the local community and region. The industry's influence on the area spanned from the late-19th century to the mid-20th century. As a result, AR 8 has the potential to contribute to further understanding of this history when assessed as part of the proposed historic district.

Under NRHP Criterion A and SRHP Criterion a, AR 8 is recommended as eligible as a contributing resource because it is directly associated with the sugar plantation industry and is strongly representative of this association. But under NRHP Criterion B and SRHP Criterion b, AR 8 is recommended as not eligible as a contributing resource because no ties or links were found between the resource and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, this cluster of resources is recommended as eligible as a contributing resource based on its association with Hawai'i's plantation era and the associated architectural developments needed for administration, shipping/transportation, and engineering, which were integral to the physical development and land uses of the Olowalu Sugar Plantation Historic District. Under NRHP Criterion D and SRHP Criterion d, as a contributing resource to the Olowalu Sugar Plantation District, AR 8 has the potential to yield additional information regarding local and regional development or other themes of historical significance. Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.





**Figure 4.26 . Aerial image showing the location of AR 8.**

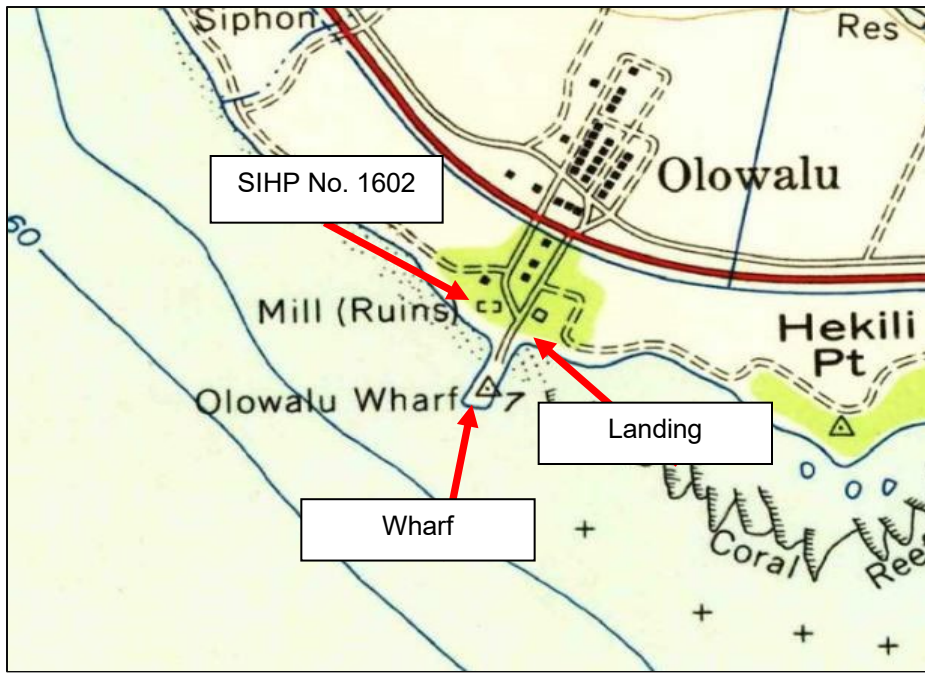


Figure 4.27 . Building illustrated in vicinity of AR 8 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Source: UH eVols repository

Figure 4.28 . 1919 Sanborn Map displaying the Olowalu Landing, Olowalu Co. Sugar Mill, and rail lines.





**Figure 4.29 . North (front) east and elevations of Olowalu wharf piers, facing southwest.**



**Figure 4.30 . Detail of remnants in area of mud press and centrifugals, facing southwest.**





**Figure 4.31 . Detail of east elevation of extant remains of “Sugar Warehouse,” facing southwest.**



**Figure 4.32 . West elevation of AR 8 (Sugar Mill Complex), facing southeast.**



**Figure 4.33 . Detail of north (front) and east elevations of extant foundation of the “12 Roller Mills” and “Molasses Tanks,” facing southwest.**



#### 4.9 AR 9 (SIHP No. 09134): Reservoir (814 Honoapi'ilani Highway)

AR 9, newly recorded as SIHP No.09134, is a reservoir at 814 Honoapi'ilani Highway (**Table 4.10; Figure 4.34**). The structure is bounded by agricultural lands to the east and south, agricultural lands and a residential structure to the north, and Olowalu stream to the west. AR 9 consists of a slight depression in the gently rolling grassy terrain southwest of the Olowalu Cultural Reserve. AR 9 is accessed by a paved asphalt road that branches off from Olowalu Village Road and Honoapi'ilani Highway.

According to the County of Maui tax assessor's database, AR 9 sits on 50.301 acres, is currently owned by Olowalu Mauka Lot 21 Condo Master, and has an address of 814 Honoapi'ilani Highway. A paved asphalt bike path has been constructed around the reservoir. The tax assessor's database does not list a construction date for the structure, but historic aerial images and primary sources indicate that AR 9 was constructed between 1932 and 1939, when Pioneer Mill Company took over the land of the Olowalu Sugar Company and began making improvements to the existing irrigation system (Maly 2010). The reservoir was originally associated with the Pioneer Mill Company and first appears on a 1939 map of the company's holdings and improved irrigation system in Olowalu.

**Table 4.10. Summary of AR 9 (SIHP No. 09134)**

<b>Address</b>	814 Honoapi'ilani Highway
<b>TMK</b>	4-8-003:104
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1932
<b>Square Footage</b>	67,495
<b>Acreage</b>	50.301
<b>Owner</b>	Olowalu Mauka Lot 21 Condo Master
<b>Architectural Type/Style</b>	Sugar Plantation Water Control
<b>Integrity</b>	AR 9 is in good condition but shows signs of disuse and impacts from modern construction resulting in loss of integrity of design, material, and workmanship.
<b>NRHP Significance Evaluation</b>	AR 9 is not recommended as individually eligible or as a contributing resource to the Olowalu Sugar Plantation Historic District.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.9.1 Structure Description

AR 9 is a reservoir or a roughly rectangular depression in the landscape meant to hold water that measures approximately 325 feet by 225 feet at the widest point (**Figure 4.4.34**). The reservoir features stone and concrete walls, and the basin is covered in vegetation consisting of grasses and low-lying shrubbery (**Figures 4.35 through 4.37**). Some exposed areas of the basin floor suggest that the entirety of the reservoir consists of concrete and stone construction. AR 9 features a concrete siphon spillway along its northwestern wall which consists of a beam atop four evenly spaced concrete piers in the crest of the reservoir. An inlet along the northeastern wall is fed by a concrete and stone ditch/conduit that extends up through the nearby mountains.

Although no longer in use, the reservoir was an element of the expansive Pioneer Mill Company irrigation system and was constructed on the lands of the Olowalu Sugar Company, which was purchased by the larger enterprise in 1931. The reservoir was supplied by the Olowalu Intake Pump and Olowalu ditch and was one of twenty-nine storage reservoirs maintained by the Pioneer Mill Company. These reservoirs totaled a storage capacity of approximately 235 million gallons, which was carried through the plantation fields by a network of tunnels, ditches, flumes, and pipes (Maly 2010).

##### 4.9.2 Current Condition and Integrity

AR 9 is in fair condition and shows signs of disuse and degradation due to weathering, age, and the overgrowth of vegetation in the reservoir basin. However, the construction of a modern bike path in 2023 across the entire length of the south and eastern sides. has had a substantial negative impact the reservoir's integrity. The construction of the bike path included extensive mechanical grading of the reservoir's earthen walls/burns, which also created structural

fractures within the stone walls. As such, the resource no longer retains integrity of material, workmanship, feeling, and design.

### **4.9.3 Significance Evaluation**

AR 9 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural integrity. Although the reservoir is directly related to the Pioneer Mill Company, the structure, on its own, due to degradation and extreme modern impacts, it no longer embodies the historical and architectural significance of the company and the development of the surrounding community. As a result, AR 9 is recommended as not eligible under NRHP Criterion A and SRHP Criterion a.

Under NRHP Criterion B and SRHP Criterion b, the structure is recommended as not eligible because no links were found between the reservoir and people of cultural or historic significance. Under NRHP Criterion C and SRHP Criterion c, AR 9 is recommended as not eligible because the reservoir is a common structure found throughout the region and is not exemplary of reservoirs of this period. Furthermore, the structure is not the work of an expert builder or craftsman.

NRHP Criterion D is typically considered when assessing archaeological sites, but buildings may qualify if they have the potential to contribute important information to our understanding of history. As an individual resource, AR 9 is not recommended as eligible Under NRHP Criterion D and SRHP Criterion d. Despite its association with the sugar plantation industry, the structure itself does not have the potential to yield substantial information regarding local and regional development.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 9 is recommended as not eligible for listing in the NRHP as a contributing resource to the Olowalu Sugar Plantation Historic District. While, the reservoir retains its integrity of location and association, the structure's integrity of setting, materials, workmanship, feeling, and design have been diminished with the construction of a bike trail.

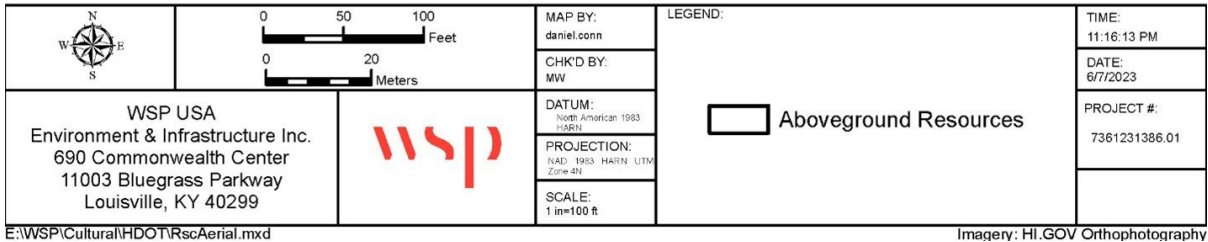


Figure 4.34. Aerial image showing the location of AR 9.



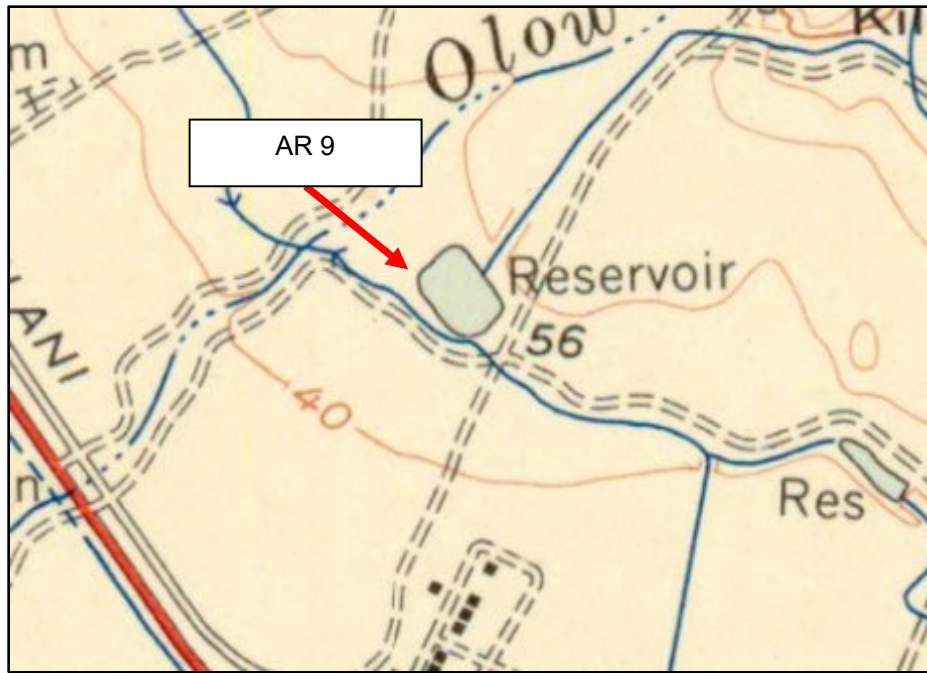


Figure 4.35 . Reservoir illustrated in vicinity of AR 9 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.36. Southeast, south, and southwest walls of AR 9, facing south.



**Figure 4.37. Modern impact from the construction of a bike path along the south and east elevation of AR 9, facing east.**

#### 4.10 AR 10 (SIHP No. 09135): 832 Olowalu Village Road

AR 10, newly recorded as SIHP No.09135, is a residential property at 832 Olowalu Village Road (**Table 4.11; Figure 4.38**). The building is bounded by residential properties to the east and west, Olowalu Village Road and Honoapi'ilani Highway to the south, and undeveloped woods to the north. AR 10 sits on a level, grassy terrain with several trees lining the northeast boundary of the property and a ditch running outside the northwest boundary (**Figure 4.38**). A paved asphalt drive extends from the southeast boundary of the property to a carport along the southeast elevation of AR 10. A wood porch is located adjacent to the northeastern wall of the carport and leads up to the main entrance of the house. A combination asphalt and concrete drive extends along the southwest boundary of the property, from the primary drive to the carport of an accessory dwelling. Segments of wood privacy fencing run along the southwest and northeast boundaries between the house and the adjacent residential properties. The house is associated with one outbuilding: an accessory dwelling that contains 500 square feet of living area.

According to the County of Maui tax assessor's database, AR 10 sits on 0.23 acres, is currently owned by Patrick J. Harnetiaux, and was built in 1964. Topographic maps show a building in the location of AR 10 in 1983, and the structure is not depicted in the 1955 drawing, the next earliest map (**Figure 4.39**). Historic aerial images show AR 10 in its current location as early as 1975. The next earliest aerial dates to 1960 and shows the location of AR 10 before development and some extant surrounding structures. This suggests that AR 10 was built between 1960 and 1975, corroborating the 1964 construction date listed in the tax assessor's database.

While attempts to contact the Owner of Record were made prior to and during fieldwork, consent to enter the property was not obtained. As such, all documentation for AR 10 was conducted from the public right-of-way, except for observations made while attempting to contact the Owners of Record.

**Table 4.11. Summary of AR 10 (SIHP No. 09135)**

<b>Address</b>	832 Olowalu Village Road
<b>TMK</b>	4-8-004:017
<b>County</b>	Maui County
<b>Date of Construction</b>	1964
<b>Square Footage</b>	1,052
<b>Acreage</b>	0.23
<b>Owner</b>	Patrick J. Harnetiaux
<b>Architectural Type/Style</b>	Contractor Modern/Hawaiian Ranch House
<b>Integrity</b>	AR 10 is in fair to good condition but has undergone moderate alteration resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 10 is not recommended as individually eligible due to lack of architectural and historic significance and is not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District due to a lack of association and historic significance.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.10.1 Building Description

The residential building associated with AR 10 is a southeast facing, one-story, single-family, Contractor Modern/Hawaiian Ranch House topped with a front gable roof covered with asphalt shingles. The house is clad in redwood/cedar vertical board siding, rests on a wood post foundation. The roof features wide eave overhangs. Along a recessed portion of the main elevation, the eave overhang covers the main entrance and is supported with a slim, metal post. A wooden deck bordered with wooden lattice railing is accessed by a set of two wooden steps and leads to the entryway. The southwest elevation of the deck is adjacent to a partially enclosed carport, which is clad in wood vertical board and is topped with an asphalt shingle, shed roof extending from the principal roof along the main elevation. Aerial images indicate that the carport was constructed by 1975, and the tax assessor's database lists a construction date of 1969 for this property, suggesting the carport may have been added after the initial construction of the main house. The associated outbuilding sits to the northwest of the main house and the combination asphalt

and concrete drive extends out from the primary driveway to a carport along the southwest elevation of the accessory dwelling.

The southeast (front) elevation has eight wall openings (**Figure 4.40**). From west to east, the elevation has a secondary entrance composed of a vinyl, multipaneled door below the carport; a pair of vinyl, double-hung windows; the main entrance comprised of a single panel wood door inset with a long narrow light, and a metal framed storm door; and a second pair of double-hung vinyl windows. The southwest elevation was partially obscured from the public right-of-way, but images of the elevation from 2009 indicate that, from southeast to northwest, there is a series of six fixed, wood windows and an additional entrance, framed on either side by a set of two double-hung wood windows. A partial view of the carport along this elevation, and the character of the visible wall openings, suggest the wood windows along this elevation have likely been replaced with vinyl windows, likely with double-hung or sliding-sash operations (**Figure 4.41**). The northwest elevation was obscured from the public right-of-way by the accessory dwelling. Along the northeast elevation, which was partially obscured by the accessory dwelling and vegetation, wall openings including two sets of double-hung vinyl windows and a set of three double-hung vinyl windows. Additional wall openings may be located further along this elevation.

#### **4.10.2 Associated Outbuilding**

AR 10 is associated with one outbuilding, an accessory dwelling that sits along the northwest boundary of the property behind the house (**Figure 4.38**). The dwelling is topped with a standing metal seam, side gable roof and is clad in painted plywood siding. The southeast elevation of the outbuilding cannot be seen from the public right-of-way. The northeast elevation contains two sliding glass doors with vinyl frames, which open to a wood deck featuring wood banisters and two sets of four stairs. The northwest elevation suggests that the outbuilding may be a split-level structure and contains five wall openings. From northwest to southeast, there is one double-casement vinyl window and a second smaller double-casement vinyl window, under which a flat roof supported by slim wood posts extends from the elevation; a set of two fixed vinyl windows; and two or three double-casement vinyl windows.

A carport can be seen extending from the southwest elevation of the outbuilding and a partial view of the elevation suggests that one vinyl, double casement window is located along this elevation beneath the carport. The tax assessor's database indicates that the dwelling was added to the property in 1988. The cascading gable roof in current aerial images suggests that there have been two to three additions, including the carport, along the southwest elevation of the original dwelling.

#### **4.10.3 Current Condition and Integrity**

AR 10 is in good condition. The house has also undergone alterations, including the addition of the attached garage and the replacement of siding and roofing material. The accessory dwelling is in good condition but has undergone moderate alterations. These include the replacement of siding material and the construction of several additions along the southwest elevation (for example, the addition of the attached garage). While the property retains its integrity of location and setting, AR 10 has undergone multiple unsympathetic alterations and lost its integrity of design, material, workmanship, feeling, and association.

#### **4.10.4 Significance Evaluation**

AR 10 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of material integrity.

Under NRHP Criterion A and SRHP Criterion a, AR 10 is recommended as not individually eligible because no association was found to any historic events or patterns of events that have impacted the region, state, or nation. Likewise, under NRHP Criterion B and SRHP Criterion b, AR 10 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the building is not individually eligible because it has no elements that make it a unique example of its architectural style or form. The house is not the work of an

expert builder or craftsman. Moreover, Ranch houses were popular throughout the mid- to late-20th century and are found across the region and the country (McAlester 2018).

Further, under NRHP Criterion D and SRHP Criterion d, AR 10 does not have the potential to yield additional information regarding local and regional development or other themes related to the sugar plantation industry and the Pioneer Mill Company. Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 10 is recommended as a non-contributing resource to the proposed Olowalu Sugar Plantation Historic District. The house was constructed outside the historic district's period of significance and is not associated with the local sugar plantation industry or the Pioneer Mill Company and their impact on the development of Olowalu from the late-19th century to the mid-20th century.

The outbuilding is not individually eligible for the NRHP and does not contribute to the overall eligibility of AR 10. This type of building is found throughout the region and does not hold architectural or historic significance.





		MAP BY: daniel.conn	<b>LEGEND:</b>  Aboveground Resources APE	TIME: 11:14:54 PM
		CHK'D BY: MW		DATE: 6/7/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 NAD 83 PROJECTION: NAD 1983 HARN UTM Zone 49	PROJECT #: 7361231386.01
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**Figure 4.38. Aerial image showing the location of AR 10 and accessory dwelling.**

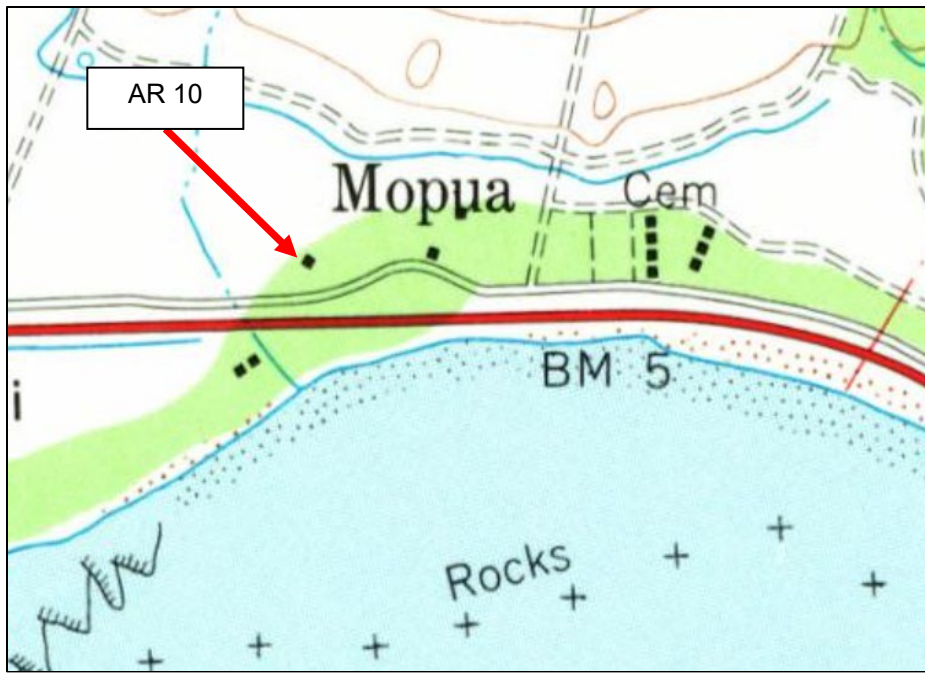


Figure 4.39. Building illustrated in vicinity of AR 10 on the 1975 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.40. Southeast (front) elevation of AR 10, facing northwest.





**Figure 4.41. Northeast elevation of AR 10 and outbuilding, facing south.**

#### 4.11 AR 11 (SIHP No. 09136): 804 Olowalu Village Road

AR 11, newly recorded as SIHP No.09136, is a residential property at 804 Olowalu Village Road (**Figure 4.12; Figure 4.42**). The building is bounded by a residential property to the west, an open lot to the east, Olowalu Village Road and Honoapi'ilani Highway to the south, and undeveloped woods to the north. AR 11 sits on level, grassy terrain with several trees, shrubs, and decorative vegetation dotting the property. A ditch runs just outside the northwest boundary (**Figure 4.43**). A gravel drive extends from Olowalu Village Road to a concrete landing, covered by a carport that extends from the southeast elevation of AR 11. The carport extends from the roofline along the main elevation and, along with shrubbery and a trellising structure, obscures wall openings along the front of the house. Solar panels cover a portion of the roof surface.

According to the County of Maui tax assessor's database, AR 11 sits on 0.22 acres, is currently owned by the Robert R Santos Living Trust/Margaret Duclos-Santos and was built in 1984. Topographic maps show a building in the location of AR 11 in 1992, but no structure is shown in the location in the 1983 map (**Figure 4.43**). The aerial images show AR 11 in its current alignment as early as 1988. The next earliest aerial dates to 1975 and shows the location of AR 11 before development as well as some surrounding structures. This suggests that AR 11 was built between 1983 and 1988, corroborating the 1984 construction date listed in the tax assessor's database.

While attempts to contact the Owner of Record were made prior to and during fieldwork, consent to enter the property was not obtained. As such, all documentation for AR 11 was conducted from the public right-of-way, except for observations made while attempting to contact the Owners of Record.

**Table 4.12. Summary of AR 11 (SIHP No. 09136)**

<b>Address</b>	804 Olowalu Village Road
<b>TMK</b>	4-8-004:009
<b>County</b>	Maui County
<b>Date of Construction</b>	1984
<b>Square Footage</b>	2,308
<b>Acreage</b>	0.22
<b>Owner</b>	Robert R. Santos Living Trust; Margaret Duclos-Santos
<b>Architectural Type/Style</b>	Styled Ranch (Spanish)
<b>Integrity</b>	AR 11 is in fair to good condition but has undergone moderate alteration resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 11 is not recommended as individually eligible due to lack of architectural and historic significance and is not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District due to a lack of association and historical significance.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.11.1 Building Description

The residential building associated with AR 11 is a southeast facing, one-story, single-family, Styled Ranch (Spanish) house topped with a cross-gable roof covered with wood shake. The house is clad in wood vertical board siding and the roof features wide eave overhangs. The eave overhang along the central block of the house and shed roofs extending from below the cross-gable portions of the main elevation cover the main entrance. This covered area may feature a concrete landing along the main elevation, but details are not visible from the public right-of-way and a layout image from the tax assessor's database does not include additional information. A carport, comprised of a low-pitch, wood shake, front gable roof supported by six wood posts with brackets extends from the westernmost cross gable portion of the main elevation. Aerial images indicate that the carport was added to the building sometime as recently as 2023.

The southeast (front) elevation has six wall openings (**Figure 4.44**). From southwest to northeast, the elevation has a wood picture window and an entrance featuring a vinyl frame storm door below the

carport; a window of unknown material and sash operation; the main entrance; and two windows of unknown material and sash operation (**Figure 4.45**). The southwest and northwest elevations were not visible from the public right-of-way. Current aerials, however, indicate that a wooden deck extends from the northwest (rear) elevation, suggesting the presence of a rear entry. The northeast elevation was partially obscured from the public right-of-way by vegetation, but three wall openings were visible along this elevation: one wood fixed window, one wood sliding window, and one window of unknown material and unknown sash operation.

#### **4.11.2 Current Condition and Integrity**

AR 11 is in good condition. The house has undergone some alterations, including construction of an attached carport and the replacement of windows, siding, and roofing material. While the property retains its integrity of location and setting, given that AR 11 has undergone multiple unsympathetic alterations, it has lost its integrity of design, material, workmanship, feeling, and association.

#### **4.11.3 Significance Evaluation**

AR 11 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of material integrity.

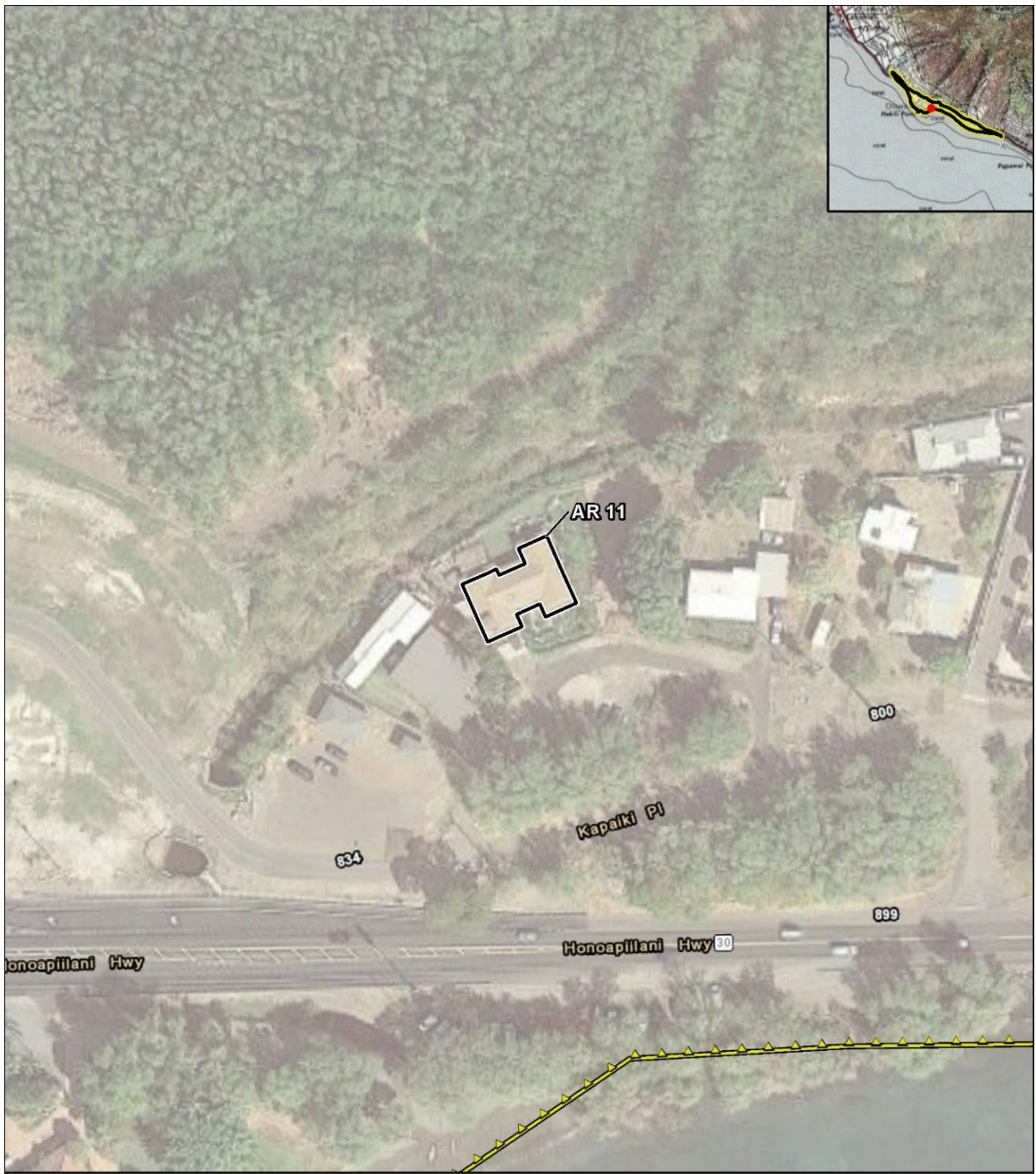
Under NRHP Criterion A and SRHP Criterion a, AR 11 is recommended as not individually eligible because no association was found to any historic events or patterns of events that have impacted the region, state, or nation. Likewise, under NRHP Criterion B and SRHP Criterion b, AR 11 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the building is not eligible because it has no elements that make it a unique example of its architectural style or form. The house is not the work of an expert builder or craftsman. Furthermore, Ranch houses were popular throughout the mid- to late-20th century and are found across the region (McAlester 2018). In addition, under NRHP Criterion D and SRHP Criterion d, AR 11 does not have the potential to yield additional information regarding local and regional development or other themes related to the sugar plantation industry and the Pioneer Mill Company.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 11 is recommended as a non-contributing resource to the proposed Olowalu Sugar Plantation Historic District. The house was constructed outside the historic district's period of significance and is not associated with the local sugar plantation industry or the Pioneer Mill Company and their impact on the development of Olowalu from the late-19th century to the mid-20th century.





		MAP BY: daniel.conn	<b>LEGEND:</b>  Aboveground Resources APE	TIME: 11:14:57 PM
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**Figure 4.42. Aerial image showing the location of AR 11.**

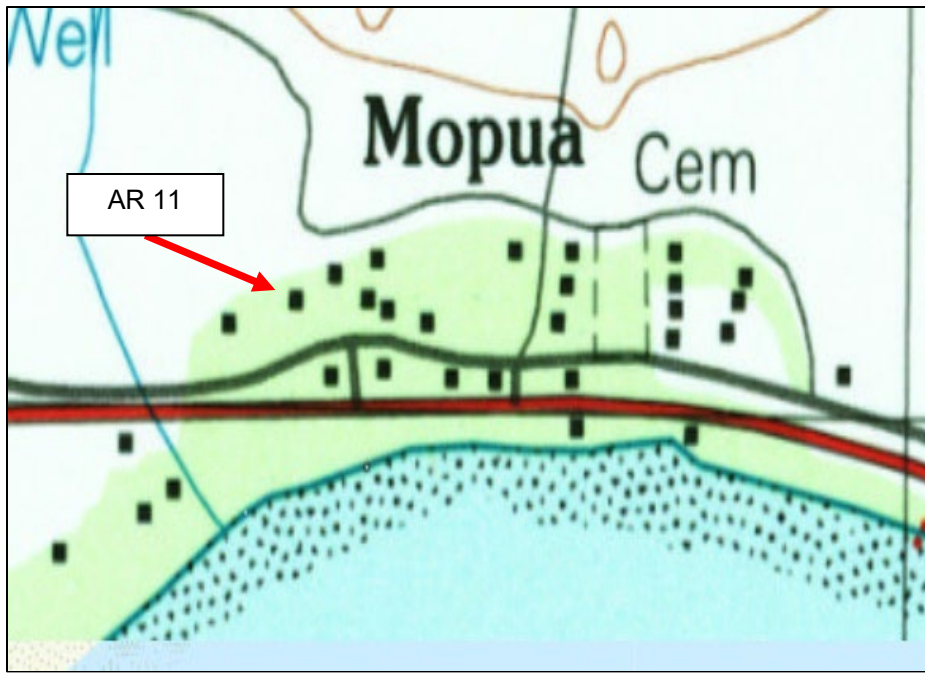


Figure 4.43. Building illustrated in vicinity of AR 11 on the 1992 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.44. Southeast (front) elevation of AR 11, facing northwest.





**Figure 4.45. Southeast (front) and northeast elevations of AR 11 and outbuilding, facing northwest.**

## 4.12 AR 12 (SIHP No. 09137): 804 A Olowalu Village Road

AR 12, newly recorded as SIHP No.09137, is a residential property at 804A Olowalu Village Road (**Figure 4.13; Figure 4.46**). The building is bound by residential properties to the west and east, a wooded area to the north, and Olowalu Village Road and Honoapi'ilani Highway to the south. AR 12 sits on a level, grassy terrain dotted with several trees. A ditch runs parallel to the north boundary, just beyond the property line (**Figure 4.46**). A gravel drive extends from the south boundary of the property to a concrete landing, which is partially covered by a carport extending from the east elevation of AR 12. A concrete sidewalk extends from the landing along a recessed portion of the south (main) elevation and leads to the main entrance. The principal roof of the house covers this sidewalk to form a partial porch and is supported by two thin wood supports. A chain-link fence runs along the perimeter of the property. The house is associated with one outbuilding: a shed located in the northeast corner of the property.

According to the County of Maui tax assessor's database, AR 12 sits on 0.34 acres, is currently owned by Einar Santos Jr., and was built in 1958. Topographic maps show a building in the location of AR 12 in 1992, but no structure is shown in the location in the 1955 map (**Figure 4.47**). The aerial images show AR 12 in its current alignment as early as 1975. The next earliest aerial dates to 1960; the location of AR 12 is obscured by foliage and the image quality is poor. This suggests that AR 12 was built before 1975, supporting the 1958 construction date listed in the tax assessor's database.

While attempts to contact the Owner of Record were made prior to and during fieldwork, consent to enter the property was not obtained. As such, all documentation for AR 12 was conducted from the public right-of-way, except for observations made while attempting to contact the Owners of Record.

**Table 4.13. Summary of AR 12 (SIHP No. 09137)**

<b>Address</b>	804A Olowalu Village Road
<b>TMK</b>	4-8-004:008
<b>County</b>	Maui County
<b>Date of Construction</b>	1958
<b>Square Footage</b>	1,108
<b>Acreage</b>	0.34
<b>Owner</b>	Einar Santos Jr.
<b>Architectural Type/Style</b>	Contractor Modern/Hawaiian Ranch House
<b>Integrity</b>	AR 12 is in good condition but has undergone some alteration resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 12 is not recommended as individually eligible due to lack of architectural significance and not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District due to a lack of association and historical significance.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

### 4.12.1 Building Description

The residential building associated with AR 12 is a south facing, one-story, single-family, Contractor Modern/Hawaiian Ranch house topped with a side gable roof covered with sheets of corrugated metal (**Figure 4.48**). The house is clad in redwood/cedar vertical board siding and rests on a wood post foundation. The roof features wide eave overhangs with exposed rafters. The eave overhang along a recessed portion of the main elevation covers the main entrance and is supported with two slim, wooden supports. The concrete sidewalk/deck of the porch leads to the main entrance from a concrete landing along the east elevation that is partially covered by a semi-enclosed carport. The carport is topped with corrugated metal flat roof with wide eaves and is enclosed along the north and east elevations by vertical wood siding that does not extend to the roofline or to grade. The carport is supported by two wood posts. Aerial images indicate that the carport was constructed between 1975 and 1988. The associated outbuilding sits northwest of the main house and displays siding and roofing material consistent with the carport; however, the siding for this structure does extend from the roofline to grade.

The south (front) elevation has four wall openings (**Figure 4.49**). From west to east, the elevation has two rows of four vinyl, casement windows; the main entrance, which is comprised of a solid panel wood door;

and an additional row of four vinyl, casement windows. The portion of the elevation that displays the last two wall openings is recessed beneath the principal roofline, which is supported by two slim wooden posts that extend to grade and terminate in a poured concrete sidewalk/porch deck. The west elevation features two wall openings: two rows of four vinyl casement windows (**Figure Figure 4.50**). The north elevation could not be seen from the public right-of-way. Current aerials indicate that a shed roof extends from the easternmost portion of this elevation, suggesting that a second entryway and additional wall openings may be present. The east elevation contains no wall openings, but the carport extended from this elevation and may obscure one or more wall openings from the public right-of-way view (**Figure 4.50**).

#### **4.12.2 Associated Outbuilding**

AR 12 is associated with one outbuilding: a shed located behind the northeast corner of the house. The outbuilding is topped with a corrugated metal seam, flat roof and is clad in wood vertical board siding. The outbuilding is mostly obscured from the public right-of-way. A partial view of the south and east elevations reveals no wall openings (**Figure 4.50**). Historic aerials indicate that the outbuilding was added after 1988.

#### **4.12.3 Current Condition and Integrity**

AR 12 is in good condition. The house has undergone some alterations, including the replacement of windows, siding, and roofing material. While AR 12 retains its integrity of location and setting, it has undergone multiple unsympathetic alterations and lost its integrity of design, material, workmanship, feeling, and association. The outbuilding is in fair condition.

#### **4.12.4 Significance Evaluation**

AR 12 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of material integrity.

Under NRHP Criterion A and SRHP Criterion a, AR 12 is recommended as not individually eligible because no association was found to any historic events or patterns of events that have impacted the region, state, or nation. Likewise, under NRHP Criterion B and SRHP Criterion b, AR 12 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

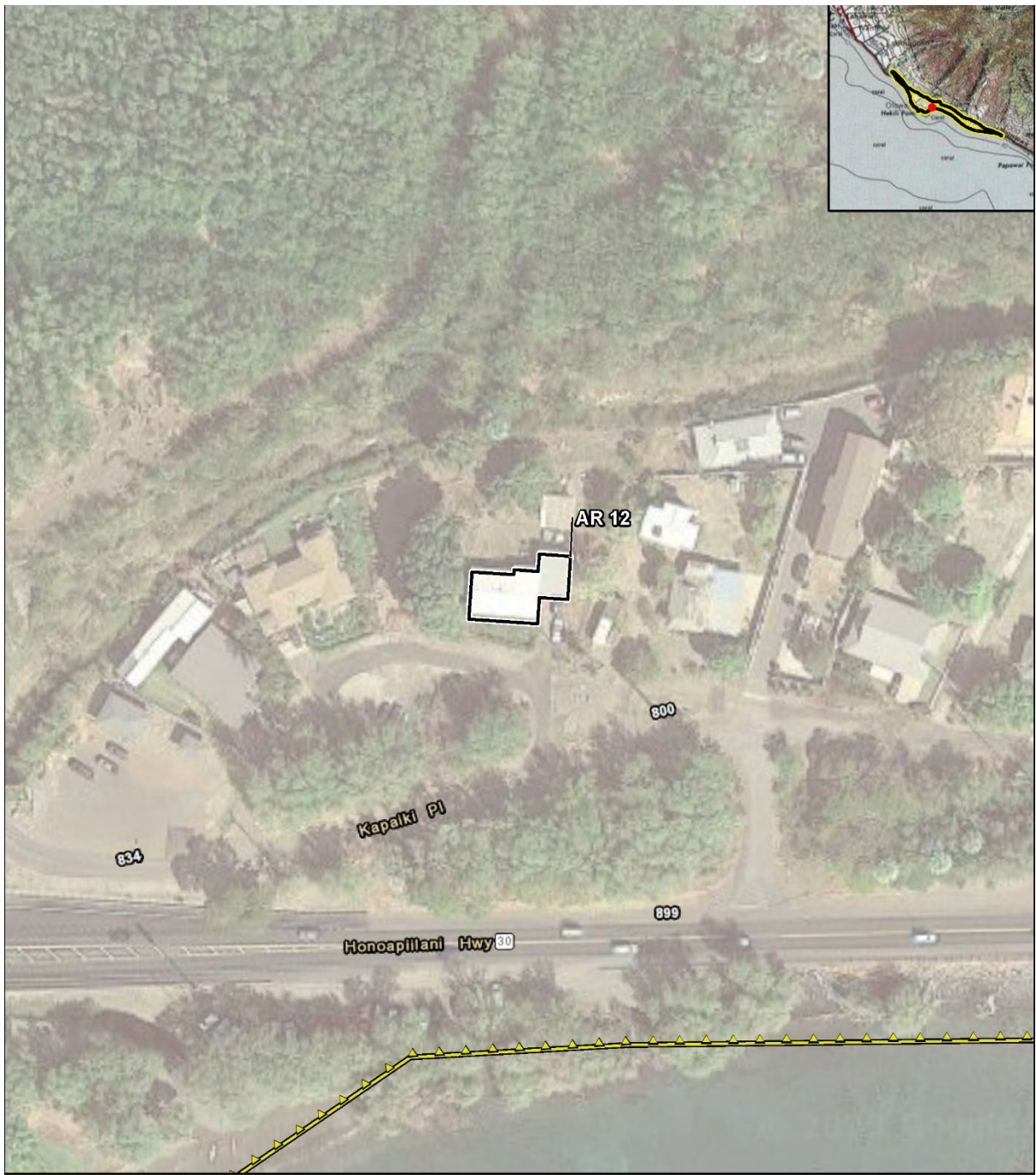
Under NRHP Criterion C and SRHP Criterion c, the building is not eligible because it has no elements that make it a unique example of its architectural style or form. The house is not the work of an expert builder or craftsperson. Moreover, Ranch houses were popular throughout the mid- to late-20th century and are found across the region (McAlester 2018).

Under NRHP Criterion D and SRHP Criterion d, AR 12 does not have the potential to yield additional information regarding local and regional development or other themes related to the sugar plantation industry and the Pioneer Mill Company. Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 12 is recommended as a non-contributing resource to the proposed Olowalu Sugar Plantation Historic District. The house was constructed outside the historic district's period of significance and is not associated with the local sugar plantation industry or the Pioneer Mill Company and their impact on the development of Olowalu from the late-19th century to the mid-20th century.

The outbuilding is not individually eligible for the NRHP and does not contribute to the overall eligibility of AR 12. This type of building is found throughout the region and does not hold architectural or historic significance.





		MAP BY: daniel.conn	<b>LEGEND:</b>  Aboveground Resources APE	TIME: 11:15:00 PM
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**Figure 4.46. Aerial image showing the location of AR 12.**

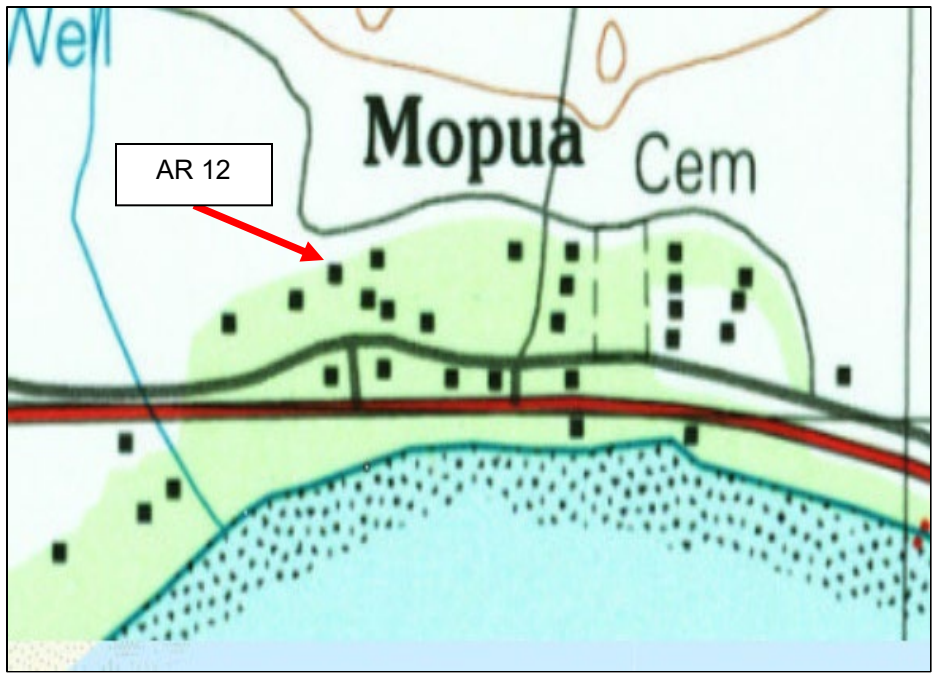


Figure 4.47. Building illustrated in vicinity of AR 12 on the 1992 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.48. South (front) and east elevations of AR 12, facing northwest.





**Figure 4.49. South (front) and west elevations of AR 12 and outbuilding, facing northeast.**



**Figure 4.50. South (front) and east elevations of AR 12 and outbuilding, facing northwest; note the outbuilding beyond the carport.**

### 4.13 AR 13 (SIHP No. 09138): 806 A Olowalu Village Road

AR 13, newly recorded as SIHP No.09138, is a residential property at 806A Olowalu Village Road (**Figure 4.14; Figure 4.51**). The building is bounded by residential properties to the west and east, Olowalu Village Road and Honoapiʻilani Highway to the south, and a wooded area to the north. AR 13 sits on a level, grassy terrain dotted with several trees. A structure from the neighboring property is located just north of the property boundary, a corrugated metal shipping container is located at the southwest corner of the property, and a concrete block wall runs along the extent of the north and east boundaries (**Figure 4.52**). A gravel drive extends from Olowalu Village Road to a concrete landing located along the east elevation of AR 13. The concrete landing is adjacent to an addition that has been constructed along the east elevation of the main house. The addition is covered by a secondary flat roof that extends from the eaves of the main house and creates a partial porch covering the main entrance. A second gravel driveway extends from Olowalu Village Road to an outbuilding located northwest of the main house.

According to the County of Maui tax assessor's database, AR 13 sits on 0.34 acres, is currently owned by Jill A. Labram and Jon D. McPherson and was built in 1963. Topographic maps show a building in the location of AR 13 as early as 1955, which is depicted in the earliest topographic map produced for the area (**Figure 4.53**). The earliest historic aerial image available for the area (from 1949) shows AR 13 in its current location and prior to the construction of additions along the north and east elevations. This suggests that AR 13 was built before 1949, supporting the 1936 construction date listed in the tax assessor's database.

While attempts to contact the Owner of Record were made prior to and during fieldwork, consent to enter the property was not obtained. As such, all documentation for AR 13 was conducted from the public right-of-way, except for observations made while attempting to contact the Owners of Record.

**Table 4.14. Summary of AR 13 (SIHP No. 09138)**

<b>Address</b>	806A Olowalu Village Road
<b>TMK</b>	4-8-004:006
<b>County</b>	Maui County
<b>Date of Construction</b>	1936
<b>Square Footage</b>	573
<b>Acreage</b>	0.34
<b>Owner</b>	Jill A. Labram and Jon D. McPherson
<b>Architectural Type/Style</b>	Modified Plantation House
<b>Integrity</b>	AR 13 is in fair to good condition but has undergone moderate alteration resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	Recommended not individually eligible and is not recommended as a contributing resource to the Olowalu Sugar Plantation Historic District due to lack of architectural and historic significance and loss of material integrity.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

#### 4.13.1 Building Description

The residential building associated with AR 13 is a south facing, one-story, single-family, Modified Plantation house topped with a gable-on-hip roof covered with composition asphalt shingles (**Figure 4.54**). The main house is clad in aluminum siding and is held above grade by a wooden post foundation, which is not consistent with the foundation of the addition. The roof features wide eave overhangs and exposed rafters. The addition constructed along the east elevation of the original portion of the house features wood vertical board siding and is covered by a secondary flat roof, which is consistent in character to the principal roof. A porch consisting of a significant overhang of this roof, slim wood supports, and a poured concrete deck has been integrated into the façade of the house and covers the main entrance.

Current aerials suggest a rear shed addition has also been constructed along the north elevation. Aerial images indicate that the addition was constructed between 1960 and 1975. The tax assessor's database records additional construction on the property in 1969, which may suggest that the addition was also



constructed at this time. The accessory building sits to the northwest of the main house and is accessed by a gravel road extending from Olowalu Village Road to the south elevation of the structure. The tax assessor's database and historic aerial images suggest that this structure was added to the property in 1988.

The south (front) elevation has four wall openings (**Figure 4.54**). From west to east, the elevation contains a wood, single hung window; a metal picture window framed on either side by a narrower wood single-hung window; a small, vinyl double casement or sliding window; and a pair of double-hung vinyl windows along a recessed portion of the elevation below the covered entryway. All windows along this elevation are covered by metal framed screens. The west elevation, from south to north, contains two metal picture windows framed on either side by a narrower wood single-hung window covered by metal framed screens and a wood double-hung window covered by a metal framed screen (**Figure 4.55**). The north elevation was unobservable from the public right-of-way, but current aerial images indicate that there is a rear shed roof extending from the original construction of the house, which possibly covers a porch and suggests the presence of a rear entryway. The east elevation contains two principal components: the main house and the addition. The portion of the main house visible along this elevation contains three wall openings: two vinyl sliding windows on either side of the main entrance to the house, which cannot be characterized from the public right-of-way. Along the addition, which is partially obscured by the concrete wall and vegetation, there is one vinyl sliding window covered by a metal framed screen.

#### **4.13.2 Associated Outbuilding**

AR 13 is associated with two outbuildings: a two-story accessory dwelling and a utility shed (**Figure 5.55**). The dwelling is located northwest of the main building, topped with a standing metal seam, cross-gable roof with wide eaves, and is clad in wood vertical board siding. The west, north, and east elevations of the outbuilding are obscured from the public right-of-way; however, current aerials show that the cross-gable roofline extends from the north elevation and a shed roof extends from the east elevation. The east elevation, which is partially visible from the public right-of-way, is supported by three slim wood posts with brackets and covers a concrete landing to constitute a one-story porch. The east elevation contains a set of three metal, fixed windows, and a single metal window with unknown sash operation along the second story.

The south elevation contains six wall openings. An entryway comprised of a vinyl, multipaneled door and a pair of double-hung vinyl windows are located along the first story. The entryway is covered by a flat roof supported by two wooden posts. A double-hung vinyl window and a pair of two double-hung vinyl windows are present at the second story. Two large, fixed windows are inset along the roofline. The tax assessor's database indicates that the dwelling was added to the property in 1988 and contains 573 square feet of living area. The utility shed, which was constructed in 1969 according to the tax assessor's database, is located along the north boundary of the property. The structure is obscured from the public right-of-way, but current aerials indicate that it features a low-pitch, front gable roof.

#### **4.13.3 Current Condition and Integrity**

AR 13 is in fair to good condition. The house has undergone significant alterations, including construction of an addition resulting in alterations to the façade, and the replacement of windows, siding, and roofing material. The accessory dwelling is in good condition but has undergone some alterations, including the replacement of windows and siding. The shed appeared to be in good condition but was largely obscured from view. While the property retains its integrity of location and setting, given that AR 13 has undergone multiple unsympathetic alterations, it has lost its integrity of design, material, workmanship, feeling, and association.

#### **4.13.4 Significance Evaluation**

AR 13 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of material integrity. Under Criterion A and SRHP Criterion a, there is no evidence or archival information that suggests that any historically significant event or pattern of events that shaped the local region occurred at or is associated with the building. The resource does not provide important information on the impact of the local technologies. Although the AR 2 was built during the sugar plantation period, the building does

not embody the historical significance of the sugar plantation industry due to alterations to its form and materials. While the building does retain its integrity of location and setting, it has lost its integrity of feeling, design, workmanship, materials and association.

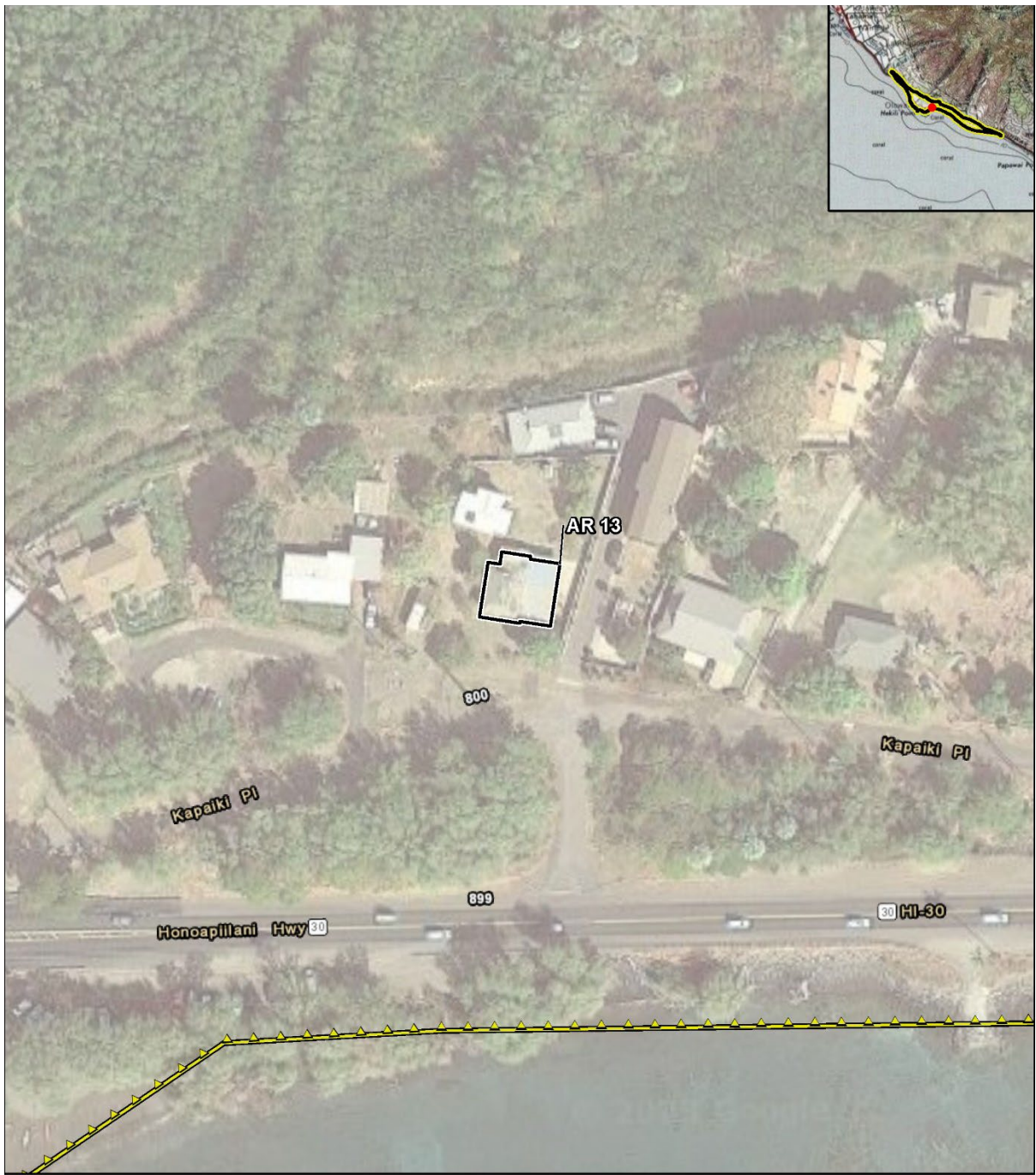
Under NRHP Criterion B and SRHP Criterion b, AR 13 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance. Under NRHP Criterion C and SRHP Criterion c, the building is not individually eligible because the resource has no elements that make it a unique example of its architectural style or form, and the house is not the work of an expert builder or craftsman.

NRHP Criterion D and SRHP Criterion d are typically considered when assessing archaeological sites, but buildings and structures may qualify if they have the potential to contribute important information to our understanding of history. However, AR 13 does not have the potential to yield additional information regarding local and regional development or other themes of historical significance.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 13 is recommended as a non-contributing resource to the proposed Olowalu Sugar Plantation Historic District. Although the residential building was constructed during the period of significance for the historic district, the house has undergone alterations resulting in loss of integrity of materials and design. As such, the building does not embody the historical significance of the historic district.

The outbuildings are not individually eligible for the NRHP and do not contribute to the overall eligibility of AR 13. These types of buildings are found throughout the region and do not hold architectural or historic significance.



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WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 NAD 83 PROJECTION: NAD 1983 HARN UTM Zone 48N SCALE: 1 in=100 ft	PROJECT #: 7361231386.01

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**Figure 4.51. Aerial image showing the location of AR 13.**



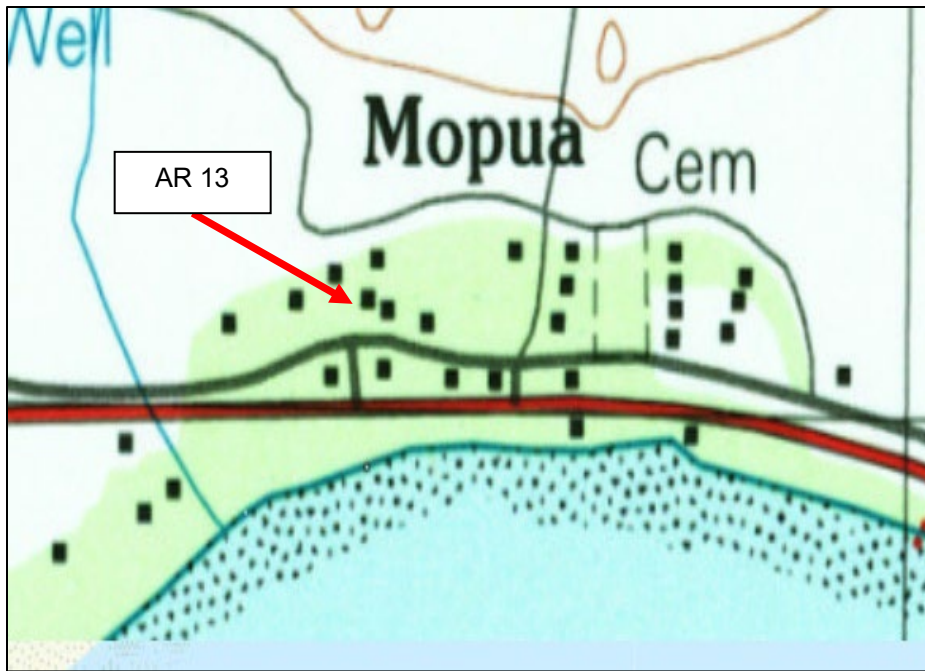


Figure 4.52. Building illustrated in vicinity of AR 13 on the 1992 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.53. South (front) elevation of AR 13, facing northwest.





**Figure 4.54. South (front) and west elevations of AR 13 and outbuilding, facing northwest.**



**Figure 4.55. South elevation of outbuilding, facing north.**

#### 4.14 AR 14 (SIHP No. 09139): 803 Kana Place/Olowalu Village Road

AR 14, newly recorded as SIHP No.09139, is a residential property located at 803 Kana Place or Olowalu Village Road (**Figure 4.15; Figure 4.56**). The building is bound by residential properties to the west and east, Olowalu Village Road and Honoapi'ilani Highway to the south, and a wooded area to the north. AR 14 sits on level terrain that is covered mostly by concrete and asphalt surfaces but is dotted in areas with a few trees and patches of grass. A detached, two-story deck is located south of the main house and a large, paved area and utility shed are located near the northeast corner of the property (**Figure 4.56**).

According to the County of Maui tax assessor's database, AR 14 sits on 0.37 acres, is currently owned by Elegant M. Tran, and was built in 1978. Topographic maps show a building in the location of AR 14 as early as 1983, but not on the next earliest map which dates to 1955 (**Figure 4.57**). A 1988 historic aerial image shows AR 14 in its current location alongside the associated outbuilding, and neither are present on a 1975 image, which is the next earliest available. This suggests that AR 14 was built between 1975 and 1983, supporting the 1978 construction date listed in the tax assessor's database.

While attempts to contact the Owner of Record were made prior to and during fieldwork, consent to enter the property was not obtained. As such, all documentation for AR 14 was conducted from the public right-of-way, except for observations made while attempting to contact the Owners of Record.

**Table 4.15. Summary of AR 14 (SIHP No. 09139)**

<b>Address</b>	803 Kana Place or Olowalu Village Road
<b>TMK</b>	4-8-004:005
<b>County</b>	Maui County
<b>Date of Construction</b>	1978
<b>Square Footage</b>	3,848
<b>Acreage</b>	0.37
<b>Owner</b>	Elegant M. Tran
<b>Architectural Type/Style</b>	Dutch Colonial Revival
<b>Integrity</b>	AR 14 is in fair to good condition but has undergone moderate alteration resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	Recommended not individually eligible due to lack of architectural and historic and is not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District due to lack of historic significance and association.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.14.1 Building Description

The residential building associated with AR 14 is a west facing, two-story, single-family, Dutch Colonial Revival style dwelling topped with a gambrel roof covered with wood shakes (**Figure 4.58**). The main house is clad in wood vertical board siding and the concrete foundation is visible slightly above grade. The roof features wide eave overhangs and exposed beams at the gambrel ends. Decks have also been constructed along the gambrel ends: a concrete structure along the first story of the north elevation and a wood structure along the south elevation. Wide shed dormers are located centrally along the west and east elevations of the roof, contributing to the space and lighting of the second story. A set of two stairs leads to a small stone and concrete landing. The landing leads to the main entrance along the west elevation, features wrought iron railing, and is not covered by a secondary shed extension or the principal roof. A second landing of the same character is present further north along the facade.

South of the building, a two-story detached deck has been constructed and features wood stairs, wood supports, and wood railing (**Figure 4.59**). The tax assessor's database indicates that the first story contributes 2,368 square feet to the total living area, and the second story contributes 1,480 square feet. The utility shed is located to the northwest of the main house and is accessed via the paved asphalt parking area and from a concrete or dirt walkway along the east elevation of the main house. The tax assessor's database and historic aerial images suggest that this structure was added to the property in 1979.

The west (front) elevation has twelve wall openings. From west to east, the first story contains a vinyl sliding window; a double-hung vinyl window; an entryway which is accessed via a set of two steps leading to a concrete and stone deck; another vinyl sliding window; a double-casement vinyl window; and the remaining wall openings follow as the inverse of the preceding pattern. At the second level, the shed dormer features two double-hung vinyl windows. The north elevation is not visible from the public right-of-way, but current aerials indicate that there are six wall openings: two large, vinyl picture windows along the first level and two vinyl sliding windows between two sliding glass doors. The east elevation was unobservable from the public right-of-way, but aerial images indicate that there are multiple wall openings along both levels of the house. The first level contains two entryways and at least six windows of unknown material and sash operation. The second level features six windows of unknown material and sash operation beneath the wide shed dormer. The south elevation contains six wall openings: two large, vinyl picture windows along the first level and two vinyl sliding windows between two sliding glass doors .

#### **4.14.2 Associated Outbuilding**

AR 14 is associated with one outbuilding, a utility shed. The shed is located northeast of the main building, topped with a corrugated metal, flat roof, and is likely clad in plywood. It is irregular in shape, nesting into the acute angle of the northeast corner of the property and featuring a possible addition along the south elevation. The outbuilding is not visible from the public right-of-way. However, current aerials show that two shed roofs extend from the west elevation, which features at least two wall openings: an entry and a window with unknown sash operation. The north and east elevations could not be assessed. The tax assessor's database indicates that the shed was added to the property in 1979, which is supported by historic aerial images.

#### **4.14.3 Current Condition and Integrity**

AR 14 is in good to fair condition. The house has undergone some alterations, including the replacement of windows, siding, and roofing material. The outbuilding is in fair condition, showing some signs of deterioration, and has undergone some alterations, including the construction of an addition and roof extensions. While the property retains its integrity of location and setting, AR 14 has undergone multiple unsympathetic alterations and lost its integrity of design, material, workmanship, feeling, and association.

#### **4.14.4 Significance Evaluation**

AR 14 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of material integrity.

Under NRHP Criterion A and SRHP Criterion a, AR 14 is recommended as not individually eligible because no association was found to any historic events or patterns of events that have impacted the region, state, or nation. Likewise, under NRHP Criterion B and SRHP Criterion b, AR 14 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the building is not eligible because it has no elements that make it a unique example of its architectural style or form. The house is not the work of an expert builder or craftsman. In addition, Under NRHP Criterion D and SRHP Criterion d, AR 14 does not have the potential to yield additional information regarding local and regional development or other significant historical themes.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 14 is recommended as a non-contributing resource to the proposed Olowalu Sugar Plantation Historic District. The house was constructed outside the historic district's period of significance and is not associated with the local sugar plantation industry or the Pioneer Mill Company and their impact on the development of Olowalu from the late-19th century to the mid-20th century.

The outbuilding is not individually eligible for the NRHP and does not contribute to the overall eligibility of AR 14. This type of building is found throughout the region and does not hold architectural or historic significance.





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**Figure 4.56. Aerial image showing the location of AR 14.**

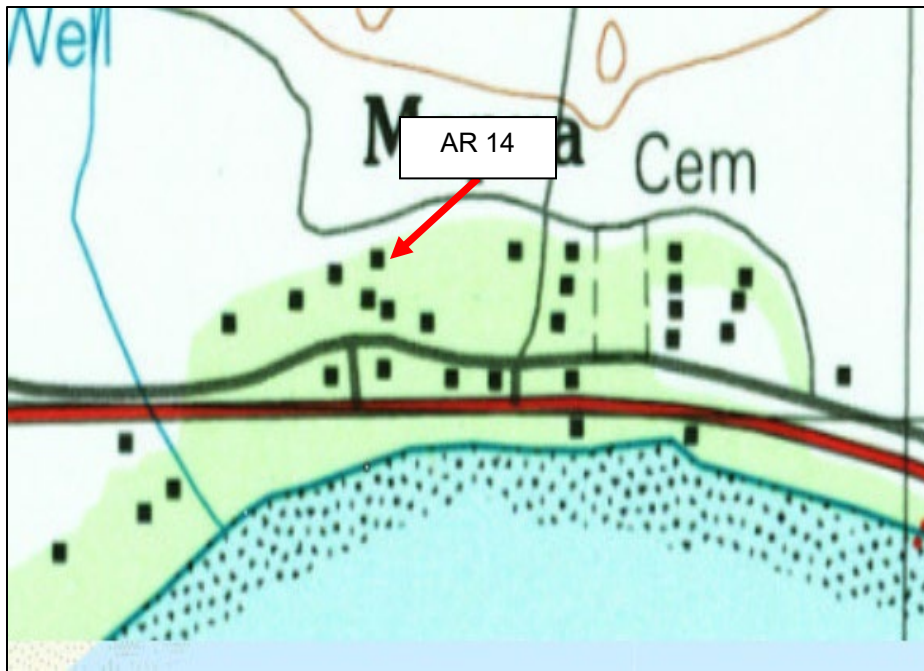


Figure 4.57. Building illustrated in vicinity of AR 14 on the 1992 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.58. View of detached two-story deck, facing northwest.





**Figure 4.59. South and east elevations of AR 14, facing north.**

#### 4.15 AR 15 (SIHP No. 09140): 837 Olowalu Village Road/4132 Honoapi‘ilani Highway

AR 15, newly recorded as SIHP No.09140, is a residential property at 837 Olowalu Village Road or 4132 Honoapi‘ilani Highway (**Table 4.16; Figure 4.60**). The building is bound by residential properties to the north, west, and east and by Olowalu Village Road to the south. AR 15 sits on a level, grassy terrain dotted with several trees. A stone and concrete retaining wall outlines the perimeter of the yard along the west, parallel to an adjacent property; to the north, from the northeast corner of AR15; and the east, parallel to an asphalt drive leading to neighboring properties. Most of the northern half of the property is open grassy terrain, and there is a pile of debris at the center of this terrain (**Figure 4.60**).

According to the County of Maui tax assessor’s database, AR 15 sits on 0.39 acres; is currently owned by Adeline K. and Clyde R. Rodrigues and was built in 1967.

While attempts to contact the Owner of Record were made prior to and during fieldwork, consent to enter the property was not obtained. As such, all documentation for AR 15 was conducted from the public right-of-way, except for observations made while attempting to contact the Owners of Record.

**Table 4.16. Summary of AR 15 (SIHP No. 09140)**

<b>Address</b>	837 Olowalu Village Rd/4132 Honoapi‘ilani Hwy
<b>TMK</b>	4-8-004:004
<b>County</b>	Maui County
<b>Date of Construction</b>	1967
<b>Square Footage</b>	1,778
<b>Acreage</b>	0.39
<b>Owner</b>	Adeline K. and Clyde R. Rodrigues
<b>Architectural Type/Style</b>	Contractor Modern/Hawaiian Ranch
<b>Integrity</b>	AR 15 is in fair to good condition but has undergone moderate alteration resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	Recommended not individually eligible due to lack of architectural and historic and is not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District due to lack of historic significance and association.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.15.1 Building Description

The residential building associated with AR 15 is a south facing, one-story, single-family, Contractor Modern/Hawaiian Ranch topped with a gable-on-hip roof covered with wood shakes (**Figure 4.61**). The house is masonry construction and rests on a masonry pier foundation. The roof features wide eave overhangs. The main house features masonry exterior walls that are distinct from the concrete blocks used to enclose the carport, suggesting it may have been enclosed after the initial construction of the house. The gables, extending from the west and east hips of the roof, do not appear to be clad in siding and the under-roof insulation can be seen externally. The roof features wide eave overhangs and an enclosed, attached carport along the east elevation is covered by the principal roof of AR 15.

A secondary, flat roof covered with corrugated metal extends from the south elevation of the house and is supported by three concrete block columns, between which there is a wood wall inset with lattice (south) and a wood fence extending from grade to just below the roofline (west). The roof, supports, and a tiled concrete porch deck and the main entrance, partially obscuring the wall openings from the public right-of-way. Along the façade, between the porch and entrance to the carport, there is a brick column that supports the overhang of the principal roof and is covered on one side by stone veneer. Aerial images indicate that the porch was constructed between 1988 and 2000, but there is no additional information available (in aerial imagery or the tax assessor’s database) to narrow this period further.



The south (front) elevation, from west to east, has four wall openings—paired square windows on either side of the main entrance—and the entrance to the attached carport, which dominates a third of the façade (**Figure 4.62**). There are two pairs of wood, fixed windows. Above the stiles and below the exterior sills there is a series of four decorative, rectangular wood panels. The main entrance and the easternmost window were obscured from the public right-of-way by a partially enclosed porch extending from this elevation (**Figure 4.63**).

The east elevation contains two wall openings along the exterior wall of the carport: a metal fixed window and a metal sliding window. The east elevation of the main house, or the interior wall of the enclosed carport contains two wall openings: an entry, covered by a painted wrought iron and glass pane storm door, and a wood window of an unknown sash operation (**Figure 4.63**). The north (rear) elevation was unobservable from the public right-of-way, but current aerial images indicate that there is a rear entrance, and one or two windows present along this elevation. The west elevation contains two pairs of wood casement windows.

#### **4.15.2 Current Condition and Integrity**

AR 15 is in good condition. The house has undergone numerous alterations, including the replacement of windows, siding, and roofing material. While the property retains its integrity of location and setting, AR 15 has undergone multiple unsympathetic alterations and lost its integrity of design, material, workmanship, feeling, and association.

#### **4.15.3 Significance Evaluation**

AR 15 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of material integrity.

Under NRHP Criterion A and SRHP Criterion a, AR 15 is recommended as not individually eligible because no association was found to any historic events or patterns of events that have impacted the region, state, or nation. Likewise, under NRHP Criterion B and SRHP Criterion b, AR 15 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the building is not eligible because it has no elements that make it a unique example of its architectural style or form. The house is not the work of an expert builder or craftsman. Furthermore, Ranch houses were popular throughout the mid- to late-20th century and are found across the region (McAlester 2018). In addition, AR 15 has undergone unsympathetic alterations, such as the replacement of windows, siding, and roofing material, resulting in the loss of integrity of materials. Under NRHP Criterion D and SRHP Criterion d, AR 15 does not have the potential to yield additional information regarding local and regional development or other significant historical themes.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 15 is recommended as a non-contributing resource to the proposed Olowalu Sugar Plantation Historic District. The house was constructed outside the historic district's period of significance and is not associated with the local sugar plantation industry or the Pioneer Mill Company and their impact on the development of Olowalu from the late-19th century to the mid-20th century.



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**Figure 4.60. Aerial image showing the location of AR 15.**

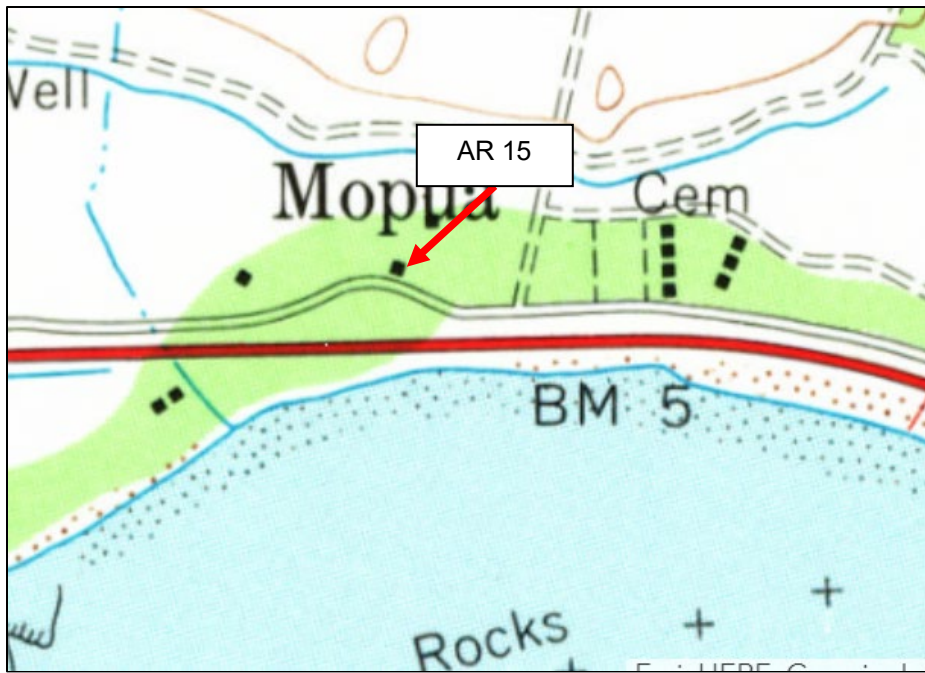


Figure 4.61. Building illustrated in vicinity of AR 15 on the 1983 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.62. South (front) elevation of AR 15, facing north.





**Figure 4.63. East elevation of AR 15, facing west.**



## 4.16 AR 16 (SIHP No. 09141): 802 A Olowalu Village Road

AR 16, newly recorded as SIHP No.09141, is a residential property at 802 Olowalu Village Road (**Figure 4.17; Figure 4.64**). The building is bounded by residential properties to the north, west and east, and by Olowalu Village Road to the south. AR 16 sits on a level, grassy terrain dotted with several trees, and sporadically interrupted by areas of sand. The northern half of the property features a dense cluster of trees that interrupt the visual line of site from AR 16 to the neighboring residence to the north (**Figure 4.64**).

A dirt driveway extends from Olowalu Village Road to a wood ramp, which leads from beyond the southwest corner of AR 16 to an entry porch covering the main entrance. The porch consists of two segments: an original, single bay entry porch featuring a shed roof, and an extension comprised of a more recently constructed flat, corrugated metal roof and a large wooden deck. Both segments of the porch roof rest on slim wood supports. North of the wood ramp, along the east elevation, a concrete landing and a set of three steps framed by low walls lead to a secondary entrance.

According to the County of Maui tax assessor's database, AR 16 sits on 0.94 acres, is currently owned by Thelma P. Kaahui and Kathy L. Kihune and was built in 1941. However, the building is also shown on an 1881 map of Olowalu along with several other structures in the APE, suggesting that AR 16 may have been constructed as early as 1881. It is important to note that, based on extensive archival research, the area known Kapaiki Place, where AR 16 is located, was once part of the Olowalu Plantation Division land holdings and thus associated with the proposed Plantation era historic district. This can most readily be seen on the 1939 Pioneer Mill Company map showing the parcels that were historically owned by the Olowalu Plantation Division (**Figure 4.65**). However, aerial photographs from 1950 also depicts the house as just a few dwellings in the Kapaiki Place area, likely for laborers of the far eastern sugar fields.

**Table 4.17. Summary of AR 16 (SIHP No. 09141)**

<b>Address</b>	802 Olowalu Village Road
<b>TMK</b>	4-8-004:002
<b>County</b>	Maui County
<b>Date of Construction</b>	By 1941
<b>Square Footage</b>	1,074
<b>Acreage</b>	0.94
<b>Owner</b>	Thelma P. Kaahui and Kathy L. Kihune
<b>Architectural Type/Style</b>	Plantation/Bungalow
<b>Integrity</b>	AR 16 is in fair to good condition but displays some signs of deterioration. However, it continues to retain its integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 16 is recommended as individually eligible due to its architectural significance (Criterion C) and is eligible as a contributing resource to the Olowalu Sugar Plantation Historic District (Criteria A and D).
<b>HRS 6E Significance Evaluation</b>	AR 16 is recommended as individually eligible due to its architectural significance (Criterion c) and is eligible as a contributing resource to the Olowalu Sugar Plantation Historic District (Criteria a and d).

### 4.16.1 Building Description

The residential building associated with AR 16 is a south facing, one-story, single-family, Plantation Style house topped with a hip-and-valley roof covered with composition asphalt shingles (**Figure 4.66**). The main house is clad in fir/pine wood vertical board siding and rests above grade on a concrete pier and post foundation. Along the west and south elevations, cascading hips cover projecting sections of the irregular floor plan and, consistent with the principal roof, feature wide eave overhangs with exposed rafters. The exterior foundation posts have been integrated into decorative lattice covering crawl space beneath the house. In some areas, the lattice has been damaged or removed, exposing the crawlspace and foundation elements.

A porch covers the main entrance of the house along the south (front) elevation. An original, single bay entry porch featuring a shed roof covered with composition asphalt shingles has been extended by the construction of a flat corrugated metal roof over a large wooden deck. The shed roof and flat roof

extension rest on slim wood supports, and the wood deck rests on a pier and post foundation covered by lattice. The porch is enclosed with wood banister railing, aside from the portion accessed by the wood ramp. The ramp, which leads from the dirt driveway to the entry porch, features wood railing that is inconsistent with what is in the entry porch. North of the wood ramp, along the east elevation of the house, a concrete landing and a set of three steps framed by low walls lead to a secondary entrance. Historic aerial images indicate that the porch was modified after 1975. The modification could have occurred more recently, but the poor quality of the 1988 aerial image prevents more precise dating. The tax assessor's database records no additional information regarding new construction related to AR 16.

The south (front) elevation has eight wall openings. However, the wall openings located beneath the entry porch—including the main entry and three windows—were partially obscured from the public right-of-way (**Figure 4.67**). From west to east, the elevation contains a wood, double-casement window with eight-light panes; three wood, double-casement windows with eight-light panes in a ribbon—the last of which is partially obscured by the porch; the main entrance and a wood, double casement window with eight-light panes—both of which are beneath the porch and obscured from the public right-of-way (**Figure 4.68**); and two wood, double-casement windows with eight-light panes to the west of the porch, along a section of the elevation that projects outward below a cascading hip roof (**Figure 4.69**).

The west elevation is visually divided into three sections with the central section projecting from the elevation below a cascading hip roof. This section contains two wood casement windows with six lights. The sections on either side each feature a wood, double-casement window with eight-light panes (**Figures Figure 4.70**).

The north elevation, from west to east, contains six wall openings: two wood, double-casement windows with eight-light panes; three wood, double-casement windows with eight-light panes in a ribbon; and a smaller wood, double-casement window with twelve lights. The east elevation contains four wall openings: three windows and an additional entrance. The additional entrance is located at the northern extent of the elevation and features a paneled wood door inset with a fixed one-over-one window. A set of two concrete steps framed on either side by a low concrete wall lead from a concrete landing to the additional entrance. Immediately adjacent to the wood frame of the entrance is a small wood, double-casement window with twelve lights, which is followed by two wood, double-casement windows with eight-light panes. All wall openings visible from the public right-of-way feature simple lintel and sill entablatures.

#### **4.16.2 Current Condition and Integrity**

AR 16 is in fair condition with signs of deterioration evident on the wood siding and roof eaves. The house has undergone only minor unsympathetic alteration, retaining its original windows and siding. The original roofing material has been replaced with composite asphalt shingles, and a porch has been added along the south (front elevation). The building displays elements characteristic of this style and retains much of its integrity, making it a good representation of its type. Although the roofing material has been replaced and the porch modified, the house retains much of its original materials and retains its integrity of location, setting, design, workmanship, feeling, and association.

#### **4.16.3 Significance Evaluation**

AR 16 is recommended as individually eligible for listing in the under NRHP Criterion A and SRHP Criterion a based on its association with historic events or patterns of events that have impacted the region, state, or nation.

AR 16 was built during the middle of the sugar plantation era, a time when the area was extremely rural, and all construction was specifically for use by the plantation. Moreover, as mentioned above, at the time when the house was built, the original Kapaiki Place parcels were owned by the Olowalu Plantation Division within the period of significance of proposed Plantation era historic district (**Figure 4.65**). As such, the building, as an individual resource, embodies the historical significance of the sugar plantation industry and the development of the surrounding community under NRHP Criterion A and SRHP Criterion a.

Under NRHP Criterion B and SRHP Criterion b, AR 16 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, AR 16 is recommended as not individually eligible. Although the house displays the classic Hawaiian plantation architecture and retains much of its integrity, the building is not eligible because it has no elements that make it a unique example of its architectural style or form. Furthermore, the house is not the work of an expert builder or craftsman. Under NRHP Criterion D and SRHP Criterion d, AR 16 does not have the potential to yield additional information regarding local and regional development or other themes of historical significance.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 16 is recommended as a contributing resource to the Olowalu Sugar Plantation Historic District under Criteria A, C, and D. The resource is likely an early worker house, and thus is associated with the local sugar plantation industry and the Pioneer Mill Company and their impact on the development of Olowalu from the late-19th century to the mid-20th century. As a result of this association, AR 16 has potential to contribute to further understanding of this history as part of the proposed historic district.

Under NRHP Criterion A, AR 16 is recommended as eligible as a contributing resource because the building is directly associated with the Pioneer Mill Company and the sugar plantation industry and is representative of this association as worker housing. Under NRHP Criterion B, AR 16 is recommended as not eligible as a contributing resource because no ties or links were found between the building and people with cultural or historic significance.

AR 16 is recommended as eligible as a contributing resource Under NRHP Criterion C because the building is an excellent architectural example of an original worker home that was built during the Period of Significance. The building displays elements characteristic of this style and retains much of its integrity, making it a good representation of its type. Under NRHP Criterion D, AR 16, as a contributing resource to the Olowalu Sugar Plantation District, has the potential to yield additional information regarding local and regional development or other themes of historical significance.

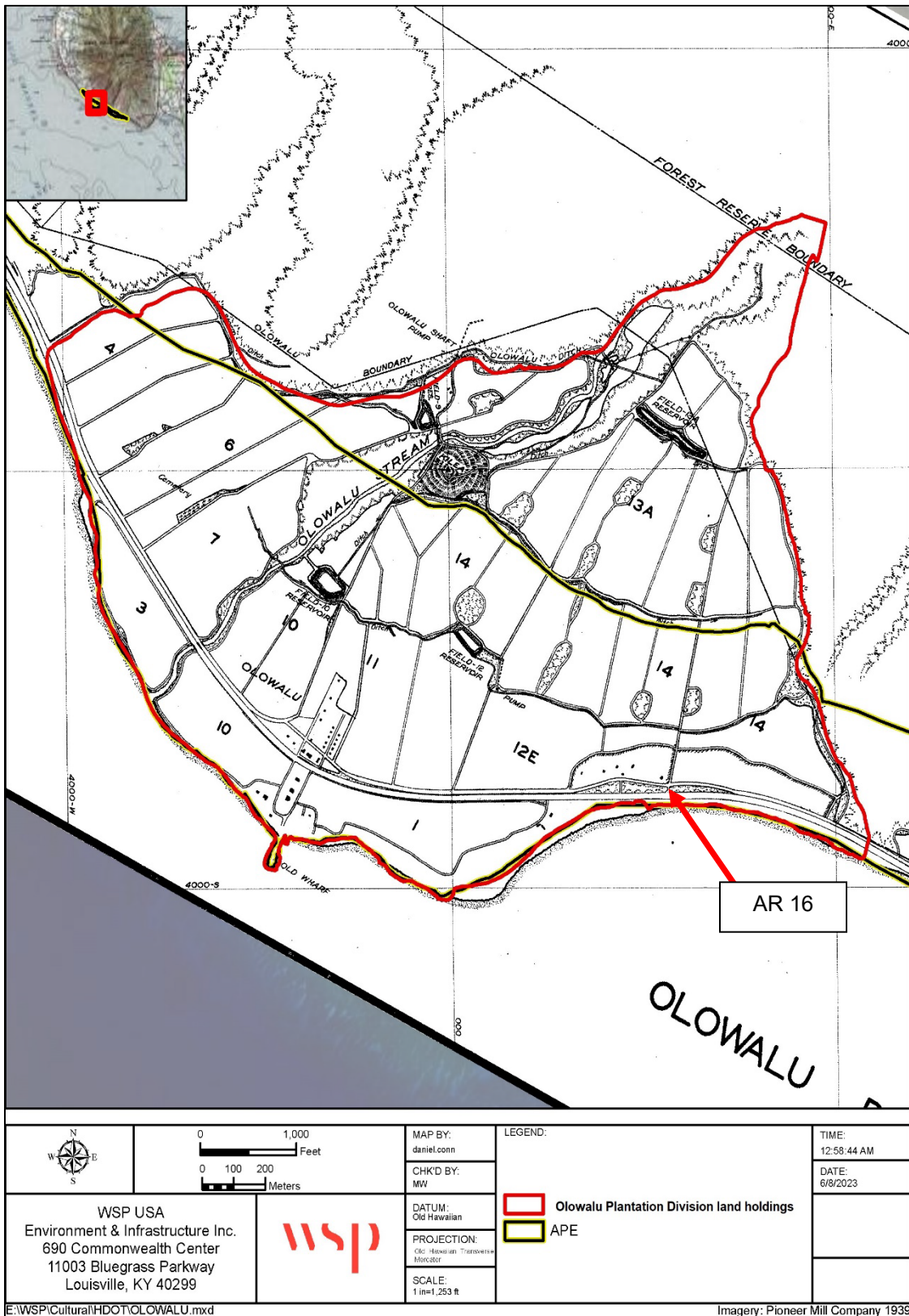


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**Figure 4.64. Aerial image showing the location of AR 16.**





**Figure 4.65. The 1939 Pioneer Mill Company map showing the location of AR 16 within the Olowalu Plantation Division land holdings (Courtesy of the Hawai'i Department of Accounting and General Services, Land Survey Division).**



**Figure 4.66. South (front) elevation of AR 16, facing north.**



**Figure 4.67. South (front) and east elevations of AR 16, facing northwest.**





**Figure 4.68. West and south (front) elevations of AR 16, facing northwest.**



**Figure 4.69. North (rear) elevation of AR 16, facing south.**



**Figure 4.70. South elevation of outbuilding, facing north.**



#### 4.17 AR 17 (SIHP No. 1603): Lanakila Historic Church (Olowalu Church and Cemetery)

AR 17, previously recorded as SIHP No. 1603, consists of the Lanakila Historic Church and associated cemetery (Olowalu Church and Cemetery), a culturally significant site that is located on the north side of Honoapi'ilani Highway (Hawai'i 30) (**Figure 4.18; Figures Figure 4.71 and Figure 4.72**). The cemetery itself is also known as the Olowalu Lanakila Hawaiian Church Cemetery (Find a Grave 2023).

According to the County of Maui tax assessor's database, AR 17 sits on 1.998 acres and is currently owned by the Hawai'i Conference Foundation. The church and cemetery sit on a parcel of land along with one modern residential structure. A portion of the cemetery containing marked interments is located along the western wall of the church, and a section containing unmarked graves is located slightly to the north and demarcated by large stones (Lee-Greig and Hammatt, 2012). The earliest inscribed marker in the cemetery dates to 1938, but the church is depicted on the 1881 Hawai'i Land Survey Registered Map, suggesting unmarked interments or those without headstones may date to the late-19th century or earlier (**Figure 4.73**).

A garden adorns the main elevation of the church, and a stone-lined pathway leads to the interior of the structure. The church and cemetery served the residents of Olowalu during the Plantation era and was established as a branch of the Olowalu Mission of the Lāhainā Station (Olowalu Lanakila Hawaiian Church 2019; Lee-Greig and Hammatt 2012). The plantation era began in the mid-19<sup>th</sup> century, becoming more industrialized with the development of larger fruit and sugar plantations by the 1890s. Labor needs attracted many immigrant workers to the islands, with the largest number being from Japan (LOC ND; Maclennan 1995). This demographic trend is reflected in the AR 17 by the presence of Japanese surnames on two of the four engraved headstones. The cemetery extends beyond its recognized boundaries and includes unmarked graves dated as early as 1910 that became subsumed by encroaching sugar cane fields (Fredericksen and Fredericksen 1999, 2001; Lee-Grieg and Hammatt 2012; R. M. Towill Corporation 2008).

**Table 4.18. Summary of AR 17 (SIHP No. 1603): Lanakila Historic Church (Olowalu Church and Cemetery).**

<b>Address</b>	Honoapi'ilani Highway (State Highway 30)
<b>TMK</b>	4-8-003:018
<b>County</b>	Maui County
<b>Date Established</b>	circa 1860
<b>Acreage</b>	1.998
<b>Owner</b>	Hawai'i Conference Foundation
<b>Architectural Type</b>	Religious Structure and Cemetery
<b>Number of Interments</b>	10 (although additional unmarked interments are possible)
<b>Earliest Interment</b>	Early 20th century
<b>Integrity</b>	AR 17 is in stable condition and retains its integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 17 is recommended as individually eligible (Criterion A and D, Criteria Consideration D), but not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District due to a lack of association.
<b>HRS 6E Significance Evaluation</b>	AR 17 is recommended as individually eligible (Criterion a and d, and Criteria e), but not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District due to a lack of association.

##### 4.17.1 Site Description

AR 17 consists of a church ruin and an associated cemetery along the west elevation of the main structure. Both sit on an open grassy area dotted with trees that is north of a modern residential building occupied by the cemetery groundskeeper (**Figure 4.74**). An unimproved dirt access road runs through the center of the property to AR18, extending to the north to from the Honoapi'ilani Highway (State Highway 30). The cemetery measures approximately 10 by 10 meters with an estimated minimum of 10 interments, but additional unmarked interments have been identified in the former cane fields nearby (Shefcheck and Dega 2007). The church was constructed in the 1860s when congregation members

formed human chains to supply the stone and coral that comprises the church walls. The original roof of AR 17 was wood and in 1930 it was destroyed—along with the historic records of the church—as a result of nearby cane fires (**Figure 4.75**). Olowalu Sugar Company took partial responsibility for the damage but it was not held liable for repair after it was purchased by the Pioneer Mill Company of Lāhainā (Olowalu Lanakila Hawaiian Church 2019; Lee-Greig and Hammatt 2012).

The west and east elevations of the church feature three openings that formerly featured wood windows of unknown operation; the north elevation contains one wall opening which formerly contained a window; and the south elevation features one wall opening that formerly served as the main entrance (**Figure 4.76** through **4.78**). Inside the structure, along the north elevation, a rock, coral, and mortar retaining wall encloses an elevated earthen landing that is accessed by a set of two rock, coral, and mortar steps. And a wooden cross has been placed at the rear of the landing. Images of the structure prior to the fire depict a set of solid wood double doors at the main entrance, the front gable wood roof, and a centrally located wood steeple topped with a hipped roof (**Figure 4.75**).

The interments that comprise the cemetery are clustered along the northwest wall of the church and appear to be mostly within uniform rows. Four interments are marked by concrete vaults that sit slightly above grade. Three of these burials feature engraved headstones ranging in condition from broken to pristine; the remaining interments feature organized rows of stone and lava rock lining the extent of the grave shaft. Additional unmarked interments have been identified in the nearby area. The earliest inscribed burial dates to 1938, but unmarked interments may date to the late-19th century—the most recent dates to 2003. Surnames observed include Leonui and Fujishiro.

#### **4.17.2 Current Condition and Integrity**

At the time of the survey, AR 17 was in fair condition. Some markers show signs of weathering and others exhibit signs of damage (**Figure 4.137**). The cemetery is currently maintained by a groundskeeper residing at the property. Given these factors, the site still retains its integrity of location, setting, design, material, workmanship, feeling, and association.

#### **4.17.3 Significance Evaluation**

AR 17 was previously recommended as individually eligible under NRHP Criterion D, SRHP Criterion d, and SRHP Criterion e. The current study concurs with this evaluation and recommends AR 17 as individually eligible for listing in the NRHP under Criteria A and D, Criteria Consideration D, SRHP Criterion d and SRHP Criterion e.

As National Register Bulletin #41 states, “cemeteries and graves are among those properties that ordinarily are not considered eligible for inclusion in the National Register of Historic Places unless they meet special requirements (United States Department of the Interior 1992). To qualify for listing under NRHP Criteria A, B, C, or D a cemetery or grave must meet not only the basic criteria, but also the special requirements of Criteria Considerations C or D, relating to graves and cemeteries” (United States Department of the Interior 1992).

AR 17 is recommended as individually eligible Under NRHP Criterion A, SRHP Criterion a, and SRHP Criterion e due to its association with the Native Hawaiian population in West Maui and the early Protestant missionary efforts in Olowalu during the 19th century.

Under NRHP Criterion B and SRHP Criterion b, the resource is recommended not individually eligible because no connections to a people of historic significance in relation to AR 17 were identified. Under NRHP Criterion C and SRHP Criterion c, the resource is recommended not individually eligible because it does not contain monuments that are of architectural significance, nor does it appear to be a special built historic landscape.

AR 17 is recommended as individually eligible under NRHP Criterion D and SRHP Criterion d because of its potential to yield information important in history related to the Native Hawaiian population in West Maui and the early Protestant missionary efforts in Olowalu during the 19th century. AR 17 is also recommended as individually eligible under NRHP Criteria Consideration D. AR 17 meets the requirements of Criteria Consideration D as it derives its primary significance from distinctive characteristics of the 19th and 20th century Protestant missionary influences on Hawaiian mortuary and

construction practices. Thus, due to its association with the Native Hawaiian population in West Maui and the early Protestant missionary efforts in Olowalu during the 19th century, AR 17 is recommended as individually eligible under Criteria A and D, Criteria Consideration D, and HRS § 6E.

AR 17 is recommended as a non-contributing resource to the proposed Olowalu Sugar Plantation Historic District. Although the church and cemetery were active during the period of significance for the historic district, the resource's primary significance is derived from its distinctive characteristics of the 19<sup>th</sup>- and 20<sup>th</sup>-century Protestant missionary influences on Native Hawaiian mortuary practices and the early Protestant missionary efforts in Olowalu during the 19th century. Thus, AR 17 does not embody the historical significance of the proposed historic district.



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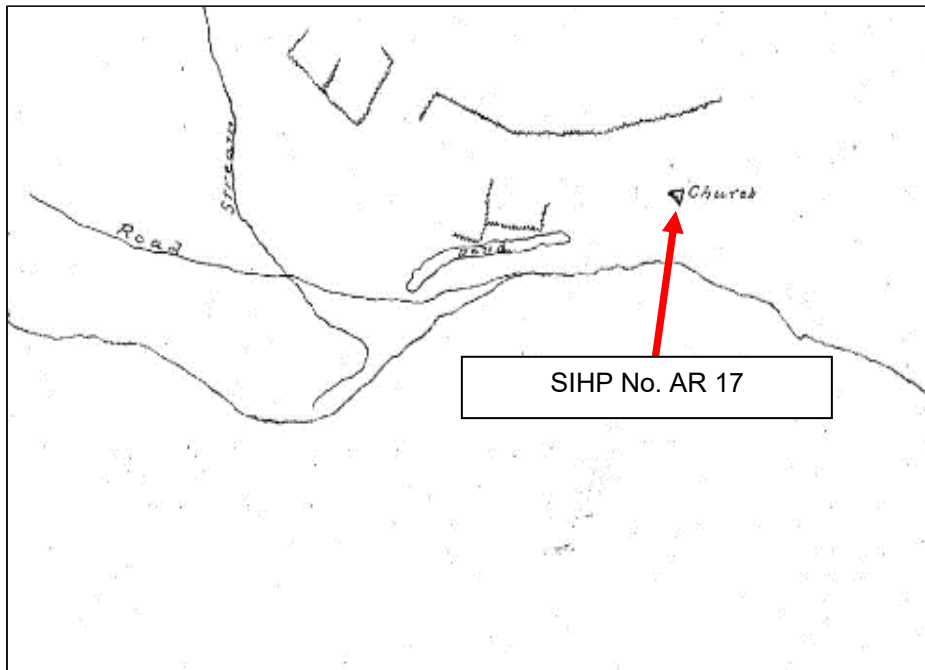
Imagery: HI.GOV Orthophotography

**Figure 4.71. Aerial image showing the location of AR 17.**





Figure 4.72. Cemetery illustrated in vicinity of AR 17 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Source: Lyons 1881; courtesy of HU eVols Repository

Figure 4.73. View of a church in the location of SIHP No. 1603 depicted in Hawai'i Land Survey Registered Map 776.



Source: Olowalu Lanakila Hawaiian Church

**Figure 4.74. View of AR 17 prior to 1930 cane field fire.**



**Figure 4.75. Overview of AR 17 stone church and cemetery, facing southeast.**





**Figure 4.76. West elevation of stone church, facing southeast.**



**Figure 4.77. View of interior of church, facing north.**



**Figure 4.78. Example of inscribed markers and concrete vaults, facing east.**



#### 4.18 AR 18 (SIHP No. 09142): Wharf

AR 18, newly recorded as SIHP No.09142, is a small rock and concrete wharf/drainage culvert on Olowalu Beach approximately 0.21 miles west of Honoapiʻilani Highway mile marker 14 (**Figure 4.19; Figure 4.79**). The structure is bounded by rocky beach shores to the west and east, Honoapiʻilani Highway to the north, and the Pacific Ocean to the south. AR 18 is accessed via a widened shoulder along the eastbound lanes of Honoapiʻilani Highway.

According to the County of Maui tax assessor’s database, AR 18 sits on an 8-acre parcel containing Olowalu Beach and is currently owned by the State of Hawaiʻi. Topographic maps do not depict the structure, but a 1912 AGS Soundings map illustrates a hazard near the Olowalu Landing anchorage, in the general location of AR 18; however, this symbol may also refer to the coral reefs along the Olowalu shoreline (**Figure 4.80**). The earliest historic aerial image available for the area (from 1949) illustrates the area of the shore where AR 18 is located but the quality is poor. AR 18 first appears clearly in the 1975 aerial image. This suggests that AR 18 was built before 1975. The concrete and stone construction of AR 18 is consistent with the nearby Olowalu Landing piers, suggesting it may have been constructed as early as 1930.

**Table 4.19. Summary of AR 18 (SIHP No. 09142)**

<b>Address</b>	Olowalu Beach (South of Honoapiʻilani Hwy)
<b>TMK</b>	4-8-003:001
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1930s
<b>Square Footage</b>	Approximately 1,154
<b>Acreage</b>	8.00
<b>Owner</b>	State of Hawaiʻi
<b>Architectural Type/Style</b>	20th Century Transportation/Water Control Structure
<b>Integrity</b>	AR 18 is in fair to good condition but shows some signs of weathering but retains its integrity of location, setting, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 18 is recommended as not individually eligible due to lack of historic and architectural significance and not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District (Criteria A and D).
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.18.1 Structure Description

The structure associated with AR 18 is a concrete culvert and rock wharf (**Figures Figure 4.81 through Figure 4.83**). The wharf extends approximately 100 feet from the shore and appears to terminate along the north side of Honoapiʻilani Highway (**Figure 4.71**). The mouth of the drainage opening is approximately 35 feet wide. While tax assessor’s records, primary sources, and historic aerial images provide no evidence of a clear association between this structure and the local sugar industry or Pioneer Sugar Company, the material of the wharf is consistent with a nearby wharf associated with the Olowalu Sugar Company Mill. As discussed above, the 1975 historic aerial is the first to clearly depict AR 18 in its current alignment. This suggests that the structure was likely constructed as part of the plantation water control and transportation system and was adopted into the drainage system of the Honoapiʻilani Highway.

##### 4.18.2 Current Condition and Integrity

AR 18 is in fair to good condition. The structure displays some signs of weathering and wear along the south elevation and drainage pipe. Given these factors, the property still retains its integrity of location, setting, design, material, workmanship, feeling, and association.

##### 4.18.3 Significance Evaluation

AR 18 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance.

Under NRHP Criterion A and SRHP Criterion a, AR 18 is recommended as not individually eligible. Although the structure was likely built during the sugar plantation period, AR 18, as an individual resource, does not embody the historical significance of the sugar plantation industry and its impact on the development of the surrounding community under NRHP Criterion A and SRHP Criterion a.

Under NRHP Criterion B and SRHP Criterion b, AR 18 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the structure is not individually eligible because the resource has no elements that make it a unique example of its architectural type and is not the work of an expert builder or craftsman.

Under NRHP Criterion D and SRHP Criterion d, AR 18 does not have the potential to yield additional information regarding local and regional development or other themes of historical significance. Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

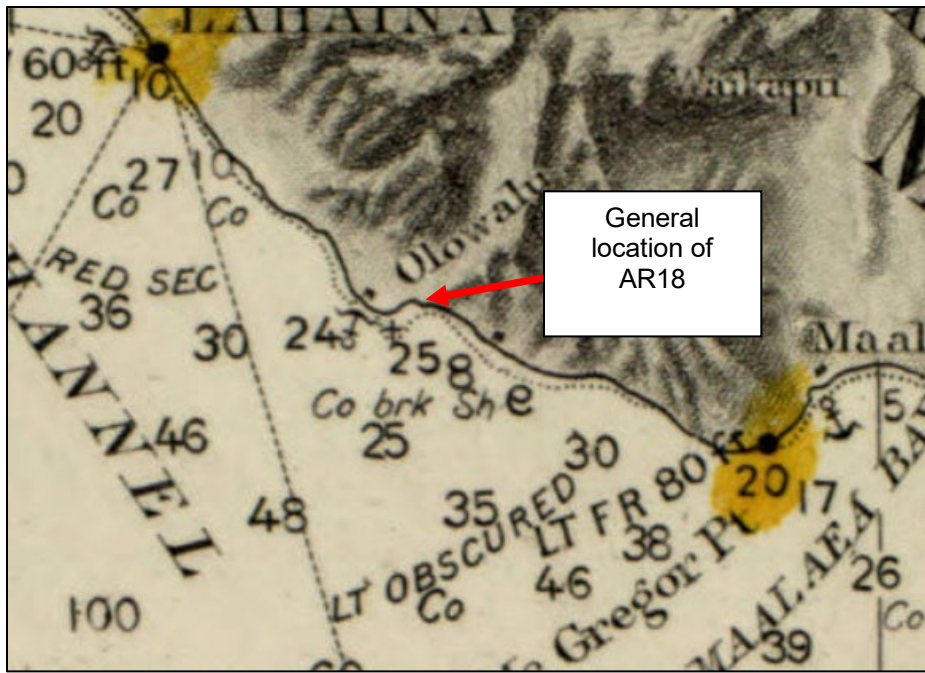
AR 18 is not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District. No association that definitively shows that the structure was part of the sugar plantation industry in Olowalu, and the Pioneer Mill Company was found.



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**Figure 4.79. Aerial image showing the location of AR 18.**



Source: Hawai'i Department of Accounting and General Services

**Figure 4.80. Hazard illustrated in vicinity of AR 18 on the 1912 AGS Soundings Map of the Hawaiian Islands.**



**Figure 4.81. Deck and west elevation of AR 18, facing southeast.**





**Figure 4.82. Deck and east elevation of AR 18 and outbuilding, facing northwest.**



**Figure 4.83. South elevation of AR 18, facing northwest; note the concrete drainage pipe emptying into the sea.**

#### 4.19 AR 19 (SIHP No. 09143): Water Tower

AR 19, newly recorded as SIHP No.09143, is a water tower north of Olowalu Village Road (**Figure 4.20; Figure 4.84**). The structure is bounded by a wooded area to the east and north, an unnamed road to the west, and Olowalu Village Road to the south. The tower sits on a level, sandy terrain surrounded by thick vegetation (**Figure 4.84**).

According to the County of Maui tax assessor's database, AR 19 sits on 50.301 acres and is currently owned by Olowalu Mauka Lot 21 Condo Master/Margaret Kamala Martin Family Trust et al. Topographic maps do not show AR 19, and vegetation largely obscures the structure on aerials. However, it does appear that a structure with a similar plan is in the location of AR 19 on the 1950 aerial. The earliest aerial image available is dated 1949, but the clarity is poor. This suggests that AR 19 was built prior to 1950. The location near a former rail line and size of the water tower suggests an association with the railroad. During the late-19th century, steam locomotives relied on large quantities of water to generate steam power and most railroads constructed water towers along the tracks near stream crossings and in towns (LOC ND). Rail transportation was in use by the sugar industry from the 1880s until 1953, when truck transportation became preferred (Lahaina Restoration Foundation ND).

While attempts to contact the Owner of Record were made prior to and during fieldwork, consent to enter the property was not obtained. As such, all documentation for AR 19 was conducted from the public right-of-way, except for observations made while attempting to contact the Owners of Record.

**Table 4.20. Summary of AR 19 (SIHP No. 09143)**

<b>Address</b>	North of Olowalu Village Road
<b>TMK</b>	4-8-003:104
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1945 (mapping) – late-19th century
<b>Square Footage</b>	N/A
<b>Acreage</b>	50.301
<b>Owner</b>	Olowalu Mauka Lot 21 Condo Master/Margaret Kamala Martin Family Trust et al.
<b>Architectural Type/Style</b>	Water tower
<b>Integrity</b>	AR 19 is in fair to good condition. The property retains its integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 19 is not individually eligible due to lack of architectural and historic significance but is eligible as a contributing resource to the Olowalu Sugar Plantation Historic District (Criteria A and C).
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.19.1 Building Description

AR 19 is a small metal water tower located just to the north of Olowalu Village Road near an intersection with an unnamed road. The tower rests on tall metal posts (**Figure 4.85**).

##### 4.19.2 Current Condition and Integrity

AR 19 is in fair condition, showing areas of rust. Given these factors, the property still retains its integrity of location, setting, design, material, workmanship, feeling, and association.

##### 4.19.3 Significance Evaluation

AR 19 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance.

Although AR 19 was erected during the sugar plantation period and utilized in association with rail transportation, the structure, as an individual resource, does not embody the historical significance of the sugar plantation industry and its impact on the development of the surrounding community under NRHP Criterion A and SRHP Criterion a.

Under NRHP Criterion B and SRHP Criterion b, AR 19 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the structure is not individually eligible because it is a common type with no unique elements and is not the work of an expert builder or craftsman.

NRHP Criterion D and SRHP Criterion d are typically considered when assessing archaeological sites, but buildings and structures may qualify if they have the potential to contribute important information to our understanding of history; however, AR 19, as an individual resource, does not have such potential.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 19 is recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District under Criteria A and C. Under NRHP Criterion A, the structure is associated with the sugar plantation industry in Olowalu and the Pioneer Mill Company, which had a substantial role in the development of the local community and region. AR 19 was erected and utilized in association with the industry's rail transportation. The sugar industry's influence on the area spanned from the late-19th century to the mid-20th century, when the company relied heavily on rail for transport. Under NRHP Criterion C, this resource is recommended as eligible as a contributing resource based on its association with the Hawai'i's plantation era and the associated architectural developments needed for water containment, as well as rail shipping, transportation, and engineering, which were integral to the physical development and land uses of the Olowalu Sugar Plantation Historic District.

Under NRHP Criterion D, AR 19 does not have the potential to yield additional information regarding local and regional development or other themes of historical significance related to the Pioneer Mill Company and the local sugar plantation industry.





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Figure 4.84. Aerial image showing the location of AR 19.





**Figure 4.85. Water tower associated with AR 19, facing northeast.**

## 4.20 AR 20 (SIHP No. 09144): Bridge Over Olowalu Stream

AR 20, newly recorded as SIHP No.09144, is a steel stringer/multibeam bridge carrying a cane haul road across Olowalu Stream north of Honoapi'ilani Highway, (**Figure 4.21**; **Figure 4.86**). The structure features a wood deck over two steel I-beam spans that are supported by two wingwall abutments and a solid pier. The abutments are made of concrete and are framed by stone and concrete wingwalls. The central concrete pier features a steel beam supporting the superstructure and a stone and concrete foundation. Wire fencing has been fastened to the superstructure across the southern span, resulting in a buildup of debris.

According to the County of Maui tax assessor's database, AR 20 sits on a 42.71-acre parcel comprised of non-linear strips of land across Olowalu and is currently owned by Olowalu Elua Associates LLC. Topographic maps do not depict the structure, but the 1955 Olowalu USGS Topographic map shows the area where the cane haul road intersects Olowalu Stream (**Figure 4.87**). The earliest historic aerial image available for the area (from 1949) illustrates the bridge in its general current alignment. This suggests that AR 20 was built before 1949. The concrete and stone construction of AR 20 is consistent with nearby Olowalu Landing piers and plantation irrigation structures, suggesting it was likely constructed in the early-20th century. The steel beam and superstructure likely replaced original timber elements, but there are no sources to confirm this.

**Table 4.21. Summary of AR 20 (SIHP No. 09144)**

<b>Address</b>	Over Olowalu Stream (North of Honoapi'ilani Highway)
<b>TMK</b>	4-8-003:108
<b>County</b>	Maui County
<b>Date of Construction</b>	By 1949
<b>Square Footage</b>	NA
<b>Acreage</b>	42.71
<b>Owner</b>	Olowalu Elua Associates LLC
<b>Architectural Type/Style</b>	Early-20th century steel stringer/multibeam bridge
<b>Integrity</b>	AR 20 is in fair condition and shows several signs of weathering, deterioration, and neglect. The superstructure and elements of the substructure have likely been replaced, resulting in diminished integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 20 is recommended as not individually eligible due to lack of historic and architectural significance but is eligible as a contributing resource to the Olowalu Sugar Plantation Historic District (Criteria A and D).
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

### 4.20.1 Structure Description

The structure associated with AR 20 is a steel stringer/multibeam bridge with two spans resting on a concrete pier and concrete and stone wingwall abutments that carries a cane haul road across Olowalu Stream (**Figures Figure 4.88** through **Figure 4. 90**). The bridge has a total length of approximately 100 feet and a clear roadway width of approximately 30 feet (**Figure 4.90**). Tax assessor's records, primary sources, and historic aerial images provide no direct evidence of an association between this structure and the local sugar industry or Pioneer Sugar Company. However, the concrete and stone features of AR 20 are consistent with the piers and irrigation structures associated with the Olowalu Sugar Company Mill and Pioneer Mill Company irrigation structures. The 1949 historic aerial is the earliest image available and depicts AR 20 in its current alignment. This suggest that the structure was likely constructed as part of the plantation transportation system and has since been modified with the addition of steel beam elements to the superstructure and substructure.

### 4.20.2 Current Condition and Integrity

AR 20 is in fair condition. The structure shows several signs of weathering, deterioration, and neglect. The steel superstructure and elements of the substructure have likely replaced original timber elements. While the property retains its integrity of location and setting, given that AR 20 has undergone multiple unsympathetic alterations, as well as degradation, it has lost its integrity of design, material, workmanship, feeling, and association.

### 4.20.3 Significance Evaluation

AR 20 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of integrity.

Under NRHP Criterion A and SRHP Criterion a, the bridge is associated with the local sugar plantation industry, though AR 20, individually, is not strongly representative of this association. While the resource is related to the local sugar plantation industry and the Pioneer Mill Company, due to the lack of integrity, the resource does not individually embody this association and its historical significance. While the structure does retain its integrity of location and setting, it has lost its integrity of feeling, design, workmanship, materials and association.

Under NRHP Criterion B and SRHP Criterion b, AR 20 is recommended as not individually eligible because no ties or links were found between the structure and people with cultural or historic significance. The structure is recommended as not individually eligible Under NRHP Criterion C and SRHP Criterion c because it has no elements that make it a unique example of its architectural type. The bridge is not the work of an expert builder or craftsman and is a common type. Furthermore, AR 20 has undergone multiple alterations.

NRHP Criterion D and SRHP Criterion d are typically considered when assessing archaeological sites, but buildings and structures may qualify if they have the potential to contribute important information to our understanding of history. Although the bridge is likely associated with the local sugar plantation industry, AR 20 does not have the potential to yield additional information regarding local and regional development or other themes of historical significance due to its diminished integrity.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 20 is recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District under Criteria A and D. Under NRHP Criterion A, the structure is associated with the sugar plantation industry in Olowalu and the Pioneer Mill Company, which had a substantial role in the development of the local community and region. The sugar industry's influence on the area spanned from the late-19th century to the mid-20th century. The material of the abutments is consistent with other Pioneer Mill Company land improvements, such as elements of the irrigation system, and the bridge carries a road formerly used to transport cane from the former cane fields.

Under NRHP Criterion C, this resource is recommended as eligible as a contributing resource based on its association with the Hawai'i's plantation era and the associated architectural developments needed for rail and truck shipping, transportation, and engineering, which were integral to the physical development and land uses of the Olowalu Sugar Plantation Historic District.

Under NRHP Criterion D, AR 20 has the potential to yield additional information regarding local and regional development or other themes of historical significance related to the Pioneer Mill Company and the local sugar plantation industry.



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**Figure 4.86. Aerial image showing the location of AR 20.**



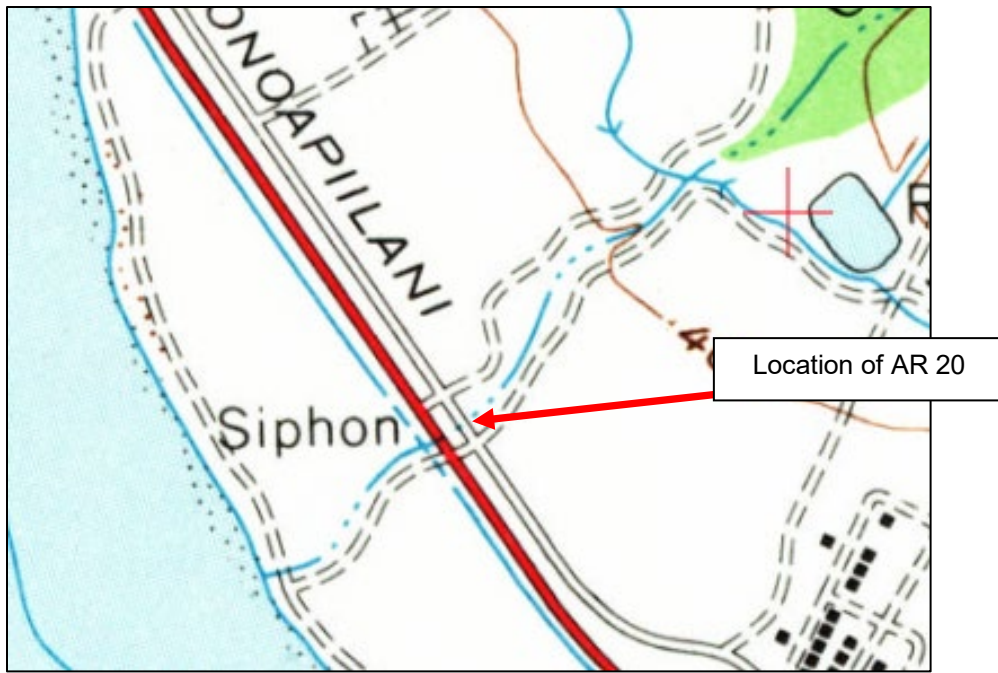


Figure 4.87. Location of AR 20 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.88. Deck and west elevation of AR 20, facing southeast.





**Figure 4.89. Detail of AR 20 wood deck boards and plywood repairs, facing southeast.**



**Figure 4.90. View of AR 20 superstructure and substructure, facing west; note the stream debris and deteriorated pier.**

#### 4.21 AR 21 (SIHP No. 09145): Push Piles (North of Mōpua)

AR 21, newly recorded as SIHP No.09145, consists of four stone debris piles or push piles spaced along a slight curve, north of residential structures of Mōpua (**Figure 4.22; Figure 4.91**). The four elements of AR 21 have been created along a non-linear, east-west path which curves outward to the southwest and measures approximately 0.5 miles from the first to the last pile. From west to east, the first two spaces between the elements measure approximately 850 ft and the third space measures approximately 450 feet.

According to the County of Maui tax assessor’s database, AR 21 extends across two parcels of agricultural land totaling 67.8 acres and is currently owned by Olowalu Maka Condo Master. The 1955 Olowalu USGS Topographic map shows the area of AR 21 and illustrates the presence of the four piles as four small areas of elevated land (**Figure 4.92**). The earliest historic aerial image available for the area (from 1949) does not depict AR 21. While the quality of the 1951 historic aerial image is poor, at least two of the piles can be seen (**Figure 4.93**). Along with archival research, these maps suggest that AR 21 was created in 1951.

**Table 4.22. Summary of AR 21 (SIHP No. 09145)**

<b>Address</b>	North of Mōpua
<b>TMK</b>	4-8-003:100; 105; 107; 118
<b>County</b>	Maui County
<b>Date of Construction</b>	1951
<b>Square Footage</b>	NA
<b>Acreage</b>	67.8
<b>Owner</b>	Olowalu Maka Condo Master
<b>Architectural Type/Style</b>	20th Century Agricultural Field Clearance
<b>Integrity</b>	AR 21 is in good condition and retains its integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 21 is not recommended as individually eligible due to lack of architectural and historic significance. AR 21 is not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.21.1 Structure Description

AR 21 consists of four stone piles spaced along a slight curve in the agricultural fields north of the residential buildings of Mōpua. A bike path has been constructed in the area and weaves through the resource (**Figure 4.94**). The elements of AR 21, numbered 1 through 4 from east to west, are rock push piles that are ovoid in shape, with flattened or slightly sloped surfaces that are flush with the surrounding agricultural landscape along the north elevations. The push piles vary in length and width, with the largest measuring approximately 57,327.42 square feet and the smallest measuring approximately 25,651.67 square feet (**Figure 4.23; Figures Figure 4.95 through Figure 4.99**).

The Pioneer Mill Company purchased the Olowalu Sugar Company in 1931. This purchase resulted in the incorporation of approximately 1,200 acres of Olowalu cane fields into the Lāhainā-based company’s sugar plantation lands, which totaled over 10,000 acres by 1935. At the end of the next decade, Pioneer Mill Company, under the management of John T. Moir Jr., initiated a rock removal program to rehabilitate land for mechanical planting, cultivating, and harvesting. Between 1948 and 1951, the company cleared approximately 3,153 acres, including the fields surrounding AR 21 (Hawaiian Sugar Planters’ Association 2004).

**Table 4.23. AR 21: Push Piles (North of Mōpua) Approximate Dimensions**

No.	Coordinates		Width (ft)	Length (ft)	Area (sq ft)
	X	Y			
1	20.81511	-156.61737	250	283	57,327.42
2	20.81382	-156.61456	148	227	35,878.94
3	20.81252	-156.61205	165	211	40,717.55
4	20.81264	-156.61040	144	193	25,651.67

Though the quality is poor, the 1951 historic aerial image confirms that the lands of the Olowalu Ahupua‘a were cleared in the final year of this program, which resulted in the creation of AR 21. The Pioneer Mill Company “rehabilitation” of these lands in the post-war period, as well as further development of the expansive irrigation networks, were possibly a response to the Green Revolution, which influenced a dramatic development of agricultural technology in mainland states (Ganzel 2006).

#### **4.21.2 Current Condition and Integrity**

AR 21 is in good condition, and all structures have been relatively unchanged since their formation during the Plantation land-clearing events. Based on these observations, the push piles retain their integrity of location, setting, design, material, workmanship, feeling, and association.

#### **4.21.3 Significance Evaluation**

AR 21 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance.

Although the push piles were constructed during the sugar plantation period, AR 21, as an individual resource, does not embody the historical significance of the sugar plantation industry and its impact on the development of the surrounding community under NRHP Criterion A and SRHP Criterion a.

Under NRHP Criterion B and SRHP Criterion b, AR 21 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

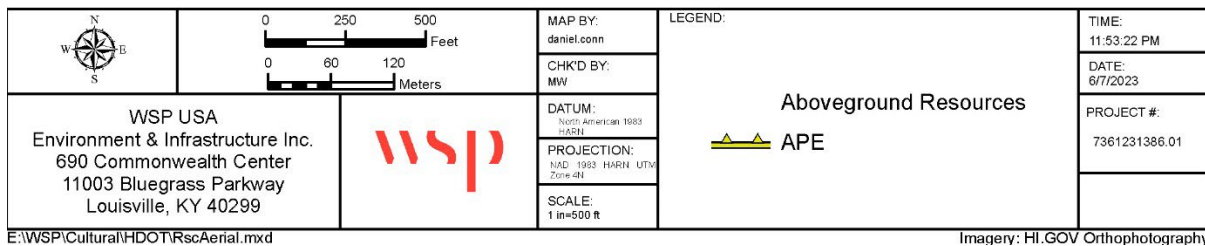
Under NRHP Criterion C and SRHP Criterion c, the structures are not individually eligible because the push piles are not unique structures—features of this type are common in 20th century agricultural landscapes and found throughout the region. Furthermore, the structures are not the work of an expert builder or craftsman.

NRHP Criterion D and SRHP Criterion d are typically considered when assessing archaeological sites, but buildings and structures may qualify if they have the potential to contribute important information to our understanding of history; however, AR 21, as an individual resource, does not have such potential.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group’s history and cultural identity.

AR 21 is recommended as not a contributing resource to the proposed Olowalu Sugar Plantation Historic District. While the structure is associated with the sugar plantation industry in Olowalu and the Pioneer Mill Company, they do not constitute a substantial role in the development of the local community and region. Moreover, they do not have the potential to yield additional information regarding local and regional development or other themes of historical significance related to the Pioneer Mill Company and the local sugar plantation industry.





**Figure 4.91. Aerial image showing the location of AR 21 (AR 21.1 – 21.4).**

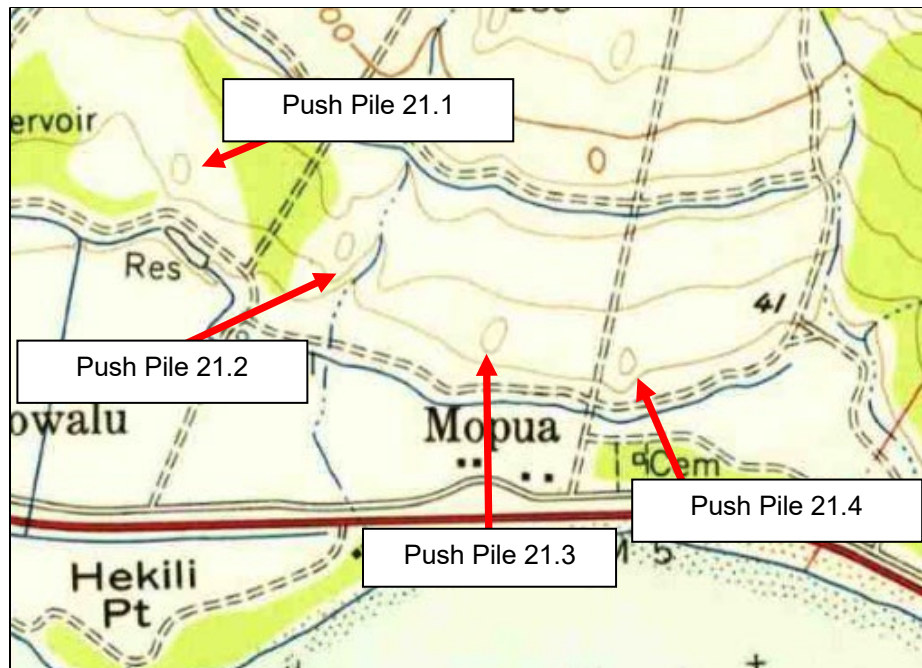


Figure 4.92. AR 21 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.93. Modern aerial image showing the early stages of bike path construction.





**Figure 4.94. View of AR 21 (Push Pile 21.2) facing northeast.**



**Figure 4.95. Detail view of AR 21 (Push Pile 21.2) stone composition, facing west.**



**Figure 4.96. View of AR 21 (Push Pile 21.3), facing southeast.**



**Figure 4.97. View of AR 21 (Push Pile 21.3), facing south; note irrigation ditch in the foreground.**





**Figure 4.98. View of AR 21 (Push Pile 21.4), facing west.**



**Figure 4.99. View of AR 21 (Push Pile 21.4), facing southeast.**

## 4.22 AR 22 (SIHP No. 09146): Irrigation Ditches (North of Mōpua)

AR 22, newly recorded as SIHP No.09146, consists of at least 13 unimproved irrigation ditches in agricultural fields north of the residential structures of Mōpua, (**Figure 4.24**; **Figure 4.100**). The 13 elements of AR 22 are primarily aligned north-south, but the southernmost ditch runs west-east and the easternmost ditch runs northwest-southeast. The spaces between each ditch measure between 200 and 350 feet.

According to the County of Maui tax assessor's database, AR 22 extends across eight parcels of agricultural land and the ditches have been constructed across approximately 106.37 acres. The land occupied by AR 22 is currently owned by at least five different businesses and estates, with Olowalu Mauka Condo Master and Luawai Partners Condo Master owning the most acreage. The 1955 Olowalu USGS Topographic map shows the area of AR 22 and illustrates the presence of minor cane haul roads in the location of AR 22, but the resource is only represented on the map by the southernmost and easternmost ditches (**Figure 4.101**). The earliest available historic aerial image for the area (from 1949) depicts seven of the extant ditches that comprise AR 22 as well as two cane haul roads intersecting the surrounding fields (**Figure 4.101**). The next earliest historic aerial image (from 1950) suggests some changes to field use in the area, but all elements of AR 22 can be seen in a 1960 historic aerial image. These maps, along with archival research, suggest that AR 22 was created in two phases: the first occurred by 1949 and the second between 1950 and 1960.

**Table 4.24. Summary of AR 22 (SIHP No. 09146)**

<b>Address</b>	North of Mōpua
<b>TMK</b>	4-8-003:098; 099; 100; 105; 106; 107; 118
<b>County</b>	Maui County
<b>Date of Construction</b>	By 1960
<b>Square Footage</b>	NA
<b>Acreage</b>	106.37
<b>Owner</b>	Olowalu Mauka Condo Master and Luawai Partners Condo Master
<b>Architectural Type/Style</b>	20th Century Water Control
<b>Integrity</b>	AR 22 is in poor condition and shows several signs of deterioration, and neglect. The elements of the resource are intersected by modern roads, resulting in loss of integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 22 is not individually eligible due to a lack of historic and architectural significance and loss of integrity, and not eligible as a contributing resource to the Olowalu Sugar Plantation Historic District due to a lack of architectural significance and loss of integrity.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

### 4.22.1 Structure Description

AR 22 consists of a network of irrigation ditches located in agricultural fields north of the residential structures of Mōpua (**Figures Figure 4.100** and **Figure 4.101**). The features that comprise AR 22 are a series of unimproved irrigation ditches, most displaying linear north-south alignments that appear as slight depressions in the landscape. The ditches vary in length but display a consistent width of approximately 15 ft (**Figures Figure 4.102** through **Figure 4.107**).

The Olowalu Sugar Company owned and managed the fields surrounding AR 22 beginning in the mid-19th century. In 1931, the Pioneer Mill Company of nearby Lāhainā purchased the Olowalu Sugar Company. This purchase resulted in the incorporation of approximately 1,200 acres of Olowalu cane fields into the company's sugar plantation lands, which totaled over 10,000 acres by 1935. Prior to the incorporation of these lands, Pioneer Mill Company had been constructing and improving irrigation systems across their holdings in the dry climate of Lahaina since 1883, when the first well was drilled in West Maui for the company. Groundwater and water from the West Maui mountains was drawn through expansive networks of pumps, ditches, flumes, and reservoirs, which the company lined with concrete

and stone to minimize water loss. By the time the company purchased the Olowalu lands, the networks of ditches and reservoirs were fully supplied by electric pumps. In 1936, eight pumping stations were in operation across the company estates. The facility installed along the Olowalu Stream was an Allis-Chalmers pump powered by a 112-kilowatt motor and had a capacity of 5 million gallons per day (Hibbard 2009). Between 1948 and 1951, the company cleared approximately 3,153 acres, including the fields surrounding AR 22 (Hawaiian Sugar Planters' Association 2004). The Pioneer Mill Company "rehabilitation" of these lands in the post-war period, and the further development of irrigation networks, were possibly a response to the Green Revolution, which influenced a dramatic development of agricultural technology in mainland states (Ganzel 2006).

#### **4.22.2 Current Condition and Integrity**

AR 22 is in poor condition. The ditches display signs of neglect and deterioration and are barely perceptible in the landscape. During field inspection, LiDAR was necessary to confirm the presence of AR 22, and the ditches have been intersected by modern roadways and a bike path. Given these factors, AR 22 is not a strong representation of this association due to its poor condition, which has resulted in a loss of integrity of design, materials, workmanship, setting, and feeling.

#### **4.22.3 Significance Evaluation**

AR 22 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to its loss of integrity and lack of architectural and historic significance. The site is associated with the local sugar plantation industry and the Pioneer Mill Company and their impact on the development of Olowalu from the late-19th century to the 20th century. Thus, Under NRHP Criterion A and SRHP Criterion a, the site is recommended as not individually eligible.

Under NRHP Criterion B and SRHP Criterion b, AR 22 is recommended as not individually eligible because no ties or links were found between the structures and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the structures are not individually eligible because features of this type are common in 20th century agricultural landscapes and found throughout the region.

Under NRHP Criterion D and SRHP Criterion d, AR 22 not individually eligible because it does not have the potential to yield additional information regarding local and regional development or other themes of historical significance.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 22 is recommended as a non-contributing resource to the proposed Olowalu Sugar Plantation Historic District due to a loss of integrity and lack of architectural and historical significance. Although the structures are associated with the sugar plantation industry and were constructed during the period of significance, AR 22 is in poor condition with a loss of integrity of design, materials, workmanship, setting, and feeling. Furthermore, the irrigation ditches are common features found in agricultural landscapes across the region. As such, AR 22 does not embody the historical significance of the proposed historic district.





**Figure 4.100. Aerial image showing the location of AR 22.**



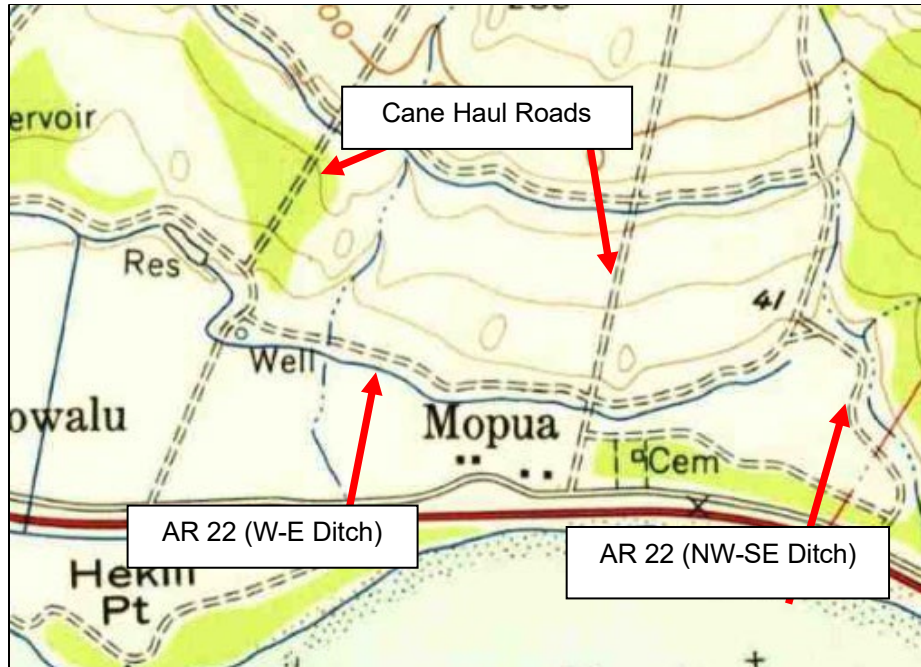


Figure 4.101. Location of portions of AR 22 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.102. View of defined north-south aligned ditch, facing north.



**Figure 4.103. View of typical north-south aligned ditch, facing south.**



**Figure 4.104. View of typical north-south aligned ditch, facing south.**





**Figure 4.105. Example of heavily eroded/disturbed ditch, facing north.**



**Figure 4.106. View of southernmost ditch, facing west.**



**Figure 4.107. View of easternmost ditch, facing northeast.**



#### 4.23 AR 23 (SIHP No. 09147): Cane Haul Roads (Southwest of Mōpua)

AR 23, newly recorded as SIHP No.09147, consists of an abandoned segment of unimproved cane haul roads, located in a forested area mauka of Hawai'i State Highway 30 (**Figure 4.25; Figure 4.108**). AR 23 is aligned northeast-southwest and, according to the County of Maui tax assessor's database, extends across a parcel of agricultural land encompassing approximately 28 acres. The Olowalu Mauka Lot 20 Condo Master currently owns the land occupied by AR 23. The 1955 Olowalu USGS Topographic map shows the area of AR 23 and illustrates the presence of this resource along with other cane haul routes that are no longer extant (**Figure 4.109**).

The earliest historic aerial image available for the area (from 1949) depicts the three extant cane haul roads visible in current aerials along with several additional cane haul roads that are no longer extant due to modern development. The earliest cane haul routes appear on the 1923 USGS Maalaea Quadrangle map, but the majority are not depicted, including AR 23 (**Figure 4.110**). The 1939 Pioneer Mill Company field map depicting the Olowalu Plantation Division shows AR 23. These maps suggest that existing roadways were integrated into a larger system of cane hauls roads under the Pioneer Mill Company following the purchase of the Olowalu Sugar Company holdings in 1931.

**Table 4.25. Summary of AR 23 (SIHP No. 09147)**

<b>Address</b>	Southwest of Mōpua
<b>TMK</b>	4-8-003:103
<b>County</b>	Maui County
<b>Date of Construction</b>	By 1939
<b>Square Footage</b>	NA
<b>Acreage</b>	Approximately 28
<b>Owner</b>	Olowalu Mauka Lot 20 Condo Master
<b>Architectural Type/Style</b>	20th Century Plantation Agriculture
<b>Integrity</b>	AR 23 is in fair to poor condition and several elements of the resource have been intersected by modern roads, resulting in diminished integrity of design, setting, material, workmanship, feeling, and association; however, some segments remain intact and largely undisturbed.
<b>NRHP Significance Evaluation</b>	AR 23 is recommended as not individually eligible due to a lack of historic and architectural significance. It is also not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District (Criterion A and D).
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.23.1 Structure Description

AR 23 consists of an abandoned segment of unimproved cane haul road in a forested area mauka of Hawai'i State Highway 30 that displays a linear north-south alignment and appears as one of several slight depressions in the landscape. Historic maps illustrate the network with a roughly gridded pattern (**Figure 4.111**). The Olowalu Sugar Company owned and managed the fields surrounding AR 23 beginning in the mid-19th century. The Pioneer Mill Company of nearby Lahaina purchased the Olowalu Sugar Company in 1931. This purchase resulted in the incorporation of approximately 1,200 acres of Olowalu cane fields into the company's sugar plantation lands, which totaled over 10,000 acres by 1935.

Prior to the incorporation of these lands, Pioneer Mill Company had been constructing and improving fields and irrigation systems across their holdings in the dry climate of Lahaina since 1883, when the first well was drilled in West Maui for the company (Maly & Maly 2007). Between 1948 and 1951, the company cleared approximately 3,153 acres, including the fields surrounding AR 23 in order to improve the rocky soil (Hawaiian Sugar Planters' Association 2004). AR 23 is one feature in the larger network of plantation agriculture and field improvement structures remaining from the modification of the Olowalu landscape by the Pioneer Mill Company during the 20th century.

### **4.23.2 Current Condition and Integrity**

AR 23 is in fair condition, abandoned, and showing signs of deterioration. Many of the original segments of the cane haul network are no longer extant and have been intersected or replaced by modern roadways. While the property retains its integrity of location, setting, feeling, and association, it is not individually eligible because it has lost its integrity of design, material, workmanship.

### **4.23.3 Significance Evaluation**

AR 23 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of integrity. Although AR 23 was constructed during the sugar plantation period, the segment of cane haul roads, as an individual resource, does not embody the historical significance of the sugar plantation industry and its impact on the development of the surrounding community under NRHP Criterion A and SRHP Criterion a.

Under NRHP Criterion B and SRHP Criterion b, AR 23 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, AR 23 is not individually eligible because it is a common feature found in agricultural settings throughout the region and is not the work of an expert builder or craftsman.

NRHP Criterion D and SRHP Criterion d are typically considered when assessing archaeological sites, but buildings and structures may qualify if they have the potential to contribute important information to our understanding of history. However, AR 23 does not have such potential as an individual resource.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 23 is not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District. Due to an extreme loss of integrity, the resource no longer represents an associated with the local sugar plantation industry and the Pioneer Mill Company and their impact on the development of Olowalu from the late-19th century to the 20th century.



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		PROJECTION: NAD 1983 NAD 1983 UTM Zone 4N		SCALE: 1 in=100 ft	

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**Figure 4.108. Aerial image showing the location of AR 23.**

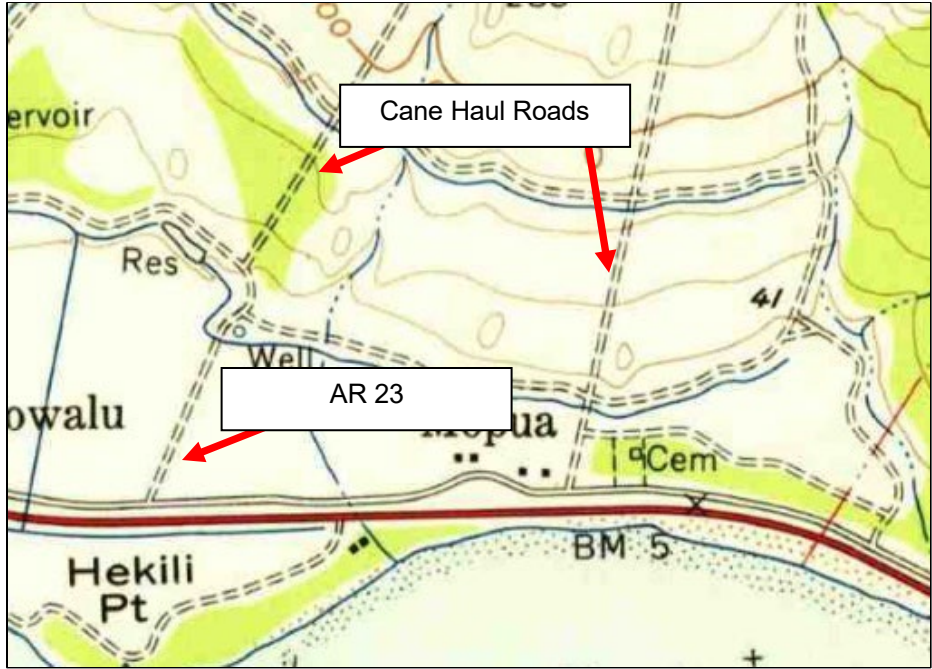


Figure 4.109. Location of AR 23 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.

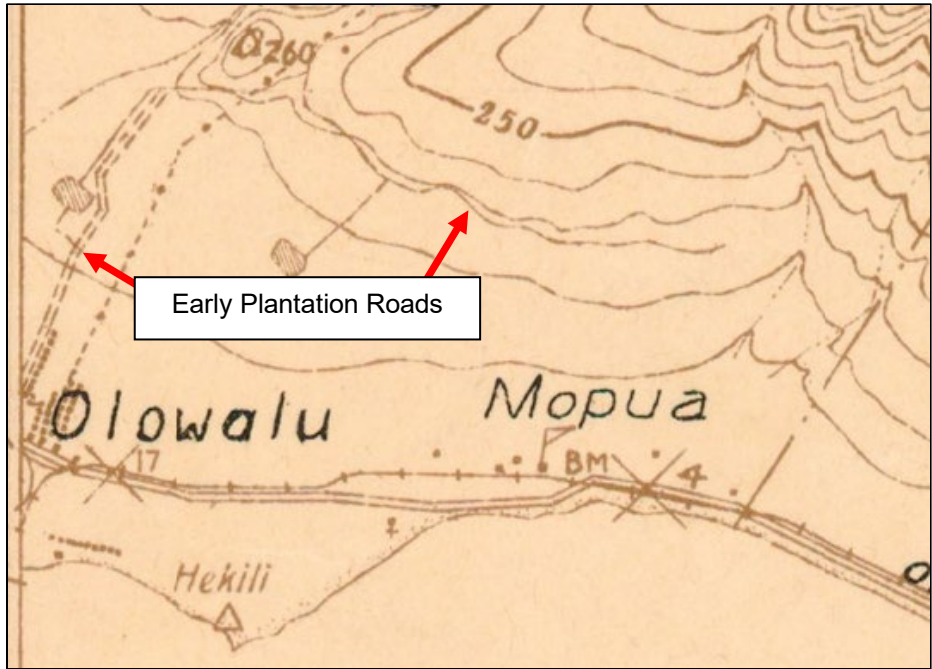


Figure 4.110. Location of AR 23 on the 1923 USGS Maalaea Quadrangle map.





**Figure 4.111. View of an unused cane haul road located southwest of Luawai Street, facing south.**

#### 4.24 AR 24 (SIHP No. 09148): Irrigation Flume (East of Mōpua)

Located between Olowalu and Ukumehame, AR 24, newly recorded as SIHP No.09148, is a large irrigation structure faced with coral and boulders that carries the non-perennial Ka'ili'ili Stream to the Pacific Ocean (**Figure 4.26; Figure 4.112**). AR 24 is roughly aligned northwest-southeast, but approximately 0.35 miles from the shoreline, the orientation becomes southwest-northeast.

According to the County of Maui tax assessor's database, AR 24 is located on a non-taxable parcel extending nearly 400 acres. The land occupied by AR 24 is currently owned by the state of Hawai'i.

A 1955 Olowalu USGS topographic map shows a section of the Ka'ili'ili Stream in the current general alignment of AR 24 (**Figure 4.113**). The earliest available historic aerial image for the area (from 1949) depicts AR 24 in its current alignment but gives no indication that the flume is maintained or in use at that time. AR 24 does not appear on the available maps of Olowalu Sugar Company Plantation lands in 1881 or 1906; however, a trail is shown in the general location of the resource in a USGS geologic and topographic map of the Island of Maui (**Figures 4.114 through 4.116**). A 1939 Pioneer Mill Company field map depicting the Olowalu Plantation Division illustrates ditches and roads in the area west of Ukumehame, but none align with AR 24. These maps, along with archival research, suggest that AR 24 was not created or modified by the Pioneer Mill Company as part of the plantation irrigation network at Olowalu or nearby Ukumehame.

**Table 4.26. Summary of AR 24 (SIHP No. 09148)**

<b>Address</b>	Olowalu/Ukumehame Boundary
<b>TMK</b>	4-8-002:008
<b>County</b>	Maui County
<b>Date of Construction</b>	19th Century
<b>Square Footage</b>	NA
<b>Acreage</b>	399.90
<b>Owner</b>	State of Hawai'i
<b>Architectural Type/Style</b>	19th Century Water Control
<b>Integrity</b>	AR 24 is in in fair to poor condition. The flume displays signs of deterioration and fire damage resulting in loss of integrity of design, setting, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 24 is recommended as not individually eligible due to a lack of historic and architectural significance and loss of integrity and is not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District due to a loss of integrity and lack of association.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.24.1 Structure Description

AR 24 is a large irrigation flume that was constructed of locally obtained coral and stone cobbles. The flume was used to help direct intermittent waters of Ka'ili'ili Stream to the Pacific Ocean (**Figures Figure 4.113 and Figure 4.116**). AR 24 is roughly aligned northwest-southeast, but approximately 0.35 miles from the shoreline, the orientation becomes southwest-northeast. Due to recent wildfires in the area, segments of the resource vary in visual condition.

The Olowalu Sugar Company owned and managed the fields surrounding AR 24 beginning in the mid-19th century. The Pioneer Mill Company of nearby Lahaina purchased the Olowalu Sugar Company in 1931. This purchase resulted in the incorporation of approximately 1,200 acres of Olowalu cane fields into the company's sugar plantation lands, which totaled over 10,000 acres by 1935. Prior to the incorporation of these lands, Pioneer Mill Company had been constructing and improving irrigation systems across their holdings in the dry climate of Lāhainā since 1883, when the first well was drilled in West Maui for the company.

The material construction of AR 24 is more akin to the nearby Protestant missionary church (SIHP No. 1603), which was constructed out of a combination of coral and stone by the native Hawaiian residents of Olowalu in the 1860s (Olowalu Lanakila Hawaiian Church 2019; Lee-Greig and Hammatt 2012).

Additionally, a 1939 Pioneer Mill Company field map depicting the Olowalu Plantation Division does not include AR 24 as a segment of the cane field irrigation system at Ukumehame, which featured at least one well (No. 4835-01) by 1934 (Hawai'i Commission on Water Resource Management 2018).

Furthermore, documentation of contemporary Pioneer Mill Company irrigation flumes suggest that structures of this type were semi-circular in shape and constructed of metal, elevated aboveground by cross-braced wood members (Stiber 2002). This suggests that AR 24 may be related to water control activity conducted before the establishment of the Olowalu Sugar Company or the incorporation of Olowalu fields into Pioneer Mill Company holdings and is possibly an element of a traditional 'auwai network or related to mid-19th century Protestant Missionary activity in the area. However, neither of these connections could be established for AR 24 or any nearby structures of similar character.

#### **4.24.2 Current Condition and Integrity**

AR 24 is in fair to poor condition. The flume displays signs of deterioration and fire damage and is overgrown by vegetation. Furthermore, AR 24 has undergone alterations. While the property still retains its integrity of location and setting, it no longer retains its integrity of design, material, workmanship, feeling, and association.

#### **4.24.3 Significance Evaluation**

AR 24 is recommended as not individually eligible for listing in the NRHP and is not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of material integrity. Under NRHP Criterion A and SRHP Criterion a, AR 24 is recommended as not individually eligible because no association was found to any historic events or patterns of events that have impacted the region, state, or nation.

Under NRHP Criterion B and SRHP Criterion b, AR 24 is recommended as not individually eligible because no ties or links were found between the structure and people with cultural or historic significance.

The structure is recommended as not individually eligible under NRHP Criterion C and SRHP Criterion c because it has no elements that make it a unique example of its architectural form. The resource is not the work of an expert builder or craftsman and is a common traditional water control feature seen throughout the region.

Under NRHP Criterion D and SRHP Criterion d, AR 24 does not hold the potential to yield additional information regarding local and regional development or other themes of historical significance.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 24 is recommended as a non-contributing resource to the proposed Olowalu Sugar Plantation Historic District due to loss of integrity and a lack of association. The flume is located outside the boundary recommended for the historic district, which is based on the historic archival record. Historic mapping and archival research suggest the resource was not created or modified by the Pioneer Mill Company as part of their plantation irrigation network at Olowalu.



		MAP BY: daniel.conn	LEGEND:  Aboveground Resources	TIME: 1:53:39 PM
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		SCALE: 1 in=100 ft		

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Imagery: HI.GOV Orthophotography

**Figure 4.112. Aerial image showing the location of AR 24.**



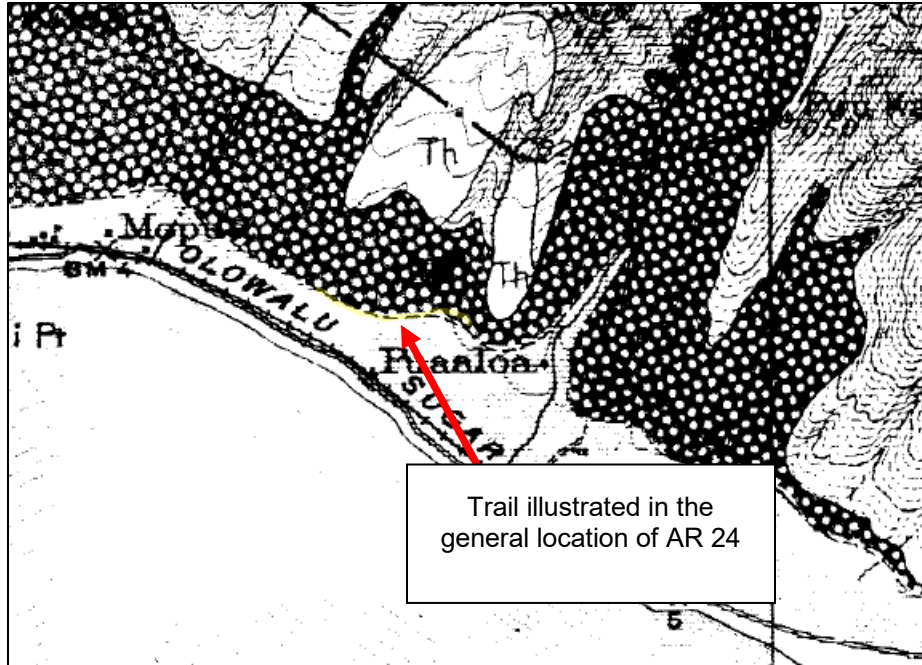


Figure 4.113. View of general location of AR 24 on the 1942 USGS geological map of Maui.

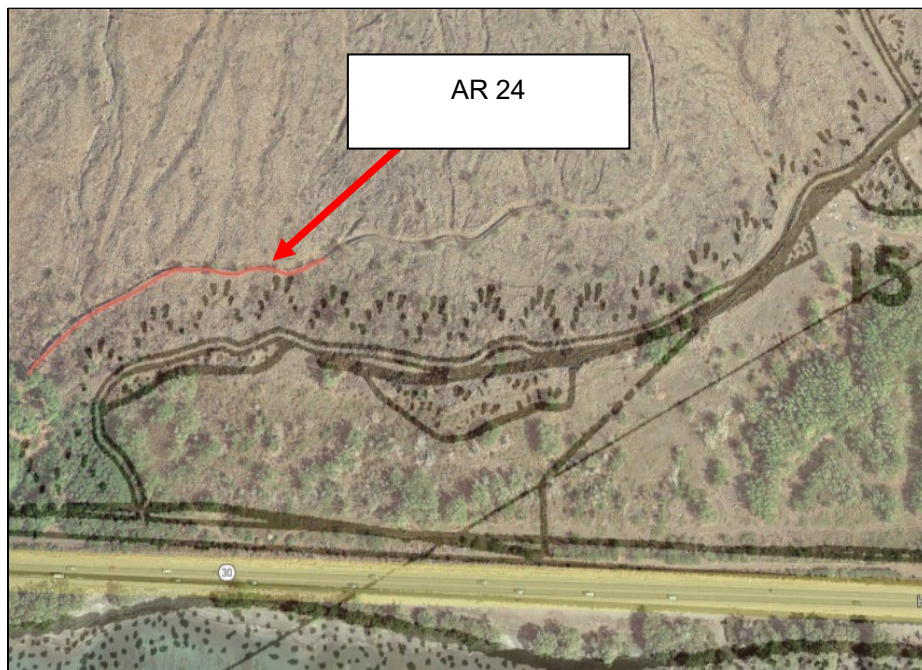


Figure 4.114. AR 24 shown on modern aerial overlain with 1939 Pioneer Mill Company Plantation map; note the absence of the feature on the Plantation map.



**Figure 4.115. View of fire damage along flume floor.**



**Figure 4.116. View of the south extent of AR 24, facing west; note the stone and coral construction.**

#### 4.25 AR 25 (SIHP No. 09149) and AR 26 (SIHP No. 09150): Freight Corridor (Kuahulu Place and Beach Access Road)

AR 25 and AR 26, newly recorded as SIHP No.09140 and SIHP No.09150 respectively, consist of two asphalt and concrete thoroughfares makai of Honoapiʻilani Highway (**Figure 4.117** and **Figure 4.118**). AR 25 and AR 26 are primarily aligned west-east and follow the alignments of former rail lines constructed by the Olowalu Sugar Company in the 19th century. Both roads run parallel to Honoapiʻilani Highway. AR 25 extends to the west, and AR 26 extends to the east with a change in alignment (northeast-southwest) approximately 0.5 miles along its length (**Table 4.27** and **Table 4.28**). These aboveground resources are discussed as a pair due to their shared characteristics, historical treatment and function, and the distinction between the routes as displayed on current and historical maps of the area.

According to the County of Maui tax assessor’s database, AR 25 is located on a 10.561-acre plot owned by Olowalu Elua Associates LLC, along with three historic residential structures (AR 5, AR 6, and AR 7). AR 26 is located on a 28.894-acre plot owned by Olowalu Elua Associates LLC, along with a historic residential structure and several outbuildings (AR 4). The 1881 Monsarrat map of the Olowalu Sugar Plantation shows the area of AR 25 and AR 26 and illustrates the presence of rail lines in the general current alignment of Kuahulu Place, which extends farther west, and the Beach Access Road, as well as additional lines north of Honoapiʻilani Highway (**Figure 4.118**).

The earliest historic aerial image available for the area (from 1949) depicts the railroad tracks along the length of both AR 25 and AR 26—though large segments are obscured from view by nearby monkeypod trees, and these routes are paved in the 1960 historic aerial (**Figure 4.119**). These maps and archival research suggest that the former rail lines and freight corridor were established under the Olowalu Sugar Company circa 1880 and utilized by the Pioneer Mill Company—following the purchase of the Olowalu Sugar Company holdings in 1931—until the early 1950s, when they were removed and paved over (Hawaiian Sugar Planters’ Association 2004).

**Table 4.27. Summary of AR 25 (SIHP No. 09149)**

<b>Address</b>	makai of Honoapiʻilani Highway, extending west from the original Sugar Mill site (SIHP No. 1602)
<b>TMK</b>	4-8-003:005
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1880 (corridor); circa 1950 (roadway)
<b>Square Footage</b>	NA
<b>Acreage</b>	10.561
<b>Owner</b>	Olowalu Elua Associates LLC
<b>Architectural Type/Style</b>	19th – 20th Century Freight Transportation
<b>Integrity</b>	AR 25 is in good condition but no longer retains its integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 25 is recommended as not individually eligible due to a lack of historic and architectural significance and is not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.



**Table 4.28. Summary of AR 26 (SIHP No. 09150)**

<b>Address</b>	makai of Honoapiʻilani Highway, extending east from the original Sugar Mill site (SIHP No. 1602)
<b>TMK</b>	4-8-003:084
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1880 (corridor); circa 1950 (roadway)
<b>Square Footage</b>	NA
<b>Acreage</b>	28.894
<b>Owner</b>	Olowalu Elua Associates LLC
<b>Architectural Type/Style</b>	19th – 20th Century Freight Transportation
<b>Integrity</b>	AR 26 is in good condition and retains its integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 26 is recommended as not individually eligible due to a lack of historic and architectural significance and is not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

#### 4.25.1 Structure Description

AR 25 and AR 26 consist of two paved roadways and associated transportation corridors (**Figures Figure 4.120** and **Figure 4.121**). AR 25 and AR 26 are primarily aligned west-east and follow the alignments of former rail lines constructed by the Olowalu Sugar Company in the 19th century. Both roads run parallel to Honoapiʻilani Highway, with AR 25 extending to the west, and AR 26 extending to the east. AR 26 changes alignment approximately 0.5 miles along its length to a northeast-southwest orientation. AR 26 is a secondary road known as Kuahulu Place. Secondary routes are approximately 10 to 15 feet wide with gravel, hard-packed earth, or asphalt surfaces. These routes extend from and parallel to Honoapiʻilani Highway to provide access to access roads, residences, and the few commercial buildings in the area.

AR 25 extends approximately 0.28 miles west from its intersection with AR 26, the access road to the Plantation Manager residences (AR 4 through AR 7), and Honoapiʻilani Highway (parallel to the makai lane of the highway). It is framed on either side by monkeypod trees, the highway, and agricultural land, and terminates at the driveway for a modern residential building. Segments of the roadway that are visible from the highway suggest a surface of concrete or stone pavers.

AR 26 is an improved interior beach access road that extends west from its intersection with Kuahulu Place, parallel to Honoapiʻilani Highway for approximately 0.5 miles, and then loops back southeastward for approximately 0.25 miles—terminating alongside an earthen area southeast of the Camp Olowalu campground. For most of the total length, the access road is paved with asphalt and maintains an approximate width of 15 feet. Beyond the Camp Olowalu campgrounds, the surface of the road transitions to packed dirt and reduces in width to 10 feet.

Historic maps, such as the 1881 Olowalu Sugar Plantation Map, show that roads existed prior to the Period of Significance for this project area. But many of the circulation routes in the area were replaced, modified, or abandoned by the Pioneer Mill Company, and thus differentially reflect that association. The Olowalu Sugar Company owned and managed the fields surrounding AR 23 beginning in the mid-19th century. The Pioneer Mill Company of nearby Lāhainā purchased the Olowalu Sugar Company in 1931. This purchase resulted in the incorporation of approximately 1,200 acres of Olowalu cane fields into the company’s sugar plantation lands, which totaled over 10,000 acres by 1935 (Maly & Maly 2007).

A November 1881 area map depicts rail lines in the general alignments of AR 25 and AR 26 as elements of the Olowalu Sugar Plantation (**Figure 4.119**). The 1919 Sanborn Fire Insurance Map of the mill at Olowalu illustrates the extent and complexity of the railroad system that the Olowalu Sugar Company Mill relied upon to process and transport sugar cane (**Figure 4.119**). In 1950, the rail lines in the locations of AR 25 and AR 26 were removed and paved over by the Pioneer Mill Company in response to vehicular freight networks beating out railways as the most cost-effective means of transporting sugar cane. The



roadway as it exists today embodies this association and represents transportation changes within the local sugar industry.

#### **4.25.2 Current Condition and Integrity**

AR 25 and AR 26 are in fair condition. AR 25 was partially obscured from the public right-of-way and AR 26 varies in character along its length, suggesting that segments have been heavily modified. As a result, the roadways display a considerable diminish of integrity of material and workmanship, and the alignment and quality of the Historic Freight Corridor no longer maintains its overall integrity of location, setting, design, feeling, and association.

#### **4.25.3 Significance Evaluation**

AR 25 and AR 26 are recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance. Although the resources were constructed and utilized during the sugar plantation period, as individual resources they do not embody the historical significance of the sugar plantation industry and its impact on the development of the surrounding community under NRHP Criterion A and SRHP Criterion a.

Under NRHP Criterion B and SRHP Criterion b, AR 25 and AR 26 are recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the resources are not individually eligible because they are common features found throughout the region and are not the work of an expert builder or craftsman.

Under NRHP Criterion D and SRHP Criterion d, AR 25 and AR 26 are recommended as not individually eligible because they do not have potential to contribute important information to our understanding of history.

Under SRHP Criterion e, the properties are recommended as not individually eligible because no ties or links were found between the resources and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 25 and AR 26 are not recommended as eligible for listing as contributing resources to the Olowalu Sugar Plantation Historic District. While the resources may have been originally associated with the local sugar plantation industry and the Pioneer Mill Company, the continued development of Olowalu from the mid-19th century to the 20th century have negatively affected the integrity of the resources. As a result, the association of AR 25 and AR 26 to the Plantation era is no longer readily identifiable.



		MAP BY: daniel.conn	LEGEND:  Aboveground Resources APE	TIME: 1:54:00 PM
		CHK'D BY: MW		DATE: 6/29/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 NAD83	PROJECT #: 7361231386.01
E:\WSP\Cultural\HDOT\RscAerial.mxd		PROJECTION: NAD 1983 NAD 83 UTM Zone 4N	SCALE: 1 in=150 ft	Imagery: HI.GOV Orthophotography

**Figure 4.117. Aerial image showing the location of AR 25.**





		MAP BY: daniel.conn	LEGEND:  Aboveground Resources APE	TIME: 1:54:26 PM
		CHK'D BY: MW		DATE: 6/29/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 1146281	PROJECT #: 7361231386.01
E:\WSP\Cultural\HDOT\RscAerial.mxd		PROJECTION: NAD 1983 HARN UTM Zone 481	SCALE: 1 in=400 ft	Imagery: HI.GOV Orthophotography

**Figure 4.118. Aerial image showing the location of AR 26.**

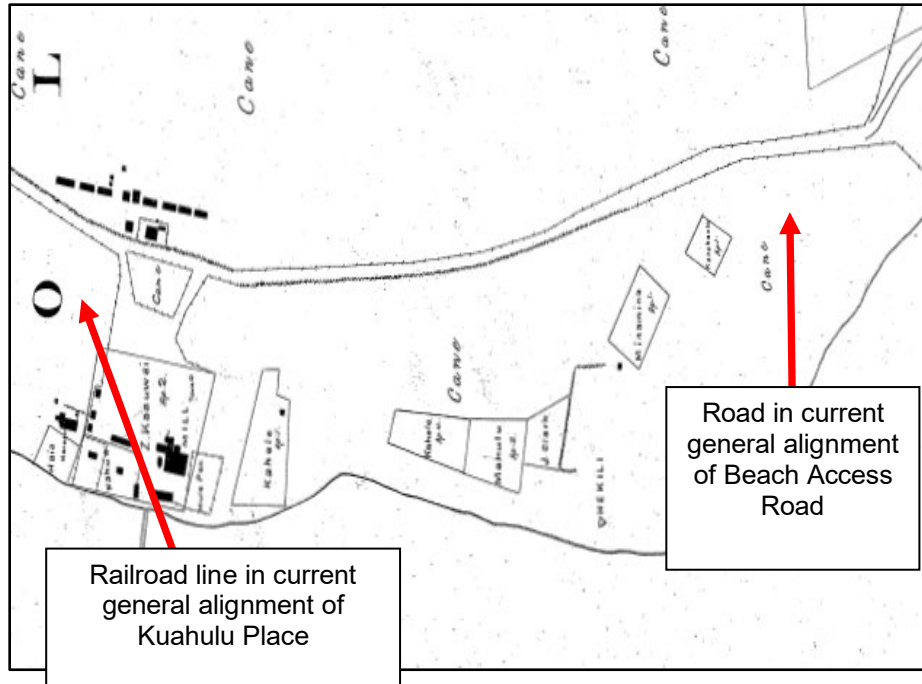


Figure 4.119. Historic Freight Corridor and rail lines shown on the 1881 Monserrat map of the Olowalu Sugar Plantation.

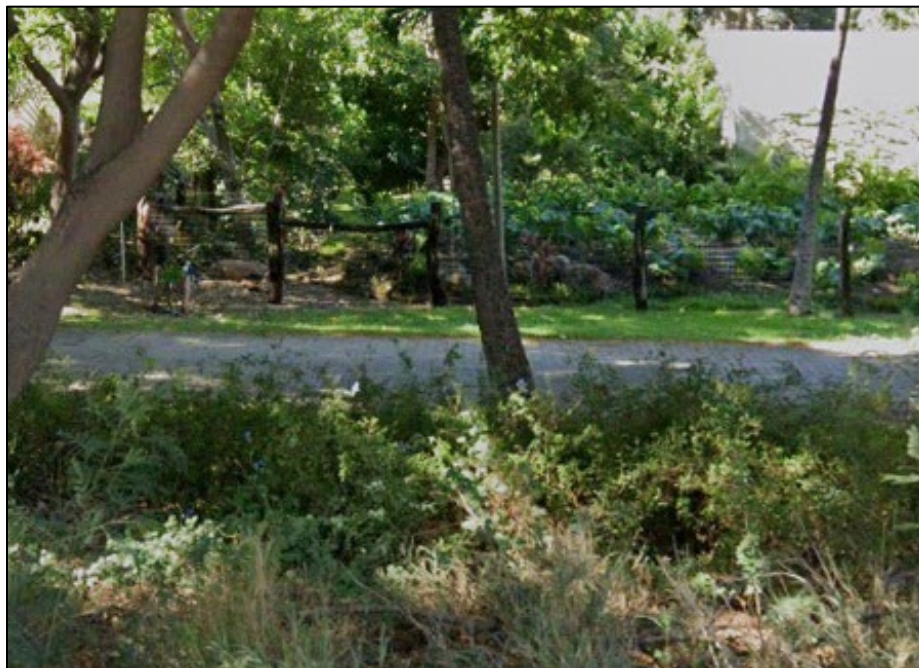


Figure 4.120. View of a segment of AR 25 from Honoapi'ilani Highway, facing south.





**Figure 4.121. View of a portion of AR 26, facing east.**

## 4.26 AR 27 (SIHP No. 04695): Retaining Wall

AR 27 consists of one retaining wall segment located makai of Honoapi'ilani Highway and west of much of Olowalu (Table 4.29; Figure 4.122). The structure is bounded by wooded areas to the north and south, Honoapi'ilani Highway to the east, and the Hawaiian Islands Humpback Whale National Marine Sanctuary to the west. AR 27 is accessed by an unimproved pull-off area along the eastbound lane of Honoapi'ilani Highway.

According to the County of Maui tax assessor's database, AR 27 sits on 13.802 acres, is currently owned by the State of Hawai'i, and has an address of 11777 Honoapi'ilani Highway. Topographic maps do not depict AR 27 (Figure 4.123). A 1950 historic aerial image shows a field roughly bounded by a cane haul road in the general location of AR 27 but does not clearly depict the resource (Figure 4.124). The tax assessor's database does not list a construction date for the structure, but a 1906 map of Olowalu illustrates a cane haul road in the area. This suggests that AR 27 was constructed by 1906 alongside an access or cane haul road that is no longer extant. These maps and archival research indicate that AR 27 was associated with the Olowalu Sugar Plantation industry and likely served to control erosion along a cane haul road in the plantation fields running parallel to the shoreline.

**Table 4.29. Summary of AR 27 (SIHP No. 04695)**

<b>Address</b>	11777 Honoapi'ilani Highway
<b>TMK</b>	4-8-003:006
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1906
<b>Square Footage</b>	NA
<b>Acreage</b>	13.802
<b>Owner</b>	State of Hawai'i
<b>Architectural Type/Style</b>	Sugar Plantation Erosion Control
<b>Integrity</b>	AR 27 is in fair condition but shows signs of disuse and disrepair resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 27 AR 25 is recommended as not individually eligible due to a lack of historic and architectural significance and not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

### 4.26.1 Structure Description

AR 27 is a retaining wall segment constructed of locally sourced stone and concrete mortar that measures approximately 10 by 4.5 by 1.1 meters (Figure 4.122 – 4.125). However, the dimensions of the rock wall vary along its entire length. The stones are typically large, rounded cobbles that were not shaped or altered by the masons who constructed the wall. Although no longer in use, the wall segments comprised an exceedingly common element of West Maui infrastructure.

### 4.26.2 Current Condition and Integrity

AR 27 is in fair condition but shows signs of disuse and disrepair, such as overgrowth of vegetation and missing or loose rocks. While the property retains its integrity of location, setting, feeling, and association, AR 27 is not individually eligible because it has deteriorated in multiple ways and lost its integrity of design, material, workmanship. Despite alterations to AR 27 that have resulted in loss of physical integrity, contributing resources have a lower threshold of integrity than individually eligible properties must have. Therefore, the retained integrity of location, setting, feeling, and association of AR 27 still allows it to reflect the historic character of a property belonging to the Olowalu Sugar Plantation Historic District.

### 4.26.3 Significance Evaluation

AR 27 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of material integrity. Although AR 27 was constructed and utilized during the sugar plantation period, as an individual resource, it does not embody the historical significance of the sugar plantation industry and its impact on the development of the surrounding community under NRHP Criterion A and SRHP Criterion a.

Under NRHP Criterion B and SRHP Criterion b, AR 27 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the resource is not individually eligible because it has no elements that make it a unique example of its architectural style or form. The retaining wall is not the work of an expert builder or craftsman and is a common architectural type found across the region. In addition, AR 27 is one of many features in the larger network of agriculture, property divisions, road and stream demarcations, and field improvement structures remaining from the modification of the region by the local population during the 20th century. These types of low wall, locally sourced structures are widespread throughout Maui, and the Hawaiian Islands in general, making them an exceedingly commonplace element.

Under NRHP Criterion D and SRHP Criterion d, AR 27 is recommended as not individually eligible because the structure does not have potential to contribute important information to our understanding of history related to the sugar plantation industry and its impact on Olowalu and the surrounding region.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 27 is not recommended as eligible for listing as a contributing resource to the Olowalu Sugar Plantation Historic District. While the resource may have been originally associated with the local sugar plantation industry and the Pioneer Mill Company, the continued deterioration of the wall from the mid-19th century to the 20th century has negatively affected the integrity of the resource. As a result, the association of AR 27 to the Plantation era is no longer readily identifiable.



		MAP BY: daniel.conn	LEGEND:  Aboveground Resources	TIME: 11:15:38 PM
		CHK'D BY: MW		DATE: 6/7/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 NAD83 PROJECTION: NAD 1983 HARN UTM Zone 48S SCALE: 1 in=100 ft	PROJECT #: 7361231386.01

E:\WSP\Cultural\HDOT\RscAerial.mxd Imagery: HI.GOV Orthophotography

**Figure 4.122. Aerial image showing the location of AR 27 (SIHP No. 04695).**



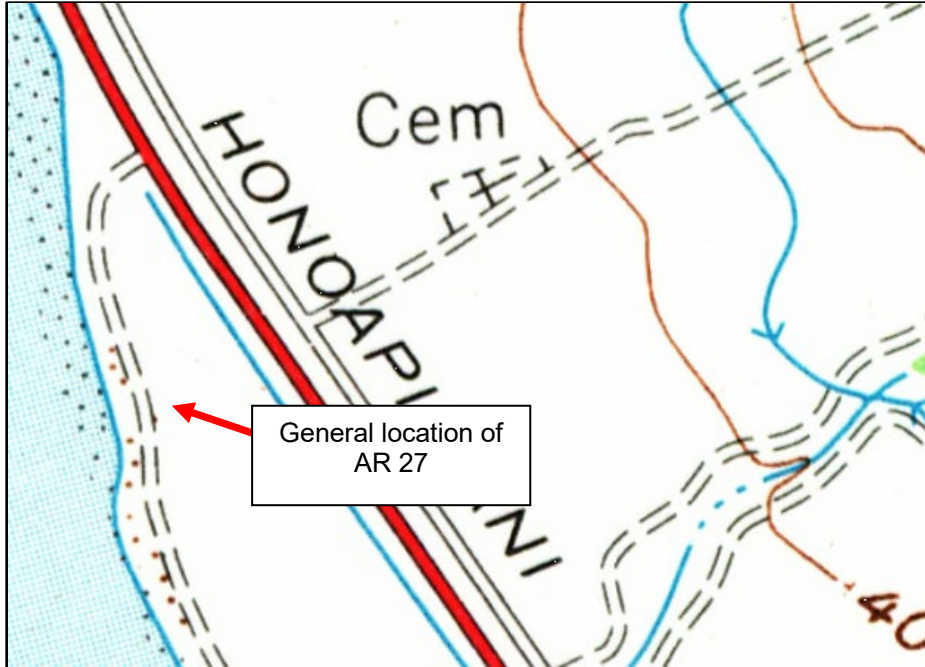


Figure 4.123. Roadway illustrated in vicinity of AR 27 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.

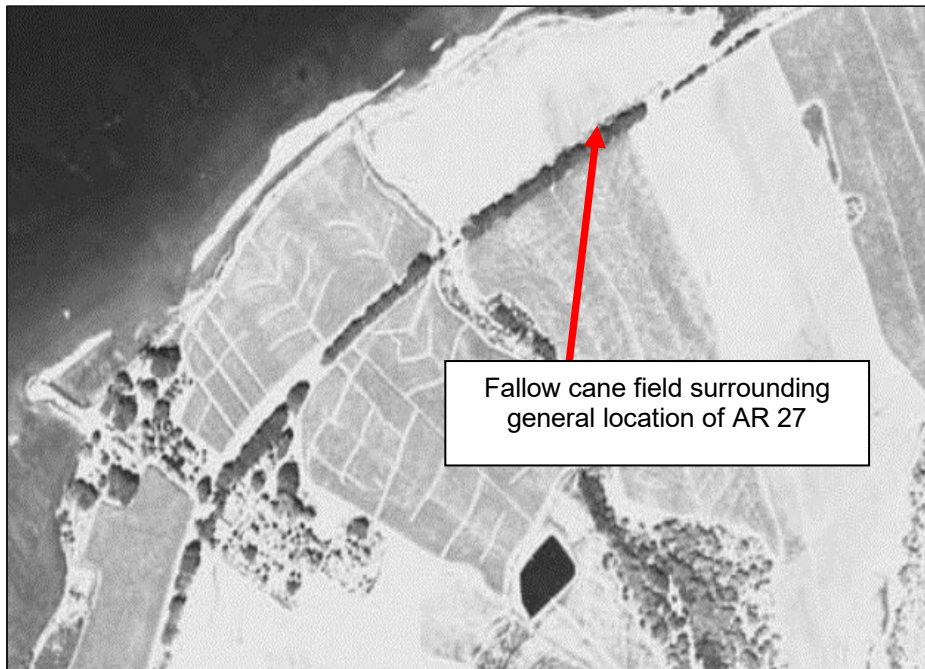


Figure 4.124. 1949 historic aerial image of the general location of AR 27.



**Figure 4.125. Image of the character and condition of the exceedingly common Plantation era concrete and stone infrastructure found in the region.**

#### 4.27 AR 28 (SIHP No. 04717): Rock Wall

AR 28 consists of five common rock wall segments located south of Olowalu Stream and 0.16 miles northeast of AR 9 (**Figure 4.30**; **Figure 4.126**). The structure is bounded by Olowalu Stream to the north and west, residential properties to the east, and fallow sugar cane fields to the south. AR 28 is accessed by an unimproved access road extending west from the nearby residential structures.

According to the County of Maui tax assessor's database, AR 28 sits on a parcel encompassing 81.045 acres, is currently owned by Olowalu Elua Associates LLC, and has an address of 814 Honoapi'ilani Highway. Topographic maps do not depict AR 28, but the 1955 USGS Olowalu topographic map illustrates a narrow strip of land, between an irrigation ditch and Olowalu stream, in the general location of AR 28 (**Figure 4.127**). A 1950 historic aerial image shows Olowalu Stream, a ditch, and a cane haul road in the general location of AR 28 but does not clearly depict the resource (**Figure 4.128**).

The tax assessor's database does not list a construction date for the structure, and a 1906 map of Olowalu illustrates two roadways, two structures, and a rail line amidst cane fields. This suggests that AR 28 was constructed as early as 1906 alongside an access road or rail line that is no longer extant. These maps and archival research indicate that AR 28 was associated with the Olowalu Sugar Plantation industry and likely served to demarcate boundaries in the plantation fields east of the Olowalu Stream.

**Table 4.30. Summary of AR 28 (SIHP No. 04717)**

<b>Address</b>	Olowalu (south of Olowalu Stream)
<b>TMK</b>	4-8-003:108
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1906
<b>Square Footage</b>	NA
<b>Acreage</b>	13.802
<b>Owner</b>	Olowalu Elua Associates LLC
<b>Architectural Type/Style</b>	Sugar Plantation Erosion Control
<b>Integrity</b>	AR 28 is in fair condition but shows signs of disuse and neglect resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 28 is recommended as not individually eligible due to a lack of historic and architectural significance and loss of integrity but is recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District (Criterion A and D).
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.27.1 Structure Description

AR 28 is a series of five rock wall segments constructed of stone and concrete mortar (**Figure 4.129**). The measurements of each segment vary, but all elements run alongside the northeast-southwest orientation of the Olowalu Stream (**Table 5.31**). AR 28 is covered in vegetation overgrowth and is characterized as remnant elements of a single, previously maintained element. The stones are typically large, rounded cobbles that were not shaped or altered by the masons who constructed the wall. Although no longer in use, the wall segments comprised an exceedingly common element of West Maui infrastructure.

**Table 4.31. AR 28 (SIHP No. 04717): Rock Wall Segment Dimensions**

No.	Height (m)	Length (m)	Width (m)
A	2.6	15	4
B	2.9	25	2.5
C	0.9	20	2.7
D	1.3	51	3.3
E	1.8	12	—

#### **4.27.2 Current Condition and Integrity**

AR 28 is in fair condition but shows signs of disuse and disrepair, such as overgrowth of vegetation and missing or loose rocks. While the property retains its integrity of location, setting, feeling, and association, AR 28 is not individually eligible because it has deteriorated in multiple ways and lost its integrity of design, material, workmanship. Despite alterations to AR 28 that have resulted in loss of physical integrity, contributing resources have a lower threshold of integrity than individually eligible properties must have. Therefore, the retained integrity of location, setting, feeling, and association of AR 27 still allows it to reflect the historic character of a property belonging to the Olowalu Sugar Plantation Historic District.

#### **4.27.3 Significance Evaluation**

AR 28 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of material integrity. Although the resource was constructed and utilized during the sugar plantation period, AR 28, as an individual resource, does not embody the historical significance of the sugar plantation industry and its impact on the development of the surrounding community under NRHP Criterion A and SRHP Criterion a.

Under NRHP Criterion B and SRHP Criterion b, AR 28 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, AR 28 is not individually eligible because it has no elements that make it a unique example of its architectural style or form. The rock wall segments are not the work of an expert builder or craftsman and are a common architectural type found across the region. Furthermore, the segments are in fair condition with signs of deterioration and have become overgrown with vegetation, resulting in loss of integrity of materials. In addition, AR 28 is one of many features in the larger network of agriculture, property divisions, road and stream demarcations, and field improvement structures remaining from the modification of the region by the local population during the 20th century. These types of low wall, locally sourced structures are widespread throughout Maui, and the Hawaiian Islands in general, making them an exceedingly commonplace element.

Under NRHP Criterion D and SRHP Criterion d, AR 28 is recommended as not individually eligible because the structure does not have potential to contribute important information to our understanding of history related to the sugar plantation industry and its impact on Olowalu and the surrounding region.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

However, AR 28 is recommended as eligible as a contributing resource to the Olowalu Sugar Plantation Historic District Under NRHP Criterion A (SRHP Criterion a) and D. The resource is associated with the local sugar plantation industry and the Pioneer Mill Company and their impact on the development of Olowalu from the late-19th century to the 20th century. As a result of this association, AR 28 has potential to contribute to further understanding of this history as part of the historic district. Therefore, AR 28 is recommended eligible as a contributing resource Under NRHP Criterion A. The resource is directly associated with the Pioneer Mill Company and the sugar plantation industry and is representative of this association as an element of the plantation irrigation network and erosion control. The material of the wall segments is consistent with other Pioneer Mill Company land improvements, such as elements of the irrigation and transportation systems. Furthermore, a feature in the location and general alignment of the resource is shown on the 1939 map of the Pioneer Mill Company holdings in Olowalu.

Under NRHP Criterion B, AR 28 is not recommended as eligible as a contributing resource because no ties or links were found between the structure and people with cultural or historic significance. Under NRHP Criterion C, the structure is not recommended as eligible as a contributing resource because it has no elements that make it a unique example of its architectural style or form. The segments of retaining



wall are not the work of an expert builder or craftsman and are found across the region. Criterion D is typically considered when assessing archaeological sites, but structures may qualify if they have the potential to contribute important information to our understanding of history. AR 28, as a contributing resource to the Olowalu Sugar Plantation District, has the potential to yield additional information regarding local and regional development or other themes of historical significance. The resource is determined as significant for its association with the Pioneer Mill Company and the local sugar plantation industry, with a potential to yield further information on these local industries.



**Figure 4.126. Aerial image showing the location of AR 28.**

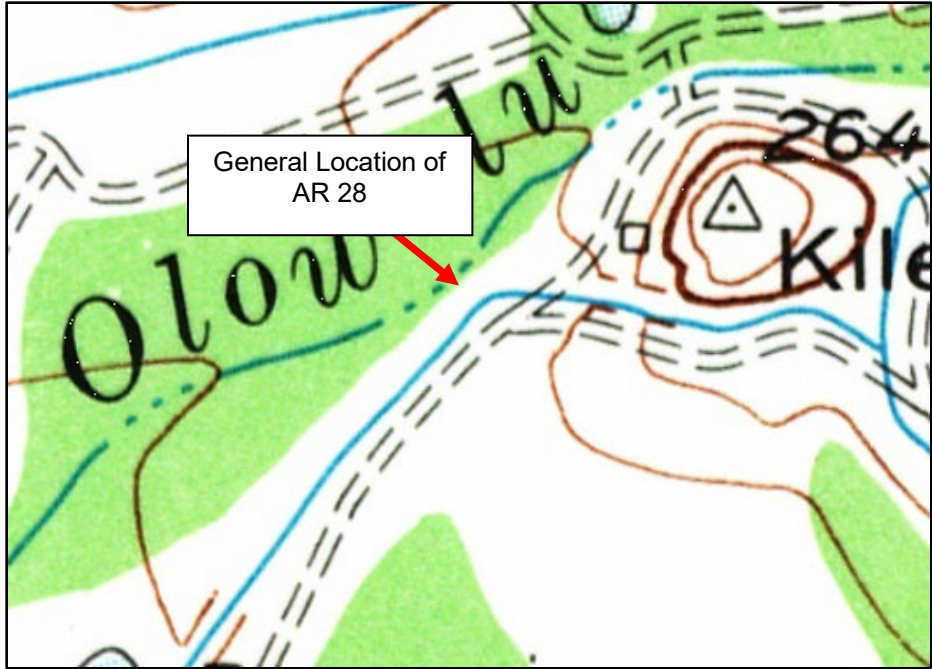


Figure 4.127. Stream, ditch, and roadway illustrated in vicinity of AR 28 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.

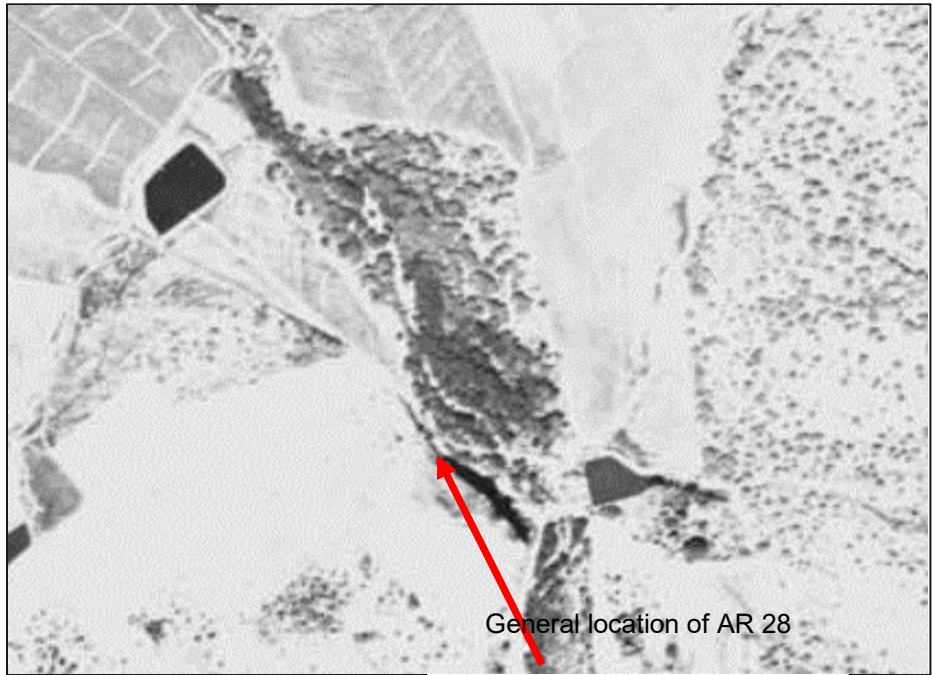


Figure 4.128. Northeast and southeast walls of AR 28, facing northeast.





**Figure 4.129. View of a segment of AR 28, facing southwest.**



## 4.28 AR 29 (SIHP No. 04719): Rock Wall

AR 29 consists of one rock wall mauka of Honoapi'ilani Highway and east of much of Olowalu (**Figure 4.32; Figure 4.130**). The structure is bounded by foothills to the north and east, Honoapi'ilani Highway to the south, and a wooded area to the west. AR 29 is accessed by an unimproved access road along the westbound lane of Honoapi'ilani Highway.

According to the County of Maui tax assessor's database, AR 29 sits on a parcel encompassing 399.903 acres and is currently owned by the State of Hawai'i. Topographic maps do not depict AR 29, but the 1955 USGS Olowalu topographic map illustrates an irrigation ditch and the access road leading to the general location of AR 29 (**Figure 4.131**). A 1950 historic aerial image shows a field roughly bounded by a cane haul road in the general location of AR 29 but does not clearly depict the resource (**Figure 4.132**).

The tax assessor's database does not list a construction date for the structure, but a 1906 map of Olowalu illustrates the ahupua'a boundary in the area. The boundary is not present on the 1881 Monserrat map, suggesting that AR 29 was likely constructed by 1906 as part of the boundary demarcation of the Olowalu Sugar Company plantation extent. These maps and archival research indicate that AR 29 was associated with the Olowalu Sugar Plantation industry and likely served as boundary markers for the extent of the plantation holdings or to indicate the boundary between the Olowalu ahupua'a and Ukumehame ahupua'a.

**Table 4.32. Summary of AR 29 (SIHP No. 04719)**

<b>Address</b>	Olowalu (mauka of Honoapi'ilani Highway)
<b>TMK</b>	4-8-002:008
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1906
<b>Square Footage</b>	NA
<b>Acreage</b>	13.802
<b>Owner</b>	State of Hawai'i
<b>Architectural Type/Style</b>	Boundary Demarcation
<b>Integrity</b>	AR 29 is in fair condition but shows signs of disuse and disrepair resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 29 is recommended as not individually eligible due to a lack of historic and architectural significance and not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District (Criterion A and D).
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

### 4.28.1 Structure Description

AR 29 is a rock wall segment constructed of dry-stacked stone and concrete mortar, which measures approximately 8.0 by 0.8 by 0.9 meters (**Figure 4.133**). AR 29 is covered in vegetation consisting of grasses and low-lying shrubbery and surrounded by a concrete overflow ditch. The stones are typically large, rounded cobbles that were not shaped or altered by the masons who constructed the wall. Although no longer in use, the wall segments comprised an exceedingly common element of West Maui infrastructure.

### 4.28.2 Current Condition and Integrity

AR 29 is in fair condition but shows signs of disuse and disrepair, such as overgrowth of vegetation and missing or loose rocks. While the property retains its integrity of location, setting, feeling, and association, given that AR 29 has undergone multiple types of deterioration, it has lost its integrity of design, material, workmanship, to be individually eligible.

### 4.28.3 Significance Evaluation

AR 29 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of material integrity. Although the resource as constructed and utilized during the sugar plantation period, AR 29, as an individual resource, does not embody the historical significance of the sugar plantation industry and its impact on the development of the surrounding community under NRHP Criterion A and SRHP Criterion a. Under NRHP Criterion B and SRHP Criterion b, AR 29 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance. Under NRHP Criterion C and SRHP Criterion c, the resource is not individually eligible because it has no elements that make it a unique example of its architectural style or form. The rock wall is not the work of an expert builder or craftsman and is a common architectural type found across the region. In addition, AR 29 is one of many features in the larger network of agriculture, property divisions, road and stream demarcations, and field improvement structures remaining from the modification of the region by the local population during the 20th century. These types of low wall, locally sourced structures are widespread throughout Maui, and the Hawaiian Islands in general, making them an exceedingly commonplace element.

Under NRHP Criterion D and SRHP Criterion d, AR 29 is recommended as not individually eligible because the structure does not have potential to contribute important information to our understanding of history related to the sugar plantation industry and its impact on Olowalu and the surrounding region. Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 29 is not recommended as eligible for listing as a contributing resource to the Olowalu Sugar Plantation Historic District. While the resource may have been originally associated with the local sugar plantation industry and the Pioneer Mill Company, the continued deterioration of the wall from the mid-19th century to the 20th century has negatively affected the integrity of the resource. As a result, the association of AR 29 to the Plantation era is no longer readily identifiable.



**Figure 4.130. Aerial image showing the location of SIHP No. 04719 (AR 29).**



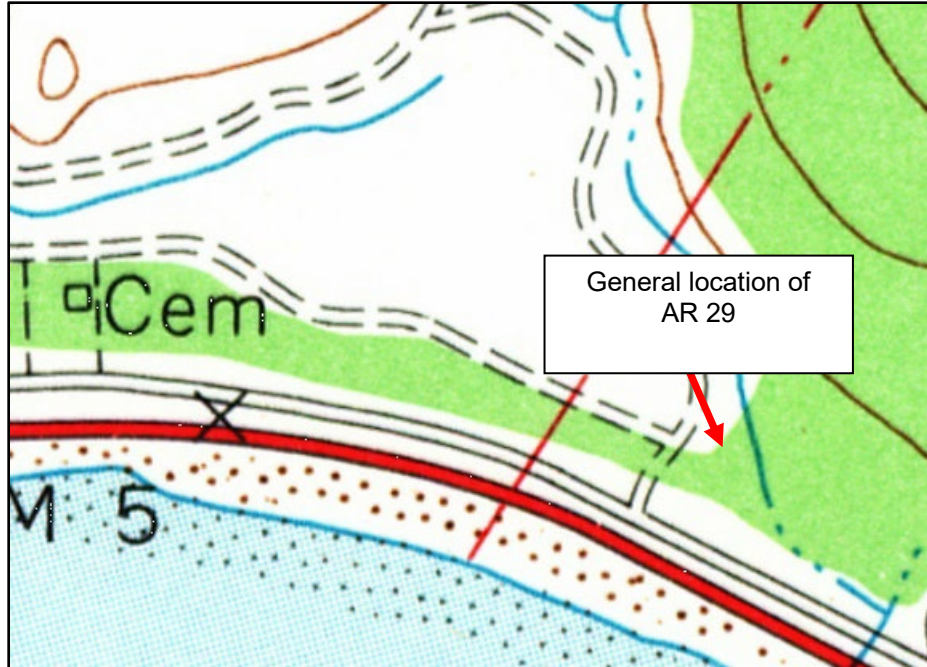


Figure 4.131. Roadway illustrated in vicinity of AR 29 on the 1955 USGS Olowalu, HI 7.5-minute quadrangle topographic map.



Figure 4.132. 1949 historic aerial image of the general location of AR 29.





**Figure 4.133. Image of the character and condition of AR-29, an exceedingly common Plantation era concrete and stone infrastructure found in the region.**

## 4.29 AR 30 (SIHP No. 04720): Rock Wall

AR 30 consists of one rock wall segment located along the northeast boundary of the Olowalu ahupua'a and northwest of SIHP No. 1602, (Figure 4.33; Figure 4.134). The structure is bounded by wooded areas to the south, foothills to the east, and fallow sugar cane fields to the north and west. AR 30 is accessed by an unimproved access road branching from Luawai Street and extending south.

According to the County of Maui tax assessor's database, AR 30 sits on 29.379 acres, is currently owned by Olowalu Mauka Lot 18 Condo Master, and has the location address of 814 Honoapi'ilani Highway.

Topographic maps do not depict AR 30, but the 1955 USGS Olowalu topographic map illustrates an irrigation ditch and the access road leading to the general location of AR 29. The 1950 historic aerial image shows a fallow sugar cane field roughly bounded by a cane haul road in the general location of AR 30 but does not clearly depict the resource (Figure 4.135). The tax assessor's database does not list a construction date for the structure, but the 1906 map of Olowalu illustrates the ahupua'a boundary in the area. The boundary is not present on the 1881 Monserrat map, suggesting that AR 30 was likely constructed by 1906 as part of the boundary demarcation of the Olowalu Sugar Company plantation extent (Figure 4.136). These maps, along with archival research, indicate that AR 30 was associated with the Olowalu Sugar Plantation industry, and likely served as boundary markers for the extent of the plantation holdings or to indicate the boundary between the Olowalu ahupua'a and Ukumehame ahupua'a.

**Table 4.33. Summary of AR 30 (SIHP No. 04720)**

<b>Address</b>	814 Honoapi'ilani Highway
<b>TMK</b>	4-8-002:008
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1906
<b>Square Footage</b>	NA
<b>Acreage</b>	29.379
<b>Owner</b>	Olowalu Mauka Lot 18 Condo Master
<b>Architectural Type/Style</b>	Boundary Demarcation
<b>Integrity</b>	AR 30 is in fair condition but shows signs of disuse and disrepair resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 30 is recommended as not individually eligible due to a lack of historic and architectural significance and not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

### 4.29.1 Structure Description

AR 30 is a rock wall segment constructed of stone and concrete mortar (Figure 4.137). The dimensions of the rock wall vary along its entire length. The stones are typically large, rounded cobbles that were not shaped or altered by the masons who constructed the wall. Although no longer in use, the wall segments comprised an exceedingly common element of West Maui infrastructure.

### 4.29.2 Current Condition and Integrity

AR 30 is in fair condition but shows signs of disuse and disrepair, such as overgrowth of vegetation and missing or loose rocks. While the property retains its integrity of location, setting, feeling, and association, AR 30 is not individually eligible because it has deteriorated in multiple ways and lost its integrity of design, material, workmanship. Despite alterations to AR 30 that have resulted in loss of physical integrity, contributing resources have a lower threshold of integrity than individually eligible properties must have. Therefore, the retained integrity of location, setting, feeling, and association of AR 30 still

allows it to reflect the historic character of a property belonging to the Olowalu Sugar Plantation Historic District.

#### **4.29.3 Significance Evaluation**

AR 30 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of material integrity. Although the resource as constructed and utilized during the sugar plantation period, AR 30, as an individual resource, does not embody the historical significance of the sugar plantation industry and its impact on the development of the surrounding community under NRHP Criterion A and SRHP Criterion a.

Under NRHP Criterion B and SRHP Criterion b, AR 30 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the resource is not individually eligible because it has no elements that make it a unique example of its architectural style or form. The rock wall is not the work of an expert builder or craftsman and is a common architectural type found across the region. AR-30 is one of many features in the larger network of agriculture, property divisions, road and stream demarcations, and field improvement structures remaining from the modification of the region by the local population during the 20th century. These types of low wall, locally sourced structures are widespread throughout Maui, and the Hawaiian Islands in general, making them an exceedingly commonplace element.

Under NRHP Criterion D and SRHP Criterion d, AR 30 is recommended as not individually eligible because the structure does not have potential to contribute important information to our understanding of history related to the sugar plantation industry and its impact on Olowalu and the surrounding region.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 30 is not recommended as eligible for listing as a contributing resource to the Olowalu Sugar Plantation Historic District. While the resource may have been originally associated with the local sugar plantation industry and the Pioneer Mill Company, the continued deterioration of the wall from the mid-19th century to the 20th century has negatively affected the integrity of the resource. As a result, the association of AR 30 to the Plantation era is no longer readily identifiable.



**Figure 4.134. Aerial image showing the location of SIHP No. 04720 (AR 30).**



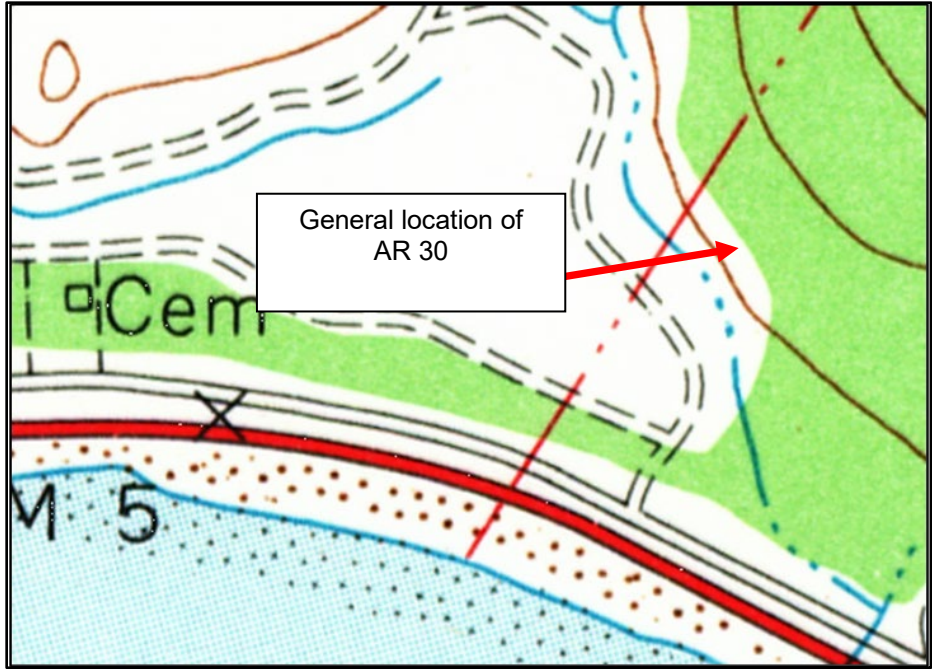


Figure 4.135. Roadway and ditch illustrated in vicinity of AR 30 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.

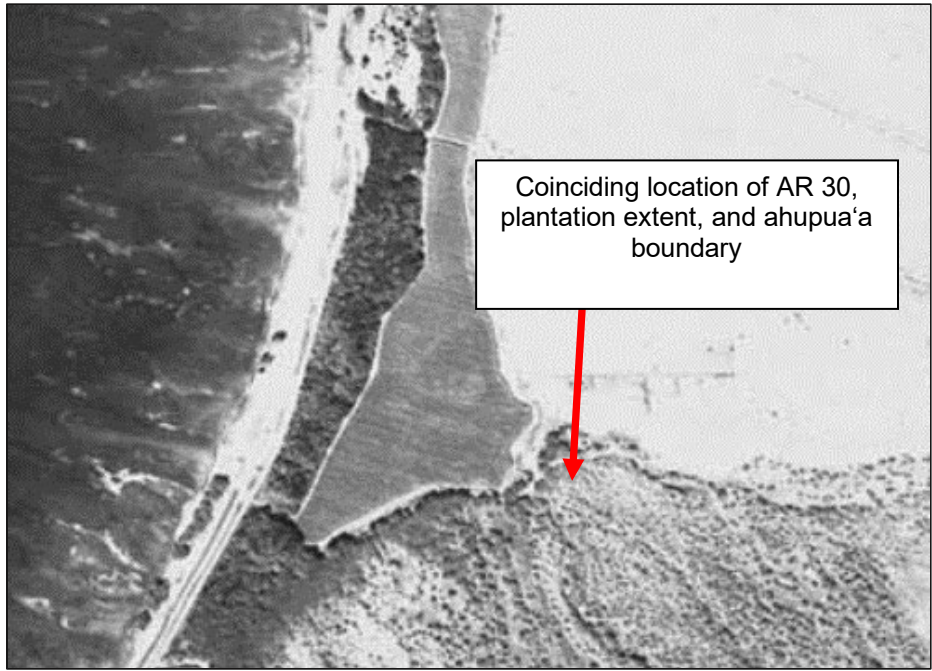


Figure 4.136. Roadway and ditch illustrated in vicinity of AR 30 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



**Figure 4.137. Image of the character and condition of AR 30, an exceedingly common Plantation era concrete and stone infrastructure found in the region.**

### 4.30 AR 31 (SIHP No. 09151): Reservoir

AR 31, newly recorded as SIHP No.09151, is a reservoir located at 814 Honoapi'ilani Highway (**Table 5.34; Figure 4.138**). The structure is bounded by agricultural lands to the east, west, and north, and commercial structures to the south. AR 31 consists of a slight depression in the gently rolling grassy terrain southwest of the Olowalu Cultural Reserve. AR 31 is accessed by a paved asphalt road that branches off from Olowalu Village Road and Honoapi'ilani Highway.

According to the County of Maui tax assessor's database, AR 31 sits on 40.734 acres, is currently owned by Olowalu Mauka Lot 22 Condo Master, and has the location address of 814 Honoapi'ilani Highway. A modern, asphalt secondary road runs near the west extent of AR 31, nearly intersecting the resource at its northwest corner.

Topographic maps show a structure in the location of AR 31 in 1955 and 1983, and no earlier topographic maps were available (**Figure 4.139**). The aerial images show a structure as early as 1949. The tax assessor's database does not list a construction date for the structure, but historic aerial images and primary sources indicate that AR 31 was constructed between 1932 and 1939, when Pioneer Mill Company took over the land of the Olowalu Sugar Company and began making improvements to the existing irrigation system (Maly and Maly 2007). The reservoir was originally associated with the Pioneer Mill Company.

**Table 4.34. Summary of AR 31 (SIHP No. 09151)**

<b>Address</b>	814 Honoapi'ilani Highway
<b>TMK</b>	4-8-003:105
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1932
<b>Square Footage</b>	24,008
<b>Acreage</b>	40.734
<b>Owner</b>	Olowalu Mauka Lot 21 Condo Master
<b>Architectural Type/Style</b>	Sugar Plantation Water Control
<b>Integrity</b>	AR 31 is in good condition but shows signs of disuse resulting in loss of integrity of design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 31 is recommended not individually eligible due to a lack of historic and architectural significance but is recommended eligible as a contributing resource to the Olowalu Sugar Plantation Historic District (Criteria A and D).
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

#### 4.30.1 Structure Description

AR 31 is a reservoir consisting of a roughly rectangular depression in the landscape that measures approximately 330 feet by 100 feet at the widest point and is oriented northwest-southeast (**Figure 4.140**). The reservoir features cut basalt brick and mortar along the interior of the basin and large (dry-stacked and mortared) basalt boulders along the southwestern wall. AR 31 is covered in vegetation consisting of grasses and low-lying shrubbery and surrounded by a concrete overflow ditch.

AR 31 is similar in character and condition to AR 9, which is located northwest of this resource and constructed at approximately the same time to serve the same function as elements of the Olowalu plantation irrigation network. Although no longer in use, the reservoir was an element of the expansive Pioneer Mill Company irrigation system and was constructed on the lands of the Olowalu Sugar Company, which was purchased by the larger enterprise in 1931. The reservoir was supplied by the Olowalu Intake Pump and Olowalu ditch and was one of 29 storage reservoirs maintained by the Pioneer Mill Company. These reservoirs had a total storage capacity of approximately 235 million gallons, which was carried through the plantation fields by a network of tunnels, ditches, flumes, and pipes (Maly and Maly 2007).

#### 4.30.2 Current Condition and Integrity

AR 31 is in good condition but shows signs of disuse, such as the overgrowth of vegetation in the reservoir basin. While the property retains its integrity of location, setting, feeling, and association, AR 31 is not individually eligible because it has deteriorated in multiple ways and lost its integrity of design, material, workmanship. Despite alterations to AR 31 that have resulted in loss of physical integrity, contributing resources have a lower threshold of integrity than individually eligible properties must have. Therefore, the retained integrity of location, setting, feeling, and association of AR 31 still allows it to reflect the historic character of a property belonging to the Olowalu Sugar Plantation Historic District.

#### 4.30.3 Significance Evaluation

AR 31 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance. Although the reservoir is directly related to the Pioneer Mill Company, the structure, on its own, does not embody the historical significance of the company and the development of the surrounding community. As a result, AR 31 is recommended as not eligible under NRHP Criterion A and SRHP Criterion a.

Under NRHP Criterion B and SRHP Criterion b, the structure is recommended as not eligible because no links were found between the reservoir and people of cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, AR 31 is recommended as not eligible because the reservoir is a common structure found throughout the region and is not exemplary of reservoirs of this period. Furthermore, the structure is not the work of an expert builder or craftsman.

Criterion D and SRHP Criterion d are typically considered when assessing archaeological sites, but buildings and structures may qualify if they have the potential to contribute important information to our understanding of history. Individually, AR 31, is not recommended as eligible Under NRHP Criterion D and SRHP Criterion d. Despite its association with the sugar plantation industry, as an individual resource, the structure does not have the potential to yield substantial information regarding local and regional development.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

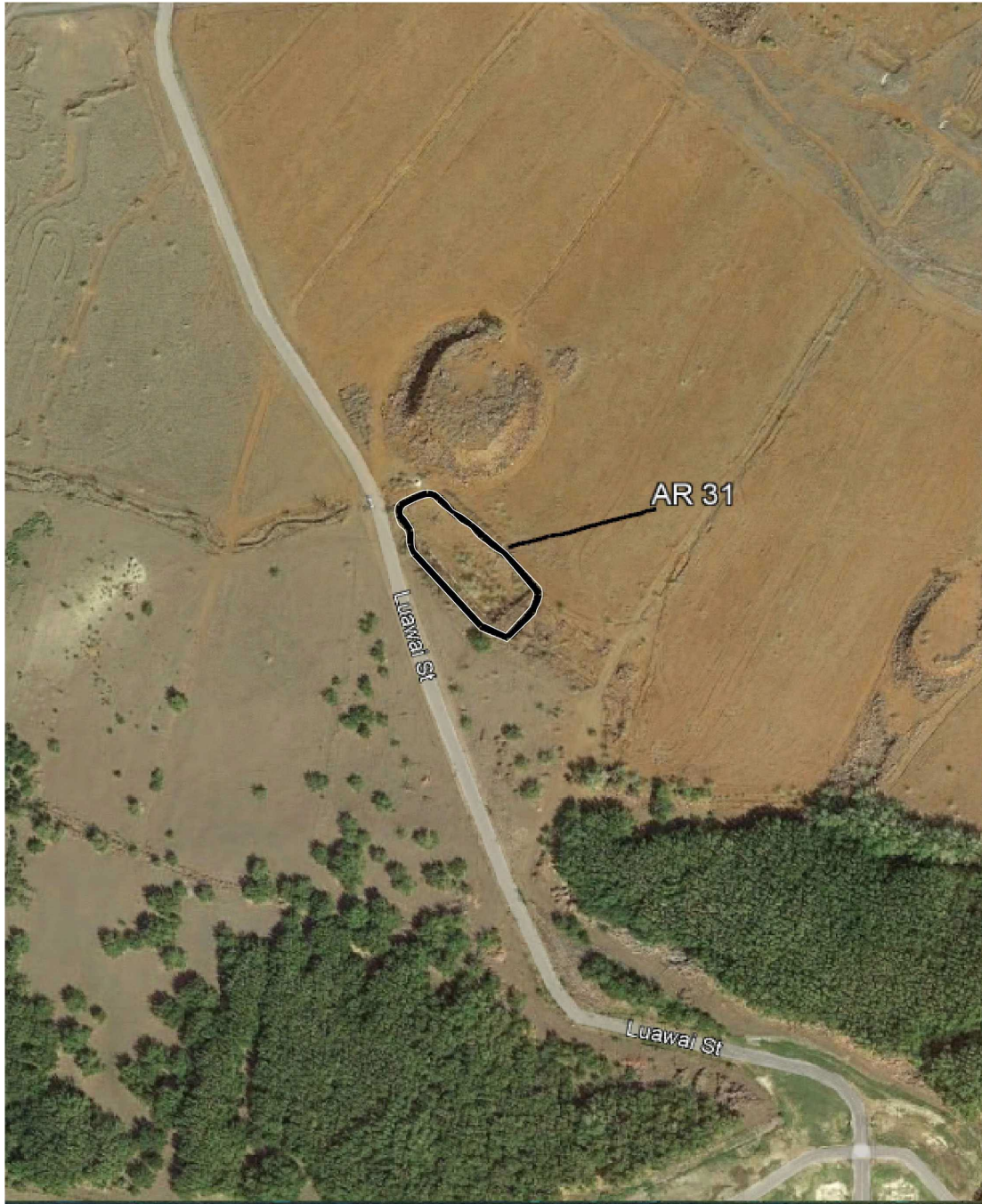
However, AR 31 is recommended as eligible for listing in the NRHP as a contributing resource to the Olowalu Sugar Plantation Historic District under Criteria A, C, and D. The resource is directly associated with the local sugar plantation industry and the Pioneer Mill Company and their impact on the development of Olowalu from the mid-19th century to the 20th century. As a result of this association, AR 31 has potential to contribute to further understanding of this history as part of the historic district. Thus, AR 31 is recommended as eligible Under NRHP Criterion A. The resource is directly associated with the Pioneer Mill Company and the sugar plantation industry and is representative of this association as an element of the plantation irrigation network. The materials of the reservoir are consistent with other Pioneer Mill Company land improvements, such as other elements of the irrigation system and a bridge constructed along a cane haul road. Furthermore, the reservoir appears on a 1939 map of the Pioneer Mill Company holdings in Olowalu. The reservoir retains its integrity of location, setting, feeling, and association; the structure's integrity of design has only been minimally diminished with the construction of a bike trail.

Under NRHP Criterion B, AR 31 is recommended as not eligible as a contributing resource because no ties or links were found between the structure and people with cultural or historic significance. Under NRHP Criterion C, this resource is recommended as eligible as a contributing resource based on its association with the Hawai'i's plantation era and the associated architectural developments needed for water containment, as well as engineering, which were integrally to the physical development and land uses of the Olowalu Sugar Plantation Historic District. Criterion D is typically considered when assessing



archaeological sites, but buildings may qualify if they have the potential to contribute important information to our understanding of history.

AR 31, as a contributing resource to the Olowalu Sugar Plantation Historic District, has the potential to yield additional information regarding local and regional development or other themes of historical significance. The resource is determined as significant for its association with the Pioneer Mill Company and the local sugar plantation industry, with a potential to yield further information on these local industries. Consequently, AR 31 is recommended eligible as a contributing resource under Criteria A and D.



		MAP BY: daniel.conn	LEGEND:  Aboveground Resources	TIME: 11:15:38 PM
		CHK'D BY: MW		DATE: 6/7/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 HARN	PROJECT #: 7361231386.01
			PROJECTION: NAD 1983 HARN UTM Zone 4N	
		SCALE: 1 in=100 ft		

E:\WSP\Cultural\HDOT\RscAerial.mxd Imagery: HI.GOV Orthophotography

**Figure 4.138. Aerial image showing the location of SIHP No. 09151 (AR 31).**

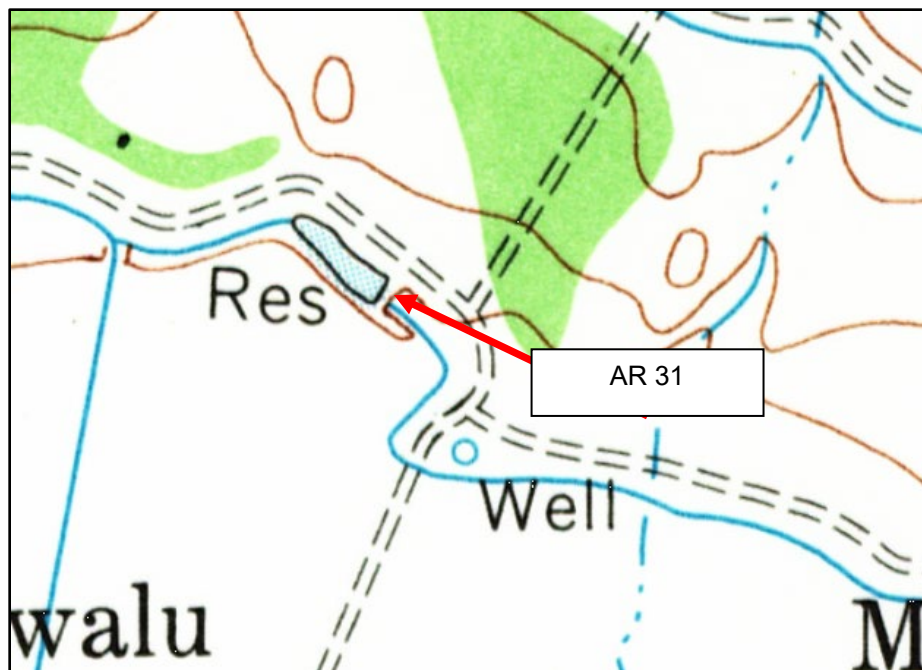


Figure 4.139. Reservoir illustrated in vicinity of AR 31 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.140. Interior view of AR 31, facing south.

### 4.31 AR 32 (SIHP No. 09152): Irrigation Ditches

AR 32, newly recorded as SIHP No.09152, consists of an unimproved irrigation earthen ditch and remnants of a large iron irrigation pipe, designated AR 32.1 and 32.2, respectively, that are located in agricultural fields between Launiupoko and Olowalu (Table 5.35; Figure 4.141). The ditch is bound by a wooded area to the north and south, foothills to the east, and the Honoapi'ilani Highway and a frontage road to the west. The pipe is bound by a wooded area to the north and south, foothills to the east, and the Honoapi'ilani Highway and frontage road to the west.

According to the County of Maui tax assessor's database, AR 32.1 sits on a parcel encompassing 16.038 acres and is currently owned by the Olowalu Elua Associates LLC. AR 32.2 sits on a parcel encompassing 26.184 acres and is currently owned by the Paakai Holdings LLC. According to aerial images, the area between the two irrigation structures is an agricultural field that was likely planted in sugarcane from the mid- to late-20th century. And the 1955 Olowalu, Hawai'i topographic map shows a cane haul road running parallel with the stream that AR 32.2 is located within (Figure 4.142 and 4.143).

The Olowalu Sugar Company owned and managed the fields in nearby Olowalu beginning in the mid-19th century and might have owned the area of AR 32 as well. The Pioneer Mill Company of nearby Lāhainā purchased the Olowalu Sugar Company in 1931. This purchase resulted in the incorporation of approximately 1,200 acres of Olowalu cane fields into the company's sugar plantation lands, which totaled over 10,000 acres by 1935. Prior to the incorporation of these lands, Pioneer Mill Company had been constructing and improving irrigation systems across their holdings in the dry climate of Lāhainā since 1883, when the first well was drilled in West Maui for the company.

Groundwater and water from the West Maui mountains were drawn through expansive networks of pumps, ditches, flumes, and reservoirs, which the company lined with concrete and stone to minimize water loss. When the Pioneer Mill Company purchased the Olowalu lands, the networks of ditches and reservoirs were fully supplied by electric pumps. And in 1936, eight pumping stations were in operation across the company estates. The facility installed along the Olowalu Stream was an Allis-Chalmers pump that was powered by a 112-kilowatt motor and had a capacity of 5 million gallons per day (Hibbard 2009).

Between 1948 and 1951, the Pioneer Mill Company cleared approximately 3,153 acres, including the fields surrounding AR 32 (Hawaiian Sugar Planters' Association 2004). Therefore, both irrigation structures are likely associated with the sugar plantation industry in the region and may have been owned or leased by the Olowalu Sugar Company and the Pioneer Mill Company at one time.

**Table 4.35. Summary of AR 32 (SIHP No. 09152)**

<b>Address</b>	Between Launiupoko and Olowalu
<b>TMK</b>	4-8-003:115; 116
<b>County</b>	Maui County
<b>Date of Construction</b>	20th century
<b>Square Footage (Living Area)</b>	N/A
<b>Acreage</b>	AR 32.1: 16.038; AR 32.2:
<b>Owner</b>	AR 32.1: Olowalu Elua Associates LLC; AR 32.2: Paakai Holdings LLC
<b>Architectural Style/Type</b>	20th Century Water Control
<b>Integrity</b>	AR 32 is in poor condition and shows several signs of deterioration and neglect; some elements of the resource have also been intersected by modern roads, which have all contributed to loss of integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 32 is recommended as not individually eligible and is not recommended eligible as a contributing resource to the proposed Olowalu Sugar Plantation Historic District due to loss of integrity and lack of association.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.



### **4.31.1 Structure Description**

AR 32 consists of two irrigation related structures, an earthen ditch (AR 32.1) and an iron irrigation pipe (AR 32.2) (**Figure 4.144** and **Figure 4.145**). The ditch is oriented southwest to northeast and runs parallel with an unimproved dirt road that is still in use. The ditch crosses beneath the frontage road and Honoapi'ilani Highway via two separate culverts. The iron pipe is only a remnant of the original structure that sits within a small stream bed and is approximately 0.5 meters in diameter.

### **4.31.2 Current Condition and Integrity**

AR 32.1 is in fair condition, showing signs of erosion, and has undergone some alteration and disturbance. AR 32.2 is in poor condition. The structure is only a remnant of the original pipe. While the property retains its integrity of location and setting, given that AR 32 has undergone multiple alterations and degradation, it has lost its integrity of design, material, workmanship, feeling, and association.

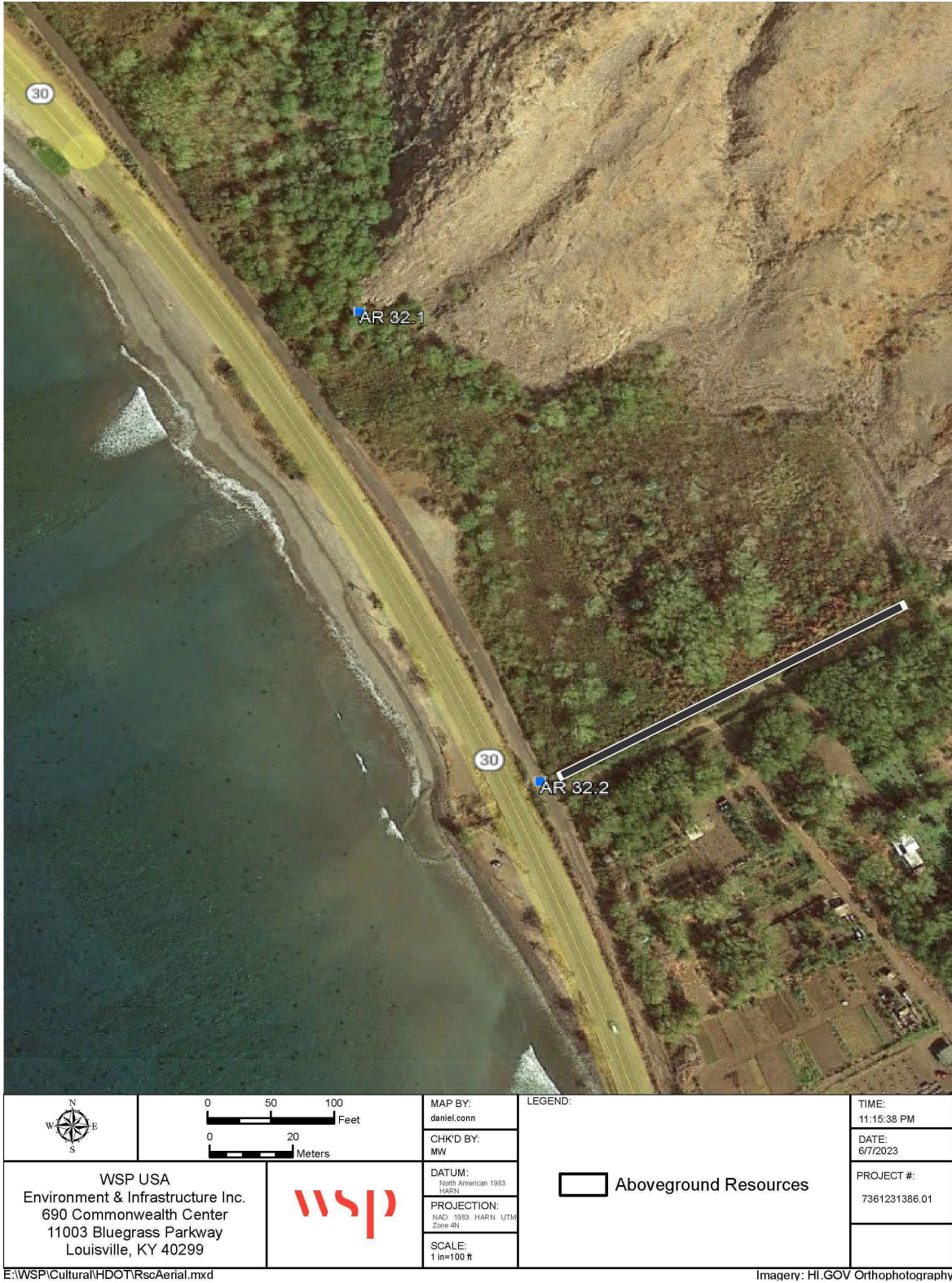
### **4.31.3 Significance Evaluation**

AR 32 is recommended as not eligible for listing in the NRHP due to its loss of integrity and lack of architectural and historic significance. The resource is associated with the local sugar plantation industry, which is evidenced by the presence of a storm ditch depicted in a similar location as the resource on a 1939 map of the Pioneer Mill Company holdings in Olowalu. However, the structures are not a strong representation of this association due to their poor condition, which has resulted in a loss of integrity of design, materials, workmanship, setting, and feeling. Thus, under NRHP Criterion A and SRHP Criterion a, the site is recommended as not eligible.

Under NRHP Criterion B and SRHP Criterion b, AR 32 is recommended as not eligible because no ties or links were found between the structures and people with cultural or historic significance. Under NRHP Criterion C, the structures are not eligible because they have no elements that make them exemplary of their architectural type, which are common 20th-century agricultural irrigation features within the region. Furthermore, the structures are not the work of an expert builder or craftsman.

Under NRHP Criterion D and SRHP Criterion d, AR 32 is recommended as not individually eligible because the structures do not have potential to contribute important information to our understanding of history related to the sugar plantation industry or the development of Olowalu and the surrounding region. Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 32 is not associated with the proposed Olowalu Sugar Plantation Historic District. Given that the structures are in fair to poor condition, they have lost their integrity of design, materials, workmanship, setting, and feeling. The structures are located outside the proposed boundaries of the historic district.



**Figure 4.141. Aerial image showing the location of AR 32.**



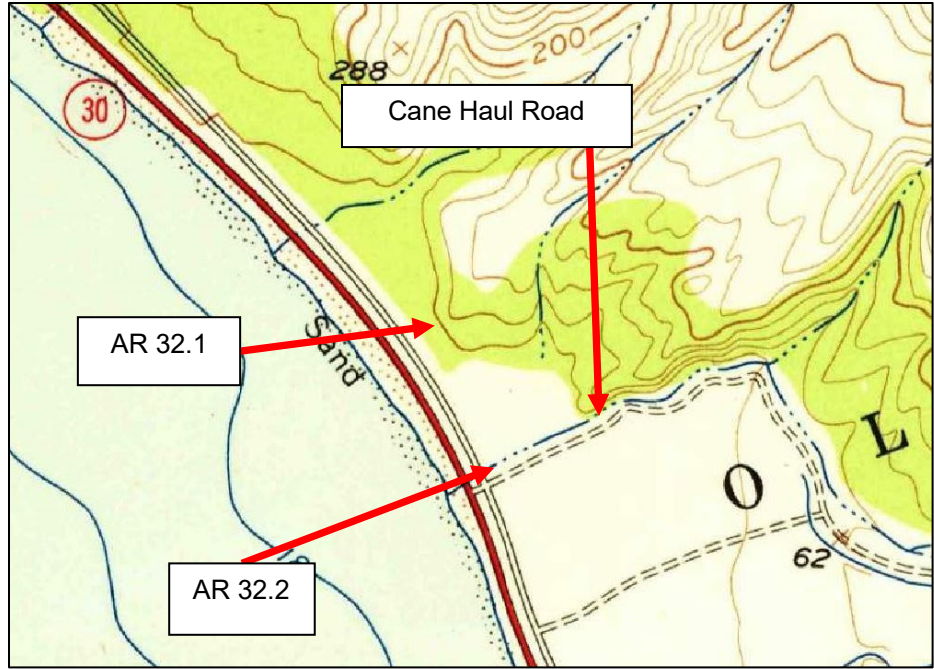


Figure 4.142. Location of AR 32.1 and 32.2 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map; note the cane haul road.

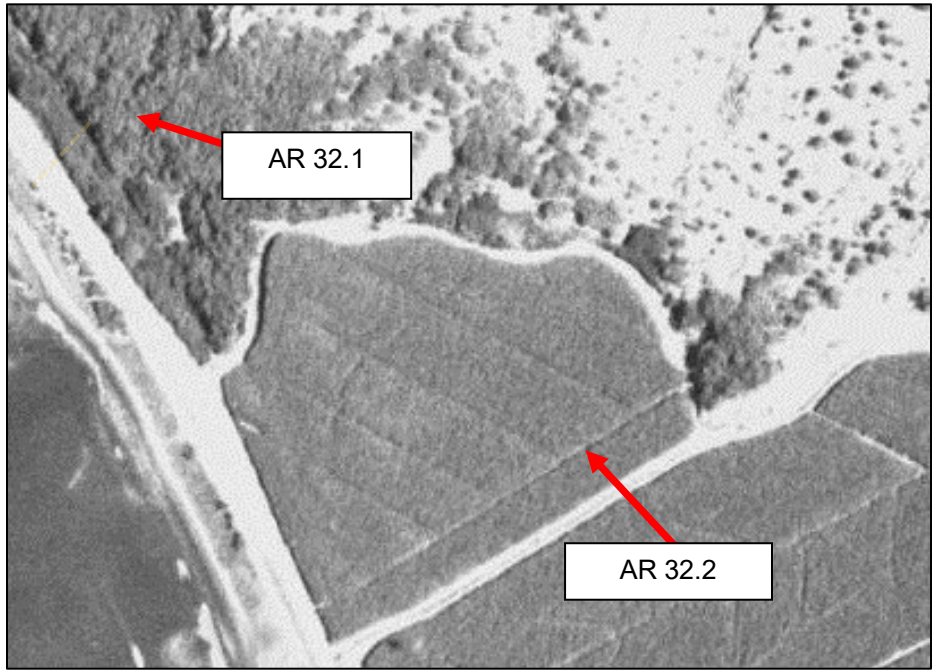


Figure 4.143. Approximate location of AR 32.1 and 32.2 on 1950 aerial image.



**Figure 4.144. View of ditch (AR 32.1) (on left), running parallel with unimproved road, facing northeast.**



**Figure 4.145. View of iron pipe (AR 32.2), facing southeast.**



### 4.32 AR 33 (SIHP No. 09153): Rock Wall

AR 33, newly recorded as SIHP No.09153, consists of a rock wall segment located on the mauka side of Honoapi'ilani Highway and west of Olowalu in Launiupoko (Table 5.36; Figure 4.146). The structures are bounded by foothills to the north, a valley and foothills to the east, Honoapi'ilani Highway to the south, and a valley and wooded area to the west. AR 33 is accessed by an unimproved access road north of Honoapi'ilani Highway.

According to the County of Maui tax assessor's database, AR 33 sits on a parcel encompassing 115.065 acres and is currently owned by the County of Maui. Historic topographic mapping and aerial images suggests AR 33 may be associated with land clearing and modification that occurred in the area between 1950 and 1960 (Figure 4.217). While a National Guard Rifle Range is shown in the vicinity of AR 33 in 1949, the range is gone by 1950—although topographic mapping indicates the area is associated with the National Guard Rifle Range in 1956 (Figure 4.147 and 4.148).

In 1960, the area is cleared and modified, and the rock wall is first visible, suggesting it was constructed between 1950 and 1960. By 1975, the area to the northwest of the wall appears to be inundated, which may have been the purpose of the clearing and modification. But by 1987, the area is dry and left to become overgrown with vegetation. It is uncertain whether the rock wall is associated with the sugar plantation industry, but the Pioneer Mill Company was active in nearby Olowalu between 1948 and 1951, clearing land to further develop irrigation networks (Hawaiian Sugar Planters' Association 2004).

**Table 4.36. Summary of AR 33 (SIHP No. 09153)**

<b>Address</b>	Launiupoko (mauka of Honoapi'ilani Highway)
<b>TMK</b>	4-7-001:030
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1955
<b>Square Footage</b>	NA
<b>Acreage</b>	115.065
<b>Owner</b>	County of Maui
<b>Architectural Type/Style</b>	Boundary Demarcation
<b>Integrity</b>	AR 33 is in fair condition but shows signs of disuse and disrepair as well as heavy modifications. This has resulted in loss of integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 33 is not recommended as individually eligible and is not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District due to a lack of historic and architectural significance and loss of integrity.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

#### 4.32.1 Structure Description

AR 33 consists of a single rock wall segment, constructed of dry-stacked rock that was later improved with concrete mortar (Figure 4.149). The segment is oriented from southwest to northeast on the mauka side of Honoapi'ilani Highway, and measures approximately 1 meter tall and 0.8 meters wide. However, the dimensions of the rock wall vary along its entire length. The stones are typically large, rounded cobbles that were not shaped or altered by the masons who constructed the wall. Although no longer in use, the wall segments comprised an exceedingly common element of West Maui infrastructure.

#### 4.32.2 Current Condition and Integrity

AR 33 is in fair condition but shows signs of disuse and disrepair. The wall segment is partially overgrown with vegetation and some of the rock construction appears eroded with loose and missing rocks. While the property retains its integrity of location and setting, given that AR 32 has undergone multiple alterations and degradation, it has lost its integrity of design, material, workmanship, feeling, and association.

### 4.32.3 Significance Evaluation

AR 33 is recommended as not eligible for listing in the NRHP due to its loss of integrity and lack of architectural and historic significance.

Under NRHP Criterion A and SRHP Criterion a, AR 33 is recommended as not individually eligible because it is not associated with any event or events of historic significance to the region, state, or nation, including themes related to the sugar plantation industry.

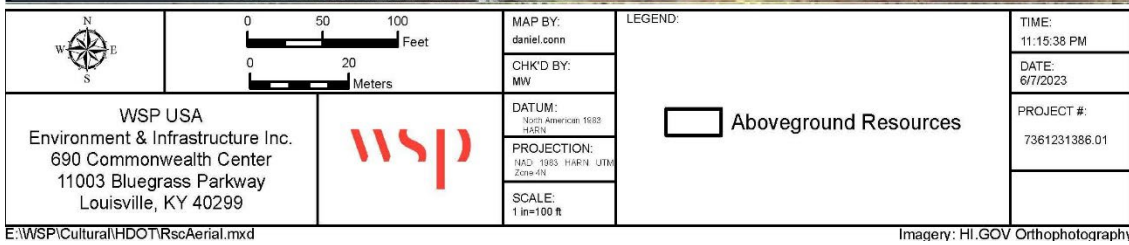
Under NRHP Criterion B and SRHP Criterion b, AR 33 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the resource is not individually eligible because the wall has no elements that make it exemplary of their architectural style or form. AR 33 is not the work of an expert builder or craftsman and is a common type of architecture found across the region. AR 33 is one of many features in the larger network of agriculture, property divisions, road and stream demarcations, and field improvement structures remaining from the modification of the region by the local population during the 20th century. These types of low wall, locally sourced structures are widespread throughout Maui, and the Hawaiian Islands in general, making them an exceedingly commonplace element.

Under NRHP Criterion D and SRHP Criterion d, AR 33 is recommended as not individually eligible because the structure does not have potential to contribute important information to our understanding of history related to the sugar plantation industry and its impact on Olowalu and the surrounding region.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

While AR 33 is associated with the sugar plantations and holdings of the Pioneer Mill Company and was built towards the end of the period of significance (or after) for the historic district, the structures are located outside the proposed limits for the historic district that is based on historic map boundaries of the Period of Significance. Furthermore, the structures are in poor condition and thus do not retain enough integrity of material or design to constitute an additional historic district.



**Figure 4.146. Aerial image showing the location of AR 33.**



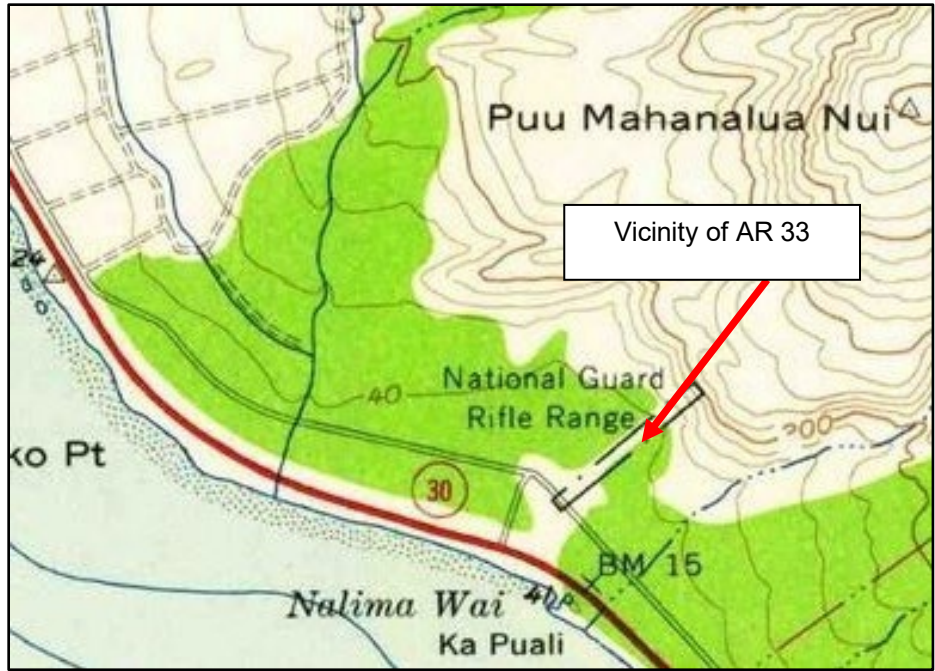


Figure 4.147. Vicinity of AR 33 on the 1956 USGS Lahaina, Hawai'i, 7.5-minute quadrangle topographic map.

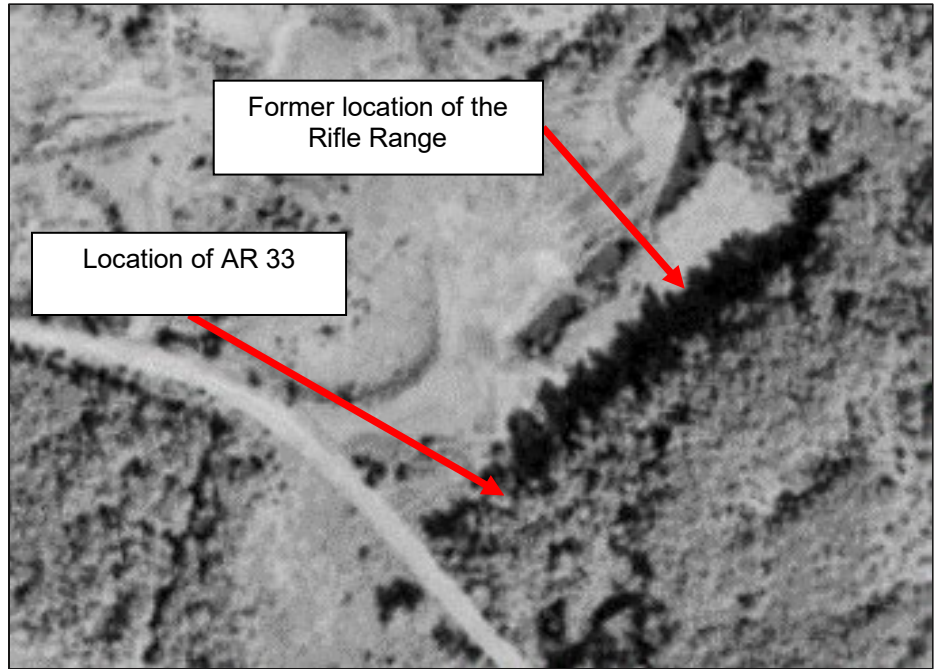


Figure 4.148. 1965 historic aerial image of the location of AR 33; note the clearing and modification of the area adjacent to AR 33.



**Figure 4.149. Image of the character and condition of AR 33. an exceedingly common Plantation era stone infrastructure found in the region.**

### 4.33 AR 34 (SIHP No. 09154): Irrigation Ditches

AR 34, newly recorded as SIHP No.09154, consists of two unimproved earthen irrigation ditches located in a wooded area in Launiupoko (**Table 5.37; Figure 4.150**). The two ditches run parallel to each other, primarily aligned east-west, but are closed off to the east by a large earthen berm. The resource is on the west end of the APE, on the mauka side of the Lāhainā Bypass, and to the northwest of AR 33 within the same parcel.

According to the County of Maui tax assessor's database, AR 34 sits on a parcel encompassing 115.065 acres and is currently owned by the County of Maui. Historic topographic mapping and aerial images suggests AR 34 may be associated with land clearing and modification that occurred in the area between 1950 and 1960 (**Figure 4.151 through 4.152**). A small pond was constructed during this period and may explain the large earthen berm that closes off the ditches on the east side. By 1975, the area appears to be inundated, which may have been the purpose of the clearing and modification. But by 1987, the area was dry and left to become overgrown with vegetation. It is uncertain whether the ditches are associated with the sugar plantation industry, but the Pioneer Mill Company was active in nearby Olowalu between 1948 and 1951, clearing land to further develop irrigation networks (Hawaiian Sugar Planters' Association 2004).

**Table 4.37. Summary of AR 34 (SIHP No. 09154)**

<b>Address</b>	Launiupoko
<b>TMK</b>	4-7-001:030
<b>County</b>	Maui County
<b>Date of Construction</b>	circa 1955
<b>Square Footage (Living Area)</b>	N/A
<b>Acreage</b>	115.065
<b>Owner</b>	County of Maui
<b>Architectural Style/Type</b>	Mid-20th Century Water Control
<b>Integrity</b>	AR 34 is in poor condition and shows several signs of deterioration and neglect; some elements of the resource have also been intersected by modern roads. This has resulted in loss of integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 34 is not individually eligible and is not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District due to lack of association.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

#### 4.33.1 Structure Description

AR 34 consists of two irrigation ditches that run parallel to each other, primarily aligned east-west (**Figure 4.153**). A large earthen berm runs along the east side of the ditches, which prevents water from running downslope into the ditches.

#### 4.33.2 Current Condition and Integrity

AR 34 is in poor condition and displays excessive signs of neglect and deterioration. The ditches are barely perceptible in the landscape due to thick vegetation and erosion. Given the extreme degradation, AR 34 has lost its integrity of setting, design, material, workmanship, feeling, and association.

#### 4.33.3 Significance Evaluation

AR 34 is recommended as not eligible for listing in the NRHP due to its loss of integrity and lack of architectural and historic significance. The site is associated with the local sugar plantation industry and the Pioneer Mill Company and their impact on the development of Olowalu from the mid-19th century to the 20th century. However, AR 34 is not a strong representation of this association due to its poor condition, which has resulted in a loss of integrity of design, materials, workmanship, setting, and feeling. Thus, under NRHP Criterion A and SRHP Criterion a, the site is recommended as not eligible.

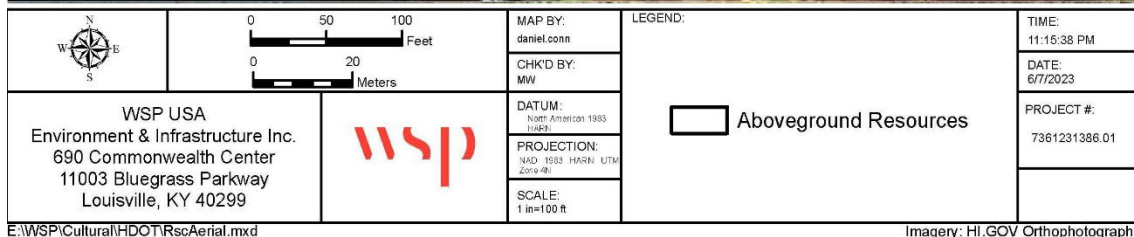


Under NRHP Criterion B and SRHP Criterion b, AR 34 is recommended as not eligible because no ties or links were found between the structures and people with cultural or historic significance.

Under NRHP Criterion C, the structures are not eligible because they have no elements that make it a unique example of its architectural style or form. The structures are not the work of an expert builder or craftsman. Moreover, features of this type are common in 20th century agricultural landscapes and found throughout the region.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

While AR 34 is associated with the sugar plantations and holdings of the Pioneer Mill Company, the structures are located outside the proposed limits for the historic district that are based on historic map boundaries of the Period of Significance. Furthermore, the structures are in poor condition and thus do not contain enough integrity of material and design to constitute an additional historic district.



**Figure 4.150. Aerial image showing the location of AR 34.**

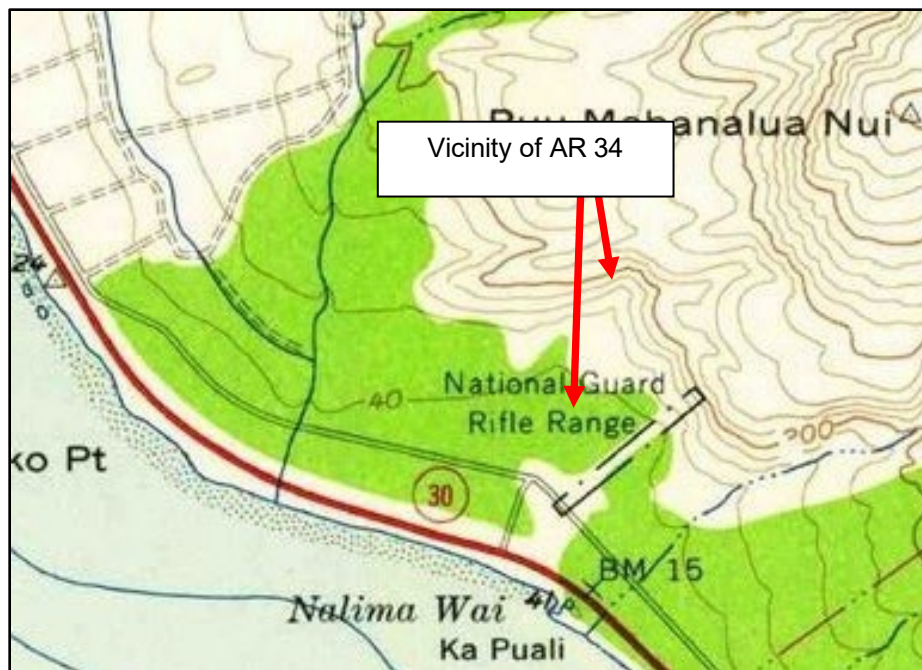


Figure 4.151. Vicinity of AR 34 on the 1956 USGS Lāhainā, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.152. 1960 historic aerial image of the location of AR 33 and AR 34; note the clearing and modification of the adjacent area.





**Figure 4.153. View of ditches, facing west.**

#### 4.34 AR 35 (SIHP No. 09033): Well

AR 35, newly recorded as SIHP No.09033, consists of a well located on the mauka side of Honoapi'ilani Highway between Olowalu and Ukumehame (Table 5.38; Figure 4.154). The resource is bounded by a wooded area to the north, south, and west, and by an unimproved dirt road to the east. At the time of the survey, the area surrounding the well was in use as a displaced encampment.

According to the County of Maui tax assessor's database, AR 35 sits on a parcel encompassing 36.558 acres and is currently owned by the County of Maui. Historic topographic mapping and aerial images do not show AR 35, but the area is adjacent to agricultural fields throughout the mid- to late-20th century (Figure 4.155). Throughout this period, an unimproved access road ran north-south along the east side of the well and was likely utilized as a cane haul road.

The regional sugar plantation industry required improved irrigations systems, and the Olowalu Sugar Company had begun to dig wells in West Maui as early as 1883. The company owned property in Ukumehame as well as Olowalu. The Pioneer Mill Company of nearby Lāhainā purchased the Olowalu Sugar Company in 1931. This purchase resulted in the incorporation of approximately 1,200 acres of Olowalu cane fields into the company's sugar plantation lands, which totaled over 10,000 acres by 1935. Therefore, AR 35 is likely associated with irrigation strategies of the sugar plantation industry.

**Table 4.38. Summary of AR 35 (SIHP No. 09033)**

<b>Address</b>	Between Olowalu and Ukumehame
<b>TMK</b>	4-8-002:070
<b>County</b>	Maui County
<b>Date of Construction</b>	Early to mid-20th Century
<b>Square Footage (Living Area)</b>	N/A
<b>Acreage</b>	36.558
<b>Owner</b>	County of Maui
<b>Architectural Style/Type</b>	20th Century Water Control
<b>Integrity</b>	AR 35 is in fair condition and has undergone little alteration. It retains its integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 35 is not individually eligible and is not recommended as contributing resource to the proposed Olowalu Sugar Plantation Historic District due to a lack of association.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.34.1 Structure Description

AR 35 is a well located within a wooded area on the mauka side of Honoapi'ilani Highway (Figures Figure 4.156). The upper portion of the well was constructed with stacked rocks. The well extends to an approximate depth of 1.5 meter. At the time of the survey, the well was filled with about 10 centimeters of water. The diameter of the well measures approximately 1 meter. The surface surrounding the well is cluttered with several objects, such as buckets, plywood boards, and wooden pallets (Figures Figure 4.157).

##### 4.34.2 Current Condition and Integrity

AR 35 is in fair condition, exhibiting some signs of deterioration, but the well has undergone little alteration. While the property retains its integrity of location and setting, AR 35 has lost its integrity of design, material, workmanship, feeling, and association through degradation.

##### 4.34.3 Significance Evaluation

AR 35 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to lack of architectural and historic significance. The well is likely associated with the local sugar plantation industry and its impact on the region, but the resource does not

embody this historical significance. Therefore, AR 35 is not recommended as individually eligible Under NRHP Criterion A.

Under NRHP Criterion B and SRHP Criterion b, AR 35 is recommended as not individually eligible because no ties or links were found between the structure and people with cultural or historic significance.

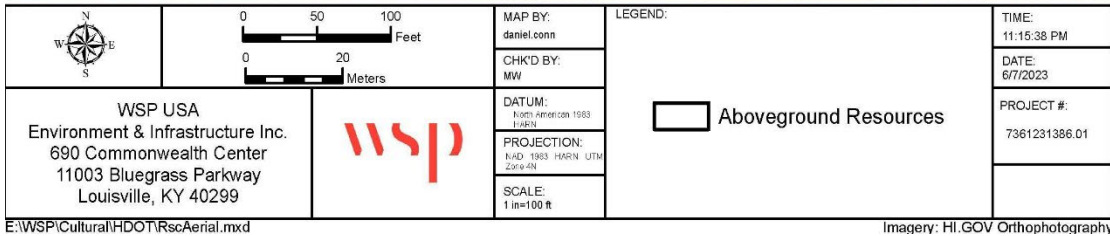
Under NRHP Criterion C, AR 35 is not individually eligible because it has no elements that make it a unique example of its architectural type, which is found throughout the region. In addition, the well is not the work of an expert builder or craftsman.

Under NRHP Criterion D and SRHP Criterion d, AR 35 is recommended as not individually eligible because the structure does not have potential to contribute important information to our understanding of history related to the sugar plantation industry and its impact on Olowalu and the surrounding region.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

AR 35 is not associated with the Olowalu Sugar Plantation Historic District. The structure is located outside the proposed boundary for the historic district, and subsequently, is not associated with the district.





**Figure 4.154. Aerial image showing the location of AR 35.**



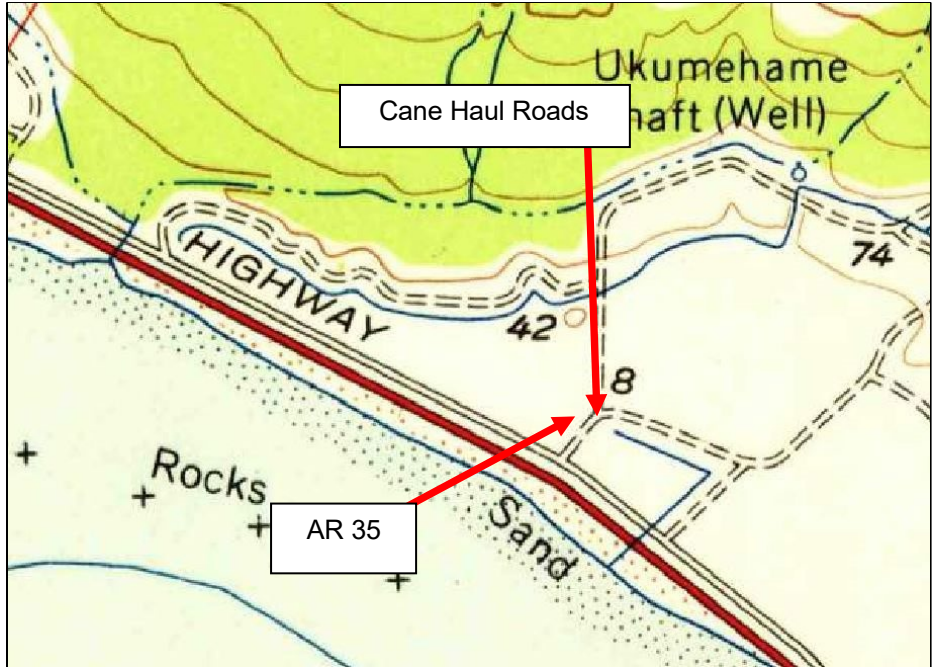


Figure 4.155. Location of AR 35 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.156. View of AR 35; note stacked rock construction.



**Figure 4.157. View of AR 35, facing north; note cluttered surface surrounding the well.**

### 4.35 AR 36 (SIHP No. 09155): Sluice Gate

AR 36, newly recorded as SIHP No.09155, consists of a sluice gate and canal located between Olowalu and Ukumehame (Table 5.39; Figure 4.158). The resource is bounded by foothills to the north, Honoapi'ilani Highway to the south, and a wooded area to the east and west.

According to the County of Maui tax assessor's database, AR 36 sits on a parcel encompassing 399.903 acres and is currently owned by the State of Hawai'i. Historic topographic mapping and aerial images do not show AR 36, but the resource is located in an area associated with the Olowalu Sugar Company in 1906 (Alexander 1906) (Figure 4.159). The Olowalu Sugar Company owned and managed the fields surrounding AR 36 beginning in the mid-19th century. The Pioneer Mill Company of nearby Lahaina purchased the Olowalu Sugar Company in 1931. This purchase resulted in the incorporation of approximately 1,200 acres of Olowalu cane fields into the company's sugar plantation lands, which totaled over 10,000 acres by 1935. Prior to the incorporation of these lands, Pioneer Mill Company had been constructing and improving irrigation systems across their holdings in the dry climate of Lāhainā since 1883, when the first well was drilled in West Maui for the company.

Groundwater and water from the West Maui mountains were drawn through expansive networks of pumps, ditches, flumes, and reservoirs, which the company lined with concrete and stone to minimize water loss. By the time the company purchased the Olowalu lands, the networks of ditches and reservoirs were fully supplied by electric pumps. By 1936, eight pumping stations were operating across the company estates. The facility installed along the Olowalu Stream was an Allis-Chalmers pump that was powered by a 112-kilowatt motor and had a capacity of 5 million gallons per day (Hibbard 2009). Between 1948 and 1951, the company cleared approximately 3,153 acres (Hawaiian Sugar Planters' Association 2004). Thus, AR 36 is likely associated with the sugar plantation industry in the region.

**Table 4.39. Summary of AR 36 (SIHP No. 09155)**

<b>Address</b>	Between Olowalu and Ukumehame
<b>TMK</b>	4-8-002:008
<b>County</b>	Maui County
<b>Date of Construction</b>	Late 19th to mid-20th Century
<b>Square Footage (Living Area)</b>	N/A
<b>Acreage</b>	399.903
<b>Owner</b>	State of Hawai'i
<b>Architectural Style/Type</b>	Late 19th to mid-20th Century Water Control
<b>Integrity</b>	AR 36 is in fair condition, exhibiting signs of deterioration due to erosion and exposure, and has undergone alteration. This has resulted in loss of integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 36 is not individually eligible and is not recommended as contributing resource to the proposed Olowalu Sugar Plantation Historic District due to a lack of association.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

#### 4.35.1 Structure Description

AR 36 consists of a metal sluice gate and canal constructed with stacked rock that is located on the mauka side of Honoapi'ilani Highway (Figures Figure 4.160). The canal has been encased in concrete, but the stacked rock is exposed in areas where the concrete has eroded.

#### 4.35.2 Current Condition and Integrity

AR 36 is in fair condition, exhibiting signs of deterioration due to exposure and erosion. The structure has undergone little alteration. While the property retains its integrity of location and setting, AR 36 has lost its integrity of design, material, workmanship, feeling, and association through extreme degradation.



### 4.35.3 Significance Evaluation

AR 36 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to lack of architectural and historic significance. The sluice gate and canal are associated with the local sugar plantation industry and its impact on the region, but the structures, as an individual resource, do not embody this historical significance. Therefore, AR 36 is not recommended as individually eligible Under NRHP Criterion A.

Under NRHP Criterion B and SRHP Criterion b, AR 36 is recommended as not individually eligible because no ties or links were found between the structures and people with cultural or historic significance.

Under NRHP Criterion C, AR 36 is not individually eligible because it has no elements that make it a unique example of its architectural type, which is found throughout the region. In addition, the resource is not the work of an expert builder or craftsman.

Under NRHP Criterion D and SRHP Criterion d, AR 36 is recommended as not individually eligible because the structures do not have potential to contribute important information to our understanding of history related to the sugar plantation industry and its impact on Olowalu and the surrounding region.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the structure and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

While AR 36 may be associated with the sugar plantations, the structure is located outside the proposed limits for the historic district that are based on historic map boundaries of the Period of Significance. Furthermore, the structure is in poor condition and thus does not retain enough integrity of material and design to constitute an additional historic district in Ukumehame.



**Figure 4.158. Aerial image showing the location of AR 36.**



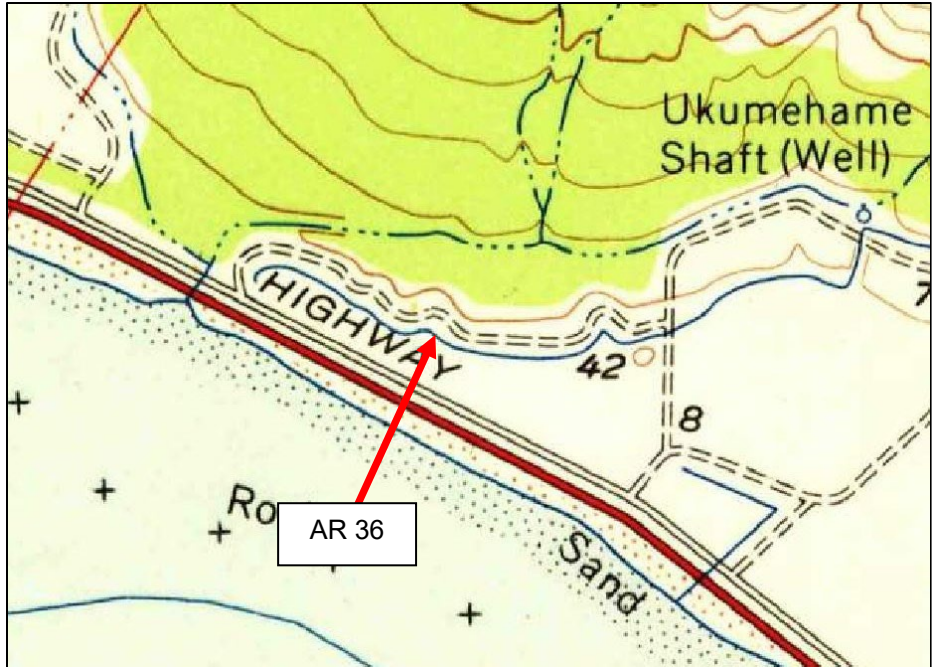


Figure 4.159. Location of AR 36 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.160. View of AF 36, facing north; note sluice gate and stacked rock exposed where concrete is eroding.



#### 4.36 AR 37 (SIHP No. 09156): Irrigation Ditches

AR 37, newly recorded as SIHP No.09156, consists of an unimproved irrigation ditch located in agricultural fields between Olowalu and Ukumehame, within Maui, Hawai'i (Table 5.40; Figure 4.161). The resource is bounded by foothills to the north and east and a wooded area to the south and west.

According to the County of Maui tax assessor's database, AR 37 sits on a parcel encompassing 399.903 acres and is currently owned by the State of Hawai'i. Historic topographic mapping and aerial images do not show AR 37, but the resource is located in an area associated with the Olowalu Sugar Company in 1906 (Alexander 1906). The 1955 Olowalu, Hawai'i topographic map does show a sugar cane haul road in the vicinity of AR 37 (Figure 4.162 and Figure 4.163). The Olowalu Sugar Company owned and managed the fields surrounding AR 37 beginning in the mid-19th century. The Pioneer Mill Company of nearby Lahaina purchased the Olowalu Sugar Company in 1931. This purchase resulted in the incorporation of approximately 1,200 acres of Olowalu cane fields into the company's sugar plantation lands, which totaled over 10,000 acres by 1935. Prior to the incorporation of these lands, Pioneer Mill Company had been constructing and improving irrigation systems across their holdings in the dry climate of Lāhainā since 1883, when the first well was drilled in West Maui for the company. Groundwater and water from the West Maui mountains were drawn through expansive networks of pumps, ditches, flumes, and reservoirs, which the company lined with concrete and stone to minimize water loss.

By the time the company purchased the Olowalu lands, the networks of ditches and reservoirs were fully supplied by electric pumps. By 1936, eight pumping stations were in operation across the company estates. The facility installed along the Olowalu Stream was an Allis-Chalmers pump powered by a 112-kilowatt motor and had a capacity of 5 million gallons per day (Hibbard 2009). Between 1948 and 1951, the company cleared approximately 3,153 acres (Hawaiian Sugar Planters' Association 2004). Thus, AR 37 is likely associated with the sugar plantation industry in the region, most likely the Pioneer Mill Company's ownership of the property.

**Table 4.40. Summary of AR 37 (SIHP No. 09156)**

<b>Address</b>	Between Olowalu and Ukumehame
<b>TMK</b>	4-8-002:008
<b>County</b>	Maui County
<b>Date of Construction</b>	Early to mid-20th century
<b>Square Footage (Living Area)</b>	N/A
<b>Acreage</b>	399.903
<b>Owner</b>	State of Hawai'i
<b>Architectural Style/Type</b>	Early to mid-20th Century Water Control
<b>Integrity</b>	AR 37 is in poor condition and shows several signs of deterioration and neglect; some elements of the resource have also been intersected by modern roads. This has resulted in loss of integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 37 is not individually eligible and is not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District due to loss of integrity and lack of association.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.36.1 Structure Description

AR 37 consists of a segment of a ditch located in a wooded and grassy area, which was once part of a network of irrigation ditches. At some point, the ditch was stabilized with concrete (Figures Figure 4.164).

##### 4.36.2 Current Condition and Integrity

AR 37 is in poor condition. The ditches display signs of neglect and deterioration and are barely perceptible in the landscape.

### 4.36.3 Significance Evaluation

AR 37 is recommended as not eligible for listing in the NRHP due to its loss of integrity and lack of architectural and historic significance. The site is associated with the local sugar plantation industry and the Pioneer Mill Company and their impact on the development of Olowalu from the mid-19th century to the 20th century. However, AR 37 is not a strong representation of this association due to its poor condition, which has resulted in a loss of integrity of design, materials, workmanship, setting, and feeling. Thus, under NRHP Criterion A and SRHP Criterion a, the site is recommended as not eligible.

Under NRHP Criterion B and SRHP Criterion b, AR 37 is recommended as not eligible because no ties or links were found between the structures and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the structures are not eligible because they have no elements that make it a unique example of its architectural style or form. The structures are not the work of an expert builder or craftsman. Moreover, features of this type are common in 20th century agricultural landscapes and found throughout the region.

Under NRHP Criterion D and SRHP Criterion d, AR 37 does not have the potential to yield additional information regarding local and regional development or other themes related to the sugar plantation industry, the Olowalu Sugar Company, or the Pioneer Mill Company. Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

While AR 37 is associated with the sugar plantations and holdings of the Pioneer Mill Company, the structures are located outside the proposed limits for the historic district that are based on historic map boundaries of the Period of Significance. Furthermore, the structures are in poor condition and thus do not retain enough integrity of material and design to constitute an additional historic district in Ukumehame.



	 	MAP BY: daniel.conn	LEGEND:  Aboveground Resources	TIME: 11:15:38 PM
		CHK'D BY: MW		DATE: 6/7/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 HARN	PROJECT #: 7361231386.01
			PROJECTION: NAD 1983 HARN UTM Zone 61	
		SCALE: 1 in=100 ft	Imagery: HI.GOV Orthophotography	

**Figure 4.161. Aerial image showing the location of AR 37.**



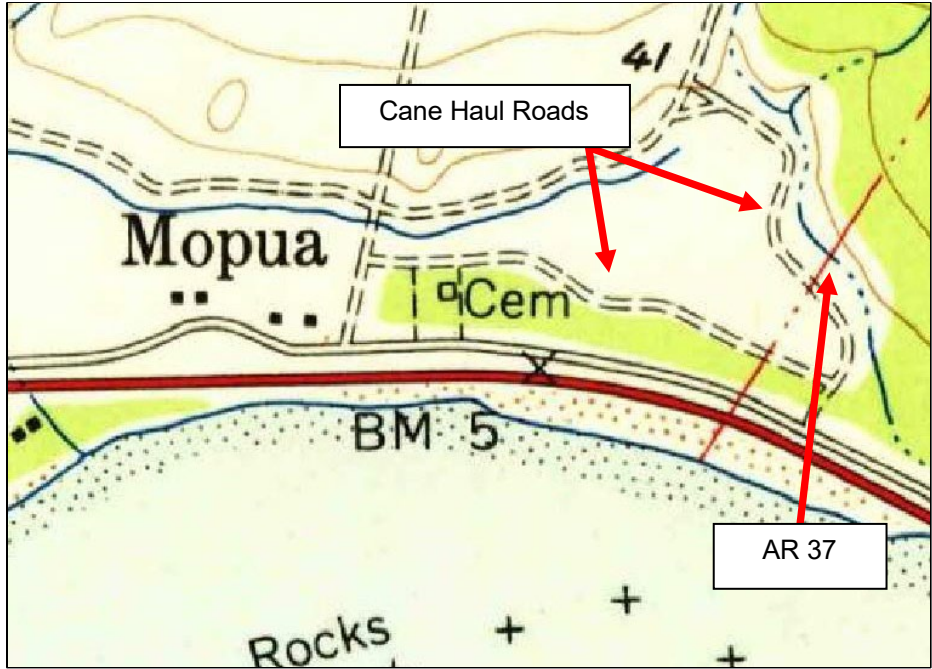


Figure 4.162. Location of AR 37 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.

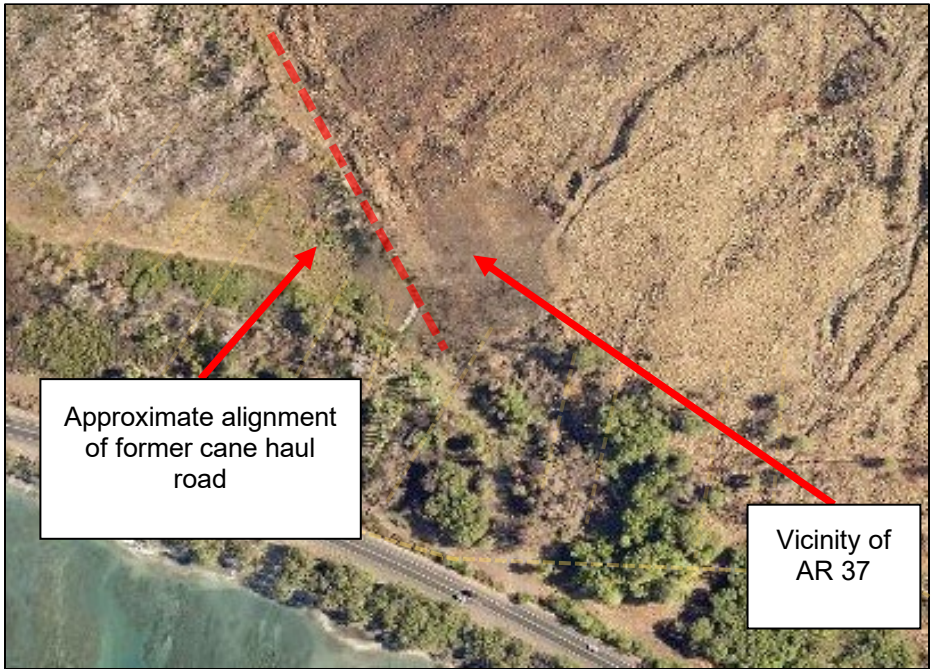


Figure 4.163. Approximate location of AR 37 on modern aerial image.



**Figure 4.164. View of AR 37, facing northeast.**

#### 4.37 AR 38 (SIHP No. 09157): Cane Haul Roads (Ukumehame)

AR 38, newly recorded as SIHP No.09157, consists of two abandoned segments of unimproved cane haul roads (AR 38.1 and 38.2) located in a forested area mauka of Honoapi'ilani Highway (**Table 5.41**; **Figure 4.165**). The resource is bounded by a wooded or grassy area to the north, east, and west, and by the Honoapi'ilani Highway to the south.

According to the County of Maui tax assessor's database, AR 38 sits on a parcel encompassing 188.969 acres and is currently owned by the State of Hawai'i. AR 38.2: The 1955 Olowalu, Hawai'i topographic map shows the road segments of AR 38 and illustrates the presence of this resource along with other cane haul routes that are no longer fully extant (**Figure 4.166**). The earliest historic aerial image available for the area (from 1949) depicts the segments of cane haul roads along with additional cane haul roads that are no longer extant due to modern development. While the earliest cane haul routes appear on the 1923 USGS Maalaea Quadrangle map, the majority are not depicted (including AR 38) (**Figure 4.167**). These maps suggest that existing roadways were integrated into a larger system of cane hauls roads in relationship with the sugar plantation industry under the Olowalu Sugar Company and the Pioneer Mill Company.

The Olowalu Sugar Company owned and managed the fields surrounding AR 38 beginning in the mid-19th century. The Pioneer Mill Company of nearby Lāhainā purchased the Olowalu Sugar Company in 1931. This purchase resulted in the incorporation of approximately 1,200 acres of Olowalu and Ukumehame cane fields into the company's sugar plantation lands, which totaled over 10,000 acres by 1935. Prior to the incorporation of these lands, Pioneer Mill Company had been constructing and improving fields and irrigation systems across their holdings in the dry climate of Lāhainā since 1883, when the first well was drilled in West Maui for the company (Maly and Maly 2007). Between 1948 and 1951, the company cleared approximately 3,153 acres—including the fields surrounding AR 38—to improve the rocky soil (Hawaiian Sugar Planters' Association 2004). AR 38 is one feature in the larger network of plantation agriculture and field improvement structures remaining from the modification of the Olowalu landscape by the Pioneer Mill Company during the 20th century.

**Table 4.41. Summary of AR 38 (SIHP No. 09157)**

<b>Address</b>	Ukumehame
<b>TMK</b>	4-8-002:071
<b>County</b>	Maui County
<b>Date of Construction</b>	By 1949
<b>Acreage</b>	AR 38.1: 188.969; AR 38.2: 29.748
<b>Owner</b>	AR 38.1: State of Hawai'i; AR 38.2: County of Maui
<b>Architectural Type/Style</b>	Early to mid-20th Century Plantation Agriculture
<b>Integrity</b>	AR 38 is in fair to poor condition. AR 38.1 shows signs of deterioration but has undergone little alteration. AR 38.2 exhibits signs of severe erosion and disturbance, and has undergone alterations, resulting in a loss of integrity.
<b>NRHP Significance Evaluation</b>	AR 38 is not individually eligible and is not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District due to loss of integrity and lack of association.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

##### 4.37.1 Structure Description

AR 38 consists of two abandoned segments of the former unimproved cane haul road network located in forested and grassy areas on the north side of Honoapi'ilani Highway. The network is illustrated as having a roughly gridded pattern in historic maps (**Figure 4.166**). AR 38.1 is a remnant of a road with an east-west alignment and consists of asphalt intermixed with volcanic cinder and sand (**Figure 4.167**). The road is approximately 5 meters wide with stacked rock berm running along both sides. A rock roadblock is located on the east of the road (**Figure 4.242**). AR 38.2 is a remnant of an unimproved dirt road, which is largely overgrown with vegetation, and difficult to identify (**Figure 4.243**).



### **4.37.2 Current Condition and Integrity**

AR 38 is in fair to poor condition. AR 38.1 shows signs of deterioration but has undergone alterations, such as the loss of the connecting segments of the road network, as well as the addition of a roadblock on the east end. AR 38.2 exhibits signs of severe erosion, disturbance, and has become overgrown with vegetation. The resource has also undergone alterations, like the loss of connecting sections of the road network. Both roads were likely once part of the original segments of the cane haul road network but were abandoned at some point and are no longer in use. The neglect of the roads has resulted in a loss of integrity of materials, design, workmanship, setting, and feeling.

### **4.37.3 Significance Evaluation**

AR 38 is recommended as not individually eligible for listing in the NRHP and not a significant historic property under HAR 13-275-6 due to a lack of historic and architectural significance and loss of integrity. Although the roads were constructed during the sugar plantation period as part of the cane haul road network, the segment of cane haul roads, as an individual resource, do not embody the historical significance of the sugar plantation industry and its impact on the development of the surrounding community under NRHP Criterion A and SRHP Criterion a.

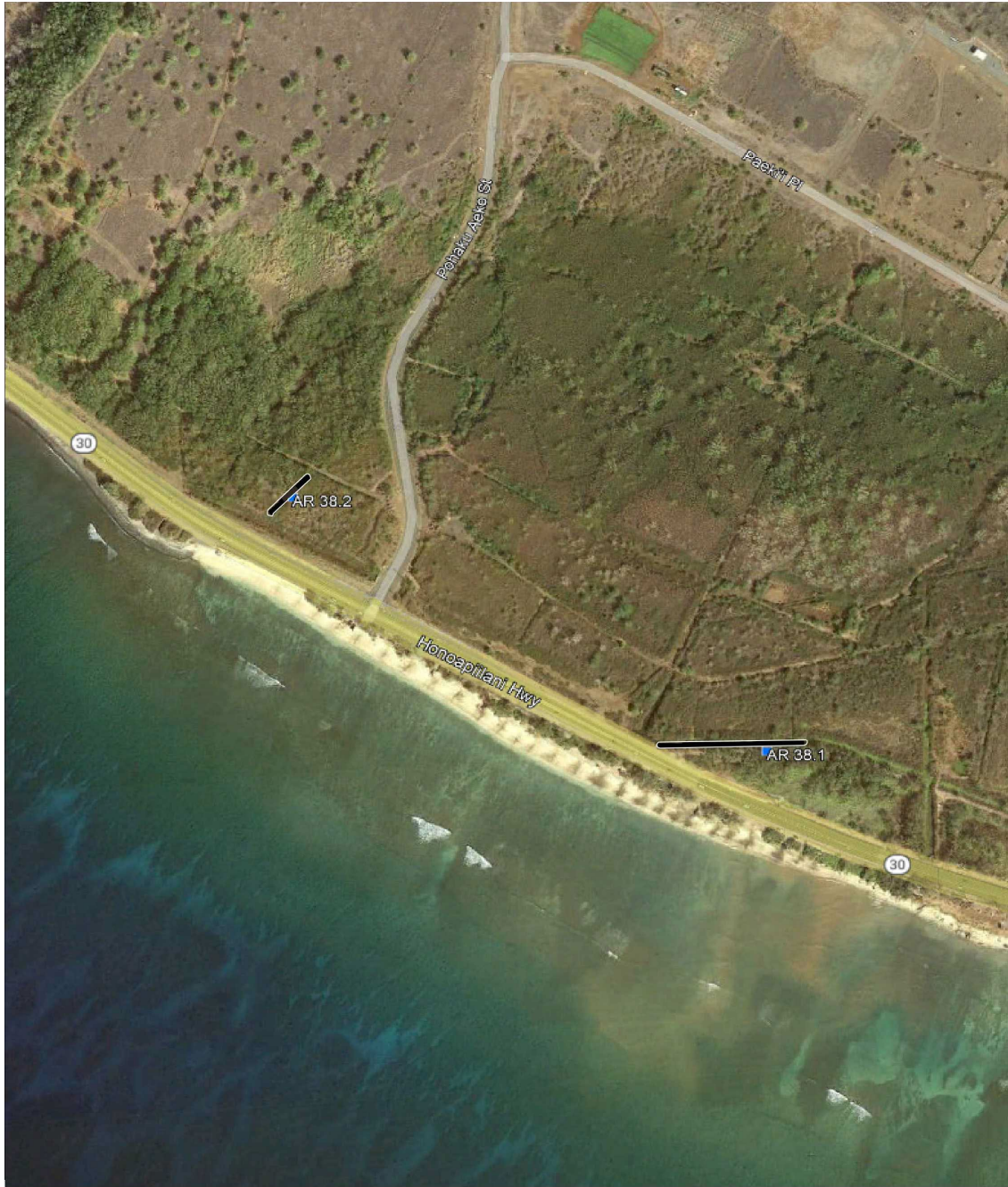
Under NRHP Criterion B and SRHP Criterion b, AR 38 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C, AR 38 is not individually eligible because it is a common feature found in agricultural settings throughout the region and is not the work of an expert builder or craftsman.

NRHP Criterion D and SRHP Criterion d are typically considered when assessing archaeological sites, but buildings and structures may qualify if they have the potential to contribute important information to our understanding of history; however, AR 38, as an individual resource, does not have such potential.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

While AR 38 is associated with the sugar plantations and holdings of the Pioneer Mill Company, the structures are located outside the proposed limits for the historic district that is based on historic map boundaries of the Period of Significance. Furthermore, the roads are in fair to poor condition and thus do not contain enough integrity of material and design to constitute an additional historic district in Ukumehame.



		MAP BY: daniel.conn	LEGEND:  Aboveground Resources	TIME: 11:15:38 PM
		CHK'D BY: MW		DATE: 6/7/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 HARN	PROJECT #: 7361231386.01
E:\WSP\Cultural\HDOT\RscAerial.mxd		PROJECTION: NAD 1983 HARN UTM Zone 49N	SCALE: 1 in=100 ft	Imagery: HI.GOV Orthophotography

**Figure 4.165. Aerial image showing the location of AR 38.**



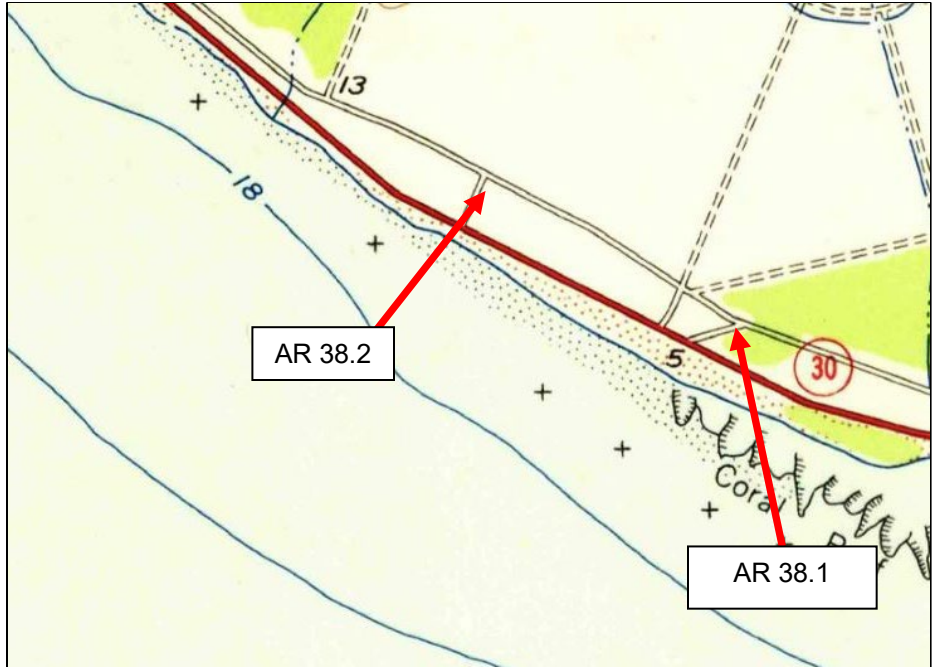


Figure 4.166. Location of AR 38.1 and 38.2 on the 1955 USGS Olowalu, Hawai'i, 7.5-minute quadrangle topographic map.



Figure 4.167. View of AR 38.1, facing west.



### 4.38 AR 39 (SIHP No. 09158): Irrigation Ditches

AR 39, newly recorded as SIHP No.09158, consists of 17 unimproved irrigation ditches—designated AR 39.1 through AR 39.17—located in grassy and wooded areas throughout Ukumehame (**Table 5.42; Figure 4.168 – 4.170**). The ditches were once part of a large network of ditches constructed for the sugar cane industry in the region.

According to the County of Maui tax assessor's database, AR 39 extends across five parcels, and the ditches have been constructed across approximately 279.046 acres. The land occupied by AR 39 is currently owned by the County of Maui, the State of Hawai'i, and Ukumehame Holding LLC. The State owns the most acreage.

Historic topographic mapping does not show AR 39, but the irrigation structures are located in an area associated with the Olowalu Sugar Company in 1906 and can be seen in a 1977 aerial image (**Figure 4.171**). The Olowalu Sugar Company owned and managed the fields surrounding AR 39 beginning in the mid-19th century. The Pioneer Mill Company of nearby Lahaina purchased the Olowalu Sugar Company in 1931. This purchase resulted in the incorporation of approximately 1,200 acres of Olowalu cane fields into the company's sugar plantation lands, which totaled over 10,000 acres by 1935. Prior to the incorporation of these lands, Pioneer Mill Company had been constructing and improving irrigation systems across their holdings in the dry climate of Lahaina since 1883, when the first well was drilled in West Maui for the company.

Groundwater and water from the West Maui mountains were drawn through expansive networks of pumps, ditches, flumes, and reservoirs, which the Pioneer Mill Company lined with concrete and stone to minimize water loss. By the time the company purchased the Ukumehame lands, the networks of ditches and reservoirs were fully supplied by electric pumps. By 1936, eight pumping stations were operating across the company estates. The facility installed along the Olowalu Stream was an Allis-Chalmers pump that was powered by a 112-kilowatt motor and had a capacity of 5 million gallons per day (Hibbard 2009). Between 1948 and 1951, the company cleared approximately 3,153 acres (Hawaiian Sugar Planters' Association 2004). Thus, AR 39 is associated with the sugar plantation industry in the region, and most likely the Pioneer Mill Company's ownership of the property.

**Table 4.42. Summary of AR 39 (SIHP No. 09158)**

<b>Address</b>	Ukumehame
<b>TMK</b>	4-8-002:002; 070; 071; 114; 115
<b>County</b>	Maui County
<b>Date of Construction</b>	Early to mid-20th century
<b>Square Footage (Living Area)</b>	N/A
<b>Acreage</b>	279.046
<b>Owner</b>	County of Maui, the State of Hawai'i, and the Ukumehame Holding LLC
<b>Architectural Style/Type</b>	20th Century Water Control
<b>Integrity</b>	AR 39 is in poor condition and shows several signs of erosion, deterioration and neglect; some elements of the resource have also been intersected by modern roads. This has resulted in loss of integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 39 is not individually eligible and is not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District due to loss of integrity and lack of association.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

#### 4.38.1 Structure Description

AR 39 consists of a network of irrigation ditches and culverts located in wooded, grassy, and exposed ground areas north of Honoapi'ilani Highway (**Figures 4.168 through 4.170; Figure 4.71 through 4.176**). The features that comprise AR 39 are a series of unimproved irrigation ditches and culverts, which vary in alignment and size and are remnants of a former large irrigation network.

#### **4.38.2 Current Condition and Integrity**

AR 39 is in poor condition. The ditches are barely perceptible in the landscape and display signs of neglect, erosion, and deterioration. Moreover, some elements of the resource have also been intersected by modern roads. While the property retains its integrity of location and setting, AR 39 has lost its integrity of design, material, workmanship, feeling, and association through extreme degradation and alterations.

#### **4.38.3 Significance Evaluation**

AR 39 is recommended as not eligible for listing in the NRHP due to its loss of integrity and lack of architectural and historic significance. The site is associated with the local sugar plantation industry and the Pioneer Mill Company and their impact on the development of Olowalu from the mid-19th century to the 20th century. However, AR 39 is not a strong representation of this association due to its poor condition, which has resulted in a loss of integrity of design, materials, workmanship, setting, and feeling. Thus, under NRHP Criterion A and SRHP Criterion a, the site is recommended as not eligible.

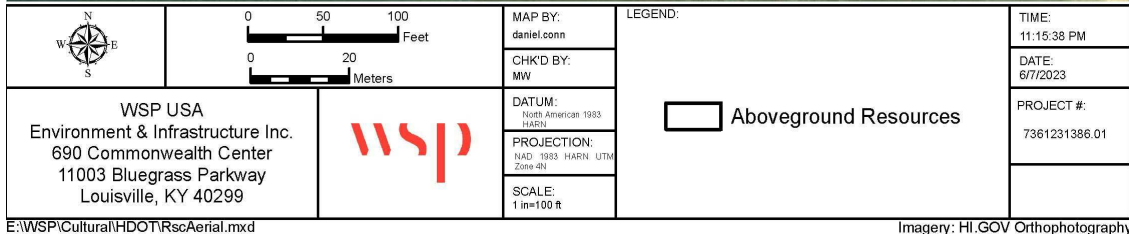
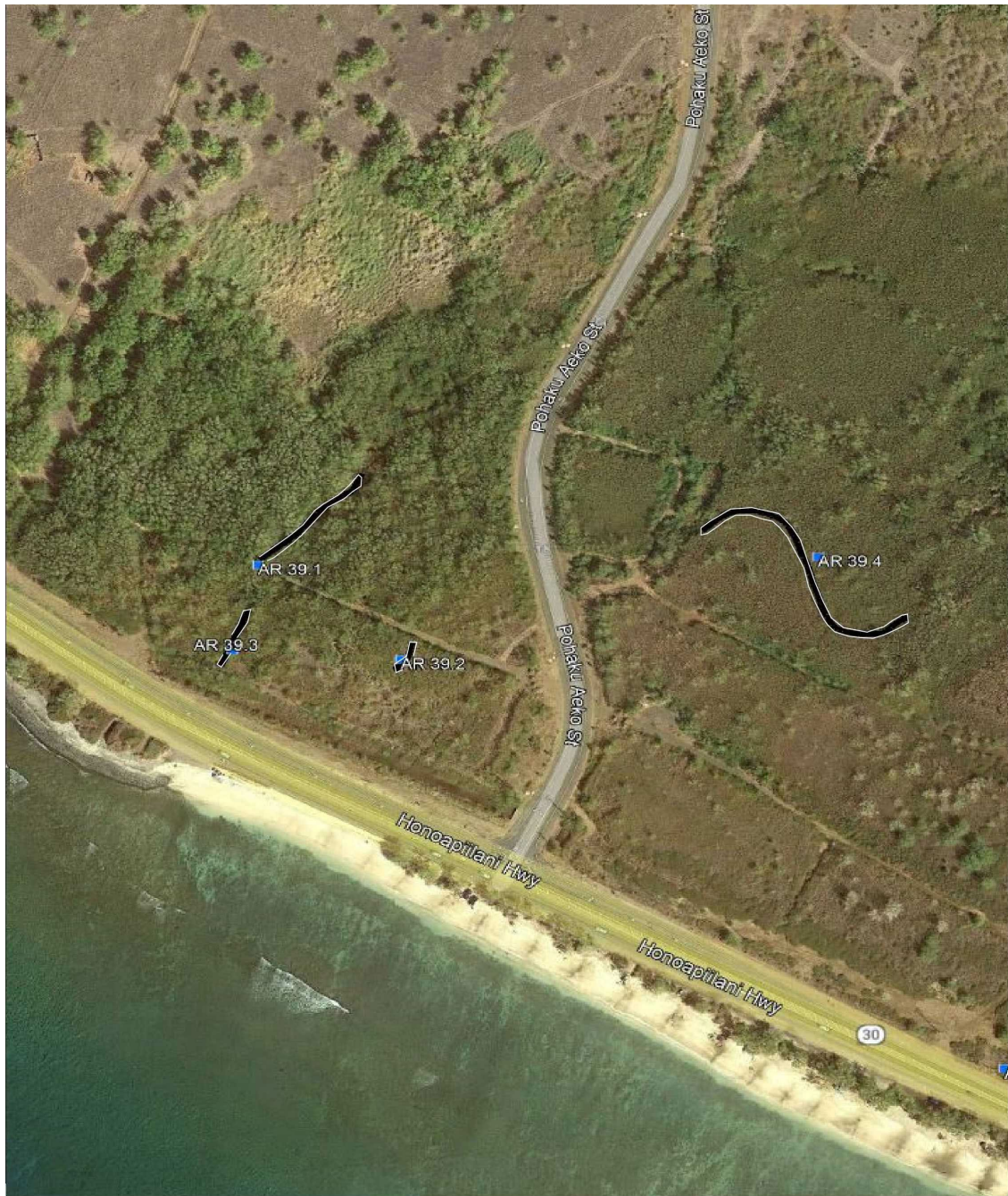
Under NRHP Criterion B and SRHP Criterion b, AR 39 is recommended as not eligible because no ties or links were found between the structures and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the structures are not eligible because they have no elements that make it a unique example of its architectural style or form. The structures are not the work of an expert builder or craftsman. Moreover, features of this type are common in 20th century agricultural landscapes and found throughout the region.

Under NRHP Criterion D and SRHP Criterion d, AR 39 does not have the potential to yield additional information regarding local and regional development or other themes related to the sugar plantation industry, the Olowalu Sugar Company, or the Pioneer Mill Company.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

While AR 39 is associated with the sugar plantations and holdings of the Pioneer Mill Company, the structures are located outside the proposed limits for the historic district that is based on historic map boundaries of the Period of Significance. Furthermore, the structures are in poor condition and thus do not retain enough integrity of material and design to constitute an additional historic district in Ukumehame.



**Figure 4.168. Aerial image showing the location of AR 39.1 through AR 39.4.**





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		CHK'D BY: MW		DATE: 6/7/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 HARN	PROJECT #: 7361231386.01
			PROJECTION: NAD 1983 HARN UTM Zone 48N	
		SCALE: 1 in=100 ft	Imagery: HI.GOV Orthophotography	

**Figure 4.169. Aerial image showing the location of AR 39.5 through AR 39.14.**





		MAP BY: daniel.conn	LEGEND:  Aboveground Resources	TIME: 11:15:38 PM
		CHK'D BY: MW		DATE: 6/7/2023
WSP USA Environment & Infrastructure Inc. 690 Commonwealth Center 11003 Bluegrass Parkway Louisville, KY 40299			DATUM: North American 1983 HARN	PROJECT #: 7361231386.01
E:\WSP\Cultural\HDOT\RscAerial.mxd		PROJECTION: NAD 1983 HARN UTM Zone 18N	SCALE: 1 in=100 ft	Imagery: HI.GOV Orthophotography

**Figure 4.170. Aerial image showing the location of AR 39.15 through AR 39.17.**





**Figure 4.171. The irrigation structures associated with AR 39 on a 1977 historic aerial image.**



**Figure 4.172. Approximate location of AR 39 elements (1939 Pioneer Mill Company Olowalu Division Map) overlain on current aerial image.**





**Figure 4.173. View of north extent of AR 39.1, facing north.**



**Figure 4.174. View of AR 39.6, facing west.**





**Figure 4.175. View of AR 39.12, facing south.**



**Figure 4.176. View of north extent of AR 39.14, facing north.**

### 4.39 AR 40 (SIHP No. 09159): Rock Wall

AR 40, newly recorded as SIHP No.09159, consists of a rock wall segment on the mauka side of Honoapi'ilani Highway between Launiupoko and Olowalu (**Table 5.43; Figure 4.177**). The structure is bounded by foothills to the north, the Olowalu Recycling and Refuse Convenience Center to the east, Honoapi'ilani Highway to the south, and a valley and drainage to the west. AR 40 is accessed by an unimproved access road to the north of Honoapi'ilani Highway. A wide modified gully runs northeastwardly upslope from the wall, and the wall and gully may have once been part of an enclosure associated with ranching. A rock mound sits to the northwest of AR 40, which is likely the remnants of another segment of the same wall.

According to the County of Maui tax assessor's database, AR 40 sits on a parcel encompassing 65.375 acres and is currently owned by the State of Hawai'i. The tax assessor's database does not list a construction date for the structure, and historic topographic maps and aerial images do not depict AR 40 or any other structures or buildings in the vicinity, other than the unimproved access road that runs parallel to Honoapi'ilani Highway (**Figure 4.178 and Figure 4.179**). However, the wall is likely associated with agricultural use or a boundary demarcation. The construction materials and style are similar to other late-19th to mid-20th century rock walls constructed in the region.

**Table 4.43. Summary of AR 40 (SIHP No. 09159)**

<b>Address</b>	Launiupoko (mauka of Honoapi'ilani Highway)
<b>TMK</b>	4-8-003:039
<b>County</b>	Maui County
<b>Date of Construction</b>	Early to mid-20th century
<b>Square Footage</b>	NA
<b>Acreage</b>	65.375
<b>Owner</b>	State of Hawai'i
<b>Architectural Type/Style</b>	Boundary Demarcation
<b>Integrity</b>	AR 40 is in fair condition but shows signs of disuse and disrepair as well as heavy modifications. This has resulted in loss of integrity of location, setting, design, material, workmanship, feeling, and association.
<b>NRHP Significance Evaluation</b>	AR 40 is not recommended as individually eligible and is not recommended as a contributing resource to the proposed Olowalu Sugar Plantation Historic District due to a lack of historic and architectural significance and loss of integrity.
<b>HRS 6E Significance Evaluation</b>	Recommended as not eligible.

#### 4.39.1 Structure Description

AR 40 consists of a single rock wall segment constructed of dry-stacked rock (**Figure 4.180 and Figure 4.181**). The segment extends southeast and northwest to west towards the unimproved dirt access road, and measures approximately 0.75 meters wide and .80 centimeters tall. However, the dimensions of the rock wall vary along its entire length. The stones are typically large, rounded cobbles that were not shaped or altered by the masons who constructed the wall. Although no longer in use, the wall segments comprised an exceedingly common element of West Maui infrastructure.

#### 4.39.2 Current Condition and Integrity

AR 40 is in fair condition but shows signs of disuse and disrepair. The wall segment is partially overgrown with vegetation and some of the rock construction appears eroded with loose and missing rocks. While the property retains its integrity of location and setting, AR 40 has lost its integrity of design, material, workmanship, feeling, and association through degradation.

#### 4.39.3 Significance Evaluation

AR 40 is recommended as not eligible for listing in the NRHP due to its loss of integrity and lack of architectural and historic significance. under NRHP Criterion A and SRHP Criterion a, AR 40 is



recommended as not individually eligible because it is not associated with any event or events of historic significance to the region, state, or nation, including themes related to the sugar plantation industry.

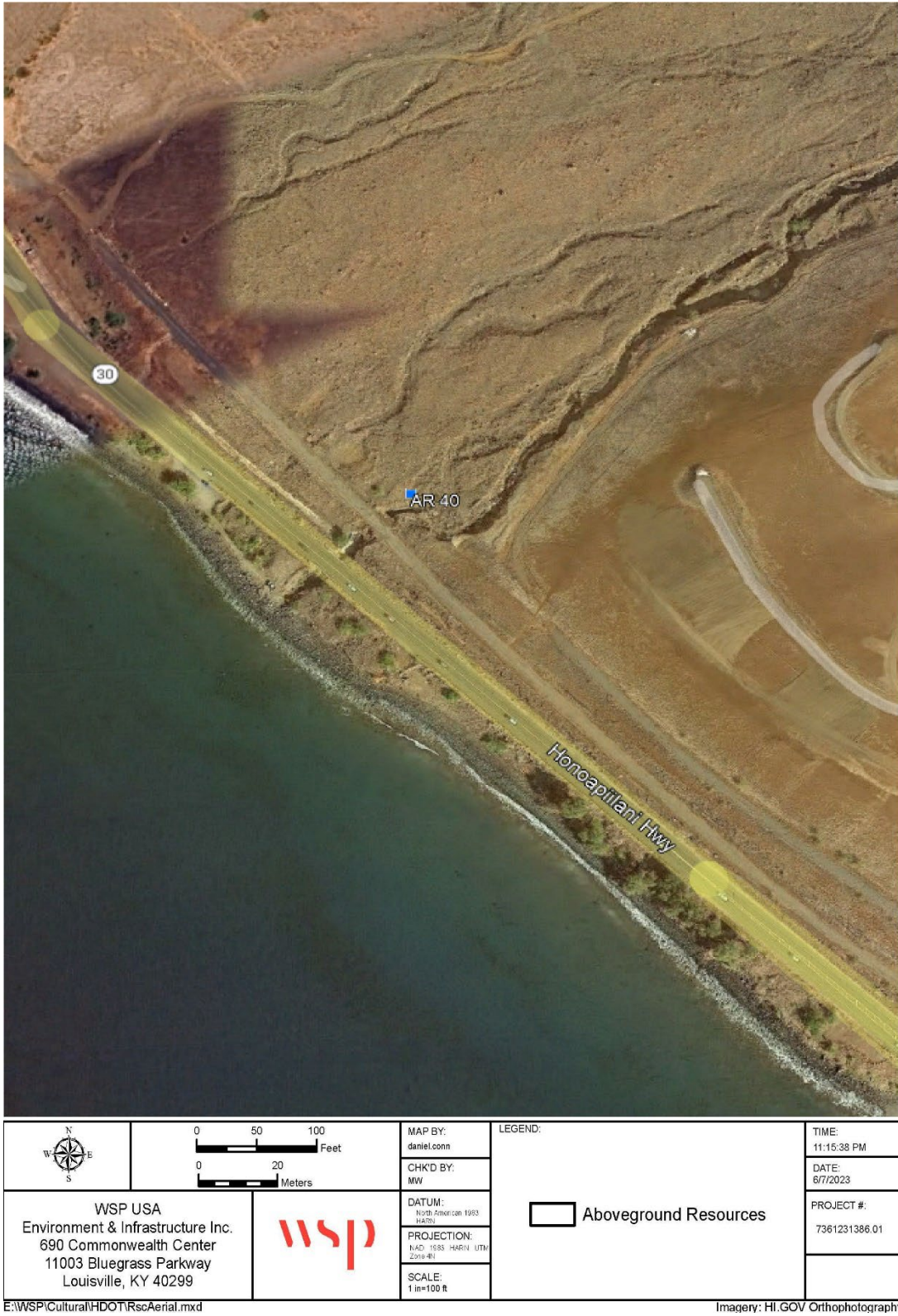
Under NRHP Criterion B and SRHP Criterion b, AR 40 is recommended as not individually eligible because no ties or links were found between the building and people with cultural or historic significance.

Under NRHP Criterion C and SRHP Criterion c, the resource is not individually eligible because the wall has no elements that make it exemplary of their architectural style or form. AR 40 is not the work of an expert builder or craftsman, and is a common type found across the region.

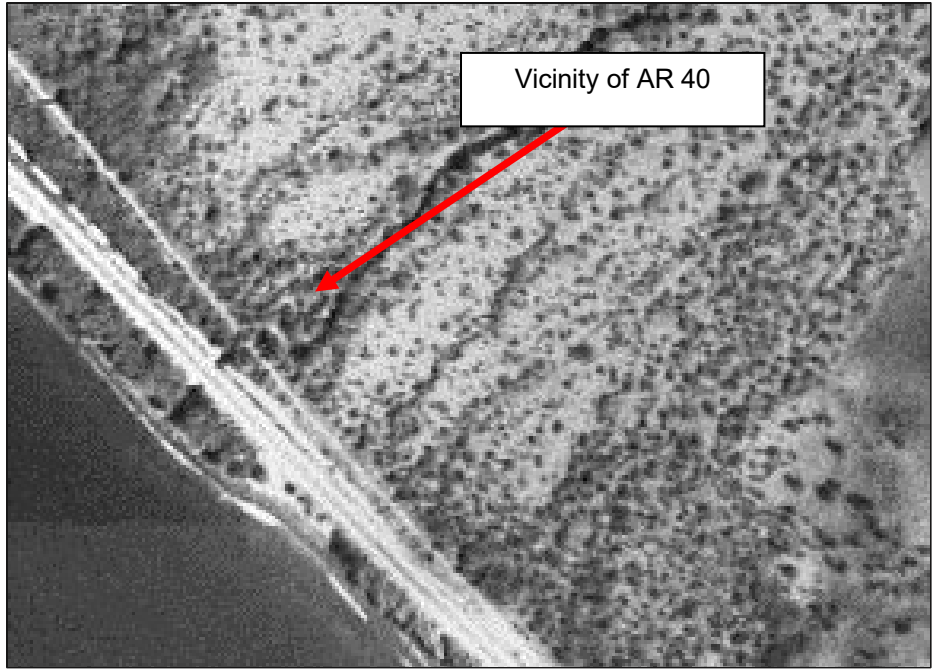
Under NRHP Criterion D and SRHP Criterion d, AR 40 is recommended as not individually eligible because the structure does not have potential to contribute important information to our understanding of history related to the sugar plantation industry and its impact on Olowalu and the surrounding region. AR 40 is one of many features in the larger network of agriculture, property divisions, road and stream demarcations, and field improvement structures remaining from the modification of the region by the local population during the 20th century. These types of low wall, locally sourced structures are widespread throughout Maui, and the Hawaiian Islands in general, making them an exceedingly commonplace element.

Under SRHP Criterion e, the property is recommended as not individually eligible because no ties or links were found between the building and Hawaiian people or to another ethnic group. Moreover, there are no associations with traditional beliefs, events, or oral accounts, which are important to an ethnic group's history and cultural identity.

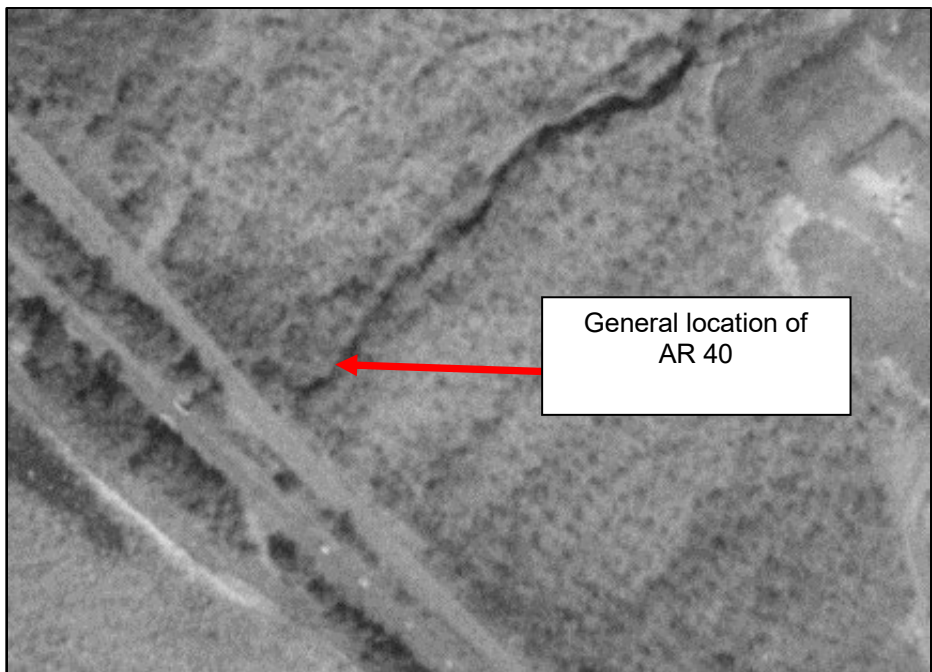
While AR 40 is associated with the sugar plantations and holdings of the Pioneer Mill Company, the structure is located outside the proposed limits for the historic district that is based on historic map boundaries of the Period of Significance. Furthermore, the collective structures do not retain enough integrity of material and design to constitute an additional historic district in Ukumehame.



**Figure 4.177. Aerial image showing the location of AR 40.**



**Figure 4.178. 1950 historic aerial image of the general location of AR 40.**



**Figure 4.179. 1977 historic aerial image of the general location of AR 40.**





**Figure 4.180. View of AR 40, facing southeast.**



**Figure 4.181. View of AR 40, facing south; note northwest edge of gully.**

#### 4.40 Olowalu Sugar Plantation Historic District (SIHP 1602 Expansion)

A total of 10 resources identified in the RLS are recommended as contributing to a proposed expansion of the original 1974 Olowalu Sugar Mill Complex Historic District, to be named the Olowalu Sugar Plantation Historic District. These resources represent a single cultural landscape reflective of the influence of the local sugar industry and the Pioneer Mill Company on the development of Olowalu (**Table 4.44; Figure 4.182**). Based on their common history and interconnected features, these resources were also evaluated together representing a cohesive association, under the designation of a proposed Olowalu Sugar Plantation Historic District.

The Olowalu Sugar Plantation Historic District was assessed according to the four NRHP criteria for evaluation at 36 CFR § 60.4 and five significance criteria at HRS § 6E for historic significance under a number of themes including Hawai'i sugar plantations, agricultural field clearance and irrigation practices, locally and regionally significant populations and individuals, and architectural details. Based on research conducted during the aboveground architectural resource study, the proposed expansion of the Olowalu Sugar Plantation Historic District is recommended eligible for listing in the NRHP as a historic district under Criteria A, C, and D. The areas of significance represented in the Olowalu Sugar Plantation Historic District include agriculture, architecture, engineering, and industry.

The proposed Period of Significance for the proposed Olowalu Sugar Plantation Historic District reflects a relatively continuous state of development, which involved land acquisition, infrastructure development, construction, and subsequent use of the landscape to cultivate the sugarcane fields managed by Pioneer Mill Company in Olowalu. The Period of Significance for the proposed Olowalu Sugar Plantation Historic District dates from 1880 to 1951. The 1881 Monsarrat map is the earliest depiction of Olowalu that includes several of the contributing resources to the proposed historic district including the Olowalu Sugar Mill Complex Historic District (SIHP No. 1602) and associated plantation residences (AR 4, AR 7, AR 16).

The Olowalu Sugar Company was the primary influence on the local sugar industry in the late-19th century, shaping the landscape for use in the cultivation, processing, and transportation of the crop (**Figure 4.182**). Throughout this period, the company added roadways and rail lines, laborer and manager's residences, education and grocery facilities, boat landings and wharfs, and irrigation structures. While the proposed start date recognizes the spatial influence of the Olowalu Sugar Company, the purchase of these holdings by the Pioneer Mill Company in 1931 and subsequent development of the area resulted in the current feeling of the landscape. The proposed terminal date of 1951 coincides with the appearance of the last contributing element in historic aerial images.

The boundary of the proposed Olowalu Sugar Plantation Historic District encompasses approximately over 100 acres and was delineated through the identification of contributing resources, as well as archival research. Based on these factors, the proposed boundary is confined to the grouping of contributing buildings and structures within the Pioneer Mill Company map from 1931.

The boundary of the Olowalu Sugar Plantation Historic District is limited to Olowalu because the architectural historic properties related to the plantation era within Ukumehame and Launiupoko are less prevalent, hold less historical and architectural significance, and have lost their integrity of materials, workmanship, design, setting, feeling, and association. Few buildings are extant, and the landscape overall does not reflect the influence of the local sugar industry. Consequently, a historic district or landscape was not recommended for either area.

##### 4.40.1 Determination of Integrity

A significant span of the Olowalu ahupua'a history precedes the area's modification by the Pioneer Mill Company. A breadth of historic features—buildings, structures, roads, boundaries, grave markers, places of religious importance—exist alongside remnant expressions of pre-contact traditional Hawaiian sites, containing clear evidence of the prehistoric and historic continuum of the location. Many of the archaeological resources are largely undisturbed, but the aboveground resources originally associated with the Olowalu Sugar Company and early plantation era have been altered or obliterated by the later development of the Pioneer Mill Company, resulting in a somewhat "layered" landscape. This disturbance can be seen in resources such as SIHP No. 1602—the remnants of the decommissioned mill complex.

Although the area no longer retains its integrity associated with the early-19th century sugar plantation industry, the influence of the Pioneer Mill Company during the Period of Significance has been preserved in the district. The various buildings and structures constructed during the first half of the 20th century are clearly visible and remain largely intact. Changes in the area since 1951 have consisted primarily of residential development to the north of the project APE, the modification or loss of historic resources, and a moderate loss of shoreline due to rising sea levels. However, these changes have not diminished the core tangible and intangible qualities that contribute to the significance of the district and its contributing elements, such that the proposed expansion of the Olowalu Sugar Plantation Historic District retains its integrity of location, setting, feeling, association, design, workmanship, and materials.

#### **4.40.2 Significance Evaluation**

Under NRHP Criterion A and SRHP Criterion a, the district is primarily significant for its association with the sugar plantation industry in Olowalu and the Pioneer Mill Company, which had a substantial role in the development of the local community and region from the mid-19th century to the 20th century. From the organization of the Olowalu Sugar Plantation in 1881 to the closure of the Pioneer Mill Company in 1999, the Olowalu landscape has been engraved with the agricultural, demographic, and technological developments of Hawai'i's Plantation era.

The proposed Olowalu Sugar Plantation Historic District is not significant Under NRHP Criterion B and SRHP Criterion b due to its lack of association with a historic person. Although the construction of the dam, pump station, and reservoir of monumental constructions, background research suggests they have no direct association with any people of historic or architectural significance that either used the facilities or designed/built them.

Under NRHP Criterion C and SRHP Criterion c, the proposed Olowalu Sugar Plantation Historic District is significant as it embodies distinctive characteristics of Hawai'i's plantation era and the associated engineering and architectural developments and trends of the period. Elements of the water storage systems and field clearance structures in the landscape represent 20th century engineering and agricultural developments implemented by the Pioneer Mill Company to meet their water resource and cultivation needs in the arid ecology of West Maui. Additionally, the establishment and alterations to elements of rail, road, and sea shipping and transportation routes (for example, roads, former rail lines, wharfs) reflect the changing needs and trends of the local and regional sugar industries.

Evaluations of significance Under NRHP Criterion D and SRHP Criterion d typically consider archaeological sites, but buildings and structures may qualify if they have the potential to contribute important information to our understanding of history. Taken together, the contributing resources to the proposed Olowalu Sugar Plantation Historic District have the potential to yield additional information regarding local and regional development associated with the Pioneer Mill Company and the local sugar plantation industry or other themes of historical significance.

While not recorded as aboveground resources, it should be noted that the former agricultural fields associated with the proposed Olowalu Sugar Plantation Historic District are recommended as non-contributing due to the extensive degree of contemporary disturbance including modern road, utility, and residential developments, as well as natural degradation such as soil erosion and vegetation growth. Furthermore, the former agricultural fields no longer represent their original function as sugar-producing sites.

Under SRHP Criterion e, the recommended Olowalu Sugar Plantation Historic District is not significant due to its lack of association with cultural practices once carried out, or still carried out, related to traditional beliefs, event, or oral accounts of the native Hawaiian people or other ethnic group of Hawai'i. Thus, the proposed Olowalu Sugar Plantation Historic District does not embody an important value to the history and cultural identity of Indigenous people or other ethnic groups.

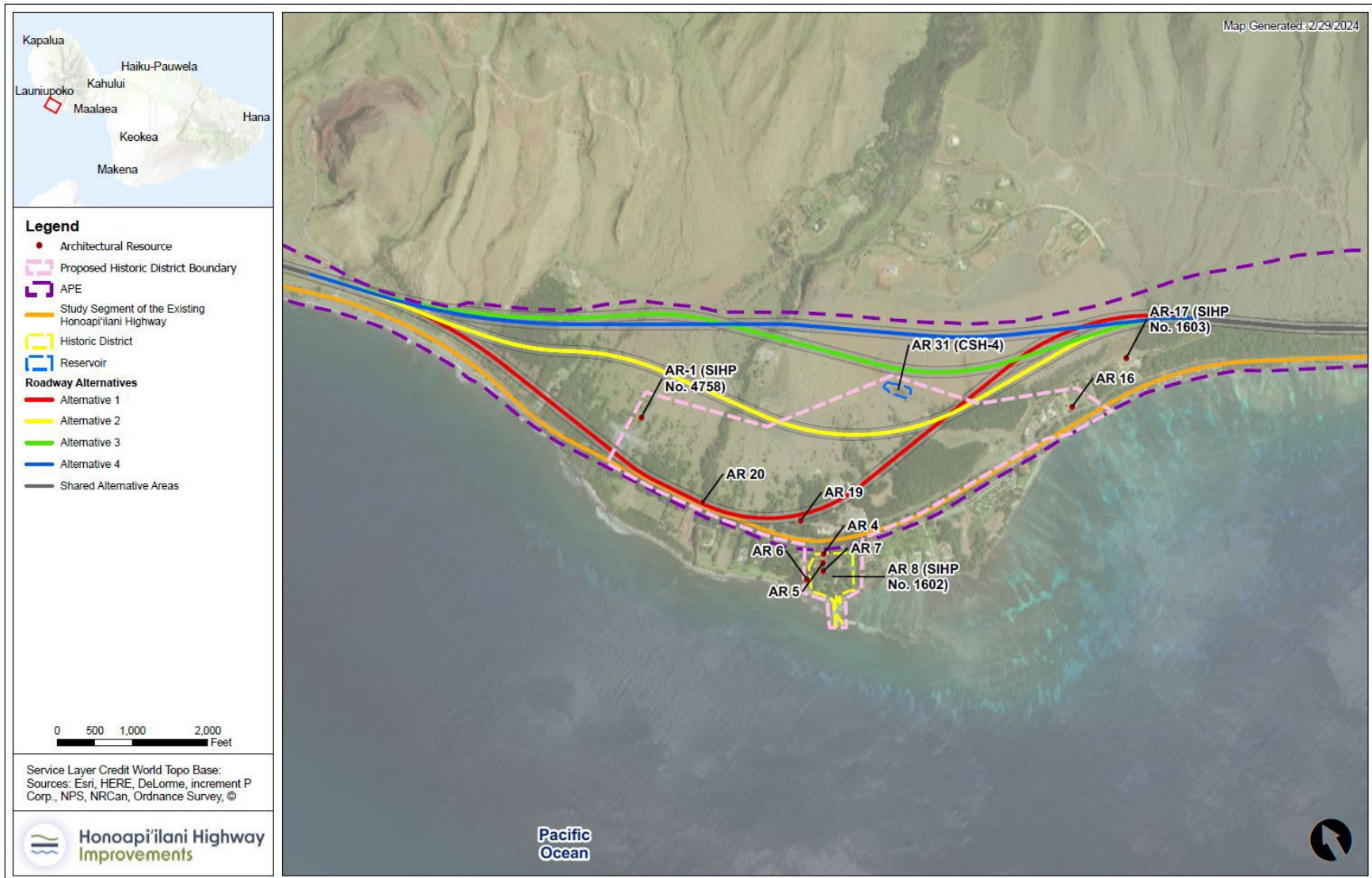


**Table 4.44. Olowalu Sugar Plantation Historic District Contributing Properties**

AR (SIHP) Number	Address/Name	Locality	Style/Form	Significance Evaluation
<b>AR 1 04758</b>	Awalua Cemetery	Olowalu	Cemetery	<ul style="list-style-type: none"> <li>Individually eligible (NRHP Criteria A and D; Criteria Consideration D and SRHP Criterion a, d, and e).</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A and D; Criteria Consideration D).</li> </ul>
<b>AR 4 01602</b>	807 Olowalu Road	Olowalu	Plantation/Bungalow	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
<b>AR 5 01602</b>	808 Olowalu Road	Olowalu	Plantation/Bungalow	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
<b>AR 6 01602</b>	810 Olowalu Road (Olowalu Plantation House)	Olowalu	Plantation/Bungalow	<ul style="list-style-type: none"> <li>Not individually eligible due to a loss of integrity.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
<b>AR 7 01602</b>	810 Olowalu Road	Olowalu	Plantation/Bungalow	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
<b>AR 8 01602</b>	Olowalu Sugar Mill Complex (Olowalu Landing and Wharf)	Olowalu	Agricultural Processing/Industrial Facility	<ul style="list-style-type: none"> <li>Properties are not individually eligible due to a lack of historic and architectural significance but were previously recommended eligible as a Historic District.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
<b>AR 16 09141</b>	802 Olowalu Village Road	Olowalu	Plantation/Bungalow	<ul style="list-style-type: none"> <li>Individually eligible (NRHP Criterion C, and SRHP c).</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
<b>AR 19 09143</b>	Water Tower	Olowalu	20th Century Water Control	<ul style="list-style-type: none"> <li>Not individually eligible due to a lack of historic and architectural significance.</li> <li>Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>

AR (SIHP) Number	Address/Name	Locality	Style/Form	Significance Evaluation
AR 20 09144	Bridge	Olowalu	Early 20th century steel stringer/multibeam bridge	<ul style="list-style-type: none"> <li>• Not individually eligible due to loss of integrity.</li> <li>• Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>
AR 31 09151	Reservoir	Olowalu	20th Century Water Control	<ul style="list-style-type: none"> <li>• Not individually eligible due to a lack of historic and architectural significance.</li> <li>• Eligible as a contributing resource to a historic district (NRHP Criteria A, C, and D).</li> </ul>

AR = WSP Aboveground Resource Filed Site; SIHP = State Inventory of Historic Places;



**Figure 4.182. Contributing Resources to the Olowalu Sugar Plantation Historic District and the four Build Alternatives.**



## 5.0 CONCLUSIONS AND RECOMMENDATIONS

The architectural RLS fieldwork was conducted on April 3 through 7, 2023, by SOI-qualified professionals. A total of 40 architectural resources (AR) 35 years of age or older were identified within the APE. Of these resources, nine were previously surveyed and evaluated and 31 resources were newly identified.

Following the survey and evaluation, three individually eligible architectural historic properties were identified within the APE: the Awalua Japanese Cemetery, designated AR 1, and previously recorded as SIHP No. 4758, a Plantation style bungalow designated AR 16, and the Lanakila Historic Stone Church and Cemetery (AR 17 and SIHP No. 1603). Further, a previously identified historic district, the Olowalu Sugar Mill Complex Historic District, comprising AR 4 through AR 8 (SIHP 1602), was also documented within the APE and included the wharf, landing, and plantation manager house, was previously recommended as a historic district in 1974. The Olowalu Sugar Mill Complex Historic District was reevaluated along with the newly identified properties.

As a result, it is recommended that the previously identified Olowalu Sugar Mill Complex Historic District be expanded into the Olowalu Sugar Plantation Historic District that includes a total of 10 resources. These resources represent a single historic district that reflects the influence of the local sugar industry and the Pioneer Mill Company on the development of Olowalu with a proposed Period of Significance of 1880 to 1951.

Although architectural historic properties related to the plantation era were identified within Ukumehame and Launiupoko, the landscape no longer reflects the influence of the local sugar industry in the way the interconnected resources do in Olowalu. Many of the buildings and structures related to the period are no longer extant, and the remaining landscape features hold less historical and architectural significance and have lost their integrity of materials, workmanship, design, setting, feeling, and association. Therefore, a historic district or landscape was not recommended for either area under the architectural property assessment.

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# ‘Āina Archaeology, Inc. Reconnaissance Level Archaeological Historic Resource Survey (RLS)

## Cultural Historical Context for the Traditional Hawaiian Settlement of Ukumehame, Olowalu, and Launiupoko Ahupua‘a

The first major delineation of land boundaries on the island of Maui occurred during the rule of Kaka‘alaneo and was overseen by a kahuna named Kalaihaohi‘a (Beckwith 1970:383). This resulted in the creation of large land divisions called moku (districts), which were further broken down into subdistricts, the primary ones being ahupua‘a and ‘ili, and managed by agents of the ruling chiefs (Beckwith 1970:383). The moku o loko, or moku as it is commonly called, literally means “to cut across, divide, separate” (Lucas 1995a:77). When used as a term of traditional land tenure, a moku is similar to a modern political district. Maui is divided into twelve moku: Hāmākuapoko, Hāmākualoa, Ko‘olau, Hāna, Kīpahulu, Kaupō, Kahikinui, Honua‘ula, Kula, Wailuku, Kā‘anapali, and Lāhaina. The current undertaking extends through lands that are collectively situated within Lāhainā Moku, located on the south facing flanks of Kahalawai, or the West Maui Mountains. We understand that boundaries may change over time and be dependent on the ruling ali‘i during a particular era. With this in mind, and although an earlier map shows the extent of Lāhainā Moku ranging from Launiupoko to Makaiwa (Figure 1), thereby approximately placing a large portion the project within the area shaded as Wailuku, the boundary of Lāhainā Moku is currently understood to be consistent with boundary descriptions and land documents of the 1848 Mahele ‘Āina which extends from Ukumehame to Hanakaō‘ō (Figure 2).

Within these moku are smaller units of land termed ‘okana, kalana, ahupua‘a, ‘ili, and mo‘o. The term kalana literally translates to mean a thing loosened or released – “to loosen” (kala) with the nominal suffix of “na” added at the end (Handy et al. 1991:47). Regarding the traditional Hawaiian land tenure system, there are two land division categories that reference Lāhainā, the first being the overall moku, as described above, and the second being the kalana of Lāhainā. Kalana is a term that is sometimes interchanged or synonymous with the term ‘okana, which is a sub-division of land that is smaller than a moku (W. D. Alexander 1890; Lucas 1995b:47). On Maui Island, W.D. Alexander (1890) observes that there are five ‘okana or sub-districts within Hāna Moku, while Lāhainā, from Pola Nui to Wahikuli, is termed a kalana. Handy and others (1991:47) speculate that the land divisions that were designated as kalana were politically released from the ‘okana or even moku that they had been a part of during the original division of the islands. These land divisions were then given as separate domains to ali‘i of first rank, remaining as autonomous heritages. Curtis J. Lyons, a surveyor during the Māhele, specifically states that the kalana of Lāhainā belonged to no moku (in Handy et al. 1991:47). While the kalana was not formally surveyed, or the boundaries not formally described, it is currently thought that the kalana, which served as the primary seat of the ali‘i when residing in West Maui (Handy et al. 1991) and later as the center of government for the Kingdom of Hawai‘i, was comprised of a dense collection of ahupua‘a that extended from Pola Nui to Mala and included the lands immediately surrounding Loko o Mokuhinia which may have been traditionally reserved for the ali‘i and those in service to the ali‘i (Klieger 1998:64-65). While situated within the overall moku of Lāhainā, the lands in which the proposed undertaking intersects is located south of the kalana of Lāhainā and crosses the ahupua‘a of Ukumehame, Olowalu, and Launiupoko (Figure 3).

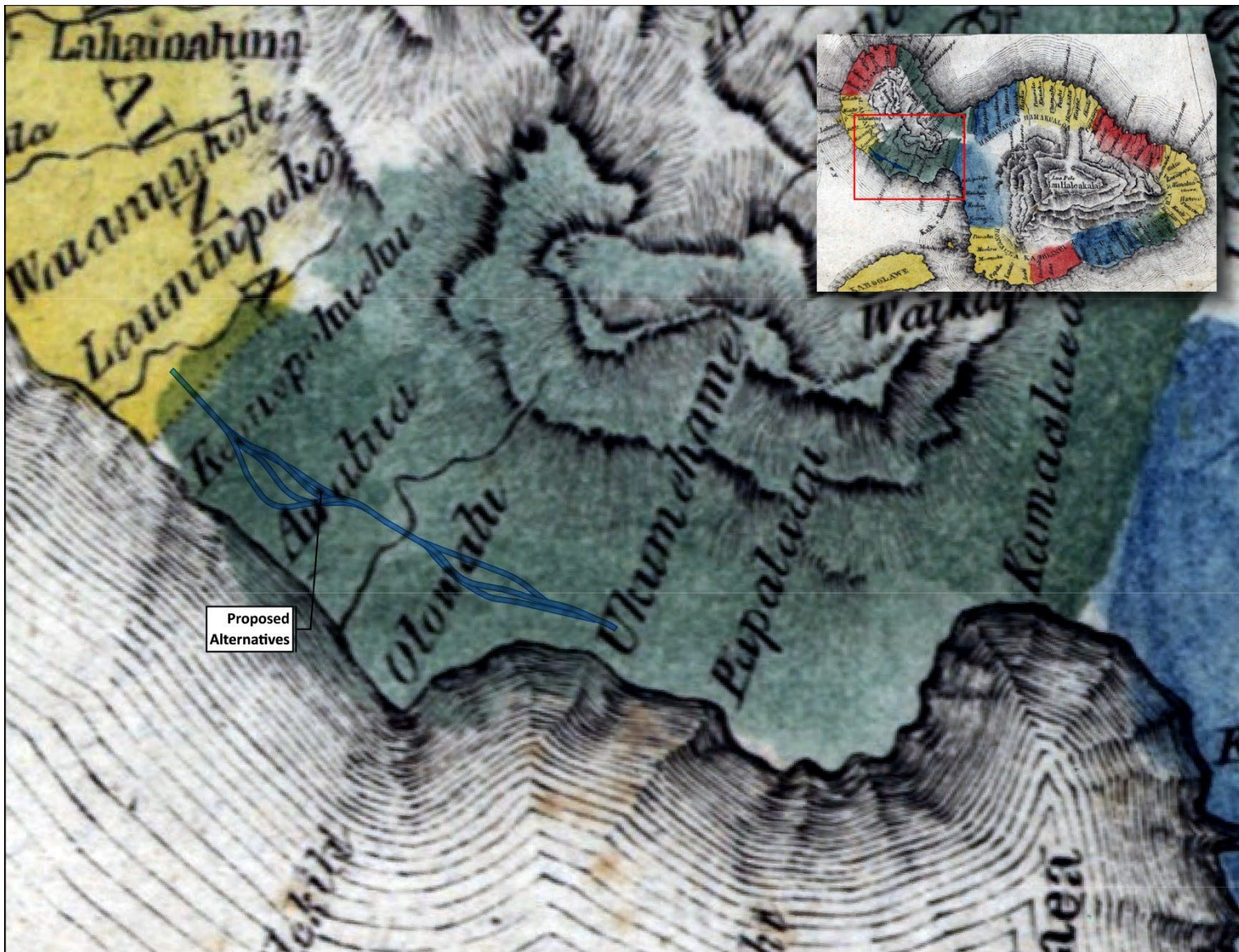


Figure 1. A portion of the 1838 SP Kalama Map showing the proposed alternatives in relation to estimated moku and ahupua'a extents.



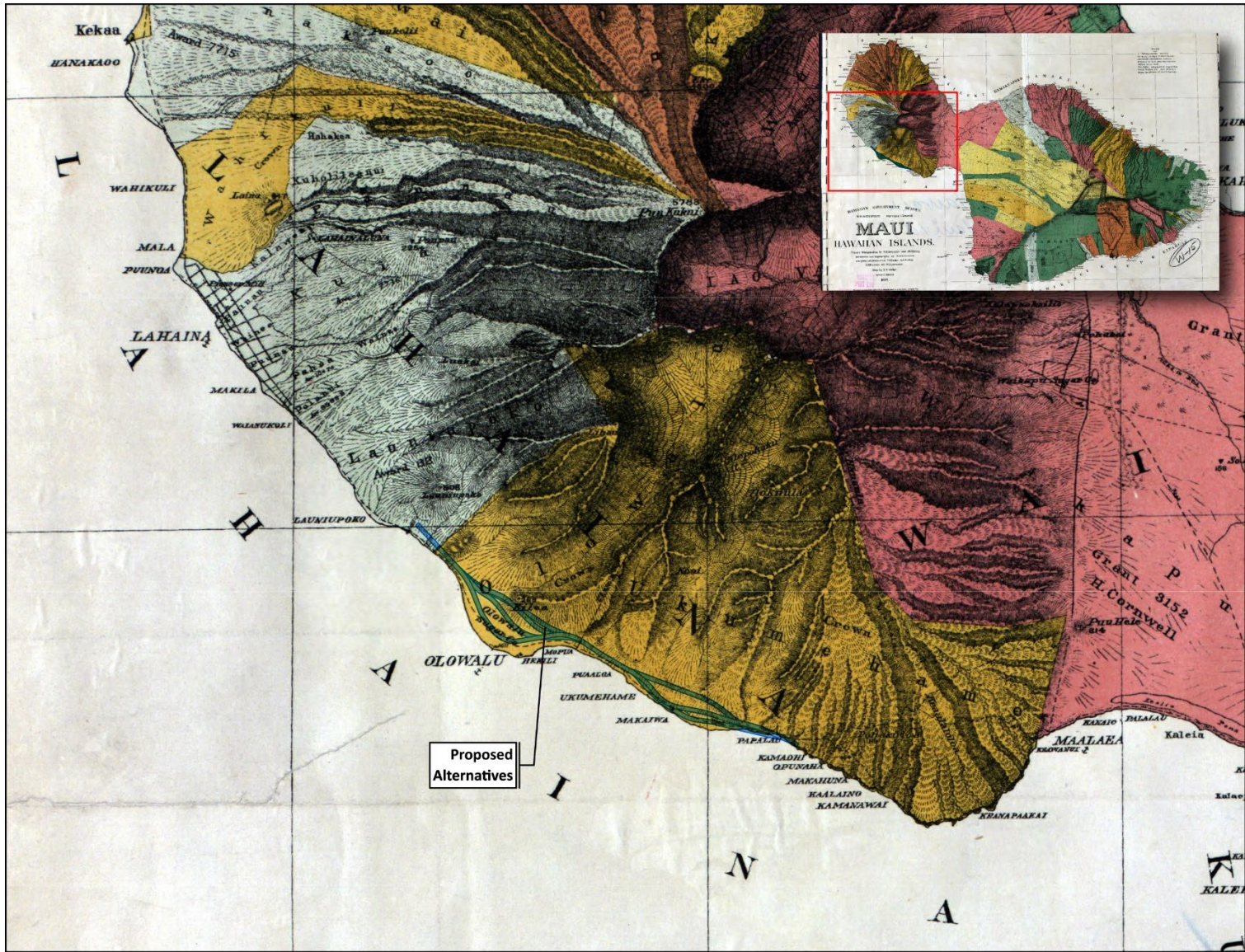


Figure 2. A portion of the Hawaiian Government Survey map of Maui showing the proposed alternatives in relation to the moku of Lāhainā.



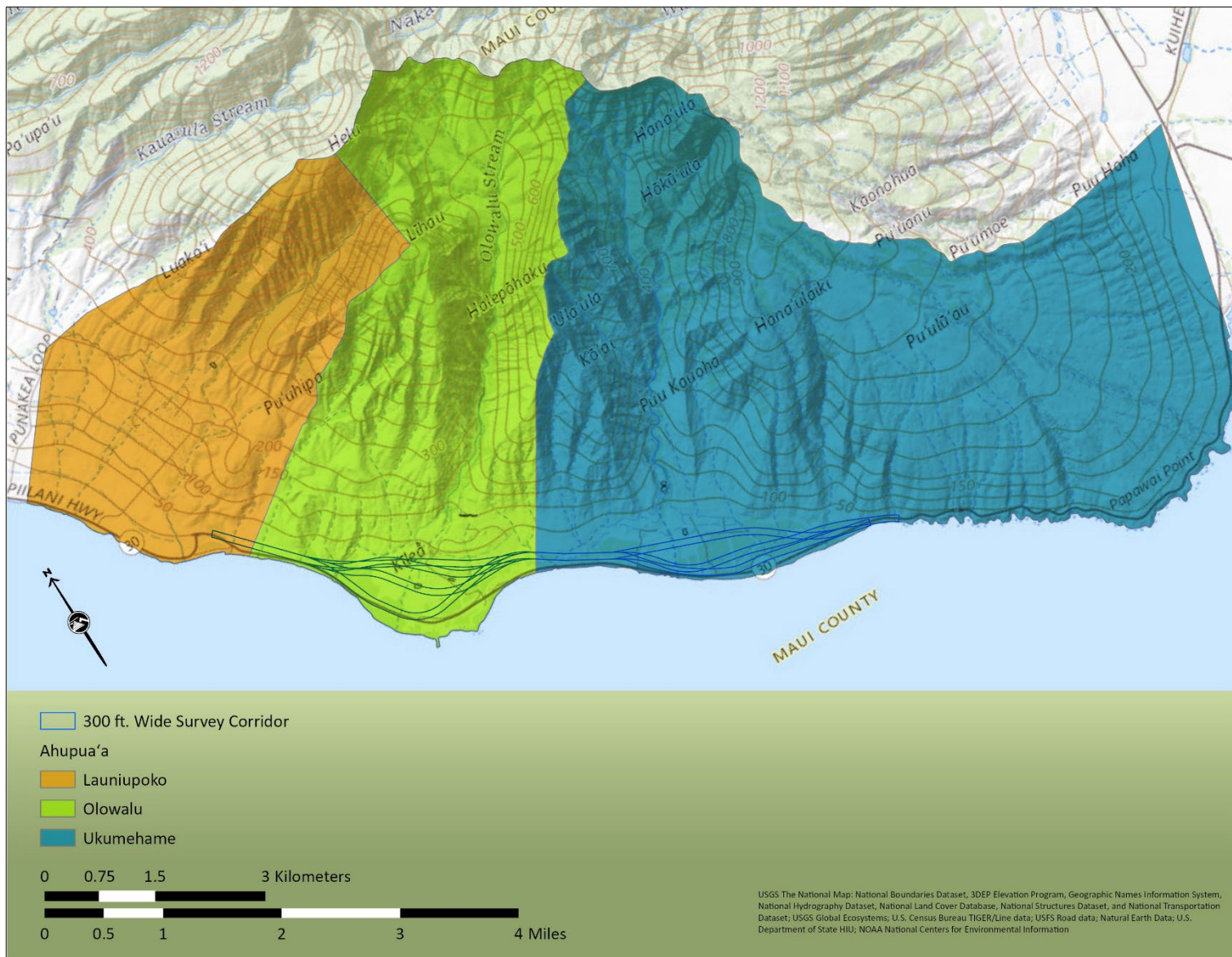


Figure 3. A portion of the USGS National Map (United States Geological Survey 2020) showing the lands of Ukumehame, Olowalu, and Launiupoko Ahupua'a in relation to the underlying geomorphology and survey corridors.

An ahupua'a, the name of which is derived from the Hawaiian term ahu (altar), which was erected at the point where the boundary of land was intersected by the Alaloa (main road encircling the island) and an altar with a carved image of a pua'a (hog) along with the tax of food items from that particular land unit as payment to the ali'i (chief) (W. D. Alexander 1890:4). These taxes would be collected during Makahiki as a part of the akua loa procession and carrying of a long staff with the image of Lono carved at the peak. Typically, the configuration of the ahupua'a division would extend from the sea (makai) to the mountain (mauka) so that the ali'i (chiefs) and maka'ainana (native tenant) would have access to resources of the wao la'au or wao nahele (forested region), the wao 'ama'u and wao kanaka (cultivated land), and the kula uka and kula kai (the lower grasslands and shoreline) (W. D. Alexander 1882:4; Mueller-Dombois 2007). While the boundaries of an ahupua'a generally followed prominent landforms (i.e. ridge lines, the bottom of a ravine, or defined by a depression) there were times where a stone or rock that was notable from a tradition or sacred use would mark a corner or determine a line (W. D. Alexander 1890:105-106). Along similar lines, the growth of a certain kind of tree, herb or grass, or the habitat of a certain kind of bird would sometimes define a division (W. D. Alexander 1890:105-106). In *Lā'au Hawai'i*, Abbott explains that: "A Hawaiian family belonged not to a village but rather to an ahupua'a, a land division usually extending from the mountain heights to the sea... [which] consisted of at least one valley and included the ridges on both sides of the valley as well as the offshore area to the depth of a man's chest or to the reef crest" (1992:11). It should be recognized that there are variations in the configuration of ahupua'a depending on either the environment or rights to secure specialized resources that result in lele or discontinuous sections of ahupua'a (*Horner v. Kumulilii* 1895; Maly and Maly 2007:82-83), as well as with land locked ahupua'a (W. D. Alexander 1890:5-6; Moffat and Fitzpatrick 1995:72). While the archaeological record, documents of the Mahele 'Āina, and emerging body of data found in the Hawaiian language newspapers have shown the traditional Hawaiian land tenure system to be highly complex and nuanced, the physical setting at Ukumehame, Olowalu, and Launiupoko in relation to the traditional land management divisions appears to have resulted in the development of the characteristic settlement and land use pattern that is commonly associated with the classic, pie-shaped ahupua'a land management model that extended from mauka (mountain) to makai (sea) as a singular land unit (Minerbi 1999; Mueller-Dombois 2007).

### Physical Setting

Maui Komohana (West Maui) is deeply dissected by streams that rise into deep amphitheater-headed canyons that radiate from Pu'u Kukui. While the most well known of these canyons is 'Iao, on the ko'olau (windward) side of the mountain range, to the south of 'Iao are the deep gorges that were cut by the perennial streams of Ukumehame, Olowalu, and Launiupoko (Figure 3). The structure of these canyons have been attributed to the character of the rock formations, along with high rainfall in the upper elevations and low rainfall in the lower elevation which induces piracy in the upper parts of the drainage. Plunge pool action and landslides have also contributed to the removal of divides between tributaries and the creation of the characteristic box headed amphitheater (Stearns and MacDonald 1942:147).

Below and adjacent to the deep canyons floors of Ukumehame, Olowalu, and Launiupoko are the flow-slopes and broad alluvial plains that coalesce at the mouths of the canyons with narrow marine plains along the shoreline. In general, the marine plains will sometimes also include the presence of white salt incrustations. At Olowalu, the presence of a larger marine plain than Ukumehame and Launiupoko also characterizes the geomorphology of the region (Stearns and MacDonald 1942:148-149).



## Cultural Setting

At the time of European contact in 1778, Hawaiian society, over a period of approximately 1500 years, experienced a dramatic increase in population, developed a varied and complex subsistence economy, and saw the rise of complex chiefly social hierarchy. Much of the anthropological and archaeological research conducted on socio-cultural changes has stressed the importance of the subsistence economy in the development of complex societies and its relationship to political hierarchy, warfare, and religion (Kolb 1994). The traditional Hawaiian subsistence economy has long been viewed and broadly classified into two primary agricultural systems – the wet and the dry. Wet systems are commonly found on the ko'olau (windward) exposures of geologically older landscapes and focused around irrigated lo'i (pond field systems) that utilize a network of 'auwai, or traditional ditches, which transports water from springs and perennial streams into the fields then back into the stream (Allen 1991; Handy et al. 1991; Kirch 2007). While it is known that there was small scale diversification of the types of food resources grown along the banks of the lo'i (e.g. kō [sugar cane] and 'uala [potatoes]) and nurtured within the waters of the lo'i (e.g. loko i'a kalo [taro fishponds]), the lo'i as a system was dedicated to kalo (taro) production. Above, or adjacent to irrigated lands, were kula or dryland, rainfed systems that were planted in potatoes, yams, gourds, and other dryland food crops. These dryland systems have been referred to as colluvial slope systems or colluvial agricultural systems which generally occur on moderate to steeply sloping topography and take advantage of erosional soil deposition (Kirch and McCoy 2023:155). An example of the intensity of such a system in an environment similar that of the project area is found in lower Mākaha Valley on O'ahu where approximately 1.4 ha of a dryland agricultural zone consisting of numerous mounds, agricultural clearings, stone enclosures, small habitation sites, and delineated field boundaries was studied by the Department of Anthropology, Bernice P. Bishop Museum (Green 1969:156; 1970; Kirch and McCoy 2023; Ladd 1973). Finally, the intensive dryland field systems consist of expansive agricultural fields that, with the exception of the Kalaupapa Peninsula (McCoy 2005), appear to be confined to kona (leeward) exposures of geologically younger landscapes and are almost entirely dependent on rainfall (Kirch 2007; Kirch et al. 2009; Vitousek et al. 2004). The primary crop of the intensive dryland field system is similar to that of the colluvial slope systems and are largely focused on potato and dryland taro production followed by secondary crops like yams and gourds.

The primary subsistence economy of Ukumehame, Olowalu, and Launiupoko in recent memory and oral traditions have focused on the prevalence of lo'i agriculture off of the primary perennial streams of the same name, a factor that is bared out by previous archaeological studies in the region (Figure 4 and Figure 5) (Devereux et al. 1999; Fredericksen and Fredericksen 2000; Olowalu Elua Associates 2002; Robins et al. 1994). However, the current archaeological study has additionally documented relatively extensive colluvial agricultural systems within the survey corridor of the proposed highway realignment. While the lo'i systems of Olowalu and Ukumehame follow the classic network of 'auwai fed pondfield terraces along the valley edges and floors, the features of the colluvial field systems of Ukumehame, Olowalu, and Launiupoko are varied and conform to the rocky terrain of the flow slopes and alluvial plain, thus presenting a little studied coexistence of both lo'i and colluvial agricultural systems within the boundaries of each ahupua'a that is intersected by the proposed highway realignment.

The currently understood and widely accepted traditional Hawaiian residential distribution across three ahupua'a followed a common practice of having two residences (Lee-Greig 2012; Lee-Greig et al. 2015). One situated makai to capitalize on marine resources, while the other was mauka to maintain and work lo'i fields. Ukumehame, Olowalu, and Launiupoko Streams provided perennial water, supporting lo'i kalo

farming into the early historic era as indicated by the testimony provided in the native register extending to the coast and likely offering freshwater resources along its lower reaches. Coastal activities primarily revolved around exploiting marine resources, engaging in domestic tasks during hot periods, and tending to home gardens for agricultural purposes. It should be noted that the modern stream alignment at Olowalu and Ukumehame is not consistent with the natural stream alignments as both streambeds had been modified and rerouted at some point between 1879 and 1906 (Figure 6). As a result, some of the features that might be expected along the stream courses (e.g. habitation sites, agricultural plots, irrigation features) would not align with the contemporary stream route. Finally, with the documentation of the extensive colluvial field systems at the boundaries between the three ahupua'a, it would be interesting to note either the presence or absence of long-term habitation features in the margins between the wet and dry field systems, the intensity of possible subsurface deposits that may represent long-term habitation that may have been present along the former stream courses and associated with both systems in the now fallow sugar cane fields, to what would have been a highly complex and productive food and resource system in both the social organization, ceremonial hierarchy, and distribution of resources across all three ahupua'a. The following sections present the reconnaissance level results of the archaeological pedestrian survey of the proposed alternatives for the Honoapi'ilani Highway Realignment Project.

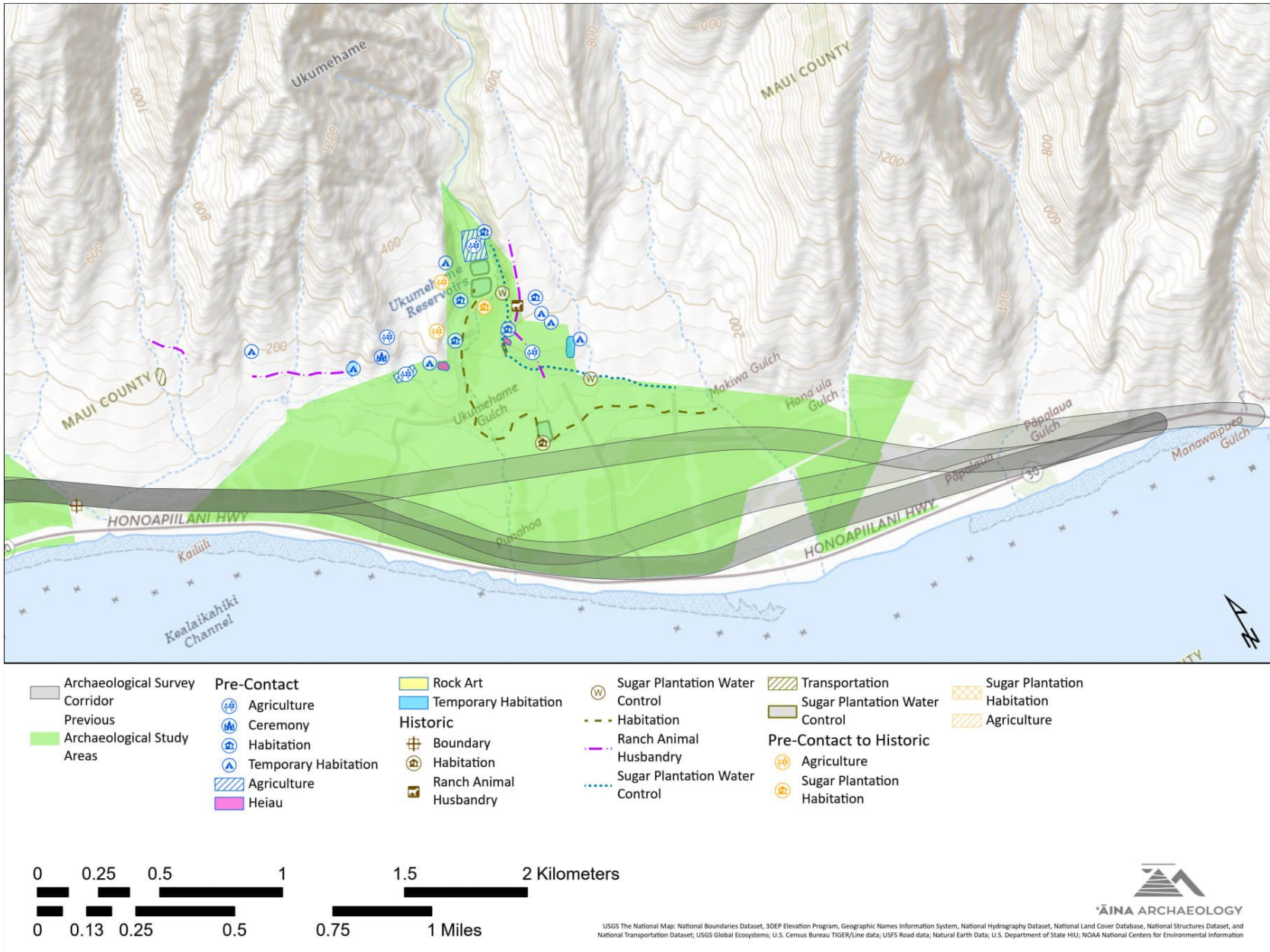


Figure 4. Distribution of previously identified historic properties by age and inferred function within Ukumehame Ahupua'a in relation to the extent of prior archaeological studies.



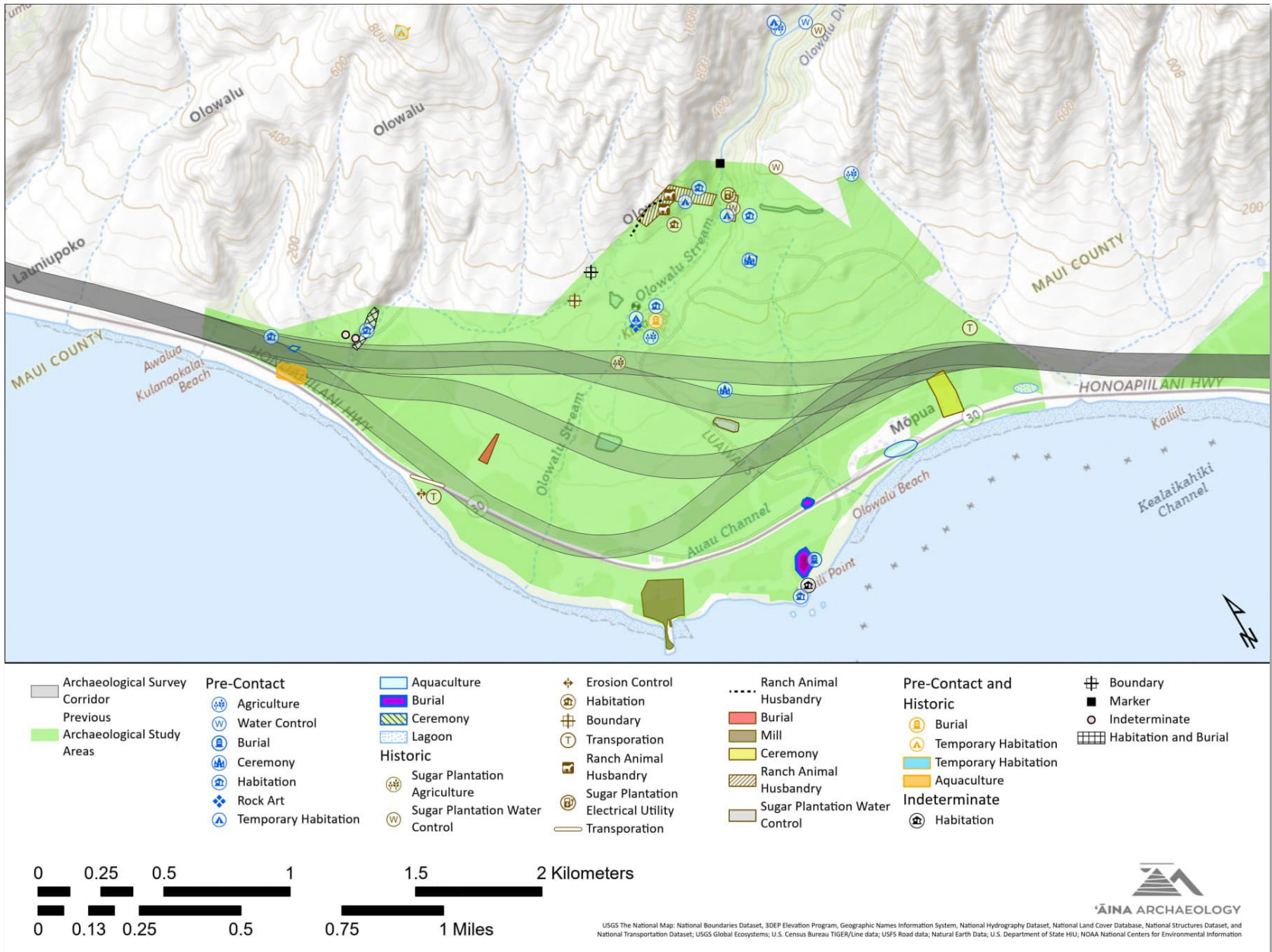


Figure 5. Distribution of previously identified historic properties by age and inferred function within Olowalu Ahupua'a in relation to the extent of prior archaeological studies.

## Methods

To fulfill the requirements for identifying above ground archaeological sites and features that could be impacted by the proposed undertaking, a systematic survey was completed on lands where a Right-of-Entry (ROE) for parcels within the proposed Build Alternatives was obtained. To allow for adjustments to avoid potentially significant archaeological sites and/or account for possible grading needs beyond the highway itself (e.g. slope easements), the archaeological survey area was defined by a 300-ft.-wide corridor along the centerline of each proposed alternative. This survey area encompassed a total approximate area of 464 acres, the coverage of which included both a pedestrian survey and targeted drone flyovers.

### Pedestrian Survey

The pedestrian survey for this study was accomplished through systematic sweeps along survey transects that were spaced 10 m apart in areas of open vegetation and narrowed to 5 m or less in areas of dense vegetation and low visibility. Archaeological sites and features encountered during the course of this initial survey were documented at a reconnaissance level in the following manner:

- assignment of an alphanumeric temporary site number for each newly identified historic property consisting of the company initials (AA) followed by the company project number and a three-digit sequential number (i.e. AA2216-001);
- where sites identified during fieldwork could be cross-correlated with a previously identified sites that had an SIHP number, that number was utilized as the temporary number for tracking purposes;
- summary description of site and feature formal types;
- initial interpretations of function and interrelationships;
- ground-level high-resolution digital photographs of representative formal types and construction styles within each site and site complex using a Nikon D3500 DSLR camera along with site and/or feature overviews and viewsheds where relevant;
- drawings to scale of representative feature types within multi-component sites where possible using the Leica Power Tracker robotic total station, AutoCAD 2017, and Adobe Illustrator for iPad Pro;
- geographic location information for identified archaeological sites and features was acquired using either a Trimble Juno B GPS with an R2 Antenna or the Trimble Connect Application on an Apple device connected to an R2 Antenna, and;
- all GPS data was subsequently post processed with Trimble GPS Pathfinder Office Version 5.81 or Trimble Connect extension for ArcGIS respectively.

### Drone Survey

Where necessary, site extents for large, multi-component archaeological complexes were further determined via high-resolution drone survey utilizing a DJI Matrice 600 Pro, mounted with a Zenmuse X5R Camera. Ground Control Points were placed within high-density site and feature areas and located utilizing the above noted GPS methods for incorporation during processing of the imagery to maximize accuracy of orthomosaic imagery. The post-processed imagery was loaded into ArcGIS Pro 3.2.1 to assist with the delineation of approximate site extents.



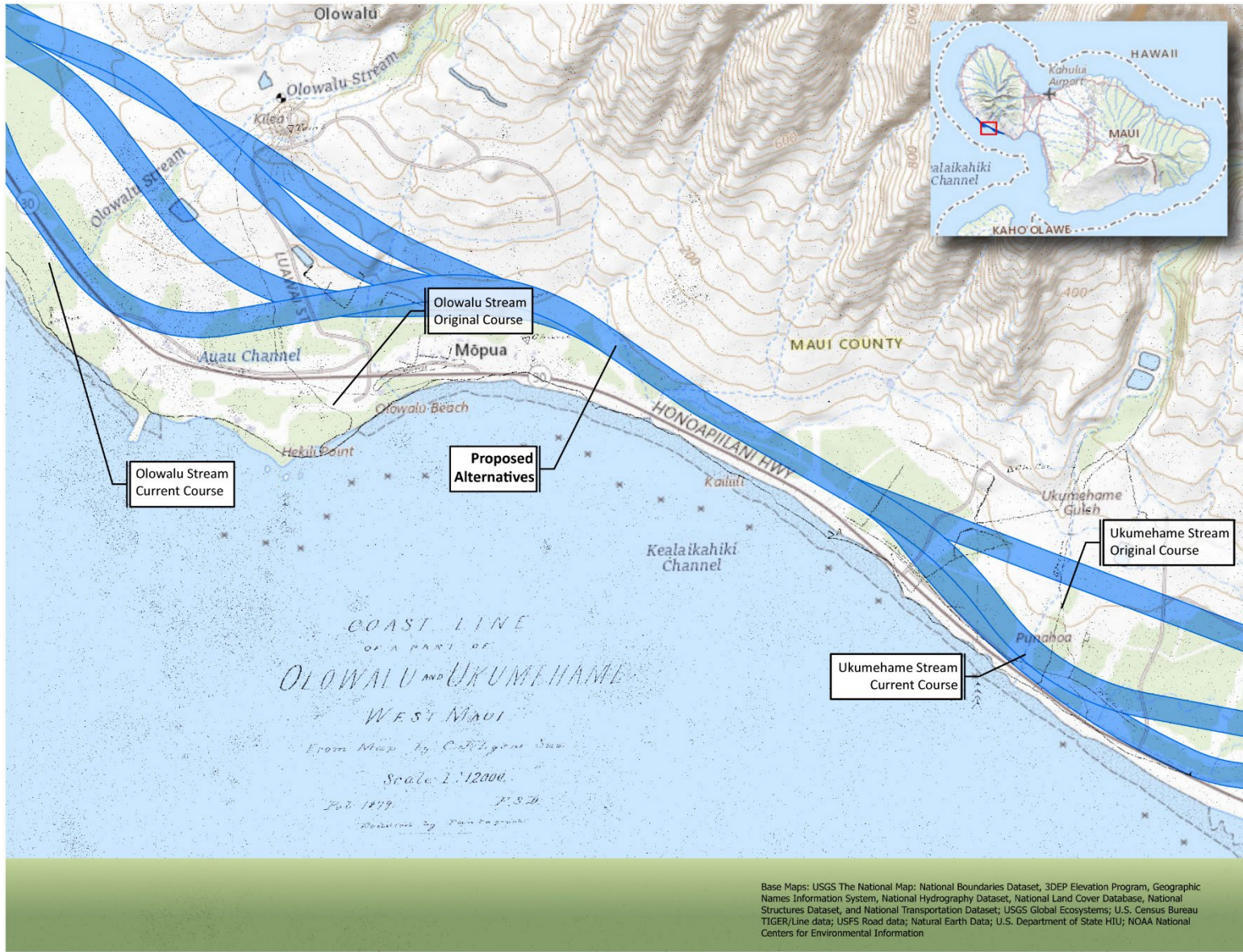


Figure 6. Historic coastline and stream courses of Ukumehame and Olowalu (Dodge 1879) in relation to the contemporary topography and stream course (United States Geological Survey 2020)



## Ukumehame Ahupua'a

A total of 28 historic properties were identified within the Ukumehame section of the proposed realignment alternatives (Table 1, Figure 7 through Figure 9). The following section presents the preliminary site descriptions and recommendations for historic properties identified within the Ukumehame portion of the archaeological survey area.

Table 1. Summary of Above Ground Archaeological Sites Identified within Ukumehame Ahupua'a<sup>1</sup>

Alternatives Affected	Field No	Possible Age Range	Formal Type	Inferred Function	NRHP/6E Significance Recommendation	Integrity Evaluation
3	AA2216-009	Precontact	Surface Scatter	Habitation	D/d	Location, Materials, Association
3	AA2216-015	Late Precontact - Early Historic	Surface Scatter	Habitation	D/d	Location, Materials, Association
1, 2, 4	AA2216-017	Precontact	Surface Scatter	Tool Production	D/d	Location, Materials, Association
1, 3, 4	AA2216-018	Late Precontact - Early Historic	Surface Scatter	Habitation, Tool Production	D/d	Location, Materials, Association
1-4 (Olowalu/ Ukumehame Pinch Point)	AA2216-020	Precontact to Early Historic	Surface Scatter	Habitation	D/d	Location, Materials, Association
1-4 (Olowalu/ Ukumehame Pinch Point)	AA2216-022	Historic	Stone Well	Water Access	D/d	Location, Design, Material, Workmanship, Feeling
1-4 (Olowalu/ Ukumehame Pinch Point)	AA2216-046	Precontact	Habitation Complex	Habitation Complex	A, D/a, d, e	Location, Design, Setting, Materials, Workmanship, Feeling, Association
1-4 (Olowalu/ Ukumehame Pinch Point)	AA2216-050	Precontact	Agricultural and Ceremonial Complex	Agricultural and Ceremonial Complex	A, C, D/a, c, d, e	Location, Design, Setting, Materials, Workmanship, Feeling, Association

<sup>1</sup> Gray shading indicates pinchpoint locations where all proposed alternatives merge

Alternatives Affected	Field No	Possible Age Range	Formal Type	Inferred Function	NRHP/6E Significance Recommendation	Integrity Evaluation
1, 3	AA2216-068	Precontact	C-Shape, Mound, Platform, Surface Scatter, Terrace	Agricultural and Ceremonial Complex	A, C, D/a, c, d, e	Location, Design, Setting, Materials, Workmanship, Feeling, Association
1, 3	AA2216-070	Precontact	C-Shape, Mound, Terrace	Agriculture and Habitation	A, C, D/a, c, d, e	Location, Design, Setting, Materials, Workmanship, Feeling, Association
1-4 (Olowalu/Ukumehame Pinch Point)	AA2216-072	Precontact	Enclosure, Mound, Wall	Agriculture and Habitation	A, C, D/a, c, d, e	Location, Design, Setting, Materials, Feeling, Workmanship, Association
1-4 (Olowalu/Ukumehame Pinch Point)	AA2216-073	Precontact	Enclosure and Ahu	Permanent Habitation	A, D/a, d, e	Location, Design, Setting, Materials, Feeling, Workmanship, Association
2-4	AA2216-075	Precontact	Surface Scatter	Habitation	D/d	Location
1, 3	AA2216-088	Precontact	Terrace, Ahu, Modified Outcrop	Ceremonial Complex	D/d, e	Location, Design, Setting, Materials, Feeling
1-4 (Ukumehame Pinch Point)	AA2216-089	Precontact	Enclosure, Modified Outcrop, Terrace	Temporary Habitation with a Ceremonial Component	A, D/a, d, e	Location, Design, Setting, Materials, Feeling
1	AA2216-090	Precontact	Surface Scatter	Habitation	D/d	Location, Materials, Association
1, 3	AA2216-091	Precontact to 19th-20th Century	Surface Scatter	Habitation	D/d	Location, Materials, Association

<b>Alternatives Affected</b>	<b>Field No</b>	<b>Possible Age Range</b>	<b>Formal Type</b>	<b>Inferred Function</b>	<b>NRHP/6E Significance Recommendation</b>	<b>Integrity Evaluation</b>
2, 3	AA2216-092	Precontact to 19th-20th Century	Surface Scatter	Habitation	D/d	Location, Materials, Association
1, 3	AA2216-095	Precontact	Modified Outcrop, Mound, Surface Scatter, Terrace	Habitation and Ceremonial Complex	A, D/a, d, e	Location, Setting, Material, Feeling
1-3 (Ukumehame Pinch Point)	AA2216-096	Precontact	Modified Outcrop, Pavement, Petroglyph, Surface Scatter, Terrace	Habitation and Ceremonial Complex	A, D/a, d, e	Location, Design, Setting Materials
1-4 (Olowalu/ Ukumehame Pinch Point)	AA2216-097	Historic	Wall	Boundary	D/d	Location, Setting, Materials, Feeling, Association
1-3 (Ukumehame Pinch Point)	AA2216-098	Continuous Occupation	Rock Shelter	Temporary Habitation	D/d, e	Location, Setting, Feeling, Association
3	AA2216-099	Precontact	Modified Outcrop and Surface Scatter	Tool Production	A, D/a, d, e	Location, Setting, Feeling, Association
1-3 (Ukumehame Pinch Point)	AA2216-100	19th-20th Century	Rock shelter	Temporary Habitation	D/d	Location, Setting, Feeling, Association
1-3 (Ukumehame Pinch Point)	AA2216-101	Precontact to Early Historic	Rock shelter	Temporary Habitation	D/d	Location, Setting, Feeling, Association
1-3 (Ukumehame Pinch Point)	AA2216-103	Precontact	Surface Scatter	Tool Production	D/d	Location, Setting, Feeling, Association



<b>Alternatives Affected</b>	<b>Field No</b>	<b>Possible Age Range</b>	<b>Formal Type</b>	<b>Inferred Function</b>	<b>NRHP/6E Significance Recommendation</b>	<b>Integrity Evaluation</b>
1-4 (Olowalu/ Ukumehame Pinch Point)	AA2216-105	Precontact	Temporary Habitation and Ceremony	Temporary Habitation and Ceremony	A, D/a, d, e	Location, Design, Setting, Materials, Feeling, Workmanship, Association
1-4 (Olowalu/ Ukumehame Pinch Point)	AA2216-108	Precontact	Heiau	Ceremonial	A, C, D/a, c, d, e	Location, Design, Setting, Materials, Feeling, Association

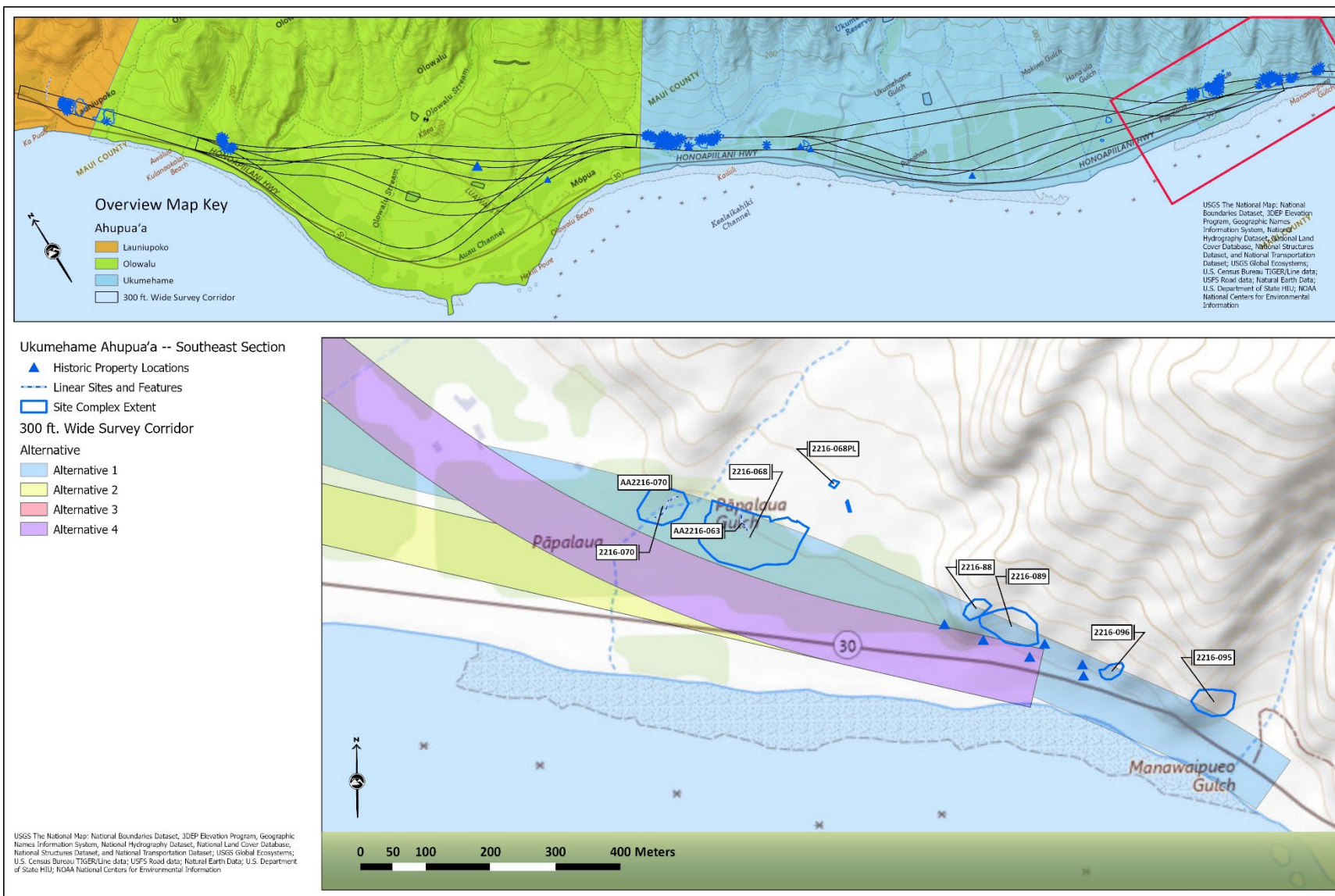


Figure 7. Historic property locations and extents in relation to the survey corridors, Ukumehame Ahupua'a, Southeast Section.

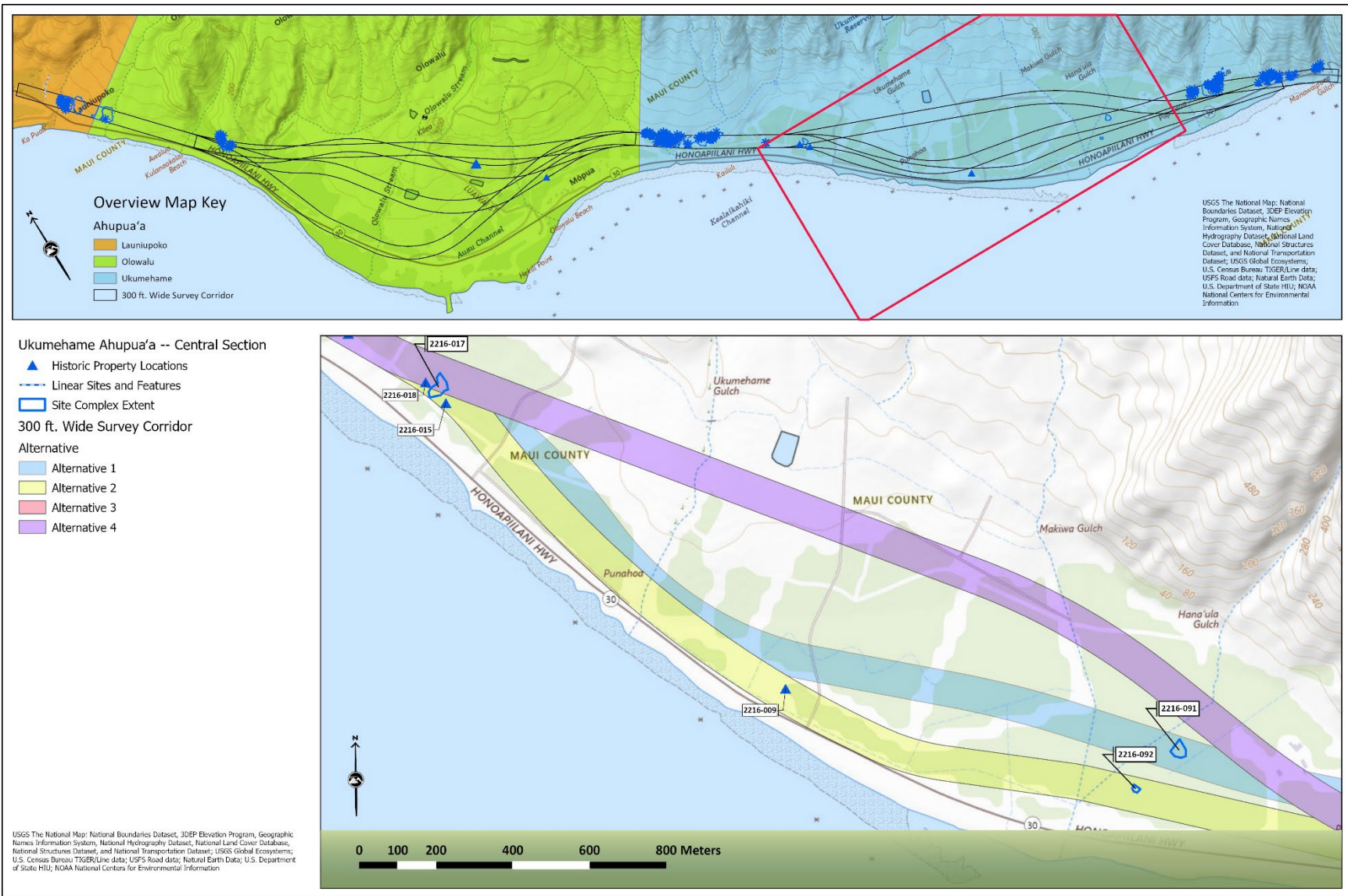


Figure 8. Historic property locations and extents in relation to the survey corridors, Ukumehame Ahupua'a, Central Section.



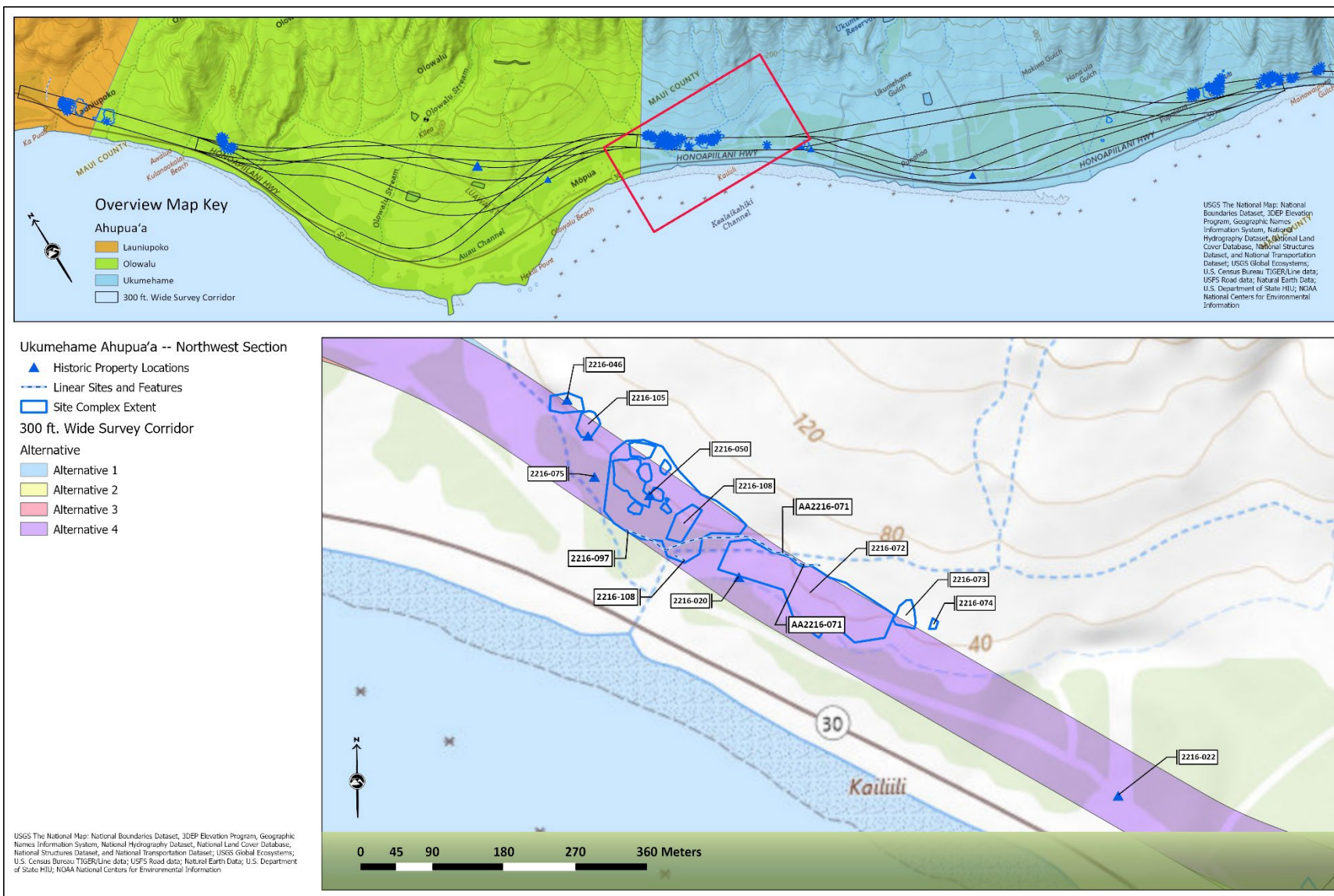


Figure 9. Historic property locations and extents in relation to the survey corridors, Ukumehame Ahupua'a, Northwest Section.

<b>FIELD NO:</b>	AA2216-009	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Surface Scatter	<b>MIDDEN DENSITY:</b>	Low Cone shell, cowrie, pipipi
<b>FUNCTION:</b>	Habitation	<b>ARTIFACT DENSITY:</b>	Medium Waterworn cobbles, false brain coral, branch coral, and one possible cone shell bead (B-001, collected)
<b>CONDITION:</b>	Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association

**ENVIRONMENTAL SETTING:**

Flat slope densely vegetated with kiawe trees, buffel grasses, and Indian Marsh Fleebain.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-009 is a remnant surface scatter located within Alternative 3 west of Pohaku Aeko Street in Ukumehame (Figure 8). The scatter contains a medium density of waterworn cobbles, false brain coral, and branch coral (Plate 2 and Plate 3). A low density of marine shell was also present (Plate 1 and Plate 4), including one potential cone shell bead (B-001, collected). The scatter is characteristic of a habitation site. However, it is in a highly disturbed cane field with drisco pipes and recent sand deposits from coastal storms and tidal surges. The presence of sand suggests that some or all of the material was naturally deposited and may not be cultural. Similar scatters were observed in areas close to the Ukumehame coastline. AA2216-009 did contain a notably higher density of branch coral than other scatters within the area. Due to thick vegetation, cultural material was not counted, and the true extent of the scatter could not be determined.

**EVALUATION SUMMARY**

AA2216-009 is a remnant cultural material surface scatter reflective of a former activity area or habitation site that may provide information on the distribution of traditional and historic era land use. Without archaeological testing it is unclear whether the horizontal provenience of the scatter is a surface representation of an intact subsurface deposit, or a secondary deposit as a result of erosion or redistribution due to ground disturbance related to industrial sugar cane cultivation for over 100 years (Figure 10). As the site is in remnant condition, there has been a loss of integrity of design, feeling, setting, and workmanship; however, depending on the presence or absence of stratified subsurface deposits, the site may retain integrity of location, materials, and association.

## NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

While the site has been impacted by prior disturbance, the potential for the presence of intact subsurface deposits that may yield information on the chronology and distribution of traditional and historic era land use along coastal Ukumehame remains. Therefore, in consideration of the above description and analysis, AA2216-009 is recommended as significant and eligible to the National Register under Criterion D.



Plate 1. Cowrie (*Cypraea* spp.).



Plate 2. Cultural material example (coral fragments, 'ili'ili, marine shell).



Plate 3. Cultural material under overturned tree, view to west.



Plate 4. AA2216-009, overview of east extent near overturned tree, marine shell flagged, view to east.



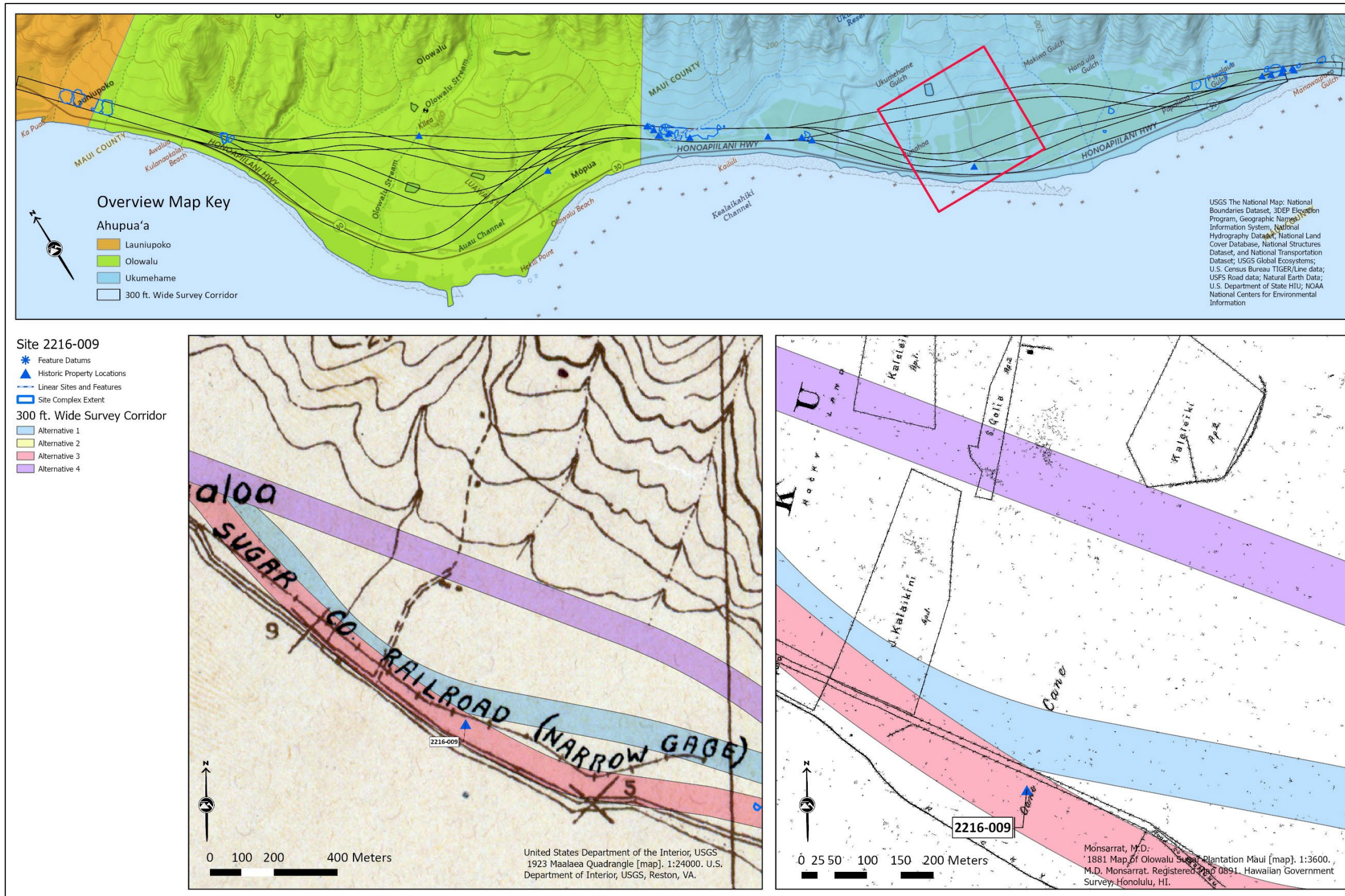


Figure 10. Site 2216-009 in relation to the proposed alternatives (top frame), land commission awards (bottom right frame), and former sugar plantation features (bottom left frame).

<b>FIELD NO:</b>	AA2216-015	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Late Precontact - Early Historic
<b>SITE TYPE:</b>	Surface Scatter	<b>MIDDEN DENSITY:</b>	Low One cone shell fragment
<b>FUNCTION:</b>	Possible Habitation	<b>ARTIFACT DENSITY:</b>	High Two basalt flakes, one potential basalt flake, one ceramic sherd, glass fragments with patina, false brain coral, branch coral, and waterworn cobbles.
<b>CONDITION:</b>	Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association

#### **ENVIRONMENTAL SETTING:**

Flat slope densely vegetated with kiawe, salt wort (akulikuli-kai), Indian Marsh Fleebain, buffel grass, guamúchil, palmer's amaranth, and haole Koa.

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-015 is a remnant surface scatter located where Corridors 1 and 3 merge in a graded dirt road west of Ehehene Street in Ukumehame (Plate 5 and Plate 6). The scatter consists of a high density of manuports, including false brain coral, branch coral, and waterworn cobbles. One cone shell, two basalt lithic flakes, one ceramic sherd, and a low density of glass fragments with patina were also present. The material assemblage is characteristic of pre-contact habitation and historic activities likely related to plantation-era sugar cane production. The scatter is in a highly disturbed fallow cane field containing Drisco pipes and chicken nests. The extent of the scatter was not determined due to extending in all directions for up to 30 m.

#### **EVALUATION SUMMARY**

AA2216-015 is a remnant cultural material surface scatter reflective of a former activity area or habitation site that may provide information on the distribution of traditional and historic era land use. Without archaeological testing it is unclear whether the horizontal provenience of the scatter is a surface representation of an intact subsurface deposit related to former structures shown on a portion of the Olowalu Sugar Plantation Map (Monsarrat 1881), or a secondary deposit as a result of erosion or redistribution due to ground disturbance related to industrial sugar cane cultivation for over 100 years (Figure 11). As the site is in remnant condition, there has been a loss of integrity of design, feeling, setting, and workmanship; however, depending on the presence or absence of stratified subsurface deposits, the site may retain integrity of location, materials, and association.



## NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

While the site has been impacted by prior disturbance, the potential for the presence of stratified subsurface deposits that may provide information on the chronology and distribution of traditional and historic era land use along coastal Ukumehame remains. Therefore, in consideration of the above description and analysis, AA2216-015 is recommended as significant and eligible to the National Register under Criterion D.



Plate 5. AA2216-015, overview of scatter location, view to southwest.



Plate 6. AA2216-015, coral flagged, west of higher density area of scatter, view to north.



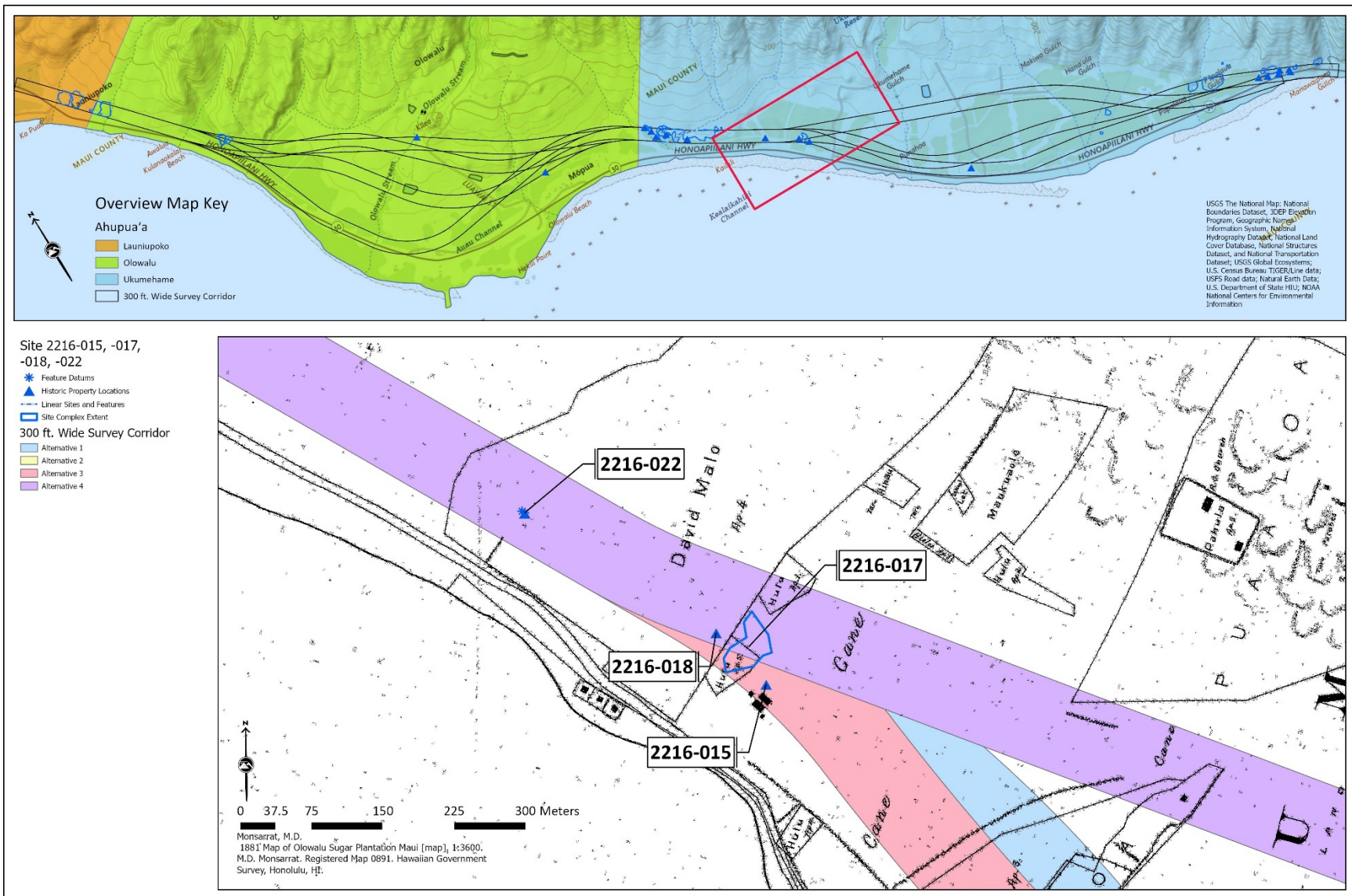


Figure 11. Site 2216-015, -017, -018, and -022 in relation to the proposed alternatives (top frame) and land commission awards and historic structures/landmarks (bottom right frame).

<b>FIELD NO:</b>	AA2216-017	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Late Precontact - Early Historic
<b>SITE TYPE:</b>	Surface Scatter	<b>MIDDEN DENSITY:</b>	Low Drupe, Cone, Cowrie, Pipipi, Akolea, and Pencil Urchin Spines.
<b>FUNCTION:</b>	Habitation and Tool Production	<b>ARTIFACT DENSITY:</b>	Medium Three adze preforms (AP-001 - AP-003), one possible adze (A-001), one modified basalt flake (MBF-001), one volcanic glass flake, fine grained basalt flakes, ceramic sherds, aqua glass fragments, branch coral, false brain coral, and waterworn cobbles.
<b>CONDITION:</b>	Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association

**ENVIRONMENTAL SETTING:**

Flat slope densely vegetated with kiawe, Indian Marsh Fleebain, Guamúchil, and Palmer Amaranth.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-017 is a secondary surface scatter located where Corridors 1 and 3 merge west of Ehehene Street in Ukumehame. The scatter is located on a graded bare surface (Plate 7) within an active base yard containing bulldozers, boats, vehicles, and other landscaping machines. The visible extent of the scatter measures roughly 60 m and extends to the northeast corridor boundary. The scatter extends southwest into a forested area with decreased ground visibility and northwest into an inaccessible area covered in thick fleabane marsh with no surface visibility. The scatter consists of a low density of marine fauna, moderate densities of manuports and basalt lithic artifacts, and a low density of historical artifacts (Plate 8 through Plate 12). Informal surface counts of marine fauna and basalt lithic artifacts estimate areas with good ground visibility to contain one pencil urchin spine, one slate pencil urchin spine, two-plus pipipi shells, 10+ cowrie shells, 10+ cone shells, 30+ akolea shells, 200+ fine-grained basalt lithic flakes, one volcanic glass flake, three adze preforms (AP-001 through AP-003), one possible plow scarred adze (A-001), and one modified basalt flake (MBF-001). Due to being extremely high in density, informal counts were not done for coral or waterworn cobbles and 'ili'ili. Informal counts were also not estimated for historical artifacts, which consisted of a low density of porcelain ceramic sherds and aqua glass.

The area has been graded and plowed in the past, and Drisco pipes can be seen protruding from the surface. Regardless, lithics are more concentrated in a portion of the site. One of the adze preforms (AP-002) was found approximately 1 m in front of a bulldozer bucket containing soils with fragments of coral and small waterworn cobbles.

## EVALUATION SUMMARY

AA2216-017 is a remnant cultural material surface scatter reflective of a pre-contact to historic era habitation site site that may provide information on the distribution of traditional and historic era land use and settlement timeline of Ukumehame Ahupua'a. Without archaeological testing it is unclear whether the horizontal provenience of the scatter is a surface representation of an intact subsurface deposit related to pāhale associated with Apana 1 and 5 of L.C.A. 5380 to Hulu that is shown on a portion of the Olowalu Sugar Plantation Map (Monsarrat 1881), or a secondary deposit as a result of erosion or redistribution due to ground disturbance related to industrial sugar cane cultivation for over 100 years (see also Figure 11). As the site is in remnant condition, there has been a loss of integrity of design, feeling, setting, and workmanship; however, depending on the presence or intact subsurface deposits, the site may retain integrity of location, materials, and association.

## NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

While the site has been impacted by prior disturbance, the potential for the presence of intact subsurface deposits that may provide information on the chronology and distribution of traditional and historic era land use along coastal Ukumehame remains. Therefore, in consideration of the above description and analysis, AA2216-017 is recommended as eligible to the National Register under significance Criterion D.



Plate 7. AA2216-017, west extent with cultural material flagged, view to west.



Plate 8. AA2216-017, slate pencil urchin, plan view.





Plate 9. AA2216-017, AP-002, plan view.



Plate 10. AA2216-017, cowrie and pencil urchin, plan view.



Plate 11. AA2216-017, adze preform, plan view.



Plate 12. AA2216-017, volcanic glass, plan view.

<b>FIELD NO:</b>	AA2216-018	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Late Precontact - Early Historic,
<b>SITE TYPE:</b>	Surface Scatter	<b>MIDDEN DENSITY:</b>	Low Triton and cone
<b>FUNCTION:</b>	Habitation, Tool Production	<b>ARTIFACT DENSITY:</b>	High Basalt flakes (+10), waterworn cobbles, false brain coral, branch coral, ceramic sherds (blue and white porcelain), and the mouth of a glass medicine bottle
<b>CONDITION:</b>	Remnant	<b>SIGNIFICANCE ASSESSMENT:</b>	D
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association

**ENVIRONMENTAL SETTING:**

Flat slope densely vegetated with kiawe, Indian Marsh Fleebain, Guamúchil, and Palmer’s Ameranth.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-018 is a surface scatter located where Corridors 1, 3, and 4 merge west of Ehehene Street in Ukumehame. The scatter is located within a disturbed area containing multiple push piles and extends into a graded road and possible flood plain (Plate 13 and Plate 14). The scatter consists of a low density of marine shell intermixed with a relatively high density of basalt lithic flakes (10+), waterworn cobbles, false brain coral, and branch coral. A low density of blue and white patterned porcelain sherds and the mouth of a glass medicine bottle were also present. The material scatter is characteristic of pre-contact tool production and habitation (Plate 15a-e). Historical artifacts are likely related to plantation-era sugar cane production. The historical artifacts and lithics were found within a 20 m radius of one another.

Due to the site's location within a possible floodplain, coral and waterworn cobbles may have been deposited naturally through storm and tidal surges. Modern marine shell and coral fragments were present within the scatter but were distinguishable from potential cultural deposits. The scatter's extent was not determined due to extending into a densely vegetated area. AA2216-018 is 20 m north of AA2216-017, with a sparse amount of marine shell and lithics noted between the two sites. AA2216-018 could extend further northwest into a densely vegetated area of fleabane marsh where there is currently no ground visibility.

**EVALUATION SUMMARY**

AA2216-018 is a remnant cultural material surface scatter reflective of a pre-contact to historic era habitation approximately situated within the boundary of Land Commission Award 3702 (5410) to David Malo (see also Figure 11). An important figure in Hawaiian history, David Malo bore witness to the extreme changes that occurred in Hawaii on the heels of European contact and whose writings have provided unparalleled insight to traditional Hawaiian culture at either ends of missionary arrival (Malo

2020:1). The land use noted in the native register indicates kalo as the primary use, however, that does not preclude the possibility for the presence of associated residential areas. Without archaeological testing it is unclear whether the horizontal provenience of the scatter is a surface representation of an intact subsurface deposit related to residency of David Malo at Ukumehame or a secondary deposit as a result of erosion or redistribution due to ground disturbance related to industrial sugar cane cultivation for over 100 years. As the site is in remnant condition, there has been a loss of integrity of design, feeling, setting, and workmanship; however, depending on the presence or intact subsurface deposits, the site may retain integrity of location, materials, and association.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

Although a direct association of this site with David Malo may be considered tenuous, thereby not currently qualifying for significance under Criterion B, additional research and archaeological study may provide further insight into the presence or absence of associated features that may be present in subsurface contexts and possible residency of David Malo at Ukumehame. While the site has been impacted by prior disturbance, the potential for the presence of intact subsurface deposits that may provide information on the chronology and distribution of traditional and historic era land use along coastal Ukumehame remains. Therefore, in consideration of the above description and analysis, AA2216-018 is recommended as eligible to the National Register under significance Criterion D.



Plate 13. AA2216-018, overview of location within road/floodplain and pushpile visible (left), view to northwest.



Plate 14. AA2216-018, overview of road where scatter is located with farm equipment visible in background, view to East.





Plate 15 a-e. Cultural material examples a. bottle top, b. lithic flakes, c. marine shell, d. possible coral abrader, e. ceramic, plan views.

<b>FIELD NO:</b>	AA2216-020	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Late Precontact - Early Historic
<b>SITE TYPE:</b>	Surface Scatter	<b>MIDDEN DENSITY:</b>	Low One cone shell fragment
<b>FUNCTION:</b>	Habitation	<b>ARTIFACT DENSITY:</b>	Low One piece of volcanic glass possibly worked, 4 false brain coral fragments, 7 branch coral fragments, and waterworn cobbles
<b>CONDITION:</b>	Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association

#### **ENVIRONMENTAL SETTING:**

Flat slope densely vegetated with buffel grasses, kiawe trees, and Haole koa.

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-020 is a surface scatter located where the corridors merge in Olowalu. The scatter is within a graded fire road in a previously occupied homeless encampment downslope and southeast of the historic flume and an extensive habitation, agricultural, and ceremonial complexes (AA2216-050, -072, and -108) that is situated between the Olowalu and Ukumehame Sections of the Olowalu Sugar Plantation (Figure 12). The scatter consists of one cone shell fragment, one volcanic glass fragment (possibly worked), four false brain coral fragments, seven branch coral fragments, and several waterworn cobbles within a 15 m radius. Coral was observed eroding out of the graded road edge. The material is potentially associated with the complex and overall cultural landscape located upslope and either washed onto the road or a partially exposed subsurface deposit as a result of mechanical disturbances in that area.

#### **EVALUATION SUMMARY**

AA2216-020 is a remnant surface scatter reflective of a former late pre-contact to early historic era habitation site that may provide information on the distribution of traditional and historic era land use. As this historic property has been extensively disturbed and is in remnant condition there has been a loss of integrity of design, feeling, setting, and workmanship; however, however, depending on the presence or absence of stratified subsurface deposits, the site may retain integrity of location, materials, and association.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

While site has been impacted by prior disturbance, the potential for subsurface deposits that may provide information on settlement chronology and extent of traditional land use in the margins between Olowalu and Ukumehame Ahpua'a remains. Therefore, in consideration of the above description and analysis, AA2216-020 is recommended as significant and eligible to the National Register under Criterion D.







Plate 16. Southeast extent of AA2216-020 surface scatter coral in the foreground, view to northwest.



Plate 17. Branch coral fragments visible in the graded sections of the road.



Plate 18. Volcanic glass nodule and cone shell

<b>FIELD NO:</b>	AA2216-022	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Historic
<b>SITE TYPE:</b>	Well	<b>MIDDEN DENSITY:</b>	None
<b>FUNCTION:</b>	Water access	<b>ARTIFACT DENSITY:</b>	Medium Waterworns in construction
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Material, Workmanship, Feeling
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Material, Workmanship, Feeling

#### **ENVIRONMENTAL SETTING:**

Flat slope densely vegetated with kiawe trees, Haole Koa, buffel grasses.

#### **HISTORIC PROPERTY DESCRIPTION:**

Possible historic well located within a heavily utilized modern habitation within a larger homeless encampment (Plate 19). The upper portion of the well is lined with about 2 courses of waterworn cobbles (Plate 20). The well extends an estimated 1.5 m in depth and is filled with roughly 10 cm of water. The overall diameter of the well measures roughly 1 m.

#### **EVALUATION SUMMARY**

AA2216-022 is a water well potentially related to historic era habitation. It is notable that this historic property is situated within the boundary of Land Commission Award 3702 and 5410 to David Malo (see Figure 11), a noted Hawaiian scholar who was among the first to attend Lahainaluna Seminary. An important figure in Hawaiian history, David Malo bore witness to the extreme changes that occurred in Hawaii on the heels of European contact and whose writings have provided unparalleled insight to traditional Hawaiian culture at either ends of missionary arrival (Malo 2020:1). The land use noted in the native register indicates kalo as the primary use, however, that does not preclude the possibility for the presence of associated residential areas.

While there has been a loss of setting and association due to the land clearing associated with industrial sugar cultivation, the site nonetheless retains integrity of location, design, material, workmanship, and feeling.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

Although a direct association of this well with the residency of David Malo based on provenience alone may be considered tenuous, thereby not currently qualifying for significance under Criterion B, additional research and archaeological study may provide further insight into the presence or absence of associated features that may be present in subsurface contexts and the possible residency of David Malo at Ukumehame. Due to the construction, engineering, and environmental context of the well itself on the alluvial plain of Ukumehame, which is somewhat removed from the network of historic era water control features associated with the sugar plantation, as well as the potential for future archaeological research into the possible association with the residency of David Malo, AA2216-022 is recommended for significance under Criterion D.



Plate 19. Overview of AA2216-022 in homeless encampment, view to North.



Plate 20. Close up of waterworn cobble stacking visible, plan view.



<b>FIELD NO:</b>	AA2216-046	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Complex: C-Shape, Mound, Surface Scatter, Terrace	<b>MIDDEN DENSITY:</b>	Low Drupa and pipipi
<b>FUNCTION:</b>	Ceremonial and Habitation	<b>ARTIFACT DENSITY:</b>	High Branch coral, false brain coral, one ceramic bead, and waterworn cobble manuports
<b>CONDITION:</b>	Fair to Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT</b>	a, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

#### **ENVIRONMENTAL SETTING:**

Moderately sloping topography vegetated with 'ilima, 'uhaloa, opiuma, kiawe trees, and buffel grasses.

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-046 is a newly identified habitation and ceremonial complex located along a gully on a moderate southwest-facing slope roughly 10 m southeast of site AA2216-105 (habitation complex). The site consists of four features, including a modified knoll (Feature A), a possible ahu shrine (Feature B), a terrace of indeterminate function (Feature C), and a C-shape (Feature D) (Figure 13 and Figure 14). Additionally, two possible remnant semicircular terraces located within the gully below Feature C were not given feature designations due to uncertainty of the interpretation until further investigation.

Features A (modified knoll) and B (ahu) are located northwest of the gully that bisects the site. Features D (C-shape) and C (terrace) are located northeast of Features A and B within the gully between tributary rivulets, which merge at the base of Feature C (Plate 21 through Plate 25). A dry-stacked rock wall is visible mauka of the site outside the APE. The wall appears intentionally segmented around bisecting gullies/ditches and may be associated with water diversion or ranching. The site's spatial relationship with the gully and wall suggests it may have been reutilized or modified during the plantation or ranching eras. Cultural material observed within the site includes branch and false brain coral, marine shell, waterworn cobbles, and a potentially historic ceramic bead (O-001, located downslope of Feature C).

Overall, AA2216-046 is in fair to remnant condition. Disturbances include erosion, brush fires, thermal rock spalling, and contemporary habitation. Flash flooding of the gully and destabilization of topsoil due to brush fires have accelerated erosion and feature collapse. Heat spalling from solar radiation and fire are also accelerating feature deterioration. Contemporary inhabitants (e.g., hunters, squatters) have left rubbish in Features C and D.

## **EVALUATION SUMMARY**

AA2216-046 is situated just north of the expansive colluvial agricultural field system documented as AA2216-50 and AA2216-072 and has retained its location, design, setting, materials, workmanship, feeling, and association. It is likely that AA2216-046 is associated with complexes directly adjacent to and south of the site extent and thus speaks to what would have been a highly productive ahupua'a wide agricultural system when combined with the lo'i systems of both Ukumehame and Olowalu Valleys. The combination of fully developed wet and dry, colluvial agricultural systems appears to be unique to this region, the intensification of which may have been a response to a spike in population, heightened social complexity with regard to land and resource management in the leeward West Maui, and challenging environmental conditions. The potential extent of lo'i, colluvial, and intensive dryland agricultural systems has been modeled by Kurashima and others (2019) across the archipelago using modern environmental and climatic data compared with archaeological and ethnohistorical data. While their model shows approximately 34.6% of potential indigenous agricultural lands would be given over to colluvial agriculture, with the distribution on Maui appearing to include small portions of the project area, the authors note that while their model results were generally consistent with available archaeological and ethnohistorical information, there was little information available that was specific to colluvial agricultural systems in the archaeological record. This system represents one of the few currently known intact colluvial systems within the archipelago (Green 1969, 1970; Kirch and McCoy 2023:155-156).

## **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

AA2216-046 on its own may not be considered significant under Criterion A, however, when understood in the context of the broader archaeological landscape and potential association with AA2216-50 and AA2216-072 and the inter-site patterning of features in relation the overall dryland field system, significance under Criterion A applies as it pertains to traditional Hawaiian adaptations, land uses, and complex social systems prior to the Western Contact (see evaluation and recommendation for AA2216-50). Continued archaeological research may help to inform the timeline for agricultural intensification in the region and gain understanding of when the systems may have been developed and subsequently abandoned and how that may relate to the continued use of the established lo'i systems. Therefore, AA2216-046 is considered additionally significant under Criterion D.





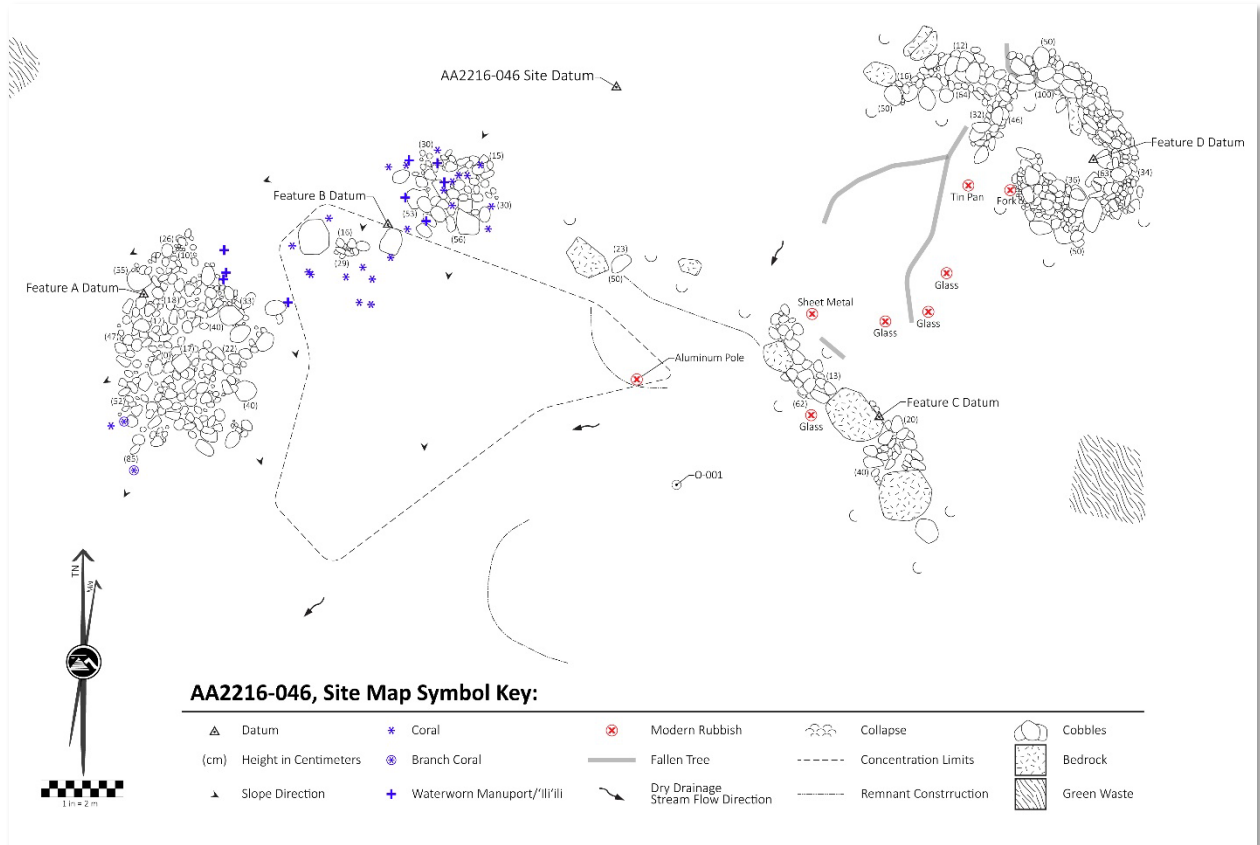


Figure 14. AA2216-046 Features A through D, plan map.



Plate 21. AA2216-046, Feature A in foreground left, Feature B in midground left, Feature C right of frame, Feature D in background, view to east.



Plate 22. Overview of possible C-shapes located below fallen trees, view to south.



Plate 23. AA2216-046, Feature A and B and CMC, overview, cultural material flagged in pink. Feature A in foreground, Feature B visible in midground right, cultural material concentration in midground left, view to south.



Plate 24. Overview of potential ahu constructed from coral and waterworn cobbles, view to north.



Plate 25. AA2216-046, overview, Feature A in far left, Feature B in mid left, Feature C in mid right, Feature D in background right, cultural material is flagged, view to north.

<b>FIELD NO:</b>	AA2216-050	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 20	<b>AGE:</b>	Late Precontact - Early Historic, Precontact
<b>SITE TYPE:</b>	Complex: Alignment, C-Shape, Enclosure, Modified Outcrop, Mound, Petroglyph, Pit, Platform, Surface Scatter, Terrace	<b>MIDDEN DENSITY:</b>	Low Marine shell
<b>FUNCTION:</b>	Agriculture, Ceremonial, Permanent Habitation	<b>ARTIFACT DENSITY:</b>	High O-001 (possible coral ulu maika), one false brain coral abrader (AB-001), one modified basalt flake (MBF-001), basalt scraper (SCR-001), branch coral, false brain coral, potential lithics, and one potential fishhook blank (uncollected outside APE)
<b>CONDITION:</b>	Good to Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, C, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, c, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

**ENVIRONMENTAL SETTING:**

Gentle to moderately sloping topography vegetated with buffel grasses, kiawe, haole koa, kiawe trees, and ilima.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-050 is a newly documented dryland field system consisting of agricultural, ceremonial, and habitation features situated near the base of a rocky alluvial slope between Olowau and Ukumehame streams (Figure 15). The expansive system covers approximately 3.65 acres within the survey corridor and extends mauka beyond the survey area. The western site extent is bounded by a bulldozed firebreak and historic ditch, the southern extent by the junction of the firebreak and the old cane haul road, and on the east extent by a gully that drains into a historic flume. The northern site boundary is justified by the mauka extent of the survey limits. AA2216-050 is surrounded by several other traditional sites, including AA2216-046 (ceremonial) and AA2216-105 (habitation) to the west along with AA2216-072 and AA2216-073 (hale) to the east. These sites are only superficially separated by intermittent streams and modern disturbance and were likely connected within the broader landscape that remains in the margins between the Olowau and Ukumehame sugar plantation fields.



AA2216-050 is comprised of approximately twenty features (A-T) and seven large modified bedrock outcrops (MBO-001 - MBO-007). Feature A is five agricultural rock mounds (A1-A5), Feature B is eight terraces of indeterminate function (B1-B8), Feature C is 28 agricultural terraces (C1-C28), Feature D is 40 agricultural circles (D1-D40[see above note]), Features E, G, I, and T are C-shaped enclosures, Features F and J are agricultural enclosures, Feature H is a habitation terrace, Feature K is a habitation enclosure, Feature L is a circular agricultural (mulch) enclosure, Feature M is a habitation platform, Feature N was the large heiau situated within the overall complex that has since been assigned a separate site number, Feature O is a large agricultural mound, Feature P is a double enclosure, Feature Q is an indeterminate enclosure, Feature R are adjoining habitation/agricultural enclosures, and Feature S is a stepped ceremonial platform (Figure 16 and Figure 18). MBO-001 through MBO-007 are seven large modified bedrock outcrops (MBO) that comprises much of the northern half of the site. Many of the features and subfeatures in the north half of the site are located within one of these seven modified outcrops. For example, Subfeature C-19, Subfeature D-24, and Feature G are all located within the limits of MBO-006. It should be noted that due to the expansive nature of AA2216-050 and limited time frame for the pedestrian survey, the above noted features are not an exhaustive inventory of the site.

Cultural material, including coral, 'ili'ili/waterworn stones, marine shell, basalt flakes, one volcanic glass flake, and several other types of artifacts occur across the site area. Much of the cultural material is located within two large concentrations (CMC-001 and CMC-002) and around particular features (e.g. Features H, K, S and AA2216-108 [heiau]), providing evidence of their functions. Formal artifacts that have been documented minimally include a false brain coral abrader (AB-001), two hammerstones (H-001, H-002[N]), A modified flake tool (MBF-001), a coral ulu maika (U-001), and a polished waterworn stone (O-001).

AA2216-050 is a variant of a leeward, rain-dependent traditional colluvial agricultural system adapted to a rocky environment with little arable soil. The landscape comprising the site area consists of a lightly incised sloping alluvial plain characterized by fractured 'a' bedrock outcrops divided by gullies and rivulets. The ground surface is strewn with boulders, cobbles, and gravels, which, based on the incised gullies, is consistent with the very rocky subsurface soil matrix. Typical dry land companion crops, such as sweet potato and gourd, would have been planted on and around modified outcrops in small soil-filled terraces (e.g., Feature C) and small container planters comprised of stacked or aligned cobbles and boulders, often as modifications to natural pockets in the fractured bedrock (e.g., Features D, F, J). Crops were likely cultivated in a growing medium of composted vegetation mulch and soil. Intermixed with agricultural features are several habitation features and a high prevalence of ceremonial features and material, which may be indicative of the precarious nature of a rain-dependent agricultural system within a dryer area of the island. Additionally, several habitation features are integrated into the overall agricultural system, some of which appear directly associated with particular growing patches or gardens. A network of pathways winds through and connects the various features.

## **EVALUATION SUMMARY**

AA2216-050 has retained its location, design, setting, materials, feeling, and association due to its location within the margins of the former sugar plantation fields and distance from the current alignment of Honoapi'ilani Highway. It is likely that AA2216-050 is associated with complexes to the northwest and southeast of the site extent, thus speaking to what would have been a highly productive ahupua'a wide agricultural system when combined with the lo'i systems of both Ukumehame and Olowalu Valleys. This combination of fully developed wet and dry, colluvial agricultural systems within a singular ahupua'a

appears to be unique to this region, the intensification of which may have been a response to a spike in population, heightened social complexity with regard to land and resource management in leeward West Maui, and challenging environmental conditions. The potential extent of lo'i, colluvial, and intensive dryland agricultural systems has been modeled by Kurashima and others (2019) across the archipelago using modern environmental and climatic data compared with archaeological and ethnohistorical data. While their model shows approximately 34.6% of potential indigenous agricultural lands would be given over to colluvial agriculture, with the distribution on Maui appearing to include small portions of the project area, the authors note that while their model results were generally consistent with available archaeological and ethnohistorical information, there was little information available that was specific to colluvial agricultural systems in the archaeological record. This system represents one of the few currently known intact colluvial systems within the archipelago (Green 1969, 1970; Kirch and McCoy 2023:155-156).

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

AA2216-050 is recommended as historically significant and eligible to the National Register under Criteria A, C, and D. When understood in the context of the broader archaeological landscape and association with the neighboring complexes, as well as the intra-site patterning of agricultural, ceremonial, and habitation features in relation to the overall topography that takes advantage of slope direction for soil retention and voids in bedrock outcrops for soil collection and possible mulching techniques, view planes for ceremonial features, and locations of long-term habitation sites, Criterion A is applicable as it may speak to broad patterns in traditional Hawaiian adaptations, land uses, and complex social systems prior to the Western Contact. Site AA2216-050 is additionally significant under Criterion C as a complex dryland agricultural system that is unique to the topography of the region. Unlike the typical Kona Field System that is characterized by long linear walls and terraces that define an expansive linear field system, the dryland field system documented during this study is entirely influenced by the rocky topography which resulted in the construction of diverse feature types with varying functions depending on slope and bedrock exposures. Continued archaeological research would help to inform the timeline for agricultural intensification in the region and gain understanding of when and why both extensive dryland agriculture and lo'i systems were developed in this region, when and why the dryland field systems may have been subsequently abandoned, how this may relate to the continued use of the established lo'i systems into the modern era. Therefore AA2216-050 is further considered significant under Criterion D.

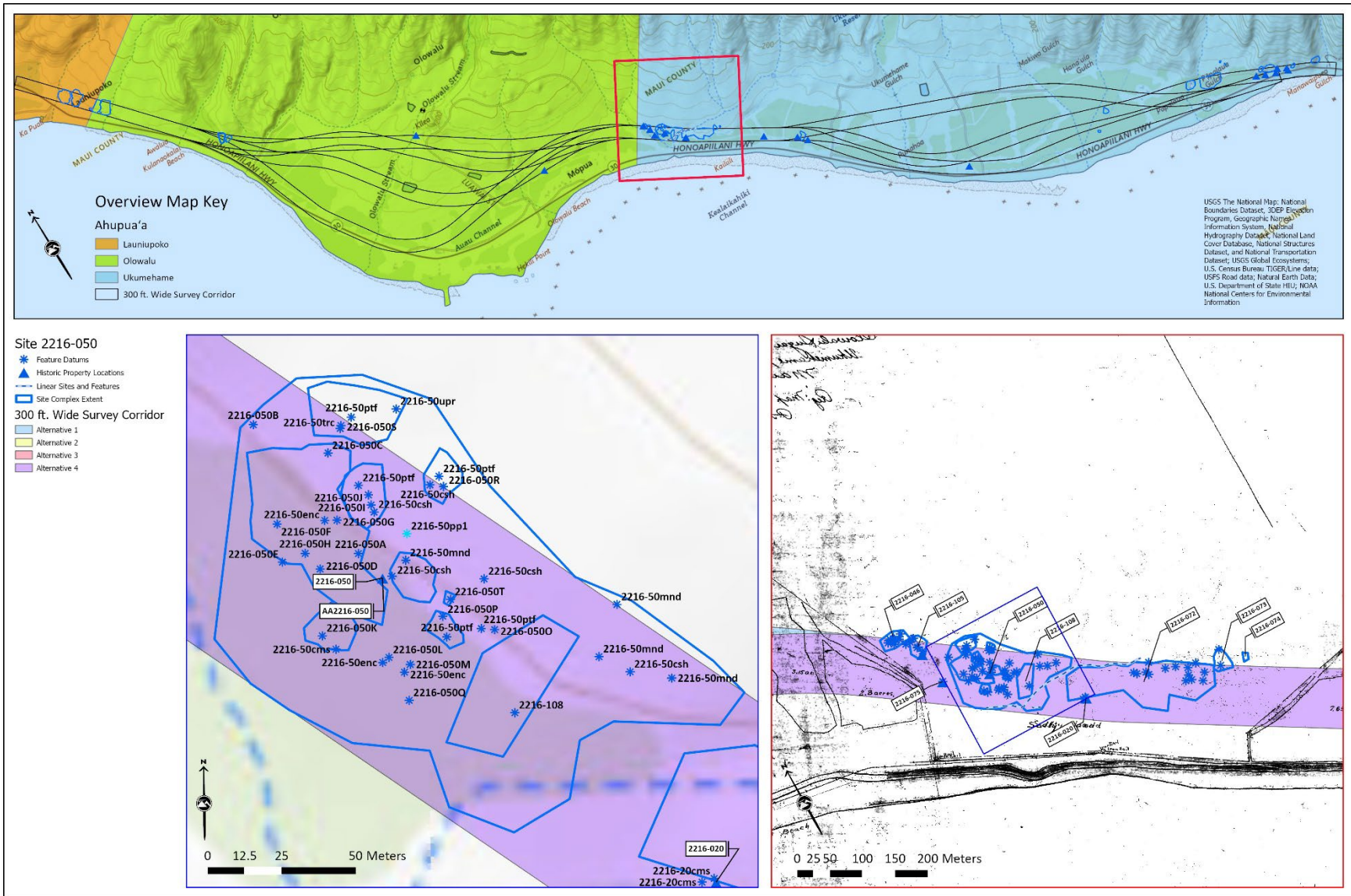


Figure 15. AA2216-050 in relation to the proposed alternatives (top frame) and inter-site association between the boundaries of the Ukumehame (A. C. Alexander 1906b) and Olowalu Sections (A. C. Alexander 1906a) of the Olowalu Sugar Plantation (bottom right frame); as well as intra-site feature distribution<sup>3</sup> (bottom left frame).

<sup>3</sup> trc=terrace, mbo=modified bedrock outcrop, mnd=mound, csh=c-shape, enc=enclosure, pp=planting pit, ptf=platform, upr=upright



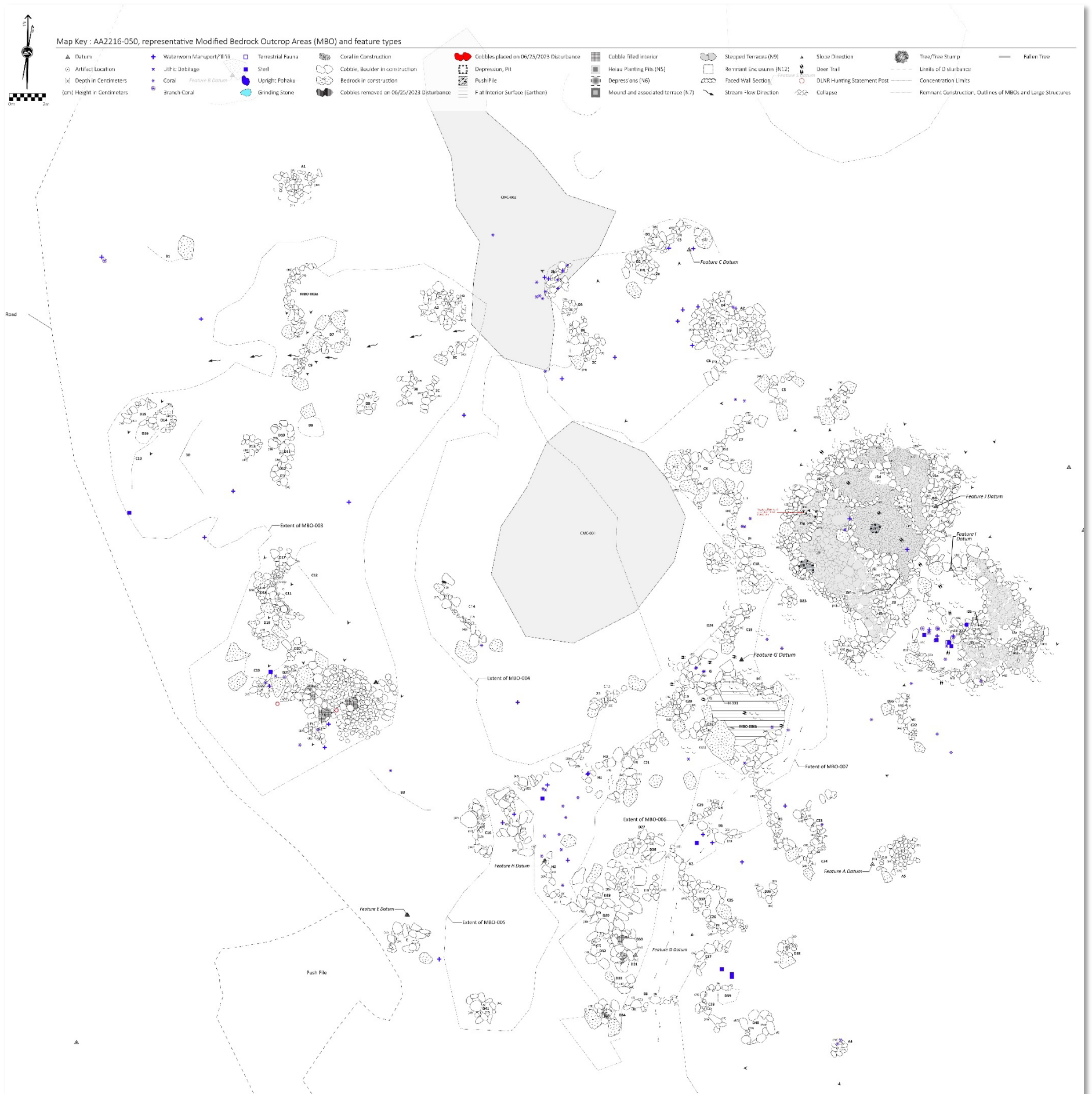


Figure 16. A portion of AA2216-050, highlighting typical intensive modifications to bedrock outcrops (MBO) along with interior feature configurations of Features I and J.

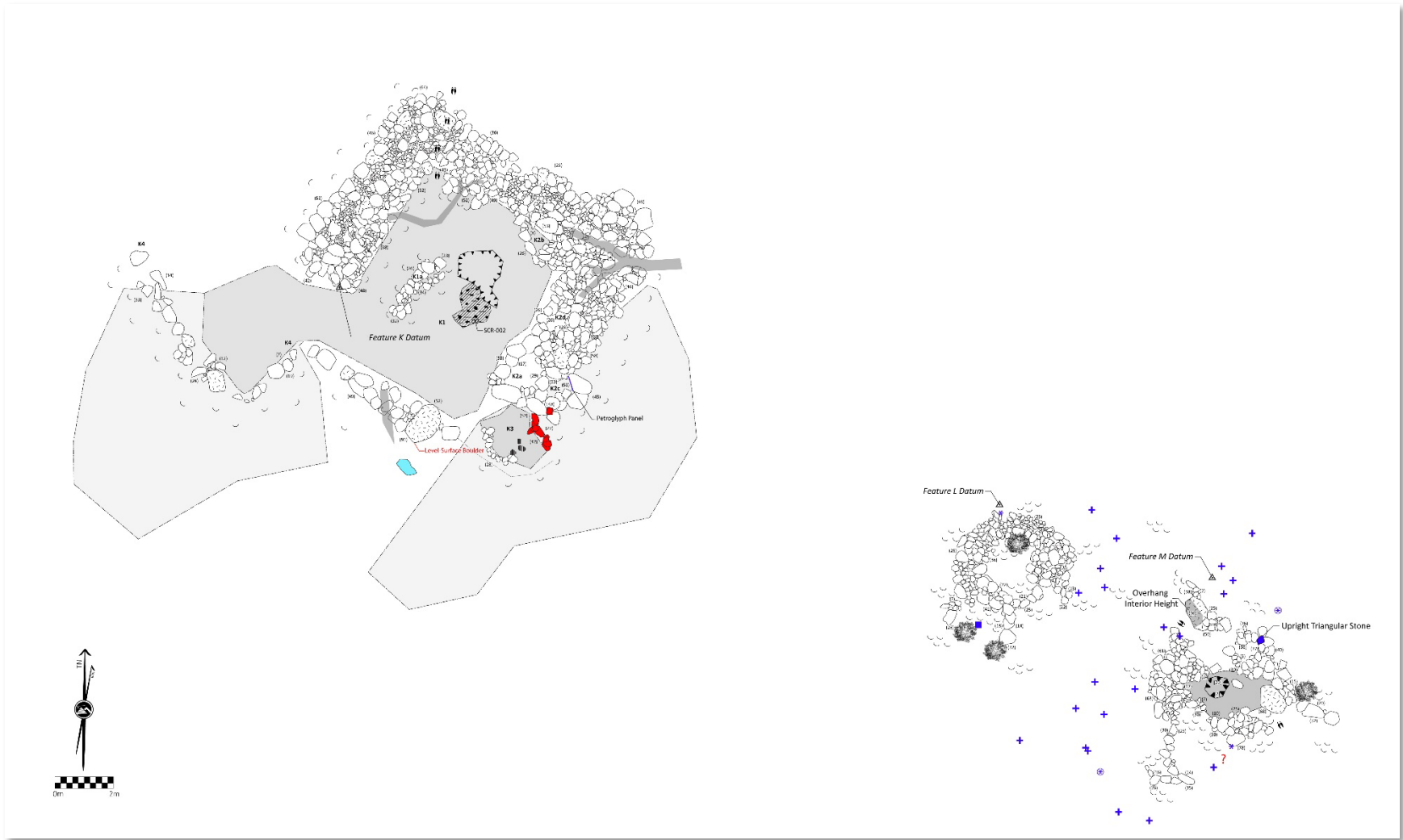


Figure 17. AA2216-050 Features K through M, plan view.





Figure 18. AA2216-050, drone imagery of representative feature types and distribution across the overall complex.



<b>FIELD NO:</b>	AA2216-068	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 11	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	C-Shape, Mound, Platform, Surface Scatter, Terrace	<b>MIDDEN DENSITY:</b>	Low One Cone shell fragment, indeterminate marine shell fragments
<b>FUNCTION:</b>	Agriculture, Ceremonial, and Habitation Complex	<b>ARTIFACT DENSITY:</b>	Medium False brain coral, branch coral, possible flakes, adze preform or blank
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, C, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, c, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

**ENVIRONMENTAL SETTING:**

Gentle to moderately sloping topography vegetated with buffel grasses and kiawe trees.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-068 is a newly identified agricultural, habitation, and ceremonial complex located east of Pāpalaua Stream on the gently south-sloping rocky plain below the mouth of Pāpalaua Gulch (Figure 19). The site area consists of an intensively built landscape that includes a heiau (outside of APE), C-shapes and irregular habitation enclosures, habitation and agricultural terraces, agricultural circles (planting/mulch pits) and clustered pit gardens (Figure 20), two auwai, an ahu (ceremonial feature), wall sections, alignments, petroglyphs (Plate 26 and Plate 27), and a hoana (whetstone) (Plate 28). The total extent of the site is unknown because features are obscured by dense vegetation and because features extend mauka out of the survey area (including the heiau). The site boundary generally represents the portion of the site that falls within the current survey area and which was cleared of grass and deadwood. The site likely extends to the east and west within the APE from the cleared representative area. The southern extent of the site is bounded by a modern earthen berm associated with the highway below.

AA2216-068 is surrounded by other traditional sites, including AA2216-069 (agricultural and ceremonial complex, outside of APE) to the east and AA2216-070 (habitation and agricultural complex) to the northwest and west. These sites are superficially separated by modern disturbances and overgrown vegetation and were likely connected within the broader cultural landscape, characterized today by the remaining unplowed area between the Olowau and Ukumehame plantation plow zones.

Cultural material within AA2216-068 is concentrated within habitation and agricultural features and is scattered at a lower density across the remainder of the site. Cultural material includes waterworn cobbles and 'ili'ili, basalt lithic flakes, branch and false brain coral, marine shell (cone, cowrie, pipipi, drupe), kukui nut endocarp, and a possible historic gun flint (O-001).

The agricultural, habitation, and ceremonial features identified within and near the AA2216-068 representative site area are consistent with a 'rocky slope' variant of a leeward, rain-dependent traditional agricultural system observed throughout the unplowed sections of the project area. Planting features likely supported sweet potato, dryland taro, and water gourd cultivated in amended soil or mulch. Habitation and ceremonial features are interspersed among agricultural features, often with abutting or integrated architectural components.

The distribution of features within the representative site area can be summarized by general site area and relative location. The western portion of the site is dissected by branching south-flowing stream channels, two of which appear to be auwai, being either modified gullies or constructed canals with surviving sections of cobble/boulder-face sidewalls. The west-most auwai defines the western extent of the representative site area, although this area lies within the kiawe forest and was not cleared. Although obscured by vegetation, several features were identified surrounding the west auwai, including terraces, planting pits, a possible ceremonial mound/wall, wall sections, and a boulder with a kāne petroglyph situated within the waterway. The second auwai is located to the east at the western extent of the cleared area. On the north, this east-most auwai divides a knoll-top cluster of abutting enclosures and terraces on the west from a small ahu on the east. Atop the knoll are at least three irregular enclosures ranging from roughly 1-3 m in diameter, one distinct C-shape, a storage cupboard, and several terraces including two distinct semicircular terraces (~2-3 m in length) and one larger irregular terrace (~7 m in length). Two branch coral fragments, one false brain coral fragment, and an 'ili'ili were observed among the cluster of features. The ahu situated on the east side of the auwai is comprised of a south-opening U-shape (~1.5 m dia.) containing a branch coral concentration. On the downslope side of the ahu is a scatter of coral eroding from the feature and three distinct circular pits or depressions (~0.75 m dia.) that appear as informal excavations.

To the south, along the east bank of the east-most auwai, is a large habitation enclosure containing a dense cultural material scatter. The circular habitation enclosure measures approximately 10 m in diameter. It consists of a stacked boulder and cobble wall measuring up to 1 m in height and 1.7 m in width on the better-preserved upslope north extent. The downslope south and southwest portion of the enclosure wall is mainly collapsed. Cultural material observed within the enclosure includes a remnant 'iil'ili pavement, marine shell (cone, cowrie, drupe, pipipi), branch and false brain coral, kukui endocarp, and a non-basalt flaked lithic, that may be a historic flint (O-001). The feature is likely to have intact subsurface cultural deposits. Several large kiawe are growing from the feature's interior and enclosing wall.

The northeastern portion of the site area contains a high density of features, which continue to the north of the project area. Features situated along the cleared APE boundary include a planting pit garden and two associated C-shapes, a second pit/terrace garden, and a wall. The larger planting pit garden consists of a rocky knoll containing a multitude of small circular or ovate planters bookended by C-shaped enclosures at the east-west extents. Many planting pits share adjoining sidewalls of 1-2 courses of boulders/cobbles, producing a 'honeycomb' of clustered planting spaces averaging roughly 1 m in diameter. Immediately to the east is a second garden consisting of small irregular terraces and planting pits constructed of stacked/aligned boulders along a low north-south ridge. An apparent walkway runs northeast-southwest along the vertically stacked north extent of the modified ridge garden. Several meters to the north of the two gardens lies a northwest-southeast oriented rock wall measuring approximately 10 m in length and approximately 0.6 m in height. The wall, which consists of 1-2 courses

of neatly stacked boulders, is very linear, especially in relation to the more organic, curvilinear feature forms predominant across the rest of the site.

The central portion of the site area contains terraces, C-shapes, and an irregular habitation enclosure. Situated below and southwest of the the previously discussed planting pit garden knoll are 3 distinct C-shapes, to the east of which are series of irregular agricultural terraces contouring the slope. Below the terraces is a larger irregular habitation enclosure and adjacent rectangular terrace. The habitation enclosure contains interior subfeature divisions (possible storage features) and several pieces of coral. Abutting the enclosure to the east is a flat rectangular terrace measuring several meters in length and width.

The more disturbed southeastern portion of site contains a distinct rock-infilled terrace and multiple remnant features. The terrace has a distinct rock-infilled surface and southwest face measuring approximately 16 m in length x 3 m in width and ranging from 0.4-0.8 m in height. The terrace could be interpreted as up to ~6 m in width including the flat soil extending behind the infill. The terrace was originally interpreted as a section of historic road, but no other evidence of a road could be identified among the surrounding topography and features. Surrounding the infilled terrace are more remnant terraces and possible remnant C-shaped enclosures. The ground surface is strewn with fractured rock and several push piles at the perimeter of the site area suggests the area has been affected by bulldozing.

During the course of the survey, features were observed to continue at a high density north and mauka of the survey area. A quick reconnaissance confirmed the presence of a heiau, several C-shapes, petroglyphs, a grinding slick, another possible groundstone, auwai, and probably agricultural pits and terraces. The heiau has a well preserved platform and west wall, but the east extent has been impacted by a bulldozer cut, exposing the profile of a cultural surface laden with coral. The intact west wall contains large amounts of coral and waterworn cobbles, including large branch coral heads that appear to have been harvested live. A modified gully or auwai wraps around the west side of the heiau; another auwai with a historic rock flume is located to the southeast. Two petroglyphs, one of a kane and another of two dogs, observed north of the APE are associated with a cluster of C-shapes.

The site contains many intact and well-preserved features, although the site area has been negatively impacted by modern disturbance on all sides. The east and south extents are disturbed by bulldozing and water diversion features associated with the Honopiilani Highway. The northern portion surrounding the heiau has been affected by bulldozing, possible associated with the construction and maintenance of the overhead transmission lines. The western extent is disturbed by invasive forest and a modern hunting camp. Despite these disturbances, many features within the site, including those ma uka the APE, remain undisturbed or lightly altered and in good-to-fair condition. Other features, particularly those on the east and south margins that have been subjected to mechanical disturbance, may range from poor-to-remnant condition. Considering the density of features and presence of a heiau and auwai, site AA2216-068 should be treated within a landscape framework that considers the entire valley.

#### **EVALUATION SUMMARY**

AA2216-068 has retained its location, design, setting, materials, feeling, workmanship, and association due to its location within the far margins of the former sugar plantation boundary, as well as the distance from the current alignment of Honoapi'ilani Highway and large lot residential development within Ukumehame Ahupua'a. This intensive modification to the lands outside of Ukumehame Valley and to the far southeast of AA2216-050 further contributes to the breadth of cultivation within Ukumehame and



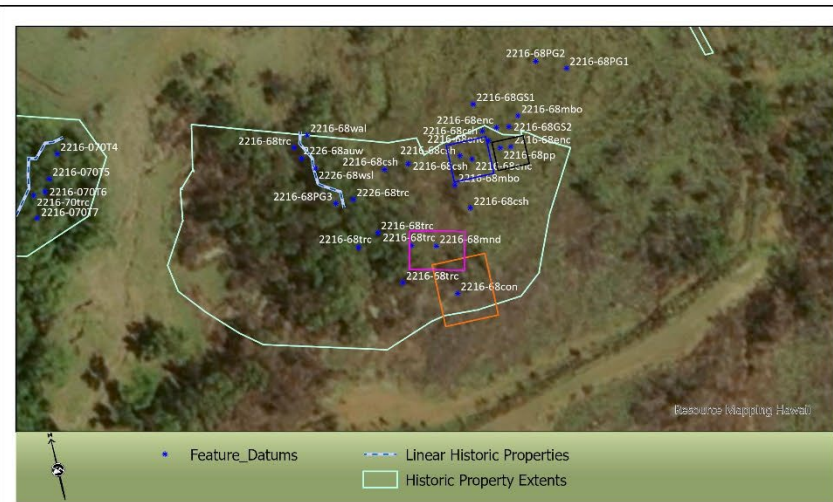
what would have been a highly productive ahupua'a wide agricultural system when combined with the lo'i systems of Ukumehame Valley. The potential extent of lo'i, colluvial, and intensive dryland agricultural systems has been modeled by Kurashima and others (2019) across the archipelago using modern environmental and climatic data compared with archaeological and ethnohistorical data. While their model shows approximately 34.6% of potential indigenous agricultural lands would be given over to colluvial agriculture, with the distribution on Maui appearing to include small portions of the project area, the authors note that while their model results were generally consistent with available archaeological and ethnohistorical information, there was little information available that was specific to colluvial agricultural systems in the archaeological record. This system represents one of the few currently known intact colluvial systems within the archipelago (Kirch and McCoy 2023:155-156). This combination of fully developed wet and dry, colluvial agricultural systems within a singular ahupua'a appears to be unique to this region, the intensification of which may have been a response to a spike in population, heightened social complexity with regard to land and resource management in the leeward West Maui, and challenging environmental conditions.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

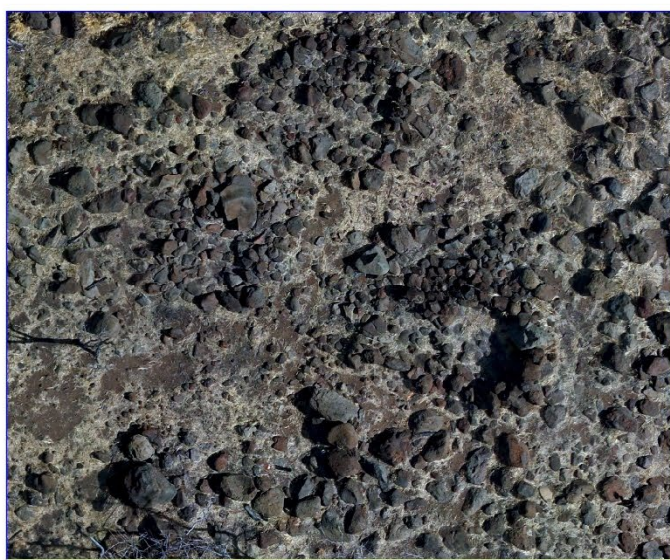
AA2216-068 is recommended as historically significant and eligible to the National Register under Criteria A, C, and D. When understood in the context of the overall archaeological landscape of the flow slopes and alluvial plain of West Maui, from Ukumehame to Launiupoko, as well as the intra and inter-site patterning of agricultural, ceremonial, and habitation features in relation the overall topography, it is clear that expansive adaptation into an area that appears to be marginally suited for agriculture speaks to a broader pattern of intensive settlement when taking into account the well-watered flood plain and valley floor of Ukumehame. Like AA2216-050 the archaeological features highlight an adaptive strategy that takes advantage of slope direction for soil retention and voids in bedrock outcrops for soil collection and possible mulching techniques, view planes for ceremonial features, and positioning of long-term and/or recurrent habitation sites within the overall system, therefore Criterion A is applicable as this complex may speak to broad patterns in traditional Hawaiian adaptations, land uses, and complex social systems prior to the Western Contact. Site AA2216-068 is additionally significant under Criterion C as a complex dryland agricultural system that is unique to the topography of the region. Unlike the typical Kona Field System that is characterized by long linear walls and terraces that define an expansive linear field system, the dryland field system documented during this study is entirely influenced by the rocky topography which resulted in the construction of diverse feature types with varying functions depending on slope and bedrock exposures. Continued archaeological research would help to inform the timeline for agricultural intensification in the region and gain understanding of when and why both extensive dryland and lo'i systems were developed in this region, when and why the dryland field systems may have been subsequently abandoned, how this may relate to the continued use of the established lo'i systems into the modern era. Therefore AA2216-068 is further considered significant under Criterion D.







AA2216-068, Drone Imagery, Representative Feature Types



0 1 2 4 6 8 Meters

C-Shapes



0 1 2 4 6 8 Meters

Planting Pits



0 1 2 4 6 8 Meters

Additional Associated Features Requiring Heavy Clearing



0 1.25 2.5 5 7.5 10 Meters

Terraces

Figure 20. AA2216-068, drone imagery of representative feature types and distribution across the overall complex.





Plate 26. AA2216-068, overview of possible rock art 3 in possible auwai near hunting camp, view to east.



Plate 27. AA2216-068, close up and overview of rock art 2. North arrow in closeup for scale, not directional orientation.



Plate 28. AA2216-068, possible hoana (whetstone), view to north.

<b>FIELD NO:</b>	AA2216-070	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 3	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	C-Shape,Mound,Terrace	<b>MIDDEN DENSITY:</b>	None
<b>FUNCTION:</b>	Agriculture,Habitation	<b>ARTIFACT DENSITY:</b>	None
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, C, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, c, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

#### **ENVIRONMENTAL SETTING:**

Gently sloping topography vegetated with kiawe trees, buffel grasses, opiuma, and haole koa.

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-070 is a habitation and agricultural complex located northwest of another habitation and agricultural complex with an associated heiau situated just outside and mauka of the survey corridor and southeast of the Ukumehame Firing Range in Alternative 1 (Figure 21, Plate 29 through Plate 32). AA2216-070 is likely associated with, and an extension of the same traditional dryland field system as AA2216-068. The features of this complex extends mauka and connects to the ceremonial complex situated outside the APE.

The southeast portion of the site consists of a large terrace oriented east to west and standing up to 5 courses tall (T1). The terrace extends west, obscured by heavy kiawe tree collapse and dense vegetation. A possible enclosure or c-shape covered by dense vegetation is partially visible within the interior space of the terrace (C1). Additionally, segments of dry stacking are visible mauka of the terrace but, due to thick vegetation, cannot be identified. Features continue upslope outside of the APE.

Downslope of the terrace (T1) is a remnant cobble mound (M1). Remnant dry stacked segments and alignments extend downslope of the mound, abutting the Department of Transportation (DOT) flood basin. No features were identified south of the flood basin.

The site continues east of the terrace (T1), extending below dense tree fall where dry stacked construction, including multiple infilled terraces (T2 and T3), are located. Further east is a constructed auwai with multiple remnant features built off of it. Many of the features are covered in thick tree fall and duff and are only partially visible. Multiple alignments and terraces extend off the eastern berm of the auwai (T4-T7) and are visible despite the dense vegetation. Additional terraces were observed within the interior of the auwai. Features extend east before abutting extensive bulldozer disturbance and a large kiawe green waste pile.

#### **EVALUATION SUMMARY**

AA2216-070 has retained its location, design, setting, materials, workmanship, feeling, and association due to its location within the far margins of the former sugar plantation boundary, as well as the distance from the current alignment of Honoapi'ilani Highway and large lot residential development within

Ukumehame Ahupua'a. This intensive modification to the lands outside of Ukumehame Valley and to the far southeast AA2216-070 further contributes to the breadth of cultivation within Ukumehame and what would have been a highly productive ahupua'a wide agricultural system when combined with the lo'i systems of Ukumehame Valley. The potential extent of lo'i, colluvial, and intensive dryland agricultural systems has been modeled by Kurashima and others (2019) across the archipelago using modern environmental and climatic data compared with archaeological and ethnohistorical data. While their model shows approximately 34.6% of potential indigenous agricultural lands would be given over to colluvial agriculture, with the distribution on Maui appearing to include small portions of the project area, the authors note that while their model results were generally consistent with available archaeological and ethnohistorical information, there was little information available that was specific to colluvial agricultural systems in the archaeological record. This system represents one of the few currently known intact colluvial systems within the archipelago (Kirch and McCoy 2023:155-156). This combination of fully developed wet and dry, colluvial agricultural systems within a singular ahupua'a appears to be unique to this region, the intensification of which may have been a response to a spike in population, heightened social complexity with regard to land and resource management in the leeward West Maui, and challenging environmental conditions.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

While AA2216-070 on its own may not be considered significant under Criteria A and C, when understood in the context of the broader archaeological landscape and potential association with AA2216-068 which contributes to the distinctive characteristics of the overall dryland field system, Criteria A and C may apply. When understood in the context of the overall archaeological landscape of the flow slopes and alluvial plain of West Maui, from Ukumehame to Launiupoko, as well as the intra and inter-site patterning of agricultural, ceremonial, and habitation features in relation the overall topography, it is clear that expansive adaptation into an area that appears to be marginally suited for agriculture speaks to a broader pattern of intensive settlement when taking into account to the well-watered flood plain and valley floor of Ukumehame. Like AA2216-050 and AA2216-068, the archaeological features AA2216-070 highlight an adaptive strategy that takes advantage of slope direction for agricultural cultivation within the overall system, therefore Criterion A is applicable as this complex may contribute toward understanding broad patterns in traditional Hawaiian adaptations, land uses, and complex social systems of the region prior to the Western Contact. Site AA2216-070 is additionally significant under Criterion C as a complex dryland agricultural system that is unique to the topography of the region. Unlike the typical Kona Field System that is characterized by long linear walls and terraces that define an expansive linear field system, the dryland field system documented during this study is entirely influenced by the rocky topography which resulted in the construction of diverse feature types with varying functions depending on slope and bedrock exposures. Continued archaeological research would help to inform the timeline for agricultural intensification in the region and gain understanding of when and why both extensive dryland and lo'i systems were developed in this region, when and why the dryland field systems may have been subsequently abandoned, and how this may relate to the continued use of the established lo'i systems into the modern era. Therefore AA2216-070 is further considered significant under Criterion D.



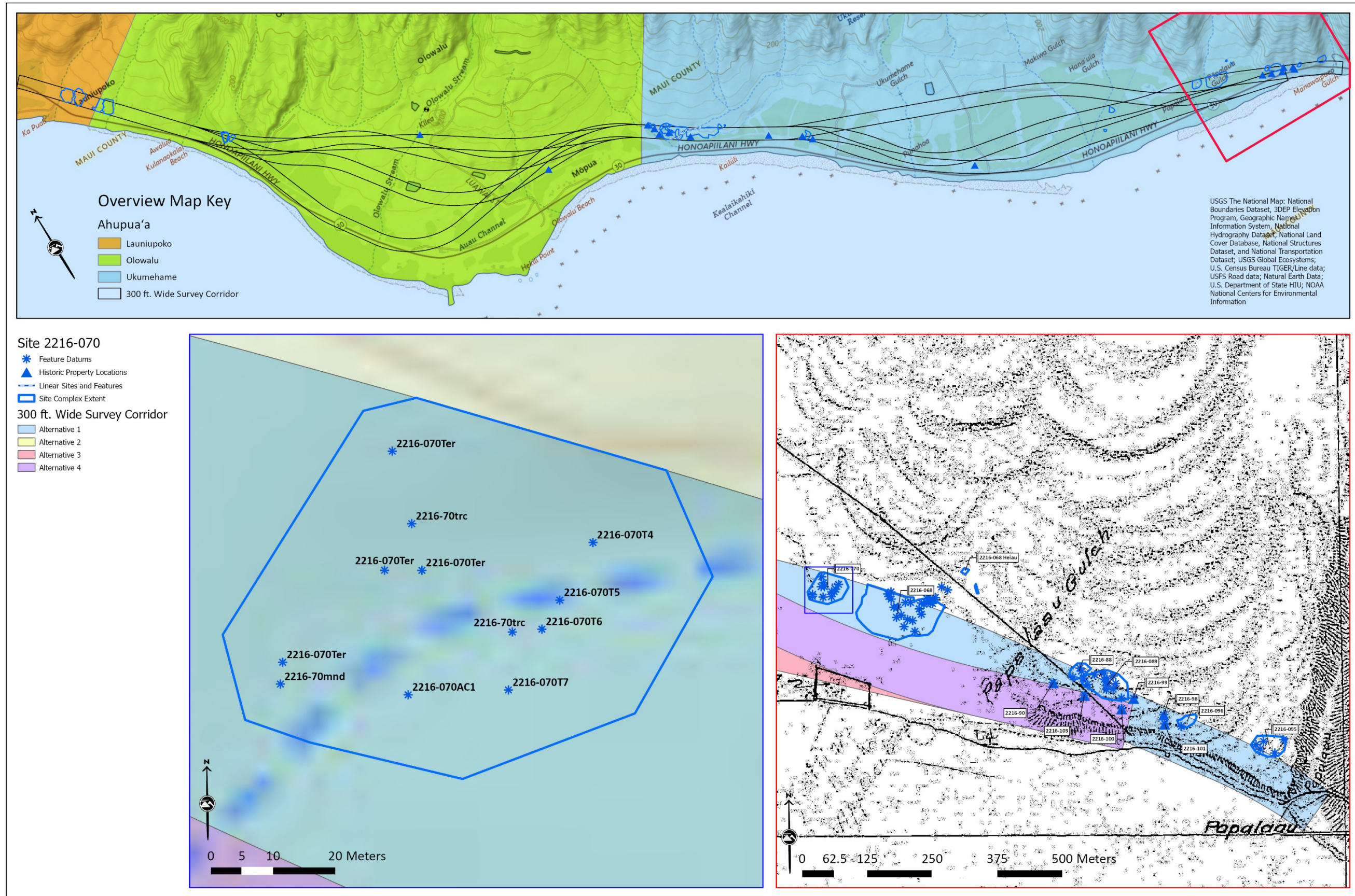


Figure 21. AA2216-070 in relation to the proposed alternatives (top frame), possible inter-site associations in relation to the historic Ukumehame Coastline map (Monsarrat and Kananui 1908) (bottom right frame); as well as intra-site feature distribution<sup>5</sup> (bottom left frame).

<sup>5</sup> trc=terrace, mbo=modified bedrock outcrop, wal=wall, csh=c-shape, enc=enclosure, PG=petroglyph, con=possible features, GS=ground stone, pp=planting pit





Plate 29. AA2216-070, habitation and agricultural complex, overview of possible agricultural circle (AC1) within the auwai, view to southwest.



Plate 30. AA2216-070, agricultural and habitation complex, overview of features extending mauka outside of the project area, view to north.



Plate 31. AA2216-070, agricultural and habitation complex, overview of a possible cobble mound (M1) located below the terrace face (T1), view to east.



Plate 32. AA2216-070, agricultural and habitation complex, overview of dry stacked terrace construction (T1), view to northeast.

<b>FIELD NO:</b>	AA2216-072	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 7	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Enclosure, Mound, Wall	<b>MIDDEN DENSITY:</b>	None
<b>FUNCTION:</b>	Agriculture, Habitation	<b>ARTIFACT DENSITY:</b>	Low Branch coral, false brain coral, waterworns
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, C, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Feeling, Workmanship, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, c, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Feeling, Workmanship, Association

#### **ENVIRONMENTAL SETTING:**

Gently sloping topography vegetated with kiawe trees and buffel grasses.

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-072 is a newly identified habitation and agricultural complex located between Olowalu and Ukumehame to east of site AA2216-050 (agricultural, habitation, and ceremonial complex) and south of a historic flume. The pedestrian survey identified two boulder concentrations with depressions, a rock wall, at least one C-shape, and several rock mounds. A small amount of branch coral, false brain coral, and waterworn stones were noted in the site area.

The two boulder concentrations, situated 20 m apart on an east-west axis, contain circular pits or depressions and appear to have once functioned as agricultural planting pits similar to those observed in site AA2216-050 and across the project area. The rock wall is linear and oriented on an east-west axis approximately 13 m south of the westernmost boulder concentration. The wall consists of two visible courses of dry-stacked cobbles and small boulders and may be part of a larger enclosure. Removal of grass and deadwood will almost certainly reveal additional features. AA2216-072 and AA2216-050 to the west were likely parts of the same continuous complex prior to being separated by the flume (AA2216-071), cane haul road, and other modern ground disturbances. A section of ranch wire was observed in a push pile below the west-most boulder concentration.

#### **EVALUATION SUMMARY**

AA2216-072 has retained its location, design, setting, materials, workmanship, feeling, and association due to its location within the margins of the former sugar plantation fields and distance from the current alignment of Honoapi'ilani Highway. It is likely associated with, and a continuation of, AA2216-050 immediately northwest of the site extent, thus speaking to what would have been a highly productive ahupua'a wide agricultural system when combined with the lo'i systems of both Ukumehame and Olowalu Valleys. The potential extent of lo'i, colluvial, and intensive dryland agricultural systems has been modeled by Kurashima and others (2019) across the archipelago using modern environmental and climatic data compared with archaeological and ethnohistorical data. While their model shows approximately 34.6% of potential indigenous agricultural lands would be given over to colluvial agriculture, with the distribution



on Maui appearing to include small portions of the project area, the authors note that while their model results were generally consistent with available archaeological and ethnohistorical information, there was little information available that was specific to colluvial agricultural systems in the archaeological record. This system represents one of the few currently known intact colluvial systems within the archipelago (Kirch and McCoy 2023:155-156). This combination of fully developed wet and dry, colluvial agricultural systems within a singular ahupua'a appears to be unique to this region, the intensification of which may have been a response to a spike in population, heightened social complexity with regard to land and resource management in the leeward West Maui, and challenging environmental conditions.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

AA2216-072 is recommended as historically significant and eligible to the National Register under Criteria A, C, and D. When understood in the context of the broader archaeological landscape and association with the neighboring complexes, as well as the intra-site patterning of agricultural, possible ceremonial, and potential habitation features in relation to the overall topography, Criterion A is applicable as it may speak to broad patterns in traditional Hawaiian adaptations, land uses, and complex social systems prior to the Western Contact. Site AA2216-072 is additionally significant under Criterion C as a complex dryland agricultural system that is unique to the topography of the region. Unlike the typical Kona Field System that is characterized by long linear walls and terraces that define an expansive linear field system, the dryland field system documented during this study is entirely influenced by the rocky topography which resulted in the construction of diverse feature types with varying functions depending on slope and bedrock exposures. Continued archaeological research would help to inform the timeline for agricultural intensification in the region and gain understanding of when and why both extensive dryland and lo'i systems were developed in this region, when and why the dryland field systems may have been subsequently abandoned, how this may relate to the continued use of the established lo'i systems into the modern era. Therefore AA2216-072 is further considered significant under Criterion D.

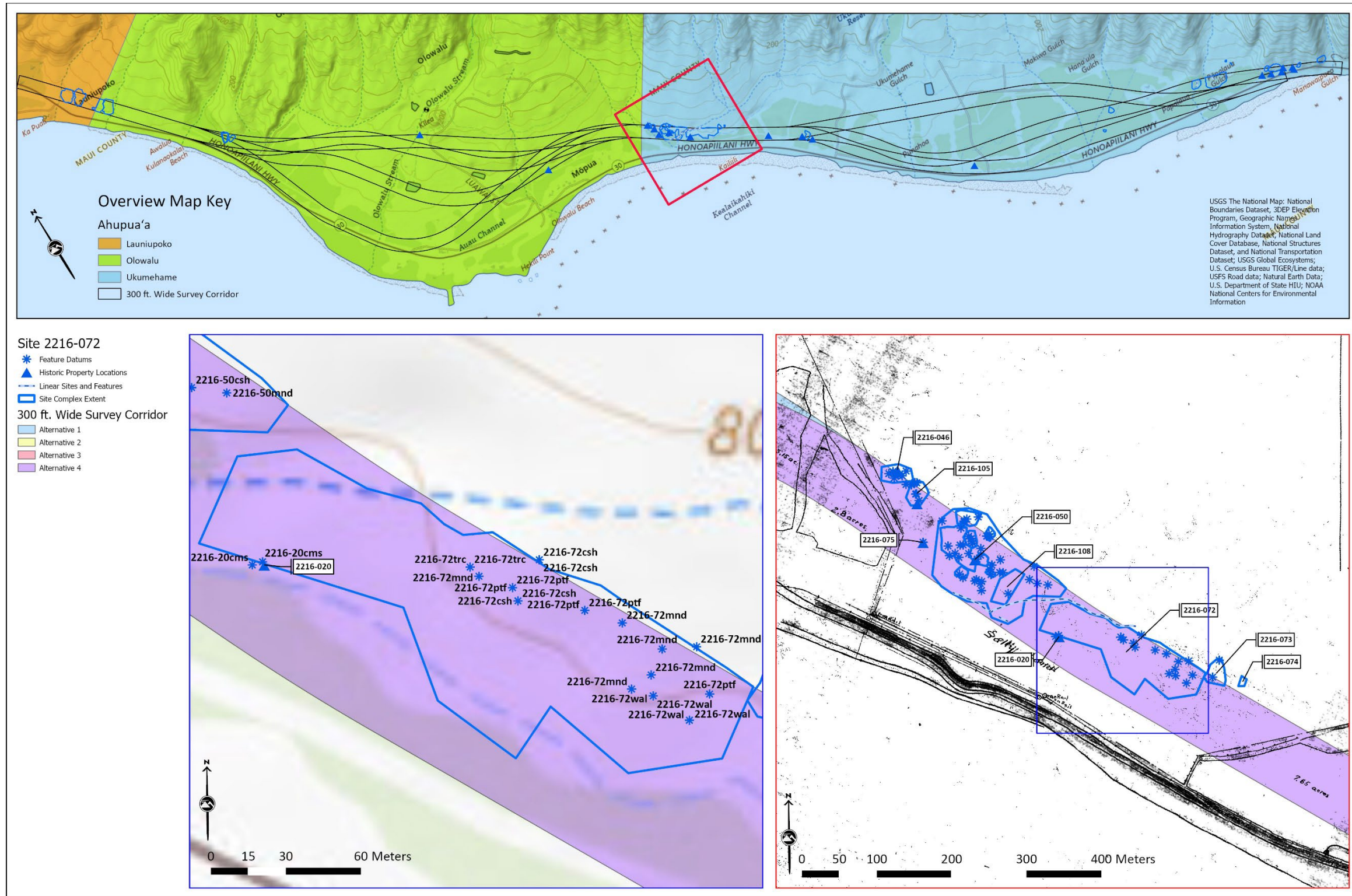


Figure 22. AA2216-072 in relation to the proposed alternatives (top frame) and inter-site association between the boundaries of the Ukumehame (A. C. Alexander 1906b) and Olowalu Sections (A. C. Alexander 1906a) of the Olowalu Sugar Plantation (bottom right frame); as well as intra-site feature distribution<sup>6</sup> (bottom left frame).

<sup>6</sup> trc=terrace, trc=terrace, mnd=mound, csh=c-shape, enc=enclosure, wal=wall, ptf=platform, cms=cultural material scatter



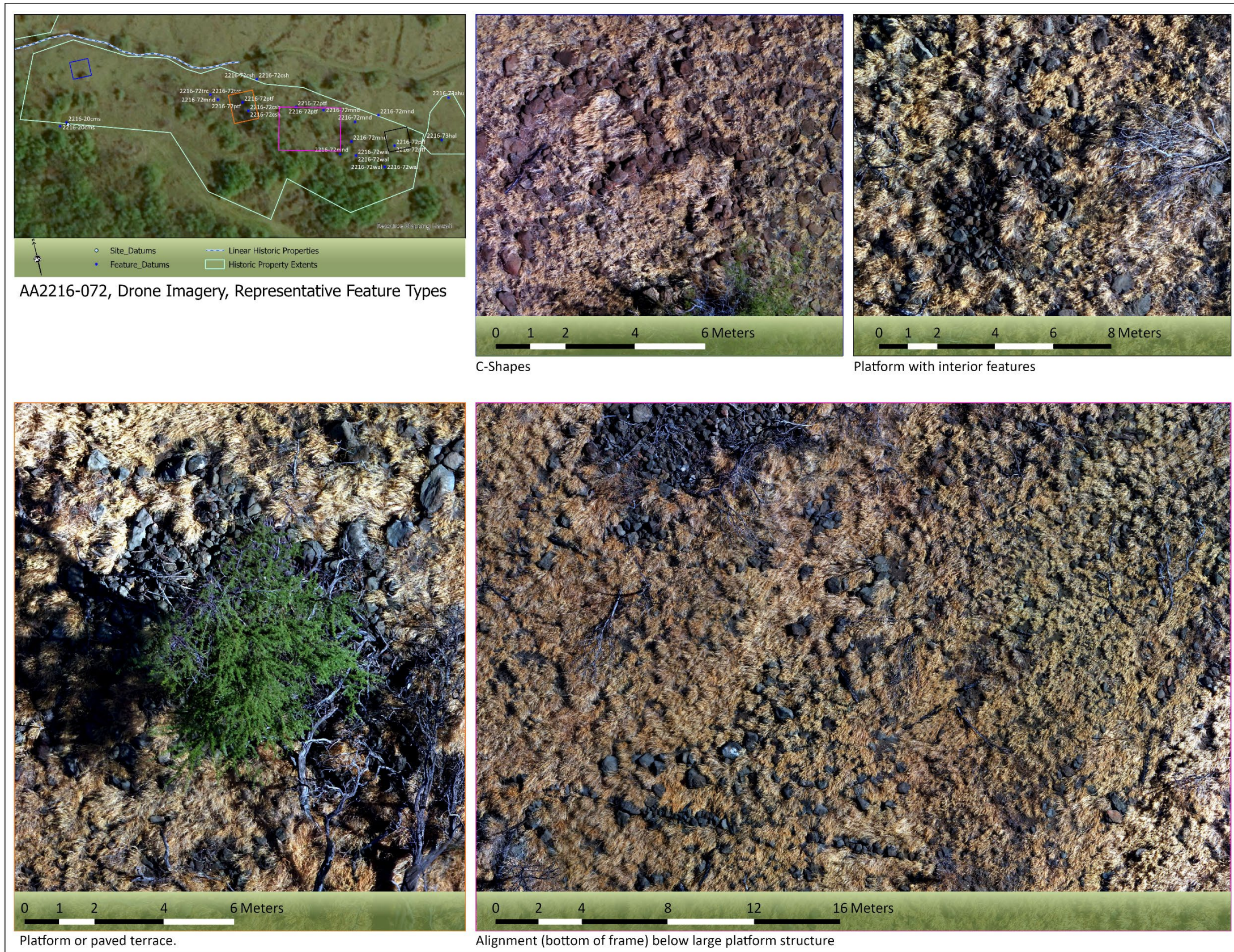


Figure 23. AA2216-072, drone imagery of representative feature types and distribution across the overall complex.



<b>FIELD NO:</b>	AA2216-073	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 2	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Enclosure and Ahu	<b>MIDDEN DENSITY:</b>	High Marine shell
<b>FUNCTION:</b>	Permanent Habitation	<b>ARTIFACT DENSITY:</b>	High Branch coral, false brain coral, waterworn cobbles
<b>CONDITION</b>	Good to Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Materials, Workmanship, Setting, Feeling, and Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Materials, Workmanship, Setting, Feeling, and Association

#### **ENVIRONMENTAL SETTING:**

Topography is flat with kiawe trees and buffel grasses.

#### **HISTORIC PROPERTY DESCRIPTION:**

Site AA2216-073 is a large rectangular enclosure located on the upper northern boundary of the merged corridor section (Figure 25). The enclosure is located near the eastern edge of the dryland agricultural field system between the Olowalu and Ukumehame field boundaries of the former Olowalu Sugar Plantation. The enclosure is oriented northwest to southeast and measures roughly 21.5 m by 7 m.

A pathway lined with two courses of stacked basalt cobbles leads to a small entrance to the enclosure on its central, southwestern wall. The walls of the enclosure are core-filled dry stacked subangular and subrounded basalt boulders and cobbles with coral and waterworn cobbles incorporated into the construction (Plate 33 through Plate 35). The walls stand between 3-5 m tall. The upper portions of the wall appear partially collapsed and may have been reconstructed numerous times. A relatively high density of cultural material is present along the interior surface of the enclosure and consists of 'ili'ili, false brain coral, branch coral, and marine shell.

An ahu or stone mound containing a high density of branch coral is located roughly 21 m northwest of the enclosure and has been interpreted as a ceremonial structure (Plate 36). Smaller enclosures and C-shapes were also observed along the southern face of the historic flume wall that is roughly situated between 19-27 m north and northwest of the enclosure. These features are likely part of the same complex as the enclosure but fall outside the corridor boundary.

AA2216-073 is in good condition but shows signs of recent and potential historical modifications. The southeastern wall is fully collapsed, other walls show signs of haphazard restacking, and an abandoned homeless camp is located in the southwest corner of the enclosure. The homeless camp also contains a fire pit made from rocks that appear to have been taken from one of the enclosure walls. Bulldozing likely associated with the construction of the fire road is also located downslope and southeast of the enclosure and destroyed a portion of the pathway and potential terracing fronting the enclosure.

## EVALUATION SUMMARY

AA2216-073 has retained its integrity of location, design, setting, materials, workmanship, feeling, and association due to its apparent minimal modification, the location of the complex within the uncultivated margins of the former sugar plantation fields, and distance from the current alignment of Honoapiʻilani Highway. It is likely associated with, and a continuation of, the large agricultural complexes of AA2216-050 and AA2216-072 to the immediate northwest of the site extent. The probable association of this permanent habitation area, which is situated outside of the well watered valleys and within the rocky topography mauka of the coastline, to the fully developed dryland agricultural field system appears contradictory to the commonly accepted dichotomy of wet and dry agricultural systems and the subsequent settlement patterns.

## NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

AA2216-073 is recommended as historically significant and eligible to the National Register under Criteria A and D. When understood in the context of the broader archaeological landscape and likely association with the neighboring complexes, Criterion A is applicable as it may speak to broad patterns in traditional Hawaiian adaptations, land uses, and complex social systems prior to the Western Contact. Continued archaeological research would help to inform the timeline for agricultural intensification and settlement in the region and gain understanding of the distribution of permanent vs. temporary habitation and ceremonial spaces within and around the extensive dryland field systems as they developed in this region, when and why the dryland field systems may have been subsequently abandoned, how this may relate to the continued traditional Hawaiian settlement into the modern era. Therefore AA2216-073 is further considered significant under Criterion D.



Plate 33. AA2216-073, interior of hale with temporary camp visible in the southwest corner, view to west.



Plate 34. AA2216-073, closeup of wall construction with coral in it, view to northwest.



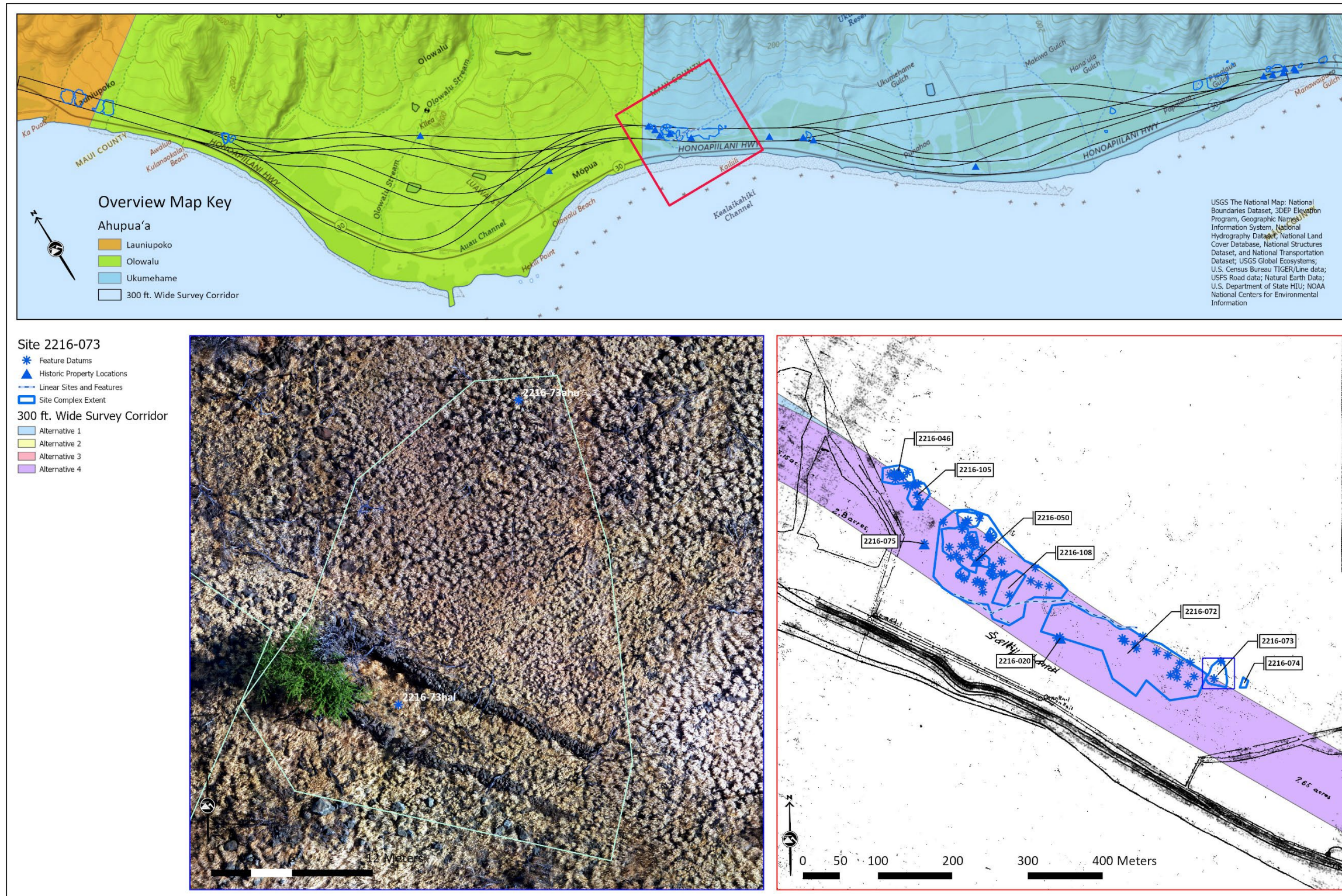


Figure 24. AA2216-073 in relation to the proposed alternatives (top frame) and inter-site association between the boundaries of the Ukumehame (A. C. Alexander 1906b) and Olowalu Sections (A. C. Alexander 1906a) of the Olowalu Sugar Plantation (bottom right frame); as well as a drone overview of the primary features of the complex<sup>7</sup> (bottom left frame).

<sup>7</sup> hal=enclosure, ahu=mound (shrine)





Plate 35. AA2216-073, overview of the enclosure/hale with the entrance and paved pathway visible, view to north.



Plate 36. AA2216-073, examples of branch coral within ahu feature.

<b>FIELD NO:</b>	AA2216-075	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Surface Scatter	<b>MIDDEN DENSITY:</b>	Medium Slate pencil urchin fragment, pipipi shell, cowries, cone shell, and UID marine shell fragments
<b>FUNCTION:</b>	Habitation	<b>ARTIFACT DENSITY:</b>	Medium False brain coral and one fine grain basalt flake Barbed wire found in pushpile to the southeast of the site
<b>CONDITION:</b>	Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association

**ENVIRONMENTAL SETTING:**

Gently sloping topography vegetated with buffel grasses and kiawe trees.

**HISTORIC PROPERTY DESCRIPTION:**

Site AA2216-075 is a surface scatter located at the base of a west-facing slope below sites AA2216-046 (habitation and agricultural complex), AA2216-105 (habitation and agricultural complex), and AA2216-050 (habitation and agricultural complex) (see Figure 9). The scatter is located in a highly disturbed bulldozed area containing multiple push-piles and overlies a potential wall segment believed to be previously recorded site SIHP-04719 (Historic Wall). The majority of the scatter is covered in thick vegetation. Cultural material visible in less heavily vegetated areas consisted of a slate pencil urchin fragment, a pipipi shell, multiple cowrie shell fragments, a medium density of unidentified marine shell fragments, a medium density of false brain coral fragments, and one fine-grained basalt flake. AA2216-075 is believed to be the disturbed remains of a habitation area that used to connect to sites AA2216-046, AA2216-105, and AA2216-050.

**EVALUATION SUMMARY**

AA2216-075 is a surface scatter reflective of a former habitation site that could provide information on the spatial relationship of habitation features to the overall dryland field system that spans the margin between the former sugar cane fields of Olowalu and Ukumehame. As the site is in remnant condition, there has been a loss of integrity of design, feeling, setting, and workmanship; however, depending on the presence or intact subsurface deposits, the site may retain integrity of location, materials, and association.

## NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

While the site has been impacted by prior disturbance, there remains potential for the presence of intact subsurface deposits that may provide information on the chronology and intensity of traditional habitation in relation to the recently documented dryland field system. Therefore, in consideration of the above description and analysis, AA2216-075 is recommended as significant and eligible to the National Register under Criterion D.



Plate 37. AA2216-075, overview of scatter location, view to west.



Plate 38. AA2216-075, overview of scatter location, view to east.





Plate 39. AA2216-075, example of marine shell and coral, plan view.



Plate 40. AA2216-075, example of fine grained basalt flake, plan view.

<b>FIELD NO:</b>	AA2216-088	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 2	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Terrace	<b>MIDDEN DENSITY:</b>	None
<b>FUNCTION:</b>	Ceremonial Complex	<b>ARTIFACT DENSITY:</b>	High Branch coral, false brain coral, and waterworn cobbles
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Feeling, Association

#### **ENVIRONMENTAL SETTING:**

Moderate to steeply sloping topography with vegetation consisting of buffel grasses, hairy woodrose, and kiawe tree clusters.

#### **HISTORIC PROPERTY DESCRIPTION:**

Site AA2216-088 is a ceremonial complex located on a ridge in the east portion of the project area and in the mauka extent of Corridor 1 (Figure 25). The complex consists of terraces and a modified bedrock outcrop that contour the south and east faces of a steep ridgeline overlooking Pāpālua Wayside Park. A flag pole with the Hawaiian flag is located on top of the ridge.

The terrace construction consists of dry stacked basalt cobbles and boulders intermixed with a high density of branch coral heads (Plate 41 through Plate 44). North and mauka of the terraces is a steep east-facing modified bedrock outcrop. Modifications to the outcrop include faced sections of dry-stacked basalt cobbles and boulders intermixed with a moderate density of coral. The outcrop has been impacted by severe erosion and rock fall, resulting in construction collapse along its eastern face. The site extends north and mauka outside of the project boundary. Structural features and cultural material also extend downslope and east directly adjacent to site AA2216-089 (habitation and ceremonial complex).

#### **EVALUATION SUMMARY**

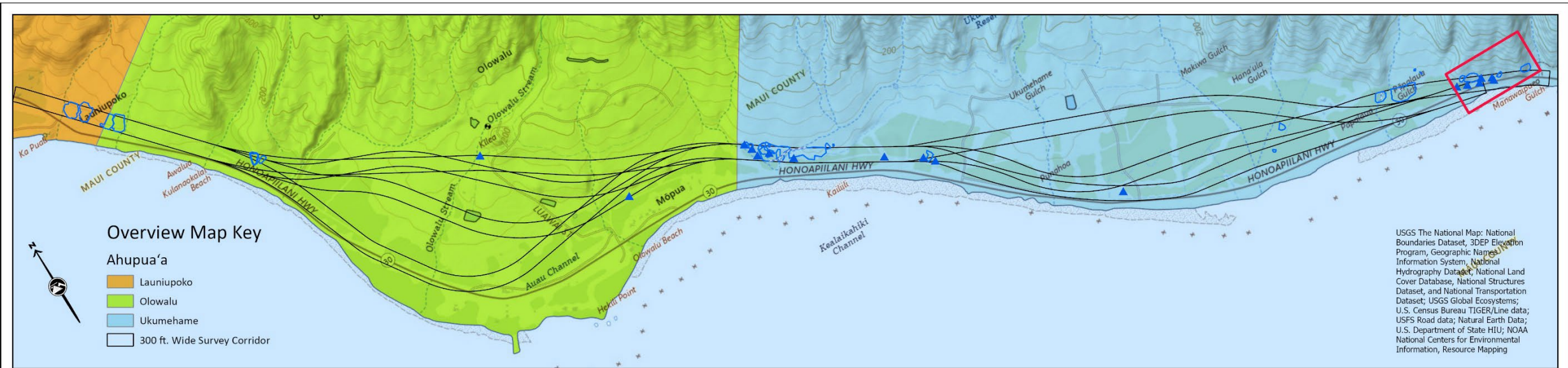
AA2216-088 has retained its integrity of location, design, setting, materials, feeling, and association. The site retains its original location and design configuration, along with the materials used both in construction and as ho'okupu (offerings). Though the ridgeline is at the edge of the current alignment of Honoapi'ilani Highway, the proximity of the highway does not diminish integrity of setting and feeling due to the elevated position of the complex above the highway and maintenance of the viewshed.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

AA2216-088 is recommended as historically significant and eligible to the National Register under Criteria A and D. When understood in the context of the overall archaeological landscape that has been documented as a result of this study and the potential association with the neighboring complexes, Criterion A is applicable as it may speak to broad patterns in traditional Hawaiian adaptations, settlement

patterns, and complex social systems prior to the Western Contact. Finally, the possibility of understanding and interpreting the chronology of ceremonial development and possible interpretations of the ceremonial function of the site remains in the data that could be gathered as a result of subsurface testing within the features themselves, analysis of the corals for chronological information regarding the initial construction and duration of use of the site, and ethnohistorical research into potential functions such as kilo (observation locations) for lawai'a practices, navigation, and overall environmental patterns given the expansive viewshed. Therefore, AA2216-088 is further considered significant under Criterion D.





Site 2216-088 through -090, -095, -098 through -101, and -103

- \* Feature Datums
  - ▲ Historic Property Locations
  - Site Complex Extent
- 300 ft. Wide Survey Corridor**
- Alternative**
- Alternative 1
  - Alternative 2
  - Alternative 3
  - Alternative 4



Figure 25. AA2216-088 through -90, -095, -098 through -101, and -103 in relation to the proposed alternatives (top frame), along with inter-site association intra-site feature distribution<sup>8</sup> (bottom frame).

<sup>8</sup> trc=terrace, mbo=modified bedrock outcrop, ahu= ceremonial feature, enc=enclosure, pg=petroglyph,





Plate 41. AA2216-088, close up of branch coral that was harvested live incorporated into terrace construction, view to west.



Plate 42. AA2216-088, representative example of modified outcrop with terrace construction, view to west.



Plate 43. AA2216-088, overview of terrace with coral, view to west.



Plate 44. AA2216-088, overview of terrace and viewshed facing Pāpālua coastline, Kaho'olawe and Kealaikahiki Channel in the background, view to south.

<b>FIELD NO:</b>	AA2216-089	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 3	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Complex: Enclosure, Modified Outcrop, Terrace	<b>MIDDEN DENSITY:</b>	Low Two cowrie shell fragment beneath overhang, UID shell, pipipi shell
<b>FUNCTION:</b>	Ceremonial and Habitation	<b>ARTIFACT DENSITY:</b>	High Branch coral, false brain coral, waterworn cobbles, one lithic scraper (Plate 50)
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

**ENVIRONMENTAL SETTING:**

Moderately sloping topography with vegetation consisting of buffel grasses, hairy woodrose, and kiawe tree clusters.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-089 is a habitation and ceremonial complex located in the east project area where Corridors 1 and 4 merge (see Figure 25). The site is downslope and east of site AA2216-088 (ceremonial complex). AA2216-088 and AA2216-089 were documented separately based on topography but are likely associated with sites and features that extend east across the hillside.

The site consists of multiple habitation and ceremonial features. Notable features within the west extent of the site include a ceremonial terrace retaining a low-density coral scatter, two modified bedrock outcrops, and multiple terraces of indeterminate function. Located 25 m east of the westernmost features is a small circular enclosure. The interior of the enclosure measures 2 m in diameter. It is heavily infilled with large branch coral and false brain coral heads, suggesting it may have functioned as an ahu or other ceremonial feature. (Plate 45 through Plate 49)

Downslope of the enclosure is a series of habitation features, including multiple terraces and a small overhang that contains a low-density scatter of marine shell. Additional habitation features were identified 10 m east of the ceremonial enclosure, including a modified outcrop and multiple terraces. The outcrop and terraces in this area contain a high density of waterworn cobbles and marine shell, suggesting permanent or continuous habitation. Features were followed 20 m north of the project boundary with no break in archaeology found. The site must be revisited and cleared of vegetation to understand the density of features and material present.



## EVALUATION SUMMARY

AA2216-089 has remained unaffected by construction activities related to the current Honoapiʻilani Highway alignment and has retained its integrity of location, design, materials, workmanship, and association. While this complex is situated close to the modern Honoapiʻilani Highway, the proximity of the highway does not diminish integrity of setting and feeling due to the elevated position of the complex above the highway.

## NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

AA2216-089 on its own may not be considered significant under Criterion A, however, when understood in the context of the collective cultural landscape, the potential association with AA2216-088, and inter-site patterning of features in relation to the overall topography, significance under Criterion A may apply as it pertains to traditional Hawaiian land use and division of labor given the apparent focus on habitation and ceremony at the top of the ridge versus the agricultural pursuits along the lower slopes and valley bottoms. Continued archaeological research may help to inform the timeline for population growth in the region and provide insight into social organization based on the horizontal distribution of the archaeological complexes identified during this study, therefore AA2216-089 is further considered significant under Criterion D.



Plate 45. AA2216-089, overview of ceremonial enclosure, view to southwest.

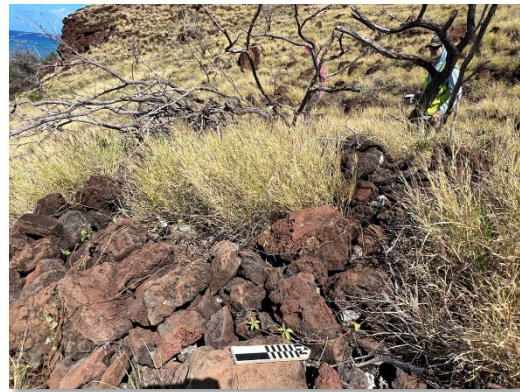


Plate 46. AA2216-089, closeup of ceremonial enclosure, view to west.



Plate 47. AA2216-089, enclosure on right and overhang left, view to northeast.



Plate 48. AA2216-089, modified outcrop with small modified alcove fronting it (where north arrow is located), view to northwest.



Plate 49. AA2216-089, habitation terrace below enclosure and overhang, view to northwest.



Plate 50. SCR-001, basalt scraper, plan view.

<b>FIELD NO:</b>	AA2216-090	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Surface Scatter	<b>MIDDEN DENSITY:</b>	Medium 4 Cowrie, 1 Drupa, 3 Turbine/top, 1 unidentifiable fragment (bivalve?), 2 cone
<b>FUNCTION:</b>	Habitation	<b>ARTIFACT DENSITY:</b>	High 5 branch coral, 9 false brain coral
<b>CONDITION:</b>	Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Material, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Material, Association

#### **ENVIRONMENTAL SETTING:**

Moderate to steeply sloping topography with vegetation consisting of primarily of kiawe trees.

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-090 is a newly identified cultural material scatter situated on a disturbed rocky west-facing slope below AA2216-088 (ceremonial complex) (see Figure 7 and Figure 25). The scatter measures approximately 3 m in diameter and consists of coral and marine shell including 9 false brain coral, 5 branch coral, 4 cowrie, 3 turban, 2 cone, and 1 unidentified marine shell. The slopeside location of the scatter consists of kiawe growing from loose soil and fractured bedrock, which may have been a result of blasting associated with the development of Honopi'ilani Highway. The cultural material does not appear to be eroding down from AA2216-088, which did not contain observable surface midden. However, considering the unstable condition of the slope, it is also possible that the scatter is in a secondary context.

#### **EVALUATION SUMMARY**

AA2216-090 is a remnant cultural material surface scatter reflective of a former activity area or habitation site that may provide information on the distribution of traditional and historic era land use. Without archaeological testing it is unclear whether the horizontal provenience of the scatter is a surface representation of an intact subsurface deposit, or a secondary deposit as a result of erosion. As the site is in remnant condition, there has been a loss of integrity of design, feeling, setting, and workmanship; however, depending on the presence or intact stratified deposits, the site may retain integrity of location, materials, and association.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

While the site has been impacted by prior disturbance, the potential for the presence of intact subsurface deposits that may yield information on the chronology and distribution of traditional pre-contact land use along coastal Ukumehame remains. Therefore, in consideration of the above description and analysis, AA2216-090 is recommended as significant and eligible to the National Register under Criterion D.



<b>FIELD NO:</b>	AA2216-091	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	19th-20th Century
<b>SITE TYPE:</b>	Surface Scatter	<b>MIDDEN DENSITY:</b>	None
<b>FUNCTION:</b>	Activity Area	<b>ARTIFACT DENSITY:</b>	Medium B-001 (clear glass fragmented bottle base), B-002 (brown glass bottle fragment), B-003 (brown glass bottle fragment), B-004 (blue glass bottle base fragment), PC-001 (fragment with blue glaze), PC-002 (porcelain fragment)
<b>CONDITION:</b>	Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Material, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Material, Association

#### **ENVIRONMENTAL SETTING:**

Topography is flat with kiawe trees, flee bane marsh, and buffel grasses.

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-091 is a disturbed surface scatter situated within Corridor 1 that contains historic glass and porcelain fragments (Plate 51 through Plate 53). This area is in the west extent of Ukumehame firing range that has been abandoned due to Nene nesting. In general, the environment is characteristic of marshy land and contains sand deposits intermixed with coral and marine shell, all of which appear naturally deposited through storm and tidal surges and are not believed to be cultural.

#### **EVALUATION SUMMARY**

AA2216-091 is a remnant cultural material surface scatter reflective of a former activity area or habitation site that may provide information on the distribution of historic era land use. Without archaeological testing however, it is unclear whether the horizontal provenience of the scatter is a surface representation of an intact subsurface deposit, or a secondary deposit as a result of erosion or redistribution due to ground disturbance related to the development and use of the Ukumehame Firing Range. As the site is in remnant condition, there has been a loss of integrity of design, feeling, setting, and workmanship; however, depending on the presence or intact subsurface deposits, the site may retain integrity of location, materials, and association.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

While the site has been impacted by prior disturbance, the potential for the presence of intact subsurface deposits that may yield information on the chronology and distribution of historic era land use within Ukumehame remains. Therefore, in consideration of the above description and analysis, AA2216-091 is recommended as significant and eligible to the National Register under Criterion D.



Plate 51. AA2216-091, overview of scatter, view to east.



Plate 52. AA2216-091, ceramic sherd example, plan view.



Plate 53. AA2216-091, fragmented bottle glass examples, plan view.

<b>FIELD NO:</b>	AA2216-092	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	19th-20th Century
<b>SITE TYPE:</b>	Surface Scatter	<b>MIDDEN DENSITY:</b>	None
<b>FUNCTION:</b>	Activity Area	<b>ARTIFACT DENSITY:</b>	Low CAN-001 (aluminum beer can) PC-001, B-001 (colorless bottle) B-002 (brown glass bottle) B-003 (colorless bottle base fragment) One brown glass fragment, one clear glass fragment, one aqua glass fragment
<b>CONDITION:</b>	Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Material, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Material, Association

#### ENVIRONMENTAL SETTING:

Topography is flat with kiawe trees, Indian marsh fleabane, and salt wort.

#### HISTORIC PROPERTY DESCRIPTION:

AA2216-092 is a disturbed surface scatter containing one historic can, historic glass, and porcelain fragments (Plate 51 through Plate 53); as well as modern green glass. Located in west extent of Ukumehame firing range that has been abandoned due to Nene nesting, this site falls within the survey limits of Alternative 2. In general, the environment is characteristic of marshy land and contains sand deposits intermixed with coral and marine shell, all of which appear naturally deposited through storm and tidal surges and are not believed to be cultural.

#### EVALUATION SUMMARY

AA2216-092 is a remnant cultural material surface scatter reflective of a former activity area or habitation site that may provide information on the distribution of historic era land use. Without archaeological testing however, it is unclear whether the horizontal provenience of the scatter is a surface representation of an intact subsurface deposit, or a secondary deposit as a result of erosion or redistribution due to ground disturbance related to the development and use of the Ukumehame Firing Range. As the site is in remnant condition, there has been a loss of integrity of design, feeling, setting, and workmanship; however, depending on the presence or intact subsurface deposits, the site may retain integrity of location, materials, and association.

#### NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

While the site has been impacted by prior disturbance, the potential for the presence of intact subsurface deposits that may yield information on the chronology and distribution of historic era land use along within Ukumehame remains. Therefore, in consideration of the above description and analysis, AA2216-092 is recommended as significant and eligible to the National Register under Criterion D.





Figure 26. AA2216-092, overview, view to northeast.



Figure 27. AA2216-092, ceramic sherd, plan view.



Figure 28. AA2216-092, bottle finish, plan view.



Figure 29. AA2216-092, can, plan view.

<b>FIELD NO:</b>	AA2216-095	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 5	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Complex: Modified Outcrop, Mound, Surface Scatter, Terrace	<b>MIDDEN DENSITY:</b>	Low Cowrie, drupa, cone, and UID fragments
<b>FUNCTION:</b>	Ceremonial and Habitation	<b>ARTIFACT DENSITY:</b>	Low False brain and branch coral, One historic aqua glass insulator.
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

**ENVIRONMENTAL SETTING:**

moderate slope, steep slope buffel grasses and sparse kiawe trees

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-095 is a newly identified habitation/ceremonial complex located on the southeast-facing slope above the Lahaina Pali Trailhead parking lot and the Honopi'ilani Highway roadcut (see Figure 7 and Figure 25). Five features were identified, including three modified bedrock outcrops (MBO-1, MBO-2, MBO-3) and two rock mounds (MD-1, MD-2) (Plate 54 through Plate 57). With the exception of one rock mound (MD-2), which is situated on the mauka boundary of the proposed highway corridor, the majority of the site lies to the north of the APE. Additional modified outcrops and terraces appear to extend upslope to the north of the identified features.

A considerable amount of coral and marine shell were observed within and surrounding the identified features. MBO-1 contained a large branch coral head, and MBO-2 contained a high density of branch coral. MBO-3, which consists of at least one habitation terrace and an overhang, contains marine shell. Additionally, a high density of coral and marine shell were observed below the modified outcrops on the lower slope. Two cut utility poles with aqua glass insulators are located on the upper slope near the mounds.

**EVALUATION SUMMARY**

AA2216-095 has remained unaffected by construction activities related to the current Honoapi'ilani Highway alignment and has retained its integrity of location, design, materials, workmanship, and association. While this complex is situated close to the modern Honoapi'ilani Highway, the proximity of the highway does not diminish integrity of setting and feeling due to the elevated position of the complex above the highway.

## NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

AA2216-095 on its own may not be considered significant under Criterion A, however, when understood in the context of the collective cultural landscape, the potential association with other complexes that have been identified across Kaniakalaa Ridge (Monsarrat and Kananui 1908) bordering the western extent of the Ukumehame alluvial plain (AA2216-096, -089, and -088), and inter-site patterning of features in relation to the overall topography, significance under Criterion A may apply as it pertains to traditional Hawaiian land use and division of labor given the apparent focus on habitation and ceremony across the ridge vs. the agricultural pursuits along the lower slopes and valley bottoms. Continued archaeological research may help to inform the timeline for population growth in the region and provide insight into social organization based on the horizontal distribution of the archaeological complexes identified during this study, therefore AA2216-095 is further considered significant under Criterion D.

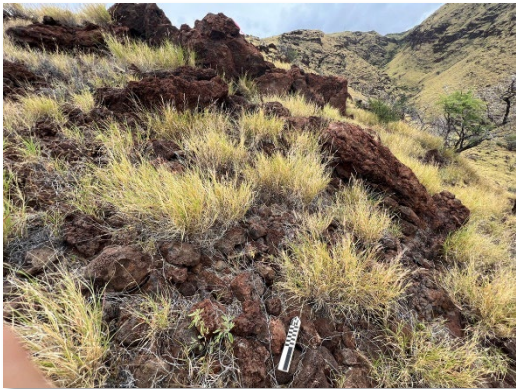


Plate 54. AA2216-095, overview of habitation complex (MBO3), view to north.



Plate 55. AA2216-095, modified overhang (MBO3), view to north.



Plate 56. AA2216-095, historic aqua glass insulator (north arrow for scale, not orientation), plan view.



Plate 57. AA 2216-095, modified bedrock outcrop, branch coral head where north arrow is located, view to west.



<b>FIELD NO:</b>	AA2216-096	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 4	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Complex: Modified Outcrop, Pavement, Petroglyph, Surface Scatter, Terrace	<b>MIDDEN DENSITY:</b>	Medium Opihi, cowries, cone shell, and UID marine shell fragments
<b>FUNCTION:</b>	Ceremonial, Temporary Habitation, and Tool Production	<b>ARTIFACT DENSITY:</b>	Medium Basalt lithic flakes, one volcanic glass flake, branch coral, false brain coral, waterworn cobbles, and 'ili'ili
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

**ENVIRONMENTAL SETTING:**

Moderate to steeply sloping topography with vegetation consisting of buffel grasses, kiawe trees, and hairy woodrose.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-096 is a temporary habitation and ceremonial complex (Plate 58) in the east portion of the project area and within Corridor 1 (see Figure 7 and Figure 25). The site is situated within a southwest-northeast oriented outcrop on a moderate slope west of the Lahaina Pali trail parking lot and site AA2216-095 (temporary habitation and ceremonial complex). The southern edge of the site abuts the cliff edge of Honoapi'ilani highway, where rock netting has been secured into the cliff face.

The southernmost feature within the outcrop is a large boulder that contains a southeast-facing petroglyph of a Kane. The boulder is sitting directly on the cliffside and is in danger of falling onto the highway (Plate 62). Upslope of the petroglyph are two moderately sized habitation areas partially enclosed by the outcrop. The habitation areas contain a dense cultural material scatter consisting of lithic debitage (basalt and one volcanic glass flake), marine shell, waterworn cobbles, coral, and 'ili'ili. Pecking is present on a rock face in the upper habitation area (Plate 60 through Plate 65). However, it is located adjacent to modern pecking depicting unknown initials that may be related to highway work or the placement of old utility lines located on the site.

Bedrock modifications, partially enclosed interior spaces, constructed alcoves, circular storage areas, and surface scatters continue upslope. A possible ahu is also located in the upper portion of the outcrop and consists of a small south-facing terrace containing a dense deposit of branch coral. The site extends roughly 12 m outside of the APE.

## EVALUATION SUMMARY

AA2216-096 has remained unaffected by construction activities related to the current Honoapi'ilani Highway alignment and has retained its integrity of location, design, materials, workmanship, and association. While this complex is situated close to the modern Honoapi'ilani Highway, the proximity of the highway does not diminish integrity of setting and feeling due to the elevated position of the complex above the highway.

## NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

AA2216-096 on its own may not be considered significant under Criterion A, however, when understood in the context of the collective cultural landscape, the potential association with other complexes that have been identified across Kaniakalaau Ridge (Monsarrat and Kananui 1908) bordering the western extent of the Ukumehame alluvial plain (AA2216-095, -089, and -088), and inter-site patterning of features in relation to the overall topography, significance under Criterion A may apply as it pertains to traditional Hawaiian land use and division of labor given the apparent focus on habitation and ceremony across the ridge vs. the agricultural pursuits along the lower slopes and valley bottoms. Continued archaeological research may help to inform the timeline for population growth in the region, provide insight into social organization based on the horizontal distribution of the archaeological complexes identified during this study, and understand how and where stone tool quality basalt and volcanic glass resources were acquired and subsequently distributed across West Maui. Therefore, AA2216-096 is further considered significant under Criterion D.



Plate 58. AA2216-096, site overview from mid slope above Petroglyphs 1 and 2, view to northeast.



Plate 59. AA2216-096, close-up and overview of Petroglyph 1 and other pecked areas, north arrow for scale only, view to west.





Plate 60. AA2216-096, overview of partially enclosed circular interior space where Petroglyph 2 is located, view to northwest.



Plate 61. AA2216-096, closeup of probable modern petroglyph (Petroglyph 2), north arrow for scale, view to northwest.



Plate 62. AA2216-096, example of a possible circular storage feature (Stor1), view to southeast.



Plate 63. AA2216-096, overview of Ahu, coral fragments visible in the foreground, view to south.



Plate 64. AA2216-096, example of cultural material scatter of volcanic glass and tool quality basalt within interior of circular enclosure with Petroglyph 2.



Plate 65. AA2216-096, basalt flake.



<b>FIELD NO:</b>	AA2216-097	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Historic
<b>SITE TYPE:</b>	Wall	<b>MIDDEN DENSITY:</b>	None
<b>FUNCTION:</b>	Possible Boundary	<b>ARTIFACT DENSITY:</b>	None
<b>CONDITION:</b>	Fair to Poor		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Setting, Materials, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Setting, Materials, Feeling, Association

#### **ENVIRONMENTAL SETTING:**

Gently sloping topography with buffel grass, kiawe trees, and haole koa trees.

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-097 is a newly identified dry-stacked stone wall running east-west below site AA2216-050. The wall measures approximately 55 m in length and consists of several courses of stacked cobbles and boulders (Figure 31). The east extent of the wall abuts the west terminus of a historic flume. A large branch coral head is placed on top of the wall near the junction. Additionally, the wall is in line with terrace at the base of the heiau referred to as Mana-Pueo-Iki Heiau (2216-108) to the east, which is separated from the wall by the flume. It is unclear if the wall predates the flume. The eastern portion of the wall is more intact and in fair condition, while the western portion is affected by uprooted trees, and the west-most extent is truncated by a bulldozer push. It is possible that this section of wall is an extension of a historic boundary wall that was previously documented by Xamanek Researches (Figure 30) based on construction style, proximity, and orientation. Fredericksen and Fredericksen (2000:54) describe SIHP 50-50-04-04719 as follows:

*...a boundary marker, which consists of a short section of dry-laid rock wall, which has been tied into the property corner monument, marking the eastern-most corner of the property. The latter is constructed of rounded rocks, and is mortared together. The wall segment may predate the monument. It was partially buried by a large pile of burned cane, so it was not possible to establish its total length. This pushed cane remains piled on the site at [the time of fieldwork].*

#### **EVALUATION SUMMARY**

AA2216-097 is a dry-stacked stone boundary wall that may be an extension of a previously recorded boundary wall that abuts a survey monument. This wall is likely related to the delineation of the former sugar plantation boundary, the age range of which can only be inferred as historic. While this section of wall is in fair condition, and the integrity of workmanship and design specific to the remaining section of dry-stacked stone masonry is retained, the possible historic plantation boundary in its entirety is no longer completely intact with the surviving section of wall adversely affected by bulldozer push. As a result, integrity of workmanship and design for the overall boundary wall no longer remains. The site does however retain limited integrity of location and materials, as well as setting, feeling, and association.



Figure 30. AA2226-097, section of wall showing intact facing, as well as, a section affected by vegetation growth, view to northeast.

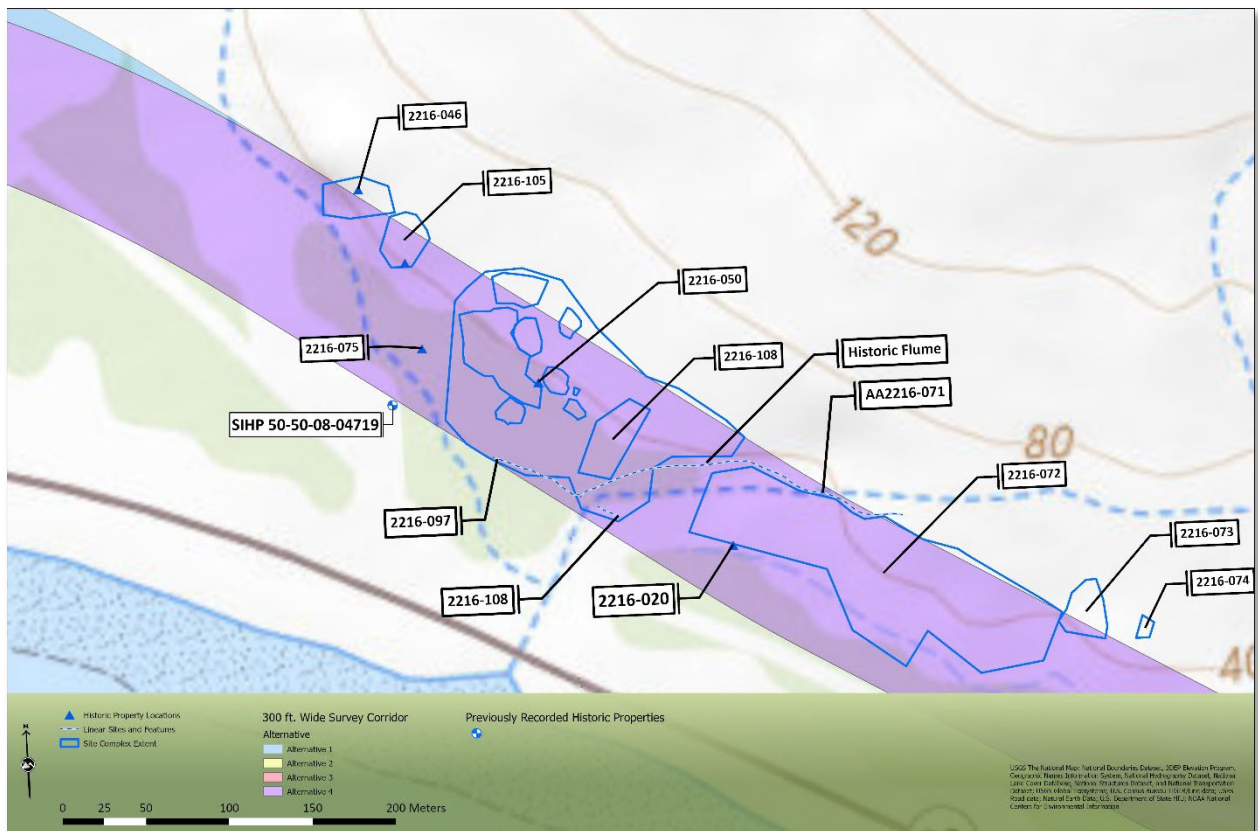


Figure 31. A portion of the USGS National Map (United States Geological Survey 2020) showing the location of SIHP 50-50-08-04719 in relation to the section of boundary wall documented during the current study (AA2216-097).

<b>FIELD NO:</b>	AA2216-098	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 4	<b>AGE:</b>	Continuous Occupation
<b>SITE TYPE:</b>	Rock Shelter	<b>MIDDEN DENSITY:</b>	High Opihi, drupa, cowries, pipipi, nerite, other UID marine shell, UID echinoid body fragments, UID small bone fragments, kukui endocarp
<b>FUNCTION:</b>	Temporary Habitation	<b>ARTIFACT DENSITY:</b>	Medium Potential fish netting (organic fibrous material), unknown fibrous materials, Glass fragments: brown and green some may be historic others look modern, waterworn cobbles, 'ili'ili, and coral.
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Setting, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Setting, Feeling, Association

**ENVIRONMENTAL SETTING:**

Moderately sloping topography with vegetation consisting of kiawe trees and buffel grasses.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-098 is a habitation complex consisting of three petroglyph panels (1-3) and four rock shelters (Features A-D) built into the base of a cliff face (Plate 66 through Plate 71). The complex is located in the eastern portion of the project area northeast of Pāpālaui Wayside Park and Honoapi'ilani Highway (see Figure 7 and Figure 25). AA2216-098 is part of a larger complex of rock shelters documented on the same cliffside, including sites AA2216-099, AA2216-100, and AA2216-101.

The complex is characteristic of continuous occupation, possibly from pre-contact to modern times. Historic to modern usage is indicated by an assemblage of historic glass bottle fragments, woven fabrics, square nails, and wood boards. The nails and boards appear to be part of a modern temporary shelter. Other cultural material within and outside the shelters includes marine shell fragments, sea urchin spines, kukui endocarp, waterworn branch coral fragments, and waterworn cobbles. These materials are characteristic of traditional, historic, and modern habitation.

The complex contains three petroglyph panels located next to shelters A and B (Plate 71 through Plate 73). Petroglyph panels 1 and 2 are located southeast of shelter A in the southeastern corner of the complex on a fractured piece of outcrop at the base of the cliff. Panel 1 is on the southwest face of the



outcrop and consists of a large Kane measuring 50 cm in height and 48 cm in width. The date of Panel 1 has yet to be determined. Petroglyph panel 2 is located on the west face of the outcrop and consists of pecked, blocked lettering with remnant pain residue. The legible portion of the petroglyph appears to say "June 13 1905" and below it "Good Bye" with unreadable lettering below it. The last number of the year is faded and could be interpreted as a number other than 5. Regardless, the phrasing of the panel suggests that a person or pet may have been buried in or near shelter A. The panel measures 70 cm in height and 60 cm in width.

Petroglyph panel 3 is on a large piece of bedrock fronting shelter B. The petroglyph is located at the base of the southern face of the boulder and appears to say "Kawipunakoa" in pecked blocked lettering with faded white paint. Just beneath the name is a less prominent pecking with thinner lettering that appears to say "MAX." Right of this is "19--." The 19-- number is written in the same petroglyph style as "Kawipunakoa" and has two additional numbers that are not readable but may say "05" for 1905. Based on the difference in pecking style, it is possible that "MAX" is a later addition to the panel. The total visible pecked area measures 60 cm in length and 20 cm in height. Similarities in pecking style and the written date of Panel 2 and 3 suggest that they are associated.

Overall, AA2216-098 is in good to fair condition. The climate and sheltered nature of the site have resulted in excellent preservation of the material assemblage and the petroglyph panels. Natural erosion from rock fall within the shelters and along the cliff side has caused soil erosion and damage to the exterior of the shelters. Large push piles are also present on the south extent of the site and are associated with the construction of the highway.

#### **EVALUATION SUMMARY**

AA2216-098 has remained unaffected by construction activities related to the current Honoapi'ilani Highway alignment and has retained its integrity of location and association. While this complex is situated relatively close to Honoapi'ilani Highway, the proximity of the highway does not diminish integrity of setting and feeling due to the sheltered nature of the environment against the cliffside.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

AA2216-098 on its own may not be considered significant under Criterion A, however, when understood in the context of the collective cultural landscape and the potential association with other rock shelter complexes in the immediate vicinity (AA2216-099, AA2216-100, and AA2216-101) significance under Criterion A may apply as it pertains to traditional Hawaiian settlement patterns and inter-ahupua'a transit, as well as continuous occupation and use of the area into the modern era. Continued archaeological research may provide insight into social organization based on the horizontal distribution of the archaeological complexes identified during this study and contribute to a broader understanding of settlement patterns through time. Therefore, AA2216-095 is further considered significant under Criterion D.



Plate 66. AA2216-098, overview of outcrop with rock shelters, highway visible in background, view to southeast.



Plate 67. AA2216-098, overview of Feature A, view to southeast.



Plate 68. AA2216-098, close up of fibrous material in Feature A.



Plate 69. AA2216-098, overview of Feature B, view to north.



Plate 70. AA2216-098, close up of pencil urchin in cracks out outcrop above Feature B, view to north (north arrow for scale).



Plate 71. AA2216-098, overview of historic petroglyph fronting the cave (panel 3).



Plate 72. AA2216-098, rock shelter complex, overview of southern petroglyphs (panels 1 and 2), view to east.



Plate 73. AA2216-098, rock shelter complex, plan of petroglyph on most Southern end (panel 1).



<b>FIELD NO:</b>	AA2216-099	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Complex: Modified Outcrop, Rock shelter, Surface Scatter	<b>MIDDEN DENSITY:</b>	Low Cowrie and opihi
<b>FUNCTION:</b>	Tool Production, Temporary Habitation	<b>ARTIFACT DENSITY:</b>	Low Three basalt lithics and one false brain coral fragment
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Setting, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Setting, Feeling, Association

#### **ENVIRONMENTAL SETTING:**

Steeply sloping topography vegetated in kiawe trees and buffel grass.

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-099 is a small southeast-facing rock shelter located in the eastern portion of the APE, directly mauka of Pāpālua Wayside Park and within Corridor 1 (see Figure 7 and Figure 25). The shelter is located on an elevated shelf on a steep outcrop face that is accessible by following the base of the southeast-facing outcrop upslope from AA2216-100 (rock shelter) (Plate 74 through Plate 77). The shelter's interior measures 1.4 m in depth, 2.2 m in length, and 1 m in height from the drip line. The interior contained three fine grained basalt flakes (Plate 78) and large cobbles placed along the drip line, likely to help prevent erosion from within. A false brain coral fragment was also observed roughly 10 m east of the coral fragment.

One cowrie shell fragment and several opihi shell fragments were observed downslope of the shelter along the face of the outcrop that connects to AA2216-100. AA2216-099 is in fair condition but is located on a precarious outcrop face with recent rock fall and erosion visible. Care should be taken when revisiting this site.

#### **EVALUATION SUMMARY**

AA2216-099 has remained unaffected by construction activities related to the current Honoapi'ilani Highway alignment and has retained its integrity of location and association. While this complex is situated relatively close to Honoapi'ilani Highway, the proximity of the highway does not diminish integrity of setting and feeling due to the sheltered nature of the environment against the cliffside.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

AA2216-099 on its own may not be considered significant under Criterion A, however, when understood in the context of the broader cultural landscape and the potential association with other rock shelter complexes in the immediate vicinity (AA2216-098, AA2216-100, and AA2216-101) significance under Criterion A may apply as it pertains to the broader traditional Hawaiian settlement patterns and inter-

ahupua'a transit. Continued archaeological research may provide insight into social organization based on the horizontal distribution of the archaeological complexes identified during this study contribute to a broader understanding of settlement patterns through time, and gain an understanding as to how and where stone tool quality basalt resources were acquired and subsequently distributed across West Maui. Therefore, AA2216-099 is further considered significant under Criterion D.



Plate 74. AA2216-099, rock shelter, overview looking up towards the shelter from AA2216-100 (rock shelter, not visible in photo), view to northeast.



Plate 75. AA2216-099, rock shelter, viewshed of Pāpālua Beach from shelter, view to southeast.



Plate 76. AA2216-099, rock shelter, view looking downslope along SE outcrop face from shelter's interior, view to south.



Plate 77. AA2216-099, rock shelter, overview of flakes (left of north arrow) within interior of the shelter, view to north.



Plate 78. A2216-099, rock shelter, close up of basalt lithic flakes.



<b>FIELD NO:</b>	AA2216-100	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	19th-20th Century
<b>SITE TYPE:</b>	Rock shelter	<b>MIDDEN DENSITY:</b>	Low Opihi and cowrie
<b>FUNCTION:</b>	Temporary Habitation	<b>ARTIFACT DENSITY:</b>	Medium Historic cans (8), aqua glass, brown glass bottle rim with patena (BOT-001), clear glass bottle top fragment with patena (BOT-003), clear glass bottle fragment (BOT-002), one brown glass wine bottle neck (BOT-004), one aqua glass insulator from upslope power
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Feeling, Association

**ENVIRONMENTAL SETTING:**

Gently sloping topography with vegetation consisting of kiawe trees and buffel grasses.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-0100 is a rock shelter containing historic bottles and cans. The shelter is located downslope of AA2216-099 (rock shelter) in the east extent of the APE, within Corridor 1, and directly mauka of Pāpālaui Wayside Park (see Figure 7 and Figure 25). The south-facing shelter measures 1.7 m in length, 0.55 m in depth, and 0.50 m in height from the drip line. The shelter is too small to have been utilized for habitation but does contain eight historic cans, including seven food cans and one fuel can (Plate 79 through Plate 82). It also contains a relatively high density of glass fragments, including one diagnostic clear glass bottle fragment (BOT-002). Opihi shields were also found at the base of the shelter. The material assemblage indicates that the shelter was likely used as a historic storage area or small activity area.

A sand pile is located south of the shelter. It contains a high density of historical artifacts, including a brown glass bottle rim with patena (BOT-001), a clear glass bottle top fragment with patena (BOT-003), one brown glass wine bottle neck (BOT-004), one aqua glass insulator from powerlines located above the outcrop, and one diagnostic porcelain fragment (PC-001). AA2216-100 is in fair condition. Disturbances include erosion from the weathered outcrop and cave ceiling, as well as extensive bulldozing from highway construction.

## EVALUATION SUMMARY

AA2216-100 has been affected by construction activities related to the construction of Honoapi'ilani Highway, and while the integrity of setting is somewhat diminished, the site has retained its integrity of location and association. Additionally, due to the sheltered nature of the environment against the cliffside, the site has retained integrity of feeling.

## NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

AA2216-100 on its own may not be considered significant under Criterion A, however, when understood in the context of the broader cultural landscape and the potential association with other rock shelter complexes in the immediate vicinity (AA2216-098, AA2216-099, and AA2216-101) significance under Criterion A may apply as it pertains to the broader traditional Hawaiian settlement patterns and land use into the modern era, as well as, inter-ahupua'a transit. Continued archaeological research may provide insight into social organization based on the horizontal distribution of the archaeological complexes identified during this study and contribute to a broader understanding of settlement patterns through time. Therefore, AA2216-100 is further considered significant under Criterion D.



Plate 79. AA2216-100, overview of sand pile (foreground) containing historic artifacts and fronting the cave shelter, view to north.



Plate 80. AA2216-100, bottle finish (BOT-003).



Plate 81. AA2216-100, overview of shelter with B-002 visible and cans visible, view to west.



Plate 82. AA2216-100, bottle finish and neck fragment (BOT-002).



<b>FIELD NO:</b>	AA2216-101	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Late Precontact - Early Historic
<b>SITE TYPE:</b>	Rock shelter	<b>MIDDEN DENSITY:</b>	Medium 3 Cowries shell, one crab claw
<b>FUNCTION:</b>	Temporary Habitation	<b>ARTIFACT DENSITY:</b>	High waterworn cobbles
<b>CONDITION:</b>	Poor		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Feeling, Association

#### **ENVIRONMENTAL SETTING:**

Steeply sloping topography with vegetation consisting of kiawe trees, buffel grasses

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-101 is a small southeast-facing rock shelter located on a low-lying cliff ledge in the east portion of the project area directly upslope from the Honoapi'ilani highway and northeast of Pāpālaia Wayside Park (see Figure 7 and Figure 25). The shelter measures 2.3 m in length, 0.9 m in depth, and 0.85 m in height at the drip line (Plate 83 and Plate 84). Two waterworn cobbles are located on the interior surface of the shelter. Marine fauna, including crab claw and three cowrie, and additional waterworn cobbles were observed eroding down from the cliff edge. The shelter is in poor condition due to natural erosion and likely disturbances from the adjacent Honopi'ilani Highway berm.

#### **EVALUATION SUMMARY**

AA2216-101 has been affected by construction activities related to the construction of Honoapi'ilani Highway, and while the integrity of setting is somewhat diminished, the site has retained its integrity of location and association. Additionally, due to the sheltered nature of the environment against the cliffside, the site has retained integrity of feeling.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

AA2216-101 on its own may not be considered significant under Criterion A, however, when understood in the context of the broader cultural landscape and the potential association with other rock shelter complexes in the immediate vicinity (AA2216-098, AA2216-099, and AA2216-100) significance under Criterion A may apply as it pertains to the broader traditional Hawaiian settlement patterns and land use into the modern era, as well as, inter-ahupua'a transit. Continued archaeological research may provide insight into social organization based on the horizontal distribution of the archaeological complexes identified during this study and contribute to a broader understanding of settlement patterns through time. Therefore, AA2216-101 is further considered significant under Criterion D.



Plate 83. AA2216-101, overview of rock shelter, view to west.



Plate 84. AA2216-101, rock shelter, overview of shelters interior, north arrow located next to waterworn cobbles, view to west.

<b>FIELD NO:</b>	AA2216-103	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Surface Scatter	<b>MIDDEN DENSITY:</b>	High Cowrie, cone, pipipi, opihi, drupa, echinoid spines
<b>FUNCTION:</b>	Habitation, Tool Production	<b>ARTIFACT DENSITY:</b>	Medium Waterworns, false brain coral, and one volcanic glass flake
<b>CONDITION:</b>	Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association

#### **ENVIRONMENTAL SETTING:**

Moderately sloping topography with vegetation consisting of kiawe trees and buffel grass.

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-103 is a secondary surface scatter located in the eastern portion of the APE within Corridor 1 and mauka of Pāpālua Wayside Park (see Figure 7 and Figure 25). The scatter is densely concentrated and situated below a large bedrock outcrop (Plate 85 through Plate 89). No modifications were observed on the outcrop. However, there is a narrow shelf containing a small overhang and possible cobble alignment above the outcrop. Cultural material was not observed at the base or within several meters of the outcrop, indicating that the scatter may be eroding downslope from another area. Multiple habitation and ceremonial complexes are located on the ridgeline above the outcrop and could be the source of the eroded material.

East of the scatter is an additional large outcrop containing a small west-facing alcove with a single waterworn cobble placed within it. Additional clearing and documentation is needed to interpret the context of the scatter and associated outcrops. Overall, AA2216-103 is in remnant condition due to extensive soil erosion and weathering of the surrounding outcrops.

#### **EVALUATION SUMMARY**

AA2216-103 is a remnant cultural material surface scatter reflective of a former temporary habitation site with a possible focus on stone tool manufacture that may provide information on the distribution of traditional Hawaiian land use. Without archaeological testing however, it is unclear whether the horizontal provenience of the scatter is a surface representation of an intact subsurface deposit, or a secondary deposit as a result of erosion. As the site is in remnant condition, there has been a loss of integrity of design, feeling, setting, and workmanship; however, depending on the presence of intact subsurface deposits, the site may retain integrity of location, materials, and association.



## NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

Although the site is in a remnant state, the potential for the presence of intact subsurface deposits that may yield information on the chronology and pattern of traditional Hawaiian land use and stone tool manufacture, as well as the acquisition of tool quality basalt resources and subsequently distribution across West Maui remains. Therefore, in consideration of the above description and analysis, AA2216-103 is recommended as significant and eligible to the National Register under Criterion D.



Plate 85. AA2216-103, outcrop and surface scatter, overview of the small alcove (north arrow placed at its entrance) in relation to the outcrop and scatter (background), view to north.



Plate 86. AA2216-103, outcrop and surface scatter, close-up of the small alcove containing a waterworn cobble manuport, view to east.



Plate 87. AA2216-103, overview looking up towards non modified outcrop, view to northwest.



Plate 88. AA2216-103, volcanic glass flake.



Plate 89. AA2216-103, example of marine fauna/shell assemblage observed on the surface.

<b>FIELD NO:</b>	AA2216-105	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	3	<b>AGE:</b>	Late Precontact - Early Historic, Precontact
<b>SITE TYPE:</b>	Complex: C-Shape, Modified Outcrop, Surface Scatter, Terrace	<b>MIDDEN DENSITY:</b>	Low Marine shell
<b>FUNCTION:</b>	Ceremonial and Habitation	<b>ARTIFACT DENSITY:</b>	Medium False brain coral, branch coral, one ili'ili, one complete clear glass "Lahaina Soda Co" bottle
<b>CONDITION:</b>	Fair to Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Feeling, Workmanship, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Feeling, Workmanship, Association

**ENVIRONMENTAL SETTING:**

Gentle to moderately sloping topography with vegetation consisting of 'ilima, 'uhaloa, opiuma, kiawe trees, and buffel grasses.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-0105 is a small habitation complex in Olowalu where the proposed highway corridors merge. The complex is directly southeast of site AA2216-046 (habitation and ceremonial complex) on a moderate south and southwest-facing hillside (see Figure 9 and Figure 13). The site is separated from site AA2216-050 (agricultural and habitation complex) to the northwest by a plantation-era agricultural ditch (AA2216-049). AA2216-105 consists of three archaeological features, including a terrace of indeterminate function (Feature A), a modified outcrop (Feature B), and a C-shape (Feature C) (Figure 30). Located downslope of the features and near the southeast edge of the ditch (AA2216-049) is a secondary cultural material scatter (CMS-001) and a cultural material concentration (CMC-001).

CMS-001 measures 29.92 m by 22.04 m. An informal surface count estimated the scatter to contain (excluding CMC-001) 2 branch coral fragments, eight false brain coral fragments, 2 UID marine shell fragments, and one 'ili'ili. CMC-001 is located within the southeast extent of the scatter near the ditch berm. An informal surface count estimated the concentration to contain 11 branch coral fragments, nine false brain coral fragments, six cowrie shell fragments, and one cone shell fragment.

The scatter and concentration are characteristic of a disturbed habitation area with a possible ceremonial component. Other cultural material within the site not directly associated with a feature included six false brain coral fragments on a northwest-facing outcrop above CMS-001 and one branch coral fragment roughly 6 m downslope of Feature C (c-shape).



AA2216-0105 is in fair to remnant condition. The structural features are largely intact and contain minimal disturbances. One historic Lahaina Soda Co. bottle was found in Feature A, indicating possible historic use or foot traffic within the site. The lower scatter is in remnant condition due to colluvial erosion and historic disturbances from the construction of the plantation-era ditch (AA2216-049).

#### **EVALUATION SUMMARY**

AA2216-105 is situated just south of the habitation and ceremonial complex documented as AA2216-046 and north of the expansive colluvial agricultural field system documented as AA2216-50 and AA2216-072. The site has retained its location, design, setting, materials, workmanship, feeling, and association. It is likely that AA2216-105 is associated with the above noted complexes which speaks to what would have been a highly productive ahupua'a wide agricultural system when combined with the lo'i systems of both Ukumehame and Olowalu Valleys.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

AA2216-105 on its own may not be considered significant under Criterion A, however, when understood in the context of the broader archaeological landscape and the potential association with AA2216-046, AA2216-50, and AA2216-072, as well as the inter-site patterning of features in relation the overall dryland field system, Criterion A may apply as it pertains to traditional Hawaiian adaptations, land uses, and complex social systems prior to the Western Contact. Continued archaeological research may help to inform the timeline for agricultural intensification in the region and gain understanding of when the systems may have been developed and subsequently abandoned and how that may relate to the continued use of the established lo'i systems. Therefore AA2216-105 is considered significant under Criterion D.

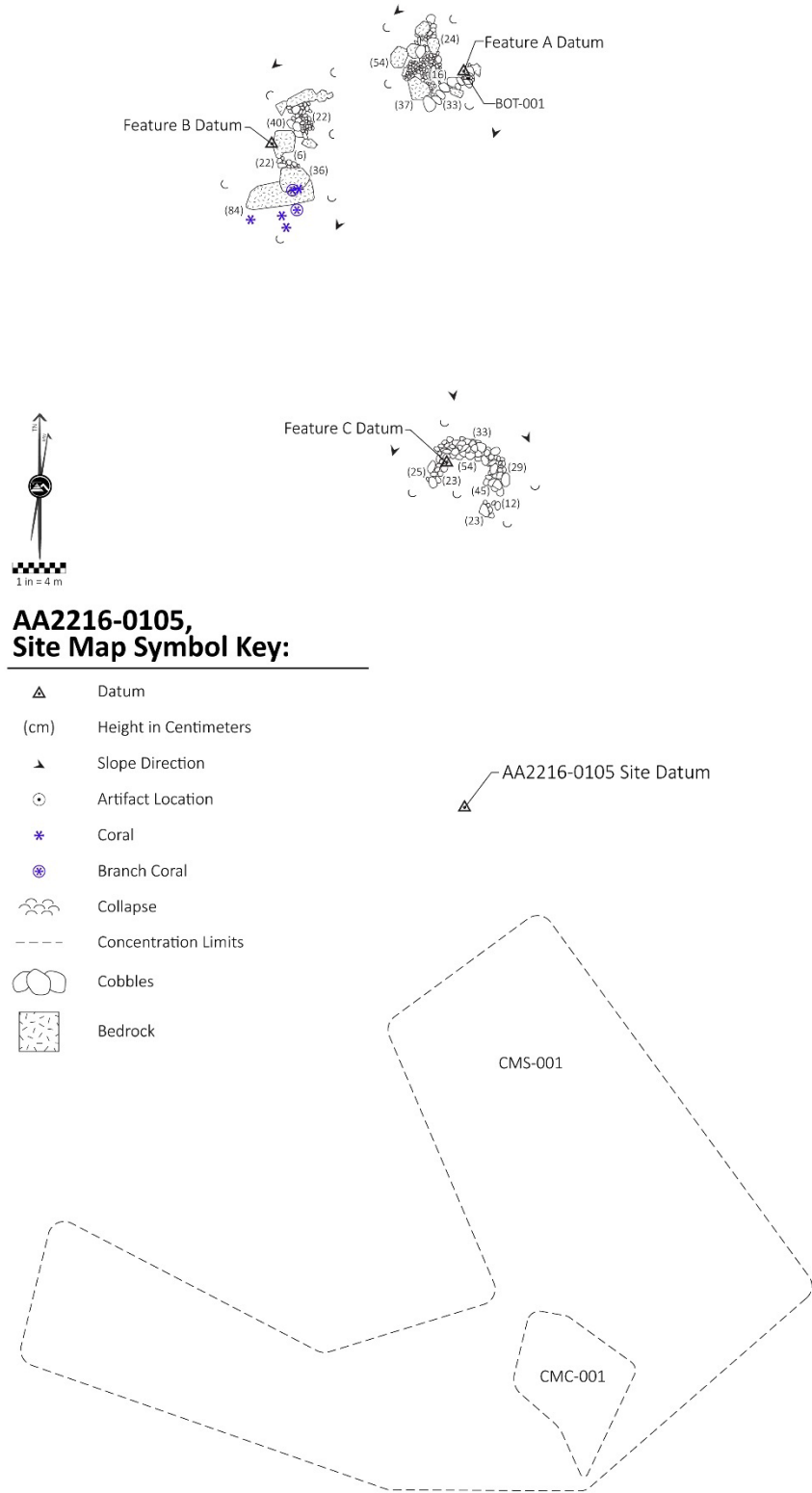


Figure 32. Representative feature types at AA2216-105<sup>9</sup>, plan view.

<b>FIELD NO:</b>	AA2216-108	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Late Precontact - Early Historic, Precontact
<b>SITE TYPE:</b>	Heiau	<b>MIDDEN DENSITY:</b>	Low Marine shell
<b>FUNCTION:</b>	Ceremonial	<b>ARTIFACT DENSITY:</b>	Medium False brain coral, branch coral, one ili'ili, one complete clear glass "Lahaina Soda Co" bottle
<b>CONDITION:</b>	Fair to Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, C, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, c, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Feeling, Association

#### **ENVIRONMENTAL SETTING:**

Gentle to moderately sloping topography with vegetation consisting of 'ilima, 'uhaloa, opiuma, kiawe trees, and buffel grasses.

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-108 is a large ceremonial pavement and remnant platform with numerous interior features (Figure 31) that is centrally situated within an extensive colluvial agricultural system (AA22156-050 and -072, see Figure 15). Interpreted as a traditional Hawaiian heiau, the footprint of the site has been partially bisected by a historic flume and potentially affected by fire, firebreak work, and cane roads located within the lower homeless encampment. The upper (northern) portion of the heiau was extensively cleared and fully documented with exploratory clearing downslope of the cleared section. Clearing revealed that the complex continued to the southwest and towards the flume and a dry stacked basalt cobble wall. The upper extent of the heiau is bound by a large ditch and natural gully to the southeast. The southwest extent appears to connect with a culturally modified slope containing large branch coral heads while the modified slope and upper heiau section connects to several surrounding features of AA2216-050.

A large dry stacked terrace fronting the northeast edge of the main fire/cane road, downslope and south of the upper heiau and historic flume, has been identified as the southwest extent of the heiau (Mr. Wilmont Kahaiali'i, cultural practitioner, personal communication, July 16, 2023), thus indicating that the structure was cut into and bisected when the flume was built.

It is additionally possible that the material from the heiau and surrounding features were likely harvested to construct the flume which may explain remnant deconstructed areas within the overall AA2216-050 complex. Field crew also communicated with a resident of the homeless encampment who said that a high density of boulders and walls were present further southwest of the bulldozed road. The provided location matched accounts provided by Auntie Vicky Palafox (cultural descendant) and Ms. Linda Nahina (cultural descendant) during a community site visit who pointed to this area as the location of the "Pueo Heiau" that they use to care take. During July 16<sup>th</sup> site visit, Mr. Kahaiali'i also shared that he was told the name of the heiau was Mana-Pueo-Iki and that it was a Lono heiau dedicated to agriculture. Though Mr.



Kahaiali'i did not believe that the heiau originally contained burials, he did comment that human remains that had been uncovered during plantation era field clearing were often reinterred within this structure.

The upper portion of the heiau consists of a significantly built up and infilled area that is roughly rectangular in shape. The infill consists of densely piled cobbles and small to large boulders. In some areas stacking extends up to 80 cm below surface. The infilled area is partially enclosed along its upper northern extent and the upper portions of its southeast and northwest borders. Wall construction was likely more substantial and may have wrapped around the majority of the feature prior to rock fall and historic disturbances. The lower southern extent is low lying and connects to additional features that extend downslope within a less densely built up and infilled area.

From the lower southern boundary the Heiau extends upslope through a series of infilled terraces and alignments that interconnect with other internal features including pits, larger depressions, mounds, uprights, and enclosures. In total the upper built-up area contains 79 sub-features, including two enclosures, 44 pits, 15 terraces, 6 depressions, 6 alignments, 1 mound, 1 alignment, and an upright. A remnant wall lines the upper north extent of the Heiau and partially extends along the western and eastern borders of the built-up area. The upper portion of the heiau also appears to contain the highest density of branch coral which is heavily concentrated within an infilled terrace.

#### **EVALUATION SUMMARY**

Although integrity of workmanship has been somewhat compromised along the outer limits of the heiau footprint as a result of extensive disturbances related to both historic plantation era and modern fire containment efforts, AA2216-108 has retained its location, design, setting, materials, feeling, and association due to its location within the margins of the former sugar plantation fields and distance from the current alignment of Honoapi'ilani Highway. It is without a doubt that this heiau is associated with the colluvial field system documented as AA2216-050 and AA2216-072, and the ritual aspects of cultivation and harvest. Peter H Buck writes:

*For every-day communication with his gods, the Hawaiian could conduct his simple ritual with his 'aumakua at some shrine or wherever it suited. The temple [heiau] was an expansion of the shrine to meet the requirements of larger groups of people with more elaborate ceremony and ritual. Larger temples were built for public ceremonies connected with some major event such as war or increase of food supplies. (Buck 1957:513)*

The size of this heiau and complexity of the interior features, as well as its location within a rather expansive agricultural system, is consistent with Mr. Kahaiali'i's testimony as a heiau being of the Lono class and the description provided by Buck. The combination of fully developed wet and dry, colluvial agricultural systems within a singular ahupua'a appears to be unique to this region, the intensification of which may have been a response to a spike in population, heightened social complexity with regard to land and resource management in the leeward West Maui, and challenging environmental conditions. The presence of this heiau in the midst of the broader field system potentially speaks to the importance of the success of this system to the surrounding population with a heightened emphasis on ritual and ceremony.

The potential extent of lo'i, colluvial, and intensive dryland agricultural systems has been modeled by Kurashima and others (2019) across the archipelago using modern environmental and climatic data compared with archaeological and ethnohistorical data. While their model shows approximately 34.6% of

potential indigenous agricultural lands would be given over to colluvial agriculture, with the distribution on Maui appearing to include small portions of the project area, the authors note that while their model results were generally consistent with available archaeological and ethnohistorical information, there was little information available that was specific to colluvial agricultural systems in the archaeological record. This system represents one of two currently known intact colluvial systems with an associated ritual center within the archipelago (Green 1969, 1970).

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

AA2216-108 is recommended as historically significant and eligible to the National Register under Criteria A, C, and D. When understood in the context of the broader archaeological landscape and association with the neighboring complexes, as well as the complex internal architecture, Criterion A is applicable as it speaks to broad patterns in traditional Hawaiian adaptations, land uses and related ritual complexities, along with sophisticated social systems prior to the Western Contact. Site AA2216-108 is additionally significant under Criterion C when understood in the context of a complex dryland agricultural system. Continued archaeological research would help to inform the timeline for heiau construction which may be reflective of agricultural intensification, the potential evolution of ritual practices as it relates to the overall field system, and provide cross-comparisons to ritual centers that are found in association with lo'i systems, as well as intensive dryland field systems (Kolb 1994; Mulrooney and Ladefoged 2005). Therefore AA2216-108 is further considered significant under Criterion D.





Figure 33. AA2216-108, drone imagery of interior feature types and approximate site footprint.



## Olowalu Ahupua‘a

A total of seven (7) historic properties were identified within the Olowalu section of the proposed realignment alternatives (Table 2, Figure 32 and Figure 33), two of which (50-50-08-04700 and -04701) were previously recorded (Fredericksen and Fredericksen 2000:42, 46). The following section presents the preliminary site descriptions and recommendations for historic properties identified within the Olowalu portion of the archaeological survey area.

Table 2. Summary of Above Ground Archaeological Sites Identified within Olowalu Ahupua‘a<sup>10</sup>

Alternatives Affected	Field No/ SIHP 50-50-08-	Possible Age Range	Formal Type	Inferred Function	Overall Condition	NRHP/6E Significance Recommendation	Integrity Evaluation
1-4 (Launiupoko Pinch Point)	AA2216-028	Early 20 <sup>th</sup> Century Ranch	Wall, Fenceline	Animal Husbandry – Pasture Delineation	Fair to Remnant	D/d	Location, Material, Setting, Feeling, and Association
1,2	AA2216-036	Precontact	Surface Scatter	Habitation	Remnant	D/d	Location, Materials, Association
1-4 (Launiupoko Pinch Point)	AA2216-106	Precontact	Terraces, Circular Alignments, Small Semi-Circular Terraces, Enclosures	Habitation and Agricultural Complex	Good to Remnant	A, C, D/a, c, d, e	Location, Design, Setting, Materials, Workmanship, Feeling, Association
1-4 (Launiupoko Pinch Point)	AA2216-107	Precontact to Early Historic	Alignment, C-Shape, Enclosure, Modified Outcrop, Terrace	Agricultural and Habitation Complex	Good to Remnant	A, C, D/a, c, d, e	Location, Design, Setting, Materials, Association
1-4 (Olowalu/ Launiupoko Merge)	04700	Precontact	Rock Shelters, C-shape, Wall	Habitation Complex	Fair to Poor	D/d	Location, Design, Setting, Materials, Feeling, Association
1-4 (Olowalu/ Launiupoko Merge)	04701	Precontact	Modified Outcrop and Platform	Ceremonial	Fair	A, D/a, d, e	Location, Design, Setting, Materials, Association
3	04718	Precontact	Heiau	Ceremonial	Fair to Poor	A, D/a, d, e	Location, Design, Materials, Association

<sup>10</sup> Gray shading indicates pinchpoint locations where all proposed alternatives merge

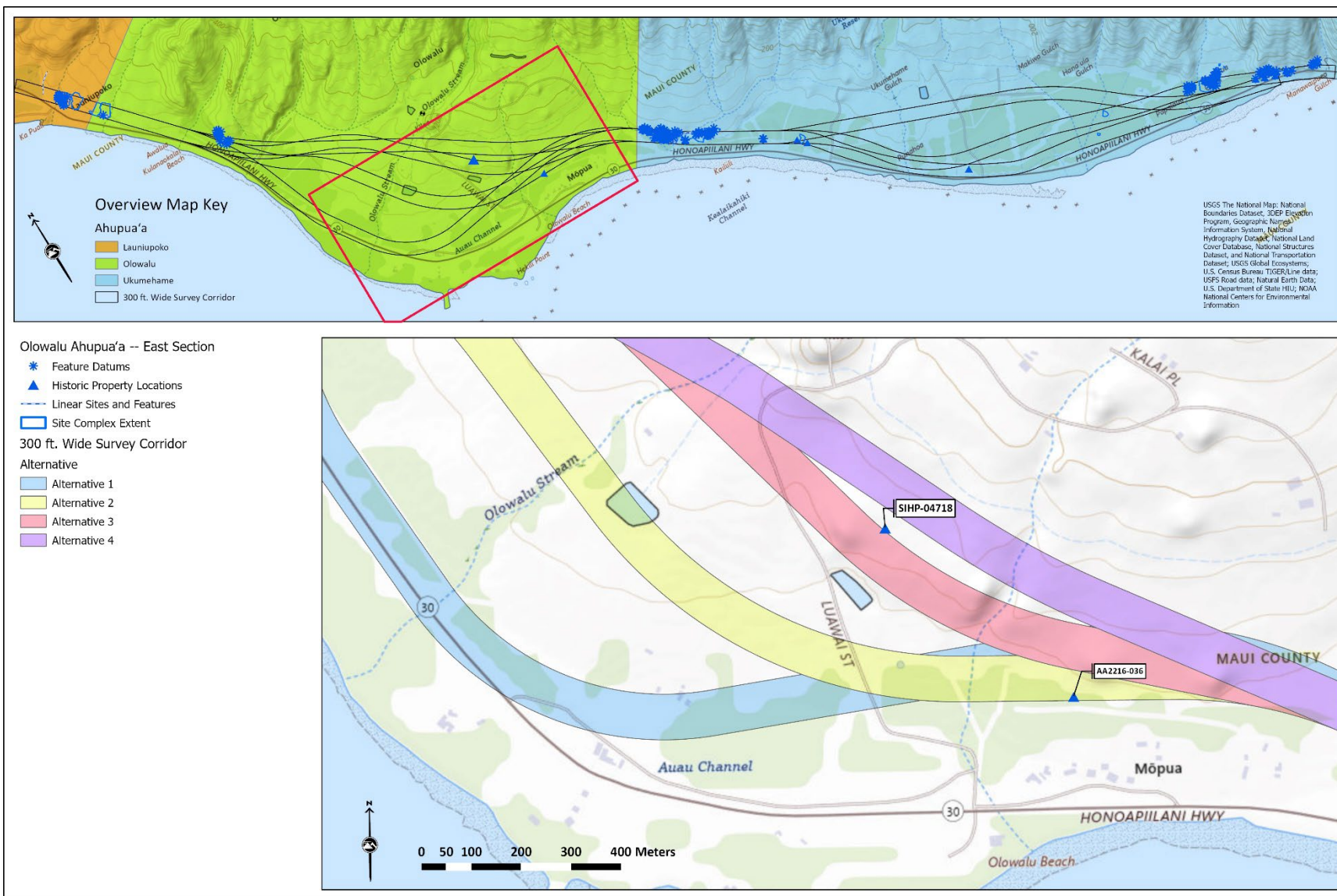


Figure 34. Historic property locations and extents in relation to the survey corridors, Olowalu Ahupua'a, East Section.

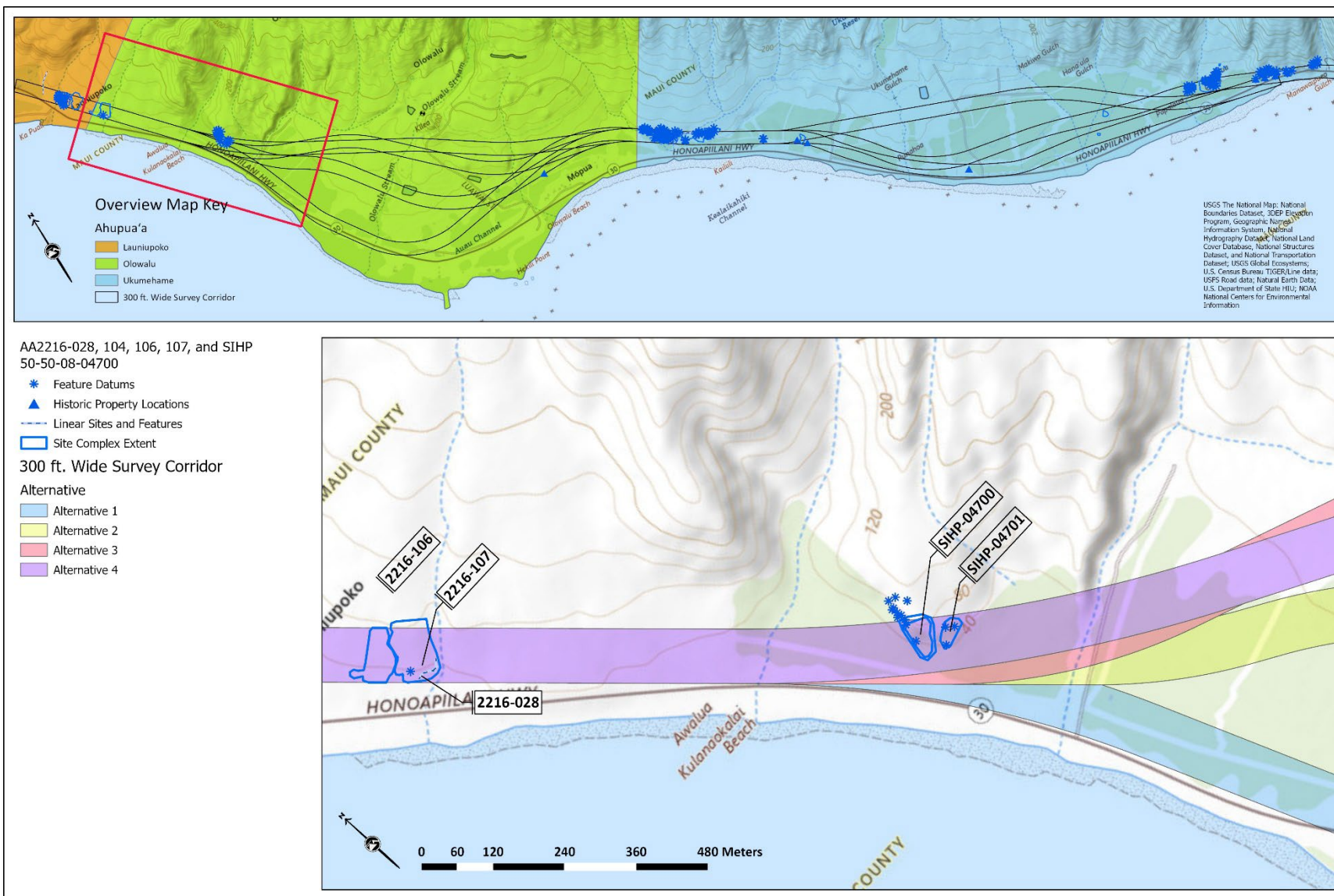


Figure 35. Historic property locations and extents in relation to the survey corridors, Olowalu Ahupua'a, West Section.



<b>FIELD NO:</b>	AA2216-028	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	2	<b>AGE:</b>	Early 20 <sup>th</sup> Century Ranch
<b>SITE TYPE:</b>	Multi-Component Wall and Barbed Wire Fenceline	<b>MIDDEN DENSITY:</b>	None
<b>FUNCTION:</b>	Animal Husbandry, Pasture Delineation	<b>ARTIFACT DENSITY:</b>	Low One aqua glass fragment northwest of the modified gully and next to site AA2216-104 (c-shape)
<b>CONDITION:</b>	Fair to Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Material, Setting, Feeling, and Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Material, Setting, Feeling, and Association

**ENVIRONMENTAL SETTING:**

Gently sloping topography with vegetation consisting of buffel grasses.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-028 is a historic ranch wall and barbed wire fenceline located within the northern extent of the study area where the proposed road corridors merge to meet the existing alignment of Honoapi‘ilani Highway (Figure 33). Situated within the extent of the dryland agricultural system documented as AA2216-107, this site consists of a free-standing wall constructed of large subrounded basalt cobbles and small subrounded basalt boulders roughly stacked 3-4 courses high and 2-4 courses wide that roughly extends east-west along the southern boundary. A kiawe post and fallen barbed wire fencing extends north-south to form the western boundary. The average width of the stone wall section ranges between roughly 0.75-0.80 m. This wall appears associated with a wide modified gully that contains slight modifications along the northwest embankment while the southeast bank has been heavily modified with the wall construction. A stone mound is located northwest of the upper modified gully bank that could be a remnant section of wall or disturbed secondary feature.

**EVALUATION SUMMARY**

AA2216-028 consists of a stone wall section and fallen barbed wire fenceline reflective of historic ranching and pasture delineation. The Pioneer Mill Company, Ltd. (PiMCo) Ranch, a secondary industry of the overall sugar operation that was initiated to support their labor force, was started around 1912 by then manager W. Weinzheimer on lands that were unsuitable for cane growing. The grazing lands extended from Honokōwai Gulch to Olowalu and sea level to 2,000 ft., covering a collective area of 9000 acres of Pili grass, cactus, and Koa Haole (Henke 1929:59). With regard to the current study area, the PiMCo Ranch lands were situated between the Launiupoko and Olowalu cane fields and above the former railroad alignment and current cane haul road corridor (Figure 34). According to maps of the pasture layout, it is clear that pasture delineation in this area consisted of a combination of stone walls and barbed wire fences. Site 2216-028 is a remnant section of that pasture boundary. In this case, the term remnant is

used to describe the last remaining section of a former pasture boundary as a whole rather than the condition of the individual stone wall element itself which is in fair condition. While this remaining section of wall is in fair condition, and the integrity of workmanship specific to the dry-stacked stone masonry is retained, the historic pasture boundary as a whole is no longer intact as the barbed wire fencing that completed the boundary of the pasture has fallen, with missing sections of intact fencing. As a result, there is a an overall loss of workmanship and design. The site does retain integrity of location and materials, as well as setting, feeling, and association.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

The identification of AA2216-028 has led to research into ranching infrastructure, an otherwise little recognized aspect of the overall operation of Pioneer Mill Co. There has been some debate about stone walls that were constructed during the historic era vs. the pre-contact time period and the ability to differentiate between the two (Wong et al. 2020:76-77). Further archaeological research and data recovery of the stone wall section of AA2216-028, focused on construction technique in relation to known traditional dry-stacked stone architecture, would add to the broader archaeological understanding surrounding the construction of these sites. The addition of this information would grow the ability to readily distinguish historic wall construction from traditional pre-contact construction (Sroat et al. 2023:96-100) which would better inform function, chronology, and land use interpretations. Therefore, AA2216-028 is recommended as eligible to the National Register under significance Criterion D.



Plate 90. Overview of wall running SE, view to southeast.



Plate 91. Overview of west extent where the barbed fence component bisects wall, view to west.



Plate 92. AA3316-028, barbed wire fence component, photo taken from end of wall, view to north.







<b>FIELD NO:</b>	AA2216-036	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	1	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Surface Scatter	<b>MIDDEN DENSITY:</b>	High Marine shell: cone shell, top shell, bivalves, and other indeterminate fragments
<b>FUNCTION:</b>	Habitation	<b>ARTIFACT DENSITY:</b>	High Waterworn cobbles, branch coral, false brain coral, and possible basalt flakes
<b>CONDITION:</b>	Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Materials, Association

#### **ENVIRONMENTAL SETTING:**

Flat to gently sloping topography with vegetation consisting of buffel grasses, kiawe trees, and Guamúchil (Opiuma).

#### **HISTORIC PROPERTY DESCRIPTION:**

AA2216-036 is a surface scatter located in a fallow cane field within Corridors 1 and 2 mauka of Olowalu Village Road and east of Luawai Street (Plate 90 through Plate 93, see also Figure 32). The scatter measures roughly 20 m in radius (east to west) and is most densely concentrated within push piles along the field's southern edge. The material assemblage consists of a high density of marine shells, branch coral, false brain coral, waterworn cobbles, and a few potential basalt lithic flakes.

AA2216-036 is approximately 500 m south and downslope of SIHP-50-50-08-04718 (heiau) and is potentially a remnant representation of a cultural landscape that was plowed over for industrial sugarcane agriculture (Figure 34). Cultural material also continues mauka at a relatively low and infrequent occurrence past the Olowalu bike path.

#### **EVALUATION SUMMARY**

AA2216-036 is a remnant cultural material surface scatter reflective of a pre-contact habitation site. Without archaeological testing however, it is unclear whether the horizontal provenience of the scatter is a surface representation of an intact subsurface deposit, or a secondary deposit as a result of erosion or redistribution due to ground disturbance activities related to over 100 years of industrial sugarcane cultivation (see also Figure 11). As the site is in remnant condition, there has been a loss of integrity of design, feeling, setting, and workmanship; however, depending on the presence or absence of intact stratified deposits below the plow zone, the site may retain integrity of location, materials, and association.

## NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

While the site has been impacted by prior disturbance, the potential for the presence of intact stratified deposits that may provide information on the chronology and distribution of traditional and historic era land use within Olowalu Ahupua'a remains. Therefore, in consideration of the above description and analysis, AA2216-036 is recommended as eligible to the National Register under significance Criterion D.



Plate 93. AA2216-036, Typical cultural material content consisting of marine shell fragments and 'ili'ili.



Plate 94. AA2216-036, Conus shell fragment.



Plate 95. Overview of elongated pushpile at southern edge of bulldozed agricultural and ranching field where material is most densely concentrated, view to west.



Plate 96. Overview of bulldozed field looking upslope towards Kaiwaloa Heiau (SIHP 50-50-08-0004) and an unnamed heiau (SIHP -04718), view to north.



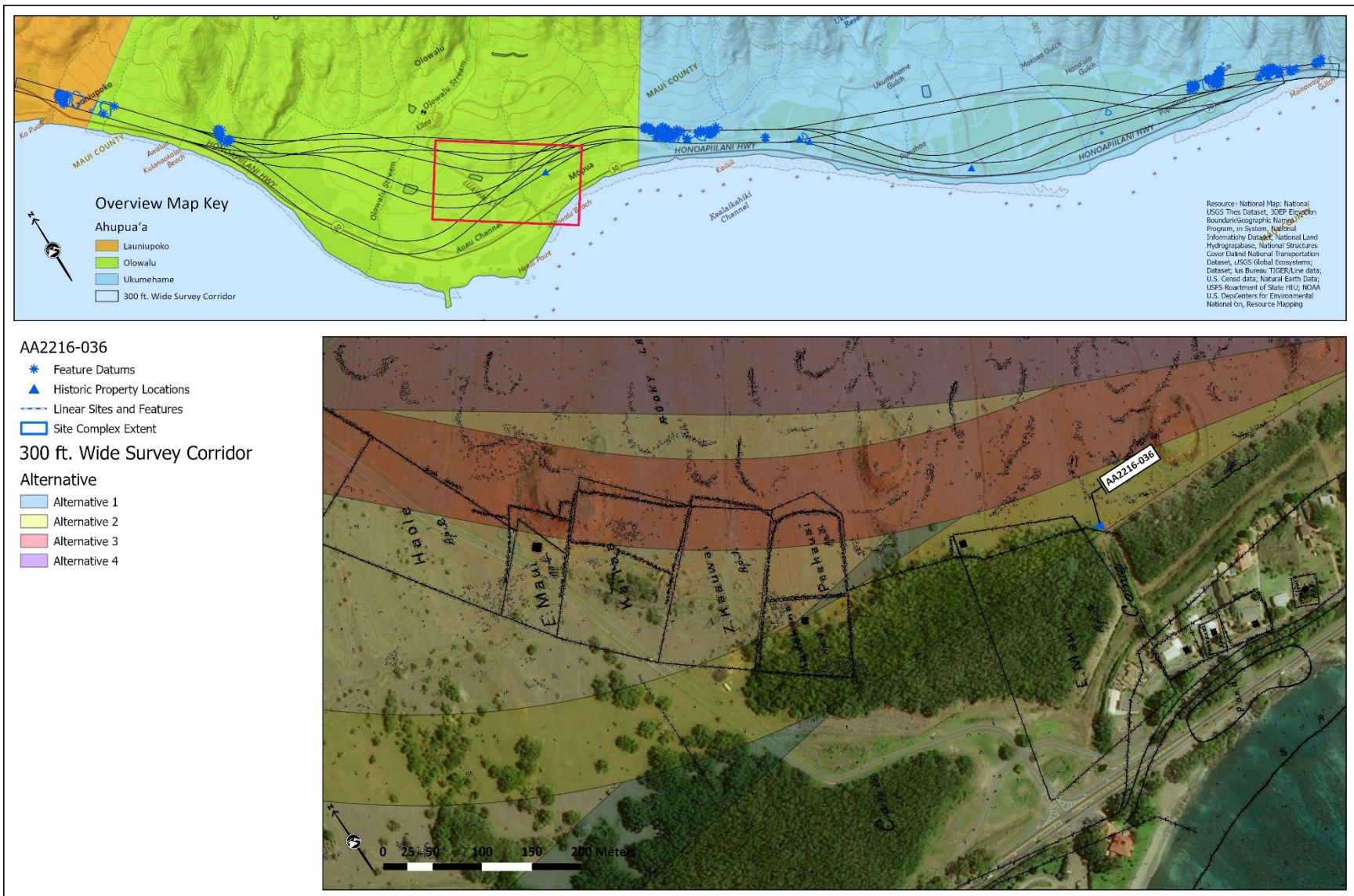


Figure 37. Site 2216-036 in relation to the proposed alternatives (top frame) and land commission awards and historic structures/landmarks overlaid (Monsarrat 1881) on the ESRI World Imagery Base Map (ESRI et al. 2021) (bottom right frame).



<b>FIELD NO:</b>	AA2216-106	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 11	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Habitation and Agricultural Complex	<b>MIDDEN DENSITY:</b>	None
<b>FUNCTION:</b>	Agriculture, Possible Burial, Ceremony, Temporary Habitation	<b>ARTIFACT DENSITY:</b>	Low Manuports: Branch coral and false brain coral
<b>CONDITION:</b>	Fair to Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, C, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, c, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

**ENVIRONMENTAL SETTING:**

Gentle to moderately sloping terrain with vegetation consisting of buffel grass, hairy woodrose, haole koa, and kiawe trees.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-106 is a habitation and agricultural complex located at the northwestern end of the survey area where the corridors merge as they approach the Lahaina Bypass (see Figure 33). This site is part of a larger cultural landscape that is reflective of traditional dryland agriculture and includes the neighboring site complexes of AA2216-023, AA2216-104, and AA2216-107. The site is separated from AA2216-104 to the northwest by roughly 80 m of rugged terrain consisting of fragile and highly weathered bedrock. While a large drainage southeast of the site was used as a geographic boundary to separate AA2216-106 from AA2216-107, the sites are likely associated with each other and would have functioned as a singular field system.

Dense vegetation covers the landscape, obscuring most of the cultural material and features within the complex. Due to time constraints, only a portion of the site was cleared of vegetation to provide a generalized summary of the site and define its limits within the survey area. Clearing ended along the exterior of the site when there was a significant break in the presence of features and cultural material. Site limits were also determined based on the natural topography of the landscape and large disturbances. The resulting preliminary site boundary is defined by the survey area boundary to the northeast (mauka), a large drainage to the southeast, the cane haul road and highway to the southwest (makai), and an absence of features to the northwest where decomposing bedrock formations characterize the landscape.

The feature types identified within the site are consistent with neighboring sites and the 'rocky' variant of the leeward rain-dependant agricultural systems that are found across the flow slopes and between the former sugarcane fields of Pioneer Mill Co (Figure 35). These include terraces, circular enclosures, pit features, small C-shapes, alignments, mounds, modified outcroppings, and two depressions (Figure 36). Additional spot clearing to the northwest of the gully revealed several irregular terraces, agricultural

circles, and areas of apparent bedrock modifications. One rectangular terrace to the northwest of the gully with a paved interior consisting of gravel and cobble suggests a function other than agriculture (Plate 100). The paved surface appears disturbed with a faint depression and adjacent soil berm (Figure 36). It is not presently clear if the depression is contemporaneous with the terrace or more recent. Additionally, the western most feature in AA2216-106 is a disturbed southwest-facing terrace with a distinct surface depression characteristic of a possible burial (Plate 99 through Plate 97). Located above the cane haul road, the terrace was cut into by a bulldozer during widening for cane haul trucks thus destroying the northwest extent of the feature. The surviving terrace measures 7.8 m in length and approximately 3.5 m in width. A branch coral head and several fragments are visible on the face and bulldozed northwest extent of the terrace. The retained interior of the terrace contains a soil-filled depression partially outlined in cobbles. The depression measures approximately 1.7 m x 1.5 m, is mainly devoid of rock, and has a spongy rebound compared to the surrounding terrace surface. Considering the size, cobble modifications, soil texture, and presence of coral, the depression may represent a possible burial.

While the features exposed by spot clearing are more degraded than those observed in neighboring sites and are generally in poor condition, it appears that some of the features that are yet to be cleared, particularly the series of circular pits and possible C-shapes along the gully, may be in a better state of preservation. Sources of disturbance include bioturbation from vegetation growth, heat spalling (wildfire and solar), and probable ungulate trampling across the site. The lower extent of the site has been impacted by bulldozing along the cane haul road, including a bulldozer path that runs upslope between the gully-side features and the possible burial terrace.

#### **EVALUATION SUMMARY**

AA2216-106 has retained its location, design, setting, materials, feeling, workmanship, and association due to its location within the margins of the former sugar plantation fields and distance from the current alignment of Honoapi'ilani Highway (Figure 36). It is likely that AA2216-106 is associated with complexes to the north of the site extent, which speaks to a highly productive ahupua'a wide agricultural system when combined with the lo'i systems of both Olowalu and presumably Launiupoko Valleys. The combination of fully developed wet and dry, colluvial agricultural systems appears to be unique to this region, the intensification of which may have been a response to a spike in population, heightened social complexity with regard to land and resource management in the leeward West Maui, and challenging environmental conditions. The potential extent of lo'i, colluvial, and intensive dryland agricultural systems has been modeled by Kurashima and others (2019) across the archipelago using modern environmental and climatic data compared with archaeological and ethnohistorical data. While their model shows approximately 34.6% of potential indigenous agricultural lands would be given over to colluvial agriculture, with the distribution on Maui appearing to include small portions of the project area, the authors note that while their model results were generally consistent with available archaeological and ethnohistorical information, there was little information available that was specific to colluvial agricultural systems in the archaeological record. This system represents one of the few currently known intact colluvial systems within the archipelago (Green 1969, 1970; Kirch and McCoy 2023:155-156).

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

AA2216-106 is recommended as historically significant and eligible to the National Register under Criteria A, C, and D. When understood in the context of the broader archaeological landscape and association with the neighboring complexes, as well as the intra-site patterning of agricultural and habitation features in

relation the overall topography that takes advantage of slope direction for soil retention, Criterion A is applicable as it may speak to broad patterns in traditional Hawaiian adaptations, land uses, and complex social systems prior to the Western Contact. Site AA2216-106 is additionally significant under Criterion C as a complex dryland agricultural system that is unique to the topography of the region. Unlike the typical Kona Field System that is characterized by long linear walls and terraces that define an expansive linear field system, the dryland field system documented during this study is entirely influenced by the rocky topography which resulted in the construction of diverse feature types with varying functions depending on slope and bedrock exposures. Continued archaeological research would help to inform the timeline for agricultural intensification in the region and gain understanding of when and why both extensive dryland agriculture and lo'i systems were developed in this region, when and why the dryland field systems may have been subsequently abandoned, how this may relate to the continued use of the established lo'i systems into the modern era, and inform research into contemporary agricultural sustainability. Therefore AA2216-106 is further considered significant under Criterion D.



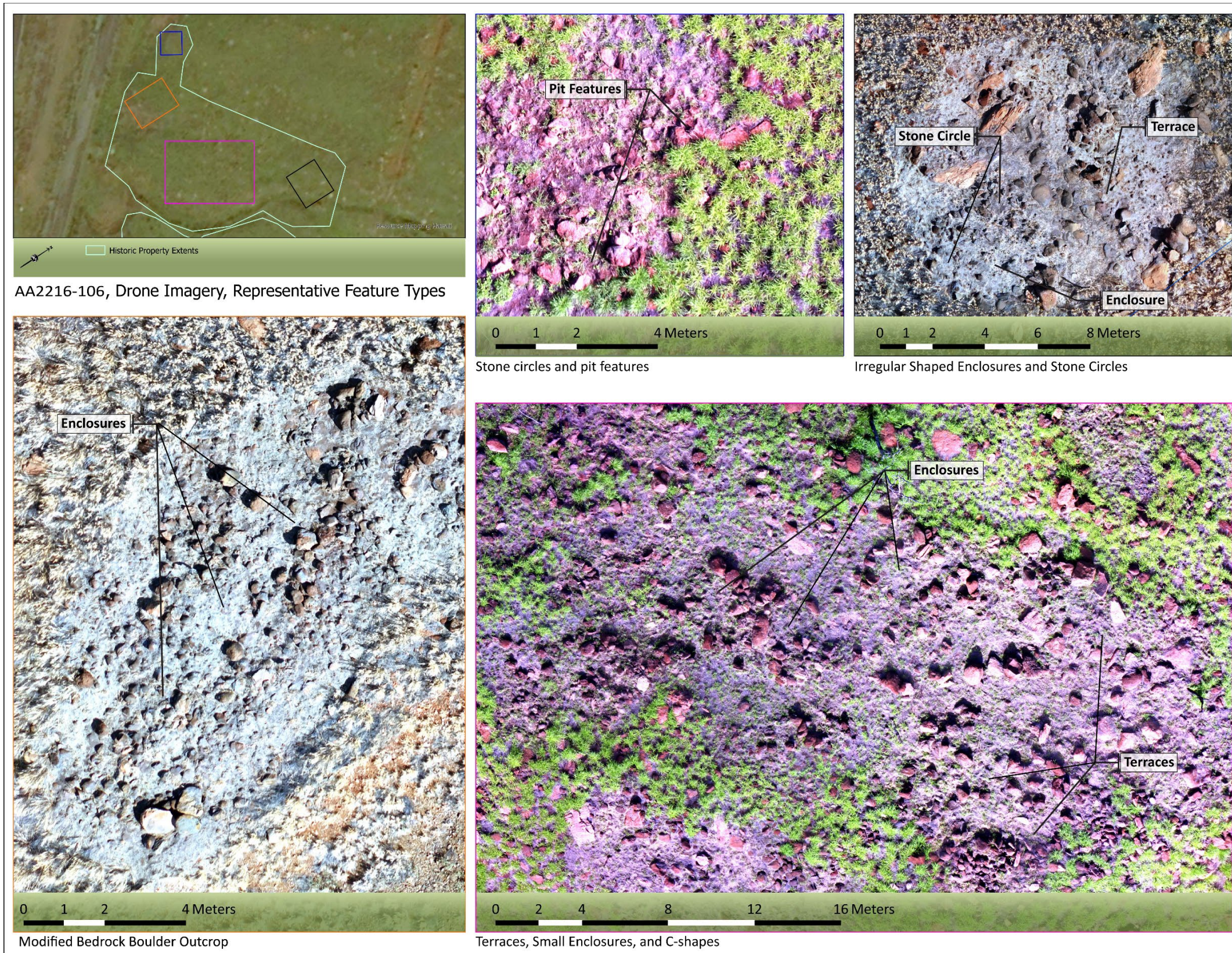


Figure 38. AA2216-106, drone imagery of interior feature types and approximate site footprint.



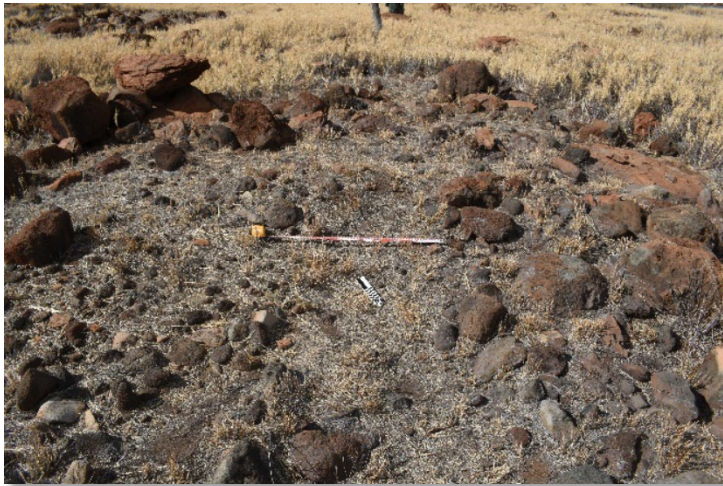


Plate 97. AA2216-106, interior of rectangular terrace showing cobble paving and depression, view to southwest.



Plate 98. AA2216-106, habitation and agricultural complex, cleared area 1, overview of the NW side of a potential burial terrace, located in the western corner of the site, view to NW.



Plate 99. A2216-106, potential burial terrace, close-up examples of branch coral heads in the western corner of the terrace, view to northeast.



Plate 100. AA2216-106, habitation and agricultural complex, potential burial terrace, close-up of circular depression in southwest corner of terrace behind concentration branch coral (left, foreground), view to northwest.



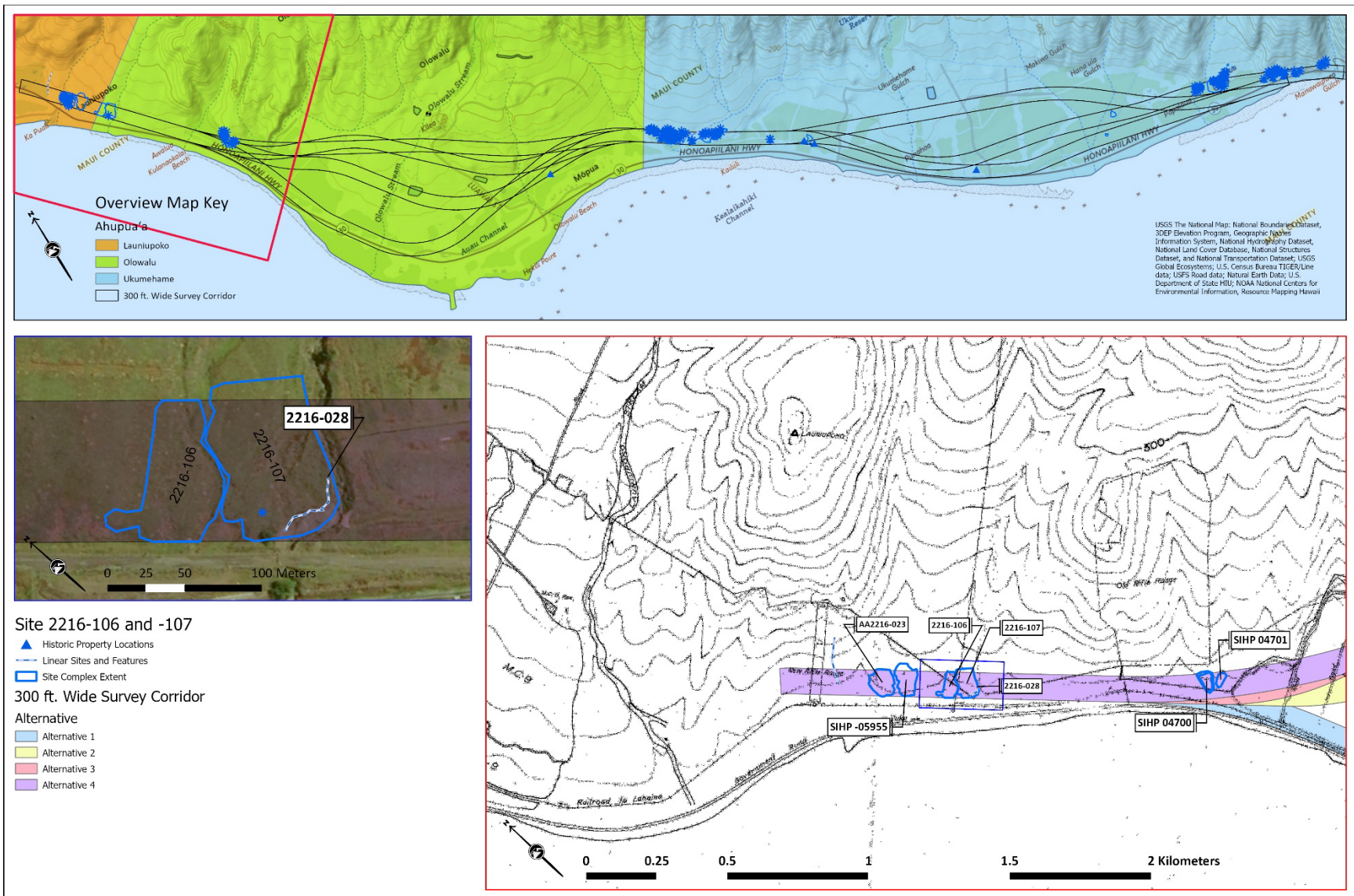


Figure 39. AA2216-106 and -107 in relation to the proposed alternatives (top frame), inter-site association within lands formerly designated as pasture lands between the Launiupoko and Olowalu sugarcane fields of the Pioneer Mill Company (Pioneer Mill Company 1940) (bottom right frame), and close up of site extents in relation to the modern environment (ESRI et al. 2021) (bottom left frame).



<b>FIELD NO:</b>	AA2216-107	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 5	<b>AGE:</b>	Precontact - Early Historic
<b>SITE TYPE:</b>	Alignment, Enclosure, Outcrop, Terrace	C-Shape, Modified	<b>MIDDEN DENSITY:</b> None
<b>FUNCTION:</b>	Agriculture and Habitation	<b>ARTIFACT DENSITY:</b>	None
<b>CONDITION:</b>	Good to Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, C, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, c, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

**ENVIRONMENTAL SETTING:**

Gentle to moderately sloping topography with vegetation consisting of buffel grass, hairy woodrose, haole koa, castor bean, and kiawe trees.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-107 is a newly identified agricultural and habitation complex located within the western end of the proposed highway corridor where all proposed alternatives merge to meet the current alignment of Honoapi'ilani Highway (see Figure 33). This site is situated on a rocky southwest slope descending from the West Maui Mountains to the shoreline between Olowalu and Launiupoko and is part of a larger precontact agricultural landscape that includes sites AA2216-023, AA2216-104, and AA2216-106. A gully on the northwest extent of AA2216-107 serves as a geographic boundary from AA2216-106 for inventory purposes. AA2216-107 and neighboring sites comprise one of the few remaining areas between Ukumehame and Lahaina not plowed for sugarcane (see Figure 38).

As with neighboring sites, the features comprising AA2216-107 are mostly obscured by dense, tall grass and accumulating duff. Due to the labor and time required to clear vegetation from the site, the site was spot cleared to determine the extent of the site and the density of features on the interior. This strategy revealed a highly modified landscape bound on the northwest by the gully bordering AA22216-106, on the northeast by the mauka extent of the APE (features continue outside of APE), on the southeast by a deep water-diversion gully, and on the southwest by bulldozing extending from the cane haul road. The overall topography consists of the gully bank on the northwest extent, a mildly undulating southwest slope spanning the central portion, and branching/braiding gully channels along the southeast extent.

Features exposed by spot clearing are consistent with the 'rocky' variant of the leeward rain-dependant agricultural system observed across the project area, and include features potentially associated with seasonal/intermittent streamflow. Features include terraces, stone circles or pit features, enclosures, C-shapes, alignments, mounds, and modified bedrock boulder outcrops (Figure 38). The greatest density of features occurs in and along the branching gully in the southeast portion of the site and above the frontage road in the makai portion of the site. The streambanks and ridges created by the braided gully are heavily modified with agricultural features, including planting circles and irregular stepped terraces, some of

which are partially enclosed with low rear- or sidewalls. The inter-channel ridges are heavily fortified with rough boulder facings retaining rocky infilled interiors containing rock circles and small circular stepped terraces. Extending northwest from the gully onto the central slope is a large area of stone circles incorporated into a dense central boulder concentration surrounded by small irregular terraces and alignments extending into yet uncleared portions of the slope. Downslope of this area and just above the frontage road and bulldozer push is a C-shape habitation enclosure and several adjoining irregular agricultural terraces. At the northwest extent of the site, spot clearing revealed several remnant terraces running along the back of the gully facing AA2216-106. The uncleared majority portions of the site appear to contain numerous features, particularly the area between the circle garden and C-shape and the broad lower section of the braided gully above the historic wall. No portable cultural material was observed on the surface of the site extent.

The condition of the visible features, ranges from good to remnant, with condition and state of preservation improving within the southeast and southwest portions of the site. Disturbances affecting the site include bulldozing, which has likely destroyed features; historic or modern water diversion through the gully bounding the southeast site extent leading to downcutting and feature erosion; and likely ungulate trampling as evidenced by ranch fence and wall and the trampled appearance of some features.

#### **EVALUATION SUMMARY**

AA2216-107 has retained its location, design, setting, materials, feeling, workmanship, and association as a result of its location within the margins of the former sugar plantation fields and distance from the current alignment of Honoapiʻilani Highway (Figure 36). It is likely that AA2216-107 is associated with complexes to the north of the site extent, which speaks to a highly productive ahupuaʻa wide agricultural system when combined with the loʻi systems of both Olowalu and presumably Launiupoko Valleys. The combination of fully developed wet and dry, colluvial agricultural systems appears to be unique to this region, the intensification of which may have been a response to a spike in population, heightened social complexity with regard to land and resource management in the leeward West Maui, and challenging environmental conditions. The potential extent of loʻi, colluvial, and intensive dryland agricultural systems has been modeled by Kurashima and others (2019) across the archipelago using modern environmental and climatic data compared with archaeological and ethnohistorical data. While their model shows that approximately 34.6% of potential indigenous agricultural lands would be given over to colluvial agriculture, with the distribution on Maui appearing to include small portions of the project area the authors note that while their model results were generally consistent with available archaeological and ethnohistorical information, there was little information available that was specific to colluvial agricultural systems in the archaeological record. This system represents one of the few currently known intact colluvial systems within the archipelago (Green 1969, 1970; Kirch and McCoy 2023:155-156) which could provide additional insight to and refinement of the agricultural model presented by Kurashima and others (2019) on island ecology and indigenous systems.

## **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

AA2216-107 is recommended as historically significant and eligible to the National Register under Criteria A, C, and D. When understood in the context of the broader archaeological landscape and association with the neighboring complexes, as well as the intra-site patterning of agricultural and habitation features in relation to the overall topography that takes advantage of slope direction for soil retention, Criterion A is applicable as it may speak to broad patterns in traditional Hawaiian adaptations, land uses, and complex social systems prior to the Western Contact. Site AA2216-107 is additionally significant under Criterion C as a complex dryland agricultural system that is unique to the topography of the region. Unlike the typical Kona Field System that is characterized by long linear walls and terraces that define an expansive linear field system, the dryland field system documented during this study is entirely influenced by the rocky topography which resulted in the construction of diverse feature types with varying functions depending on slope and bedrock exposures. Continued archaeological research would help to inform the timeline for agricultural intensification in the region and gain understanding of when and why both extensive dryland agriculture and lo'i systems were developed in this region, when and why the dryland field systems may have been subsequently abandoned, how this may relate to the continued use of the established lo'i systems into the modern era, and inform research into contemporary agricultural sustainability. Therefore AA2216-107 is further considered significant under Criterion D.



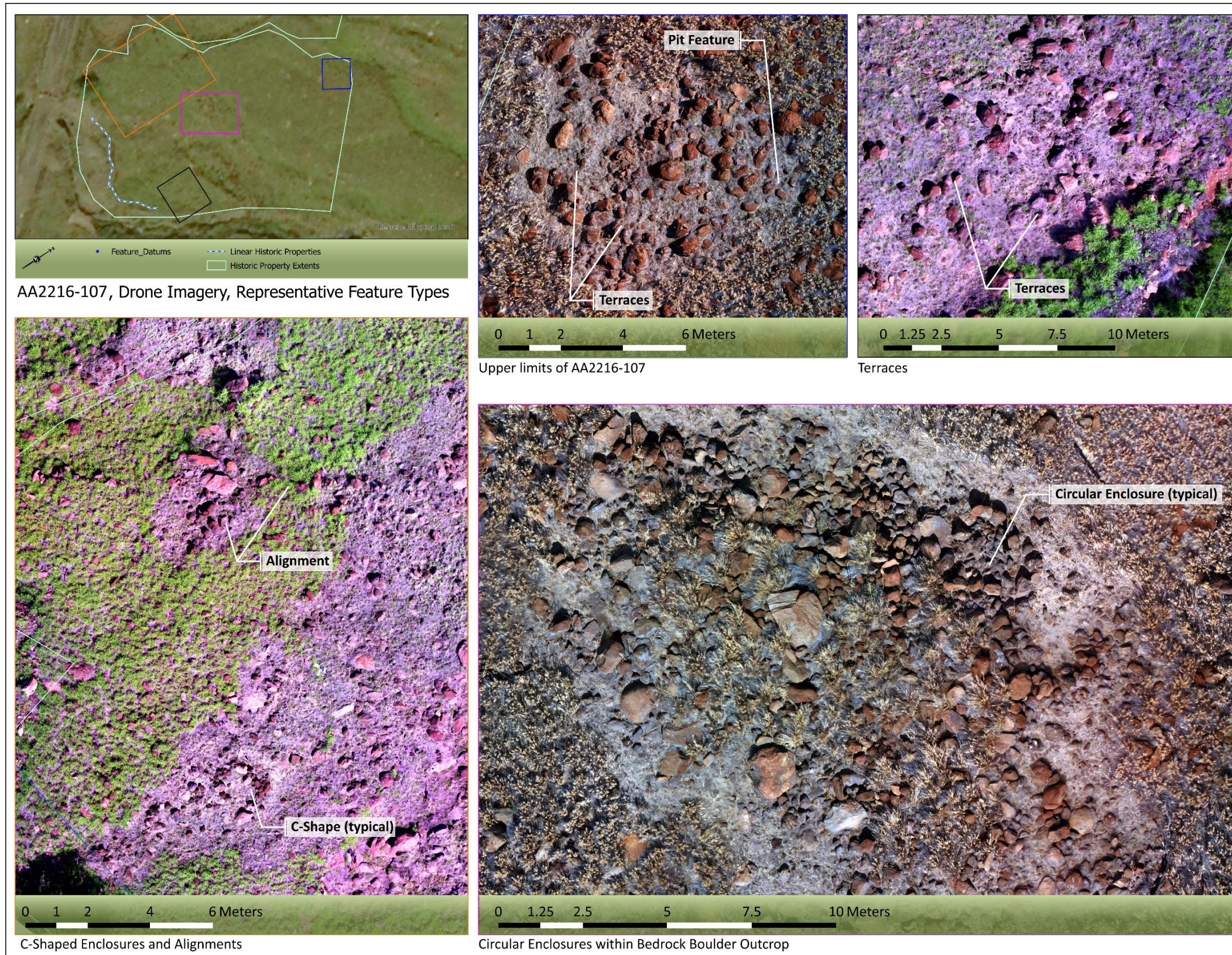


Figure 40. AA2216-107, drone imagery of interior feature types and approximate site footprint.



<b>FIELD NO:</b>	SIHP-4700	<b>SIHP NO 50-50-08-:</b>	04700
<b>N FEATURES:</b>	11	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Habitation Complex	<b>MIDDEN DENSITY:</b>	High Marine shell, kukui endocarp
<b>FUNCTION:</b>	Temporary Habitation	<b>ARTIFACT DENSITY:</b>	High One hammerstone (H-001), false brain coral, branch coral, waterworns, basalt lithics, volcanic glass lithics
<b>CONDITION:</b>	Fair to Poor		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

#### **ENVIRONMENTAL SETTING:**

Moderate to steeply sloping topography with vegetation consisting of buffel grasses and kiawe trees.

#### **HISTORIC PROPERTY DESCRIPTION:**

SIHP 50-50-08-04700 is a previously documented complex containing eight overhang rock shelters (Features A, C-I), a small C-shape (Feature B), and a wall (Feature J) located among the weathered basalt outcroppings on the west face of a north-south ridge (Fredericksen and Fredericksen 2000:42-46). A 2011 field inspection completed by Cultural Surveys Hawai'i (Lee-Greig and Hammatt 2011:Figure 40), which did not have access to the original feature maps, misidentified the location of Feature J and documented it to the south of the preservation area. All features documented as a part of SIHP -04700 were re-identified during the current survey with the feature identified during the 2011 field inspection included as newly identified Feature K. In addition to Feature K, the extent of secondary cultural material scatter (CMS-001), the origins of which are thought to be associated with the use of the upslope features (Features A-I), was also documented during the current study. Specific to the proposed project, SIHP -04700 Features I and K, as well as CMS-001, are situated within archaeological survey limits of all four (4) alternatives as they begin to merge into the connection to the existing Honoapi'ilani Highway (Figure 33).

The rockshelter documented as Feature I of SIHP -04700 was described by Xamanek Researches as:

*...2.6 m. long by 2.1 m. deep with a maximum ceiling height of 1.2 m. While there is some soil deposited on the shelter floor, much of the deposition appears to be rock exfoliation and slope wash.... A waterworn cobble was noted outside of the opening. (Fredericksen and Fredericksen 2000:45)*

Feature K (Plate 101), originally thought to be Feature J in a field inspection conducted by CSH, consists of an exposure of crudely stacked bedrock boulders 4-5 courses high.

Finally, CMS-001 is a moderate to low-density cultural material scatter extending from the northern boundary of the study area to nearly the toe of the ridge. The scatter is considerably more dense on the upper west side of the ridgetop nearest the main feature area that extends outside of the study area and becomes increasingly sparse, moving southwest down the east face of the ridge. Cultural material includes waterworn cobbles, 'ili'ili, waterworn and fragmented false brain coral, lesser amounts of branch coral, marine shell midden (e.g. cowrie, cone, drupe, and nerites), some lithic material consisting of basalt flakes and one volcanic glass flake, as well as the previously recorded waterworn cobble hammerstone (H-001) located in a small east-facing alcove overhang on the toe of the ridge (Plate 102 through Plate 106).

#### **EVALUATION SUMMARY**

SIHP 50-50-08-04700 is a multi-component complex related to traditional Hawaiian temporary or recurrent habitation prior to Western contact. Overall, the complex as a whole maintains its integrity in terms of location, setting, and feeling due to its elevated position on the ridge above the highway. Additionally, its integrity of design, materials, workmanship, and association are preserved as a result of the undeveloped state of the surrounding environment.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

Previously accepted eligibility recommendations note that SIHP -04700 was considered significant and eligible to the National Register under Criterion D as a site that “has yielded, or may be likely to yield, information important in prehistory or history.” Excavations at Features C, E, and F returned a series of dates that suggested that the shelter features were subject to recurrent use from the mid-15th to the mid-18th centuries (Fredericksen and Fredericksen 2000:66). The authors go on to note that continued archaeological research at Features B and J would add to a refinement of the age and interpretive determinations (Fredericksen and Fredericksen 2000:69). With regard to the current documentation and proposed project, SIHP -04700 continues to be recommended as significant and eligible to the National Register under Criterion D.



Plate 101. SIHP-04700, overview of Feature K, view to south.



Plate 102. SIHP-04700, CMS-001, overview of ridge and view shed toward Awalua, view to southwest.





Plate 103. SIHP-04700, CMS-001, basalt flake, dorsal view.



Plate 104. SIHP-04700, CMS-001, hammerstone.



Plate 105. SIHP-04700, CMS-001, branch coral fragments.



Plate 106. SIHP-04700, CMS-001, volcanic glass flake.

<b>FIELD NO:</b>	SIHP-4701	<b>SIHP NO 50-50-08-:</b>	04701
<b>N FEATURES:</b>	Minimum of 3	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Modified Outcrop	<b>MIDDEN DENSITY:</b>	High Dense marine shell near shrine
<b>FUNCTION:</b>	Ceremonial	<b>ARTIFACT DENSITY:</b>	High Manuports: 'Ili'ili, waterworn cobbles, and coral Artifacts: Possible cone shell beads observed throughout site, few basalt flakes.
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

**ENVIRONMENTAL SETTING:**

Moderately sloping topography with vegetation consisting of buffel grasses and kiawe trees.

**HISTORIC PROPERTY DESCRIPTION:**

SIHP 50-50-08-04701 a multi-component ceremonial site consisting of a platform in fair condition (Plate 107 and Plate 108) that was initially documented by Xamanek Researches (Fredericksen and Fredericksen 2000:46), a retaining wall (CSH-1, Plate 109) noted in Lee-Greig and Hammatt (2011:58), and a newly identified modified bedrock outcrop (MBO-001, Plate 110). A moderate density of cultural material, including coral, waterworn cobbles, and lesser lithic flakes, also covers the ridge below the platform. At the time of the current survey, the site area was covered in approximately knee-high dry buffel grass, prohibiting the identification of the true extent of the eroding scatter. The overall approximate extent of the site is intersected by Corridors 2-4 of the study area (see Figure 33) and while the platform and retaining wall components of the site were easily re-identified during the current study, both of which are consistent with the original documentation, the hammerstone included in the original description of the site could not be located.

Xamanek Researches documented the platform component of the site as follows:

*...a single component site that appears to be the remnant of a platform, measuring 33 by 27 m. It is a leveled area, located on a small, broad finger ridge in the western part of the project area, between Sites 4699 and 4700. The primary feature is a roughly rectangular area paved with angular basalt cobbles, intermixed with numerous waterworn pebbles, cobbles and numerous pieces of coral. The eastern part of it has been severely impacted by a bulldozer. Scattered surface portable remains noted included lithic debitage, marine shell, and a single hammerstone. The feature appears*

*as a leveled area on an undulating ridge. An intermittent streambed lies about 10 meters west of the site. The presence of quantities of branch and waterworn coral suggests that this site may represent a remnant of a possible precontact ceremonial structure. (Fredericksen and Fredericksen 2000:46)*

The retaining wall component was described by Lee-Greig and Hammatt (2011:58-59) as a retaining wall consisting of roughly stacked medium to large subangular and angular bedrock cobbles constructed to reinforce the southern embankment and edge of a wash located approximately 6.5 m to the north-northwest of the platform feature.

Finally, the newly identified modified bedrock outcrop (MBO-001) consists of a northwest-facing outcrop with 'ili'ili pavement (Plate 111) located to the west of the platform along the intermittent stream bank near the toe of the ridge. The modified outcrop measures approximately 10 m in length by 5 m in width and characterized by several terrace-like natural flat and level bedrock shelves that had been paved with small 'ili'ili (1-3 cm) and occasional branch and false brain coral of the same size. The material comprising the pavement is of the same type as observed on the platform and scattered on the surface between the platform and MBO-001; however, it is differentiated by small, well-sorted 'ili'ili.

#### **EVALUATION SUMMARY**

SIHP 50-50-08-04701 has retained integrity of location, design, setting, materials, feeling, and association due to its elevated position on the ridge above the highway and undeveloped state of the surrounding environment. While there has been some site degradation due to erosion, workmanship, as reflected in construction methods and form, as well as an overall retention of the architectural footprint is nonetheless maintained.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

Traditional Hawaiian social organization at Ukumehame and Olowalu, and more specifically the role of ritual and ceremony in the context of a community system, may be increasingly understood through the distribution of ceremonial sites that vary in structural form and elevation across the two ahupua'a divisions. The number of ceremonial sites and features across the archaeological landscape likely speaks to population growth, increased complexity in socio-economic organization (Kolb 1997; Mulrooney and Ladefoged 2005), and diversity of ceremony and worship (e.g. agricultural productivity, marine productivity, local level institutional control [e.g. overseen by konohiki or managerial], and state level institutional control [i.e. akua loa procession]). While SIHP -04701 on its own may not be considered significant under Criterion A, when understood in the context of the collective archaeological landscape, extending from Ukumehame to Olowalu, and the distribution of ceremonial features (e.g. monumental ceremonial architecture as represented by Kaiwaloa Heiau [Olowalu Ahupua'a, SIHP-0004] and Hiki'i Heiau [Ukumehame Ahupua'a, SIHP-0002] vs. smaller ceremonial sites as represented by low platforms at Olowalu Ahupua'a [SIHP -04701] and Ukumehame [AA2216-050 Feature S]) in relation to the overall topography, ahupua'a boundaries, and emerging traditional Hawaiian settlement pattern, significance under Criterion A applies. Continued archaeological research may add granularity to the construction chronology of regional ceremonial features, contribute to the growing body of archaeological information used to define and categorize structural morphology of ceremonial sites as it relates to spatial distribution, and add to the broader understanding of traditional Hawaiian social organization through time. Based on this, SIHP -04701 is further considered significant under Criterion D.





Plate 107. SIHP-04701, platform overview and view shed, SIHP-4700 visible in background to the right of frame, view to west.



Plate 108. SIHP-04701, overview and view shed from northern extent, view to south-southwest.



Plate 109. SIHP-04701, overview of retaining wall component (CSH-1), view to east.



Plate 110. SIHP-04701, overview of potential west extent and modified outcrop component (MBO-001) and overhang in view, view to east.



Plate 111. SIHP-04701, modified outcrop component, interior 'ili'ili paving, plan view.

<b>FIELD NO:</b>	SIHP-4718	<b>SIHP NO 50-50-08-:</b>	04718
<b>N FEATURES:</b>	3	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Heiau	<b>MIDDEN DENSITY:</b>	None
<b>FUNCTION:</b>	Ceremonial	<b>ARTIFACT DENSITY:</b>	None
<b>CONDITION:</b>	Fair to Poor		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Materials, Workmanship, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Materials, Workmanship, Association

**ENVIRONMENTAL SETTING:**

Gently sloping topography covered in buffel grass.

**HISTORIC PROPERTY DESCRIPTION:**

SIHP 50-50-08-04718 is a previously documented heiau located east of Luawai St in Olowalu Ahupua'a, the southernmost extent of which is intersected by the survey area for Alternative 3 and approximately 20 m south of the survey extent for Alternative 4 (Figure 39, see also Figure 33). Originally documented by Winslow Walker during his 1930 survey of Maui Island and included in his description of Kaiwaloa Heiau (SIHP 50-50-08-0004), SIHP -04718 was described as follows:

*Another small heiau is located in the cane lands below the ditch. It measures 40 x 60 feet but all interior structures have been destroyed. No name was learned for this heiau. (W. M. Walker 1931:108)*

The site was revisited by Xamanek Researches in 1998 and 1999 during their survey of former plantation lands above Honoapi'ilani Highway. During their fieldwork, they noted that the heiau was comprised of three features and was described as follows:

*This site is a complex of 3 features, and is interpreted as the remnant of a heiau. It is located in the middle of a cane field in the central portion of the study area, at c. 80 feet AMSL. The original shape and extent of this site could not be determined accurately, because it has been covered with dirt and field stones from the surrounding cane fields. The probable dimensions of this site are essentially the same as the small heiau that Walker referred to, which measured 40 by 60 feet....at the time of our survey, 3 interior features were identifiable.*

*Feature A consists of an enclosure that measures c. 12 meters in length by c. 6 meters in width, and is c. 0.7 meters high. Although damaged and partially covered, the intact portions are still visible, and are in fair condition. The interior is divided by linear rock alignments, retaining walls with paved and slightly raised areas, and separating pathways. One path leads in from a possible entrance on the southwest side.*

*Features B and C appear to be burials. They are rectangular arrangements of semi-rounded cobbles and boulders, with an inner pavement of smaller cobbles and 'ili'ili*

*pebbles, and are quite reminiscent of the known burials found on Pu'u Kilea. A concentration of surface cultural materials, including volcanic glass flakes (4), basalt debitage (5), coral pieces (6) and a number of marine shells, occurs between these features. None of these cultural materials were collected and no subsurface testing was undertaken.*

*Informants reported that human remains, disturbed during field plowing operations elsewhere on the property, had been reinterred at the site. The precise location and time of reinterment was not determined. However, a portion of Feature C appeared to have been partially dismantled and reconstructed at some time in the past. (Fredericksen and Fredericksen 2000:54)*

Presently, the heiau is surrounded by preservation fencing and overgrown with buffelgrass.

### **EVALUATION SUMMARY**

SIHP 50-50-08-04718 has retained integrity of location, design, materials, and association as a result of avoidance by agricultural activities related to previous industrial scale sugar cane cultivation. Integrity of setting and feeling has been affected by sugar plantation activities which include realignment of Olowalu Stream and removal of the traditional landscape that would have incorporated SIHP -04718 at this elevation (Figure 40). While there has been some site degradation due to erosion, workmanship, as reflected in construction methods and form, as well as an overall retention of the architectural footprint is nonetheless maintained.

### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

Traditional Hawaiian social organization at Ukumehame and Olowalu, and more specifically the role of ritual and ceremony in the context of a community system, may be increasingly understood through the distribution of ceremonial sites that vary in structural form and elevation across the two ahupua'a divisions. The number of ceremonial sites and features across the archaeological landscape likely speaks to population growth, increased complexity in socio-economic organization (Kolb 1997; Mulrooney and Ladefoged 2005), and diversity of ceremony and worship (e.g. agricultural productivity, marine productivity, local level institutional control [e.g. overseen by konohiki or managerial], and state level institutional control [i.e. akua loa procession]). While SIHP -04718 on its own may not be considered significant under Criterion A, when understood in the context of the collective archaeological landscape, extending from Ukumehame to Olowalu, and the distribution of ceremonial features (e.g. monumental ceremonial architecture as represented by Kaiwaloa Heiau [Olowalu Ahupua'a, SIHP-0004] and Hiki'i Heiau [Ukumehame Ahupua'a, SIHP-0002] vs. smaller ceremonial sites as represented by low platforms at Olowalu Ahupua'a [SIHP -04701] and Ukumehame [AA2216-050 Feature S]) in relation the overall topography, ahupua'a boundaries, and emerging traditional Hawaiian settlement pattern, significance under Criterion A applies, regardless of the removal of the traditional archaeological sites and features in the immediate area. Continued archaeological research may add granularity to the construction chronology of regional ceremonial features, contribute to the growing body of archaeological information used to define and categorize structural morphology of ceremonial sites as it relates to spatial distribution, and add to the broader understanding of traditional Hawaiian social organization through time. Based on this, SIHP -04718 is further considered significant under Criterion D.







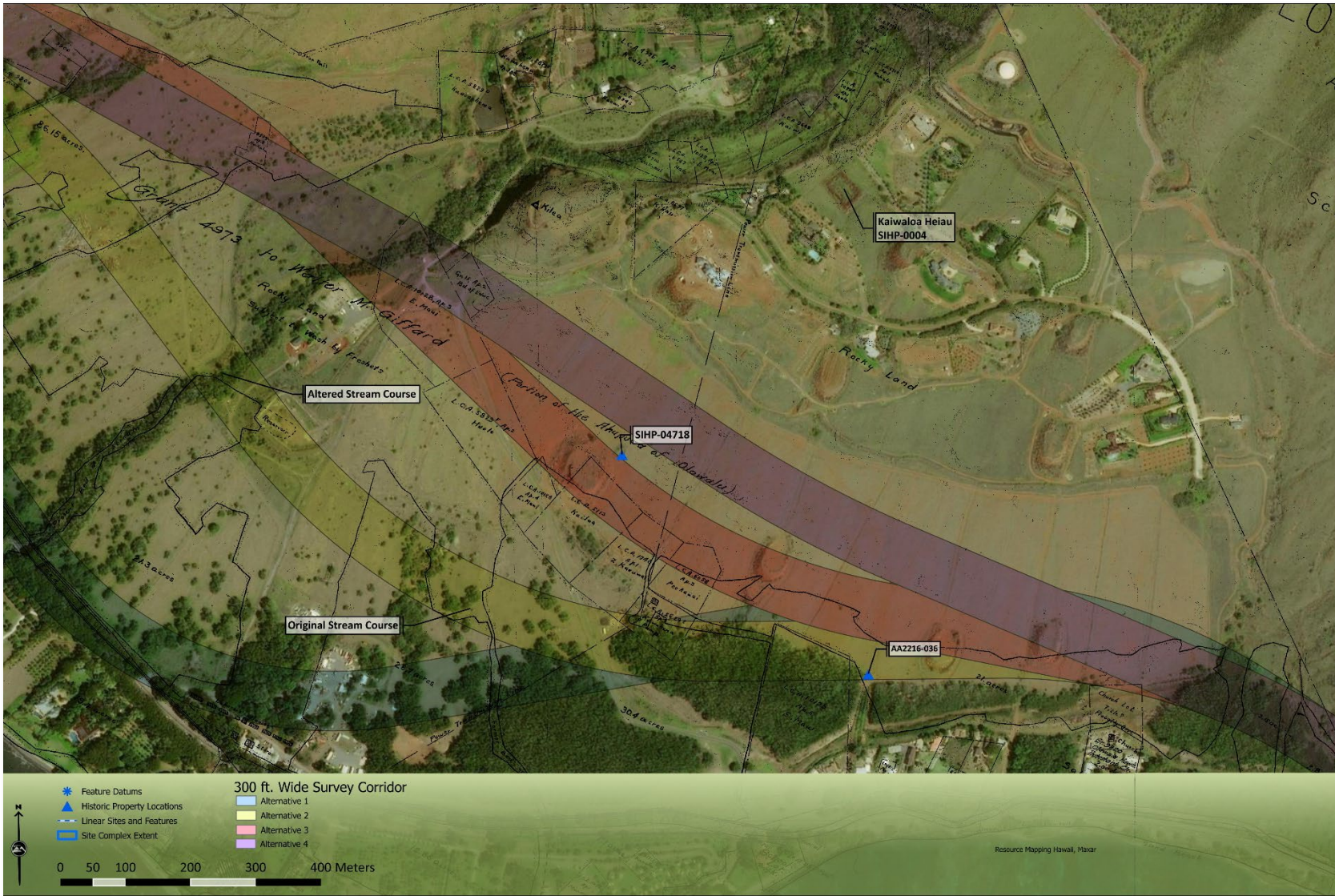


Figure 42. SIHP 50-50-08-04718 and proposed alternatives in relation to the modern environment (ESRI et al. 2021), land commission award distributions, and original alignment of Olowalu Stream (A. C. Alexander 1906a).

## Launiupoko Ahupua‘a

A total of three (3) historic properties were identified within the Launiupoko section of the proposed realignment alternatives (Table 3, Figure 41), two of which (50-50-08-05954 and -05955) were previously recorded. The following section presents the preliminary site descriptions and recommendations for historic properties identified within the Launiupoko portion of the archaeological survey area.

Table 3. Summary of Above Ground Archaeological Sites Identified within Launiupoko Ahupua‘a<sup>11</sup>

Alternatives Affected	Field No/ SIHP 50-50-08-	Possible Age Range	Formal Type	Inferred Function	Overall Condition	NRHP/6E Significance Recommendation	Integrity Evaluation
1-4 (Launiupoko Pinch Point)	AA2216-023	Precontact and Possible Historic Military	Alignment, C-Shape, Enclosure, Mound, Terrace	Agricultural Complex, Military Training	Fair	A, C, D/a, c, d, e	Location, Design, Setting, Materials, Workmanship, Feeling, Association
1-4 (Launiupoko Pinch Point)	05955	Precontact	Terraces, Circular Alignment, Enclosures, Alignments, Mound, Modified Outcrops	Agricultural Complex w/ Ceremonial Component	Good to Remnant	A, C, D/a, c, d, e	Location, Design, Setting, Materials, Workmanship, Feeling, Association
1-4 (Launiupoko Pinch Point)	05954	Early 20 <sup>th</sup> Century Ranch	Wall	Animal Husbandry	Good	D/d	Location, Material, Setting, Feeling, and Association

<sup>11</sup> Gray shading indicates pinchpoint locations where all proposed alternatives merge



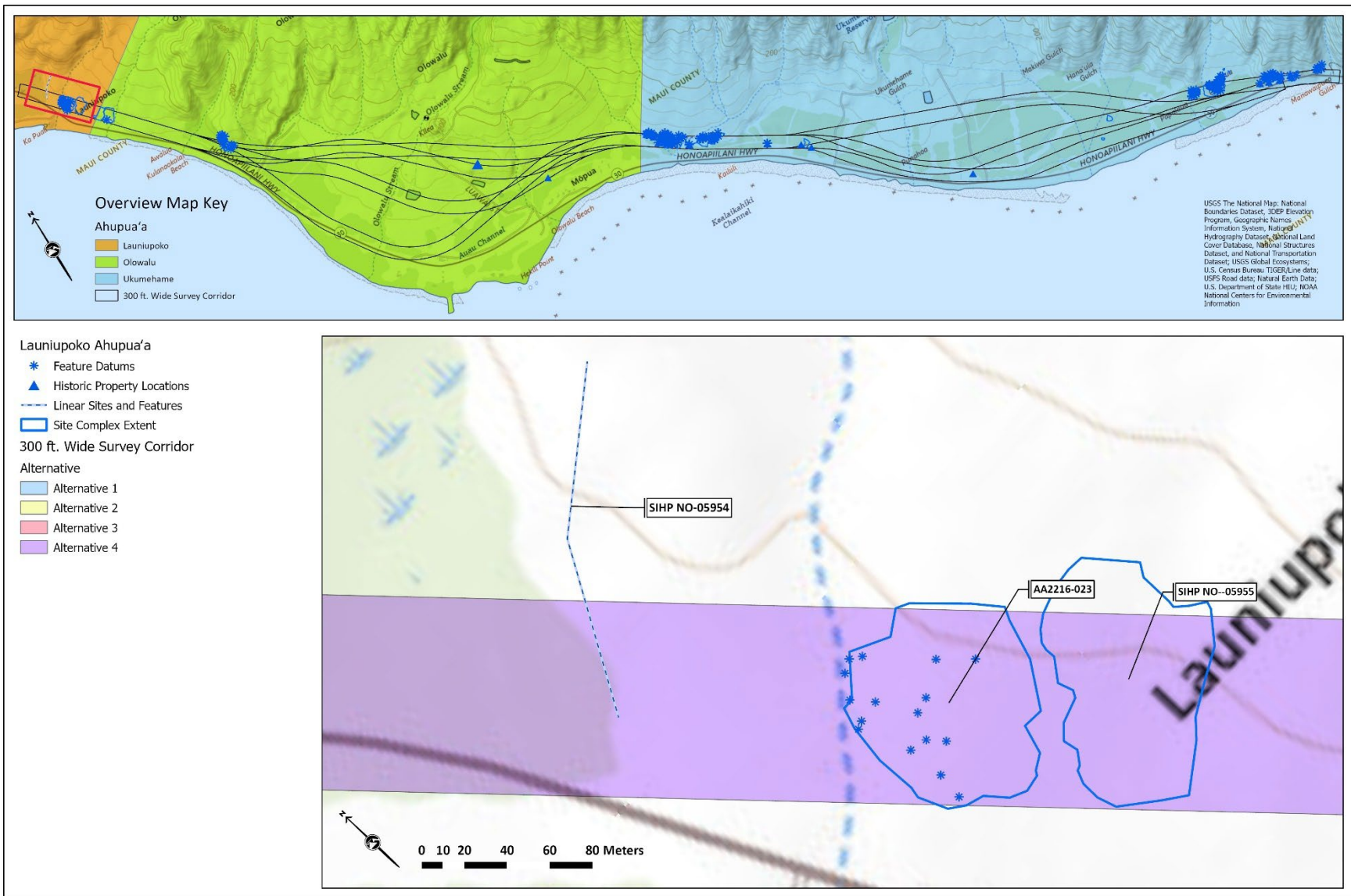


Figure 43. Historic property locations and extents in relation to the survey corridors, Launiupoko Ahupua'a.

<b>FIELD NO:</b>	AA2216-023	<b>SIHP NO:</b>	
<b>N FEATURES:</b>	Minimum of 8	<b>AGE:</b>	Precontact - Early Historic and Possible Historic Military
<b>SITE TYPE:</b>	Alignment, C-Shape, Enclosure, Mound, Terrace	<b>MIDDEN DENSITY:</b>	Low One cowrie shell, few UID marine fragments
<b>FUNCTION:</b>	Agriculture, Ceremonial, Habitation	<b>ARTIFACT DENSITY:</b>	Low branch coral, false brain coral, waterworns
<b>CONDITION:</b>	Fair		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, C, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, c, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

**ENVIRONMENTAL SETTING:**

Gently sloping topography vegetated with buffel grasses.

**HISTORIC PROPERTY DESCRIPTION:**

AA2216-023 is a newly identified agricultural and habitation complex with a ceremonial component located at the west end of the project area where proposed corridors merge just before Lahaina (see Figure 41). This complex is situated on a rocky, southwest sloping (5-10 degree) plain that descends from the West Maui Mountains to the shoreline between Olowalu and Lahaina. Site topography is characterized by low, rocky ridges separated by branching shallow gully channels with the extent defined on the northwest by a deep gully, on the southwest by the Honoapiilani Highway and cane haul road road, on the southeast by a Jeep road, and on the northeast by the upslope extent of the study area. It should be noted that features of the complex continue mauka and outside of the study corridor. With the exception of a bulldozed path along the northwest extent of the site and another entering the southwest portion, the site area comprises a portion of a continuous colluvial landscape within one of the few remaining areas between Ukumehame and Lahaina not plowed for sugarcane.

Feature types identified within the overall complex includes agricultural terraces and pit features, three sizeable C-shaped habitation enclosures, a habitation terrace, low-lying enclosures of varying forms, alignments, stone mounds, and at least three ceremonial features with coral manuports (Figure 42). The features comprising AA2216-023 are typical of the 'rocky variant' of a leeward rain-dependent agricultural system characterized by the very rocky gentle slopes observed throughout the unplowed portions of the project area. Features types are dominated by agricultural features suitable for sweet potato, dry-land kalo, and water gourd, with expectedly fewer habitation and ceremonial features. These features are generally constructed of 1-3 courses of stacked cobbles and boulders. The large average size of the construction materials (~0.3-1+ m in diameter) permits many features to be constructed from single-course alignments of boulders. The most conspicuous of the features are three large C-shaped habitation

enclosures located in the makai portion of the site. Each of the large C-shapes consists of multiple courses of stacked boulders and measures several meters in diameter. Sparse marine shell was noted near the largest two C-shapes. A fourth habitation feature, a terrace and associated small C-shape, is situated along the south bank of the gully at the northwest site extent. The ridge tops and gully banks throughout the site, particularly on the mauka half, are densely covered with irregular agricultural terraces and agricultural circles. Portions of the highly modified central two ridges contain clustered agricultural circles similar to the 'rock circle gardens' observed across the project area. Interspersed among the identified agricultural and habitation features are numerous alignments and low-lying enclosures of circular and irregular forms, presently of unknown function. Many of these features are likely to be agricultural, although further archaeological investigation may provide evidence of additional or other functions (e.g., habitation). Ceremonial features include an enclosed mound with false brain coral and a remnant C-shape with branch coral heads and false brain coral (both in the lower site area) and a concentration of branch coral placed within stacked cobbles and scattered around an auspicious cobble-lined flat boulder (upper site area). Additionally, several rock mounds were observed across the site, some being small and distinct formal mounds and others appearing remnant portions of otherwise collapsed features.

Multiple features within the limits of the complex as defined by this study appear similar to the World War II era C-shapes identified in the Wailea area (Tome and Dega 2004; A. T. Walker et al. 1985). While independently constructed features such as wind breaks and/or shooting blinds that are built for expedience and associated with military training and the former National Guard Rifle Ranges may be present within the study area (Figure 43, see also Figure 42), modifications of pre-existing pre-contact structures for military training purposes have also been documented (A. T. Walker et al. 1985). In 1930, the Governor of the Territory of Hawai'i set aside land for a Rifle Range at Olowalu to be under control and management of the Hawaii Army National Guard (HIARNG) through Executive Order 456 (Hawaii Commission of Public Lands 1932:55). The "new" rifle range consisted of a 200-yard range with four targets to be located on the Lahaina side of Olowalu, on the boundary of Pioneer Mill and Olowalu plantations ("National Guard to Get Rifle Range at Lahaina This Month" 1931). Constructed for Company A, First Battalion, 299th Infantry, the Olowalu Rifle Range was used by the HIARNG for small arms training from 1931 until approximately 1961. According to the JFHQ HI ARNG Installation Action Plan, the Munitions Response Site (MRS) was owned by PiMCo and leased to HIARNG while in operation (U.S. Army Environmental Command 2021:5). While a 1940 PiMCo topo map shows areas designated as "Old Rifle Range" and "New Rifle Range" it is unclear as to whether the "Old Rifle Range" was ever used in that manner.

Cultural material observed within AA2216-023 includes branch and false brain corals (primarily associated with ceremonial features), several waterworn cobbles within or near feature construction, and a small amount of marine shell located near habitation features.

Disturbances affecting the site include invasive vegetation growth, bulldozing, road construction, and wildfire. The site area is overgrown with dense buffel grass, which had to be cleared before many of the features became visible. The dense rootballs of the grass are deforming many of the features throughout the site. Bulldozing on the northwest and southeast extents of the site and road construction on the southwest and northeast extents has destroyed and damaged features. Wildfire, as evidenced by burned kiawe and dense ash pockets, has affected much of stone material within the site, likely advancing the natural spalling and cracking caused by solar radiation.



## **EVALUATION SUMMARY**

AA2216-023 has retained its location, design, setting, materials, feeling, workmanship, and association as a result of its location within the margins of the former sugar plantation fields and distance from the current alignment of Honoapi'ilani Highway (Figure 44). It is likely that AA2216-023 is associated with the colluvial agricultural complexes to the south of the site extent, which speaks to a highly productive ahupua'a wide agricultural system when combined with the lo'i systems of both Olowalu and presumably Launiupoko Valleys. The combination of fully developed wet and dry, colluvial agricultural systems appears to be unique to this region, the intensification of which may have been a response to a spike in population, heightened social complexity with regard to land and resource management in the leeward West Maui, and challenging environmental conditions. The potential extent of lo'i, colluvial, and intensive dryland agricultural systems has been modeled by Kurashima and others (2019) across the archipelago using modern environmental and climatic data compared with archaeological and ethnohistorical data. While their model shows that approximately 34.6% of potential indigenous agricultural lands would be given over to colluvial agriculture, with the distribution on Maui appearing to include small portions of the project area, the authors note that while their model results were generally consistent with available archaeological and ethnohistorical information, there was little information available that was specific to colluvial agricultural systems in the archaeological record. This system represents one of the few currently known intact colluvial systems within the archipelago (Green 1969, 1970; Kirch and McCoy 2023:155-156) that could provide additional insight to and refinement of the agricultural model presented by Kurashima and others (2019) on island ecology and indigenous systems.

## **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

AA2216-023 is recommended as historically significant and eligible to the National Register under Criteria A, C, and D. When understood in the context of the broader archaeological landscape and association with the neighboring complexes, as well as the intra-site patterning of agricultural and habitation features in relation to the overall topography that takes advantage of slope direction for soil retention, Criterion A is applicable as it may speak to broad patterns in traditional Hawaiian adaptations, land uses, and complex social systems prior to the Western Contact. Site AA2216-023 is additionally significant under Criterion C as a complex dryland agricultural system that is unique to the topography of the region. Unlike the typical Kona Field System that is characterized by long linear walls and terraces that define an expansive linear field system, the dryland field system documented during this study is entirely influenced by the rocky topography which resulted in the construction of diverse feature types with varying functions depending on slope and bedrock exposures. Continued archaeological research would help to inform the timeline for agricultural intensification in the region and gain understanding of when and why both extensive dryland agriculture and lo'i systems were developed in this region, when and why the dryland field systems may have been subsequently abandoned, how this may relate to the continued use of the established lo'i systems into the modern era, and inform research into contemporary agricultural sustainability. Therefore AA2216-023 is further considered significant under Criterion D.



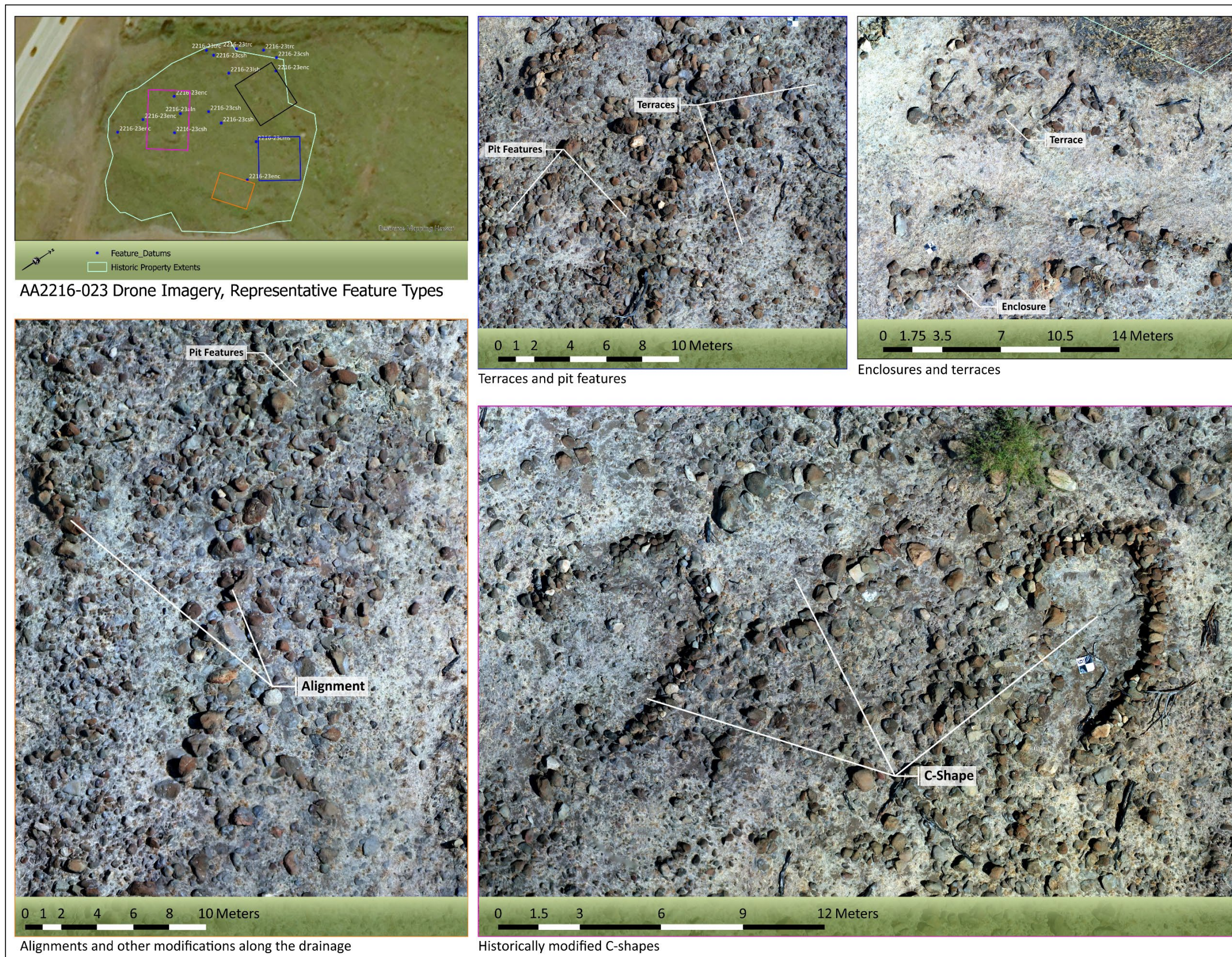


Figure 44. AA2216-023, drone imagery of representative feature types and distribution across the overall complex.



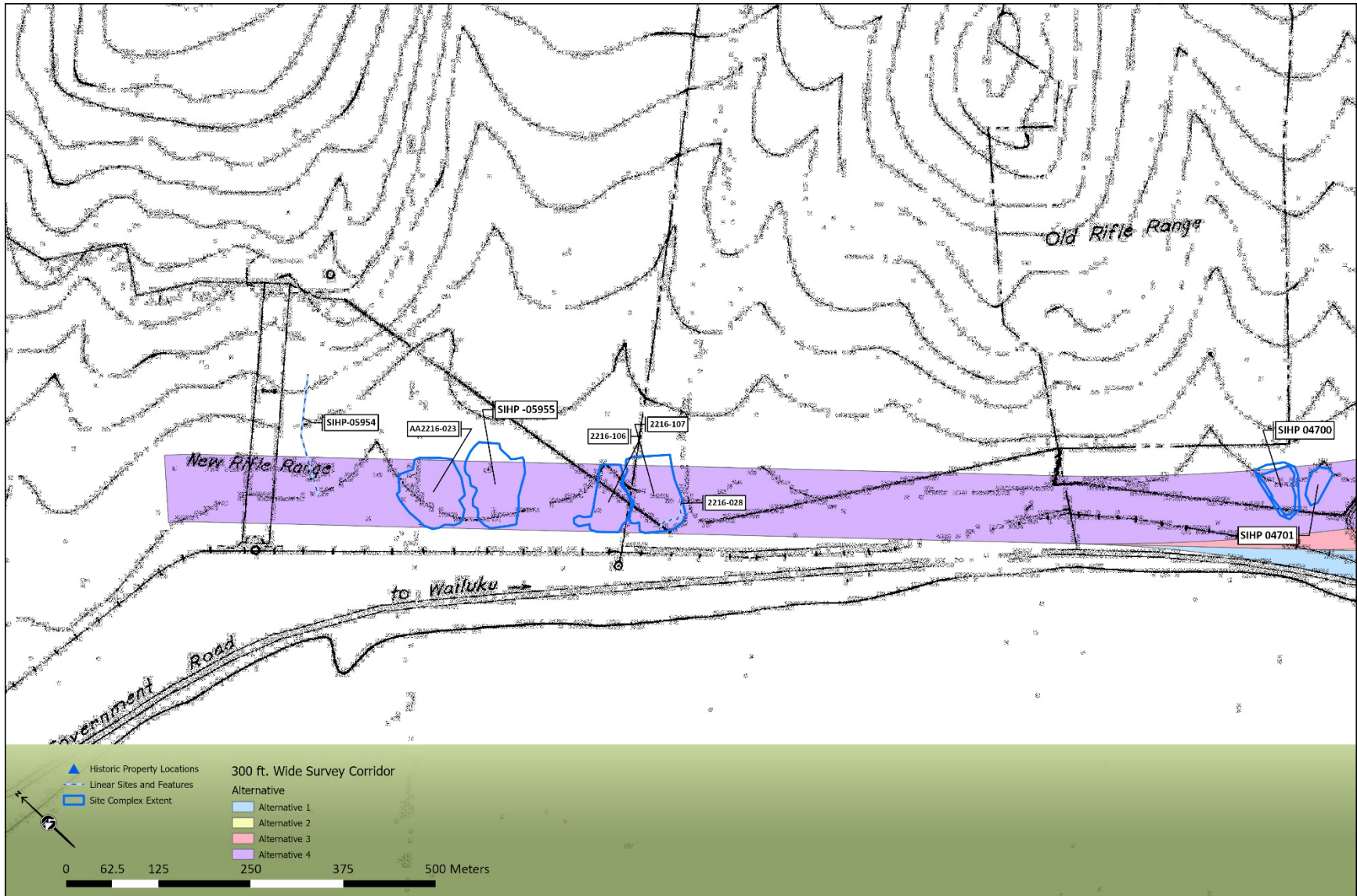


Figure 45. A portion of Pioneer Mill Company topo (Pioneer Mill Company 1940) focus on the National Guard Rifle Range extents in relation the study area and site locations.





<b>FIELD NO:</b>	AA2216-025	<b>SIHP NO 50-50-08-:</b>	05954
<b>N FEATURES:</b>	1	<b>AGE:</b>	Early 20 <sup>th</sup> Century Ranch
<b>SITE TYPE:</b>	Wall	<b>MIDDEN DENSITY:</b>	None
<b>FUNCTION:</b>	Animal Husbandry	<b>ARTIFACT DENSITY:</b>	None
<b>CONDITION:</b>	Good		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Material, Setting, Feeling, and Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	d	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Material, Setting, Feeling, and Association

#### **HISTORIC PROPERTY DESCRIPTION:**

SIHP 50-50-08-05954 is a core-filled, freestanding wall located within the northern limits of the study area where the proposed road corridors merge to meet the existing alignment of Honoapi'ilani Highway (Plate 112, see also Figure 41). Previously documented by Scientific Consultant Services (SCS) as a part of their survey for a 633-acre subdivision, SIHP -05954 was described as follows:

*This rock wall ... is a cattle wall from the ranching era. It extends downslope from near the eastern project boundary through dense grass, shrubbery, and trees, including koa haole. This core-filled wall is constructed of weathered, poor quality, subangular basalt. The wall exterior is composed of cobbles ranging in size from 40 to 90 cm in diameter. The wall stands 2 to 6 courses high and is faced. The cobble filling ranges in size from 10 to 30 cm in diameter. The top of the wall is fairly level. No cultural material was observed in association with this wall. (Paraso and Dega 2006:37)*

Current observations note that the “weathered, poor quality, subangular basalt” that is used in the wall construction also appears fractured and may be sourced from quarrying areas located upslope. The overall quality of stacked construction also lacks the characteristic interlocked mechanics of tightly stacked traditional pre-contact wall construction (Plate 113). Finally, a bulldozed path was observed bi-secting the stone wall, thus dividing what was likely a continuous wall in two (Plate 114).

#### **EVALUATION SUMMARY**

SIHP 50-50-08-05954 consists of a stone wall section likely reflective of historic ranching and pasture delineation. The Pioneer Mill Company, Ltd. (PiMCo) Ranch, a secondary industry of the overall sugar operation that was initiated to support their labor force, was started around 1912 by then manager W. Weinzheimer on lands that were unsuitable for cane growing. The grazing lands extended from Honokōwai Gulch to Olowalu and sea level to 2,000 ft., covering a collective area of 9000 acres of Pili grass, cactus, and Koa Haole (Henke 1929:59). While this remaining section of wall is in fair condition, and the integrity of workmanship and design specific to the remaining section of dry-stacked stone masonry is retained, the historic pasture boundary in its entirety is no longer intact with the surviving section of wall adversely affected by a bulldozed path. As a result, integrity of workmanship and design for the overall pasture boundary no longer remains. The site does however retain limited integrity of location and materials, as well as setting, feeling, and association.

## NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION

The identification of both 50-50-08-05954 and AA2216-028 within the study corridor has led to research into ranching infrastructure, an otherwise little recognized aspect of the overall operation of Pioneer Mill Co. There has been some debate surrounding stone walls that were constructed during the historic era versus traditional Hawaiian walls constructed prior to Western contact and the ability to differentiate between the two (Wong et al. 2020:76-77). Further archaeological research into the construction of SIHP -05954, focused on dry-stacking methods and technique in relation to known traditional Hawaiian dry-stacked stone architecture, would add to a broader understanding of dry-stacked masonry through time. The addition of this information would build the ability to readily distinguish historic wall construction from traditional pre-contact construction (Sroat et al. 2023:96-100) which would better inform function, chronology, and land use interpretations. Based on this, SIHP -05654 is recommended as eligible to the National Register under significance Criterion D.



Plate 112. SIHP 50-50-08-05954, overview towards highway, view to southwest.



Plate 113. SIHP 50-50-08-05954, close-up of wall face, view to northwest.



Plate 114. SIHP 50-50-08-05954, overview of road bisecting wall, view to east.



<b>FIELD NO:</b>	AA2216-104	<b>SIHP NO 50-50-08-:</b>	05955
<b>N FEATURES:</b>	Minimum of 6	<b>AGE:</b>	Precontact
<b>SITE TYPE:</b>	Habitation and Agricultural Complex	<b>MIDDEN DENSITY:</b>	None
<b>FUNCTION:</b>	Agriculture, Ceremonial, Temporary Habitation	<b>ARTIFACT DENSITY:</b>	Medium Branch and false brain coral
<b>CONDITION:</b>	Good to Remnant		
<b>NRHP SIGNIFICANCE ASSESSMENT:</b>	A, C, D	<b>NRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association
<b>SRHP SIGNIFICANCE ASSESSMENT:</b>	a, c, d, e	<b>SRHP INTEGRITY ASSESSMENT:</b>	Location, Design, Setting, Materials, Workmanship, Feeling, Association

**ENVIRONMENTAL SETTING:**

Gentle to moderately sloping terrain with vegetation consisting of buffel grasses, hairy woodrose, haole koa, and kiawe trees.

**HISTORIC PROPERTY DESCRIPTION:**

Previously recorded site 50-50-08-05955 is approximately located within a larger site complex of newly identified features, the extent of which was documented as a result of the current study (Figure 45). The overall complex is located in the western portion of the APE where the proposed corridors merge and is situated on the rocky southwest sloping plain descending from the West Maui Mountains to the shoreline between Olowalu and Lahaina. SIHP -05955 is surrounded by multiple agricultural and habitation complexes to the east and west, including AA2216-023, AA2216-106, and AA2216-107. The overall site extent is defined by a Jeep access road to the northwest, to the northeast by the upper study area boundary, to the southeast by the visible extent of contiguous features, and the southwest by the cane haul road and highway. The topography of the site is characterized by a rocky southwest slope dissected by converging gullies on the southeast and an ephemeral gully on the northwest.

As a part of their survey for a 633-acre subdivision, Scientific Consultant Services (SCS) described SIHP -- 05955 as follows:

*This site consists of several potentially "modified" rock concentrations occurring on a rocky slope (Figure 21 ). The site is located downslope from several other amorphous rock concentrations that are outside the project area. Linear mounds resulting from road construction are present to the south and a water channel occurs to the north. Grass, 'ilima, and burnt kiawe provide moderate vegetation coverage. This tri-level rock concentration contains two relatively level areas on its upper slopes. A larger rock deposit with no visible formal construction is located on the lower slopes of the feature where two additional relatively level areas are present. Several large pieces of branch coral and other coral fragments are present to the northwest, downslope of the modified portion of the feature. According to the field crew, the coral fragments appeared to have eroded (water erosion) to this location from the upper portions of*

*the slope. The crew also noted that coral pieces were common in lower areas, this not surprising considering the proximity of this area to the coastline. The age and function of this feature are indeterminate and may simply be a modest activity area.... (testing) excavations did not show this feature to be more complex than documented from surface characteristics. (Paraso and Dega 2006:37-38)*

During fieldwork in the vicinity of SIHP -05955, a feature dense landscape was noted throughout the area and given an in-field temporary number (AA2216-104) for tracking purposes. Following additional post-fieldwork research, it was determined that the features identified and documented under temporary field number AA2216-104 surrounded and overlapped the location of SIHP -05955 as presented in Paraso and Dega (2006:Figure 6). This resulted in AA2216-104 being incorporated into SIHP -05955 with an overall expansion of the previously documented site limits. Observed features include terraces, agricultural pits, enclosures (including a ceremonial feature), alignments, a mound, and modified outcrops with increased feature occurrence and improved condition in the mauka portions of the site (Figure 46). The identified features appear typical of the leeward rain-dependent agricultural variant characterized by the rocky, gentle slopes observed throughout the unplowed portions of the overall study area.

Most of the features are agricultural and include small, irregular terraces on the rocky slopes and low ridges, larger irregular terraces along the southeastern gully, and agricultural circles (planting/mulch pits) throughout. Notably, a rocky knoll in the eastern quadrant exhibits characteristics of a 'rock circle garden,' likely containing dozens of circular arrangements and small semi-circular terraces. The flat top of the knoll contains larger enclosures that may have served as habitation, although these features are yet to be cleared of vegetation.

Also noteworthy is a ceremonial feature comprised of a concentration of branch coral heads tightly packed into a small enclosure adjacent to the Jeep road in the north corner of the site (Plate 115 and Plate 116). The enclosure is one of several adjoining rectangular and irregular enclosures constructed of aligned boulders. The bulldozed Jeep road cuts through these features, missing the ceremonial coral concentration. Another unique feature is a large mound of unknown function located within the ephemeral gully southeast of the ceremonial feature. The elongated mound, measuring several meters long and roughly 1 m tall, is roughly faced with a single course of boulders with a circular arrangement of boulders atop cobble and soil infill. Much of the uncleared remainder of the site appears to contain additional circles, alignments, and enclosures of varying sizes. Cultural material, apart from the ceremonial feature, is limited to a piece of false brain coral, branch coral, and a large historic chain link (O-001).

#### **EVALUATION SUMMARY**

SIHP 50-50-08-05955 has retained its location, design, setting, materials, feeling, workmanship, and association as a result of its location within the margins of the former sugar plantation fields and distance from the current alignment of Honoapi'ilani Highway (Figure 44). It is likely that SIHP -05955 is associated with the colluvial agricultural complexes to the north and south of the site extent, which speaks to a highly productive ahupua'a wide agricultural system when combined with the lo'i systems of both Olowalu and presumably Launiupoko Valleys. The combination of fully developed wet and dry, colluvial agricultural systems appears to be unique to this region, the intensification of which may have been a response to a spike in population, heightened social complexity with regard to land and resource management in the leeward West Maui, and challenging environmental conditions. The potential extent of lo'i, colluvial, and

intensive dryland agricultural systems has been modeled by Kurashima and others (2019) across the archipelago using modern environmental and climatic data compared with archaeological and ethnohistorical data. While their model shows that approximately 34.6% of potential indigenous agricultural lands would be given over to colluvial agriculture, with the distribution on Maui appearing to include small portions of the project area, the authors note that while their model results were generally consistent with available archaeological and ethnohistorical information, there was little information available that was specific to colluvial agricultural systems in the archaeological record. This system represents one of the few currently known intact colluvial systems within the archipelago (Green 1969, 1970; Kirch and McCoy 2023:155-156) that could provide additional insight to and refinement of the agricultural model presented by Kurashima and others (2019) on island ecology and indigenous systems.

#### **NATIONAL REGISTER SIGNIFICANCE ASSESSMENT AND RECOMMENDATION**

SIHP -05955 was previously recommended as historically significant under Criterion D (Paraso and Dega 2006:48), however, given the expanded site boundary and newly identified density and inter-related diversity of feature types, the significance recommendation is revised to reflect eligibility to the National Register under Criteria A, C, and D. When understood in the context of the broader archaeological landscape and association with the neighboring complexes, as well as the intra-site patterning of agricultural and habitation features in relation to the overall topography that takes advantage of slope direction for soil retention, Criterion A is applicable as it may speak to broad patterns in traditional Hawaiian adaptations, land uses, and complex social systems prior to the Western Contact. SIHP -05955 is additionally significant under Criterion C as a complex dryland agricultural system that is unique to the topography of the region. Unlike the typical Kona Field System that is characterized by long linear walls and terraces that define an expansive linear field system, the dryland field system documented during this study is entirely influenced by the rocky topography which resulted in the construction of diverse feature types with varying functions depending on slope and bedrock exposures. Continued archaeological research would help to inform the timeline for agricultural intensification in the region and gain understanding of when and why both extensive dryland agriculture and lo'i systems were developed in this region, when and why the dryland field systems may have been subsequently abandoned, how this may relate to the continued use of the established lo'i systems into the modern era, and inform research into contemporary agricultural sustainability. Therefore SIHP -05955 is further considered significant under Criterion D.





Figure 47. A2216-023 and SIHPs 50-50-08-05954 and -05955 in relation to the proposed alternatives (top frame), close up of site distribution within the Launiupoko pinch point (bottom right frame), and redefined complex extent of previously recorded site 50-50-08-05955 in relation to Paraso and Dega site location and study area (Paraso and Dega 2006:Figure 6)(bottom left frame).



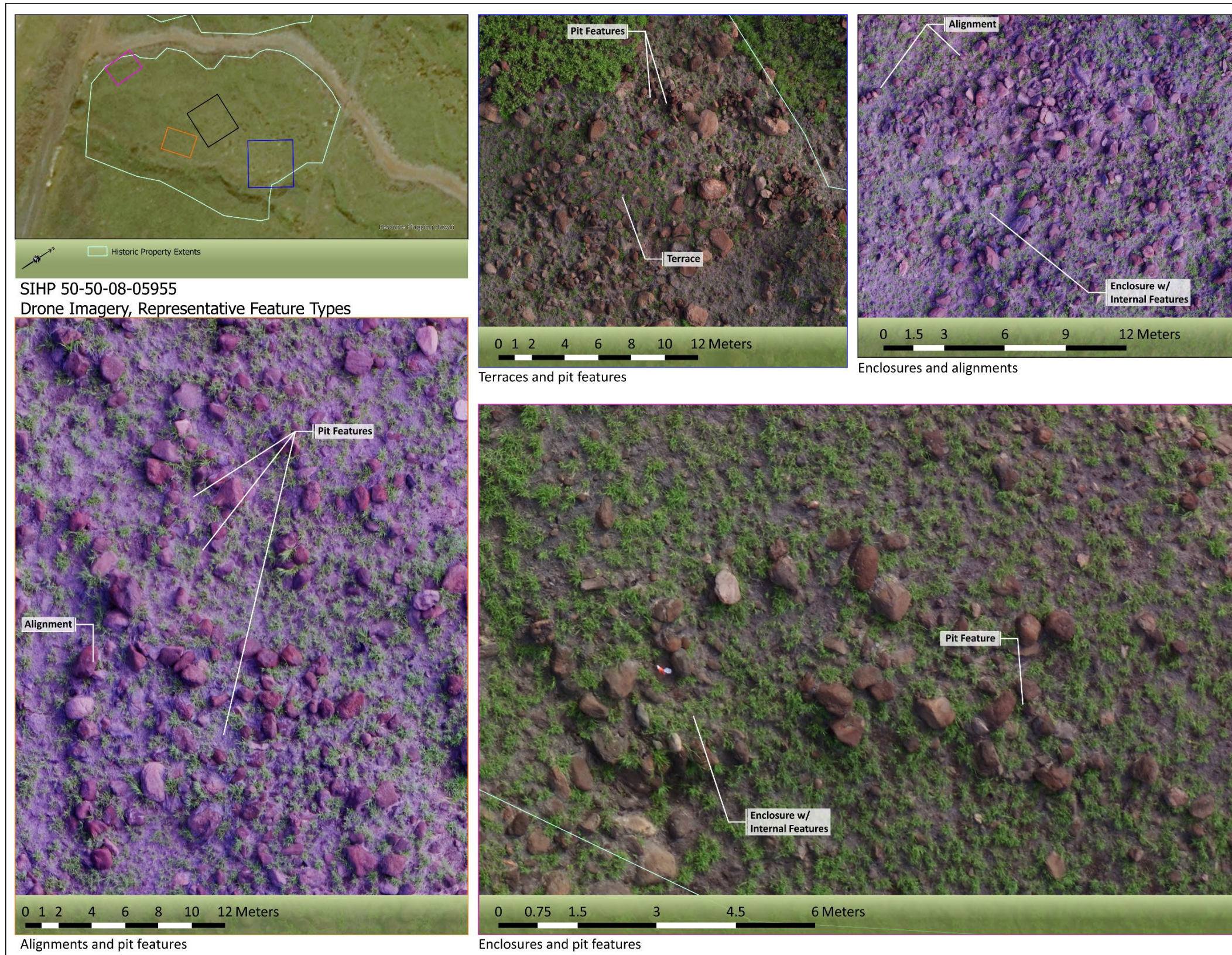


Figure 48. SIHP 50-50-08-05955, drone imagery of representative feature types and distribution across the overall complex.





Plate 115. SIHP -05455, habitation and agricultural complex, northernmost ceremonial enclosure with coral cluster at east end, view to northeast.



Plate 116. SIHP -05455, close up of coral cluster and shrine area, view to northeast.



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## Agency Correspondence



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Hawaii Federal-Aid Division**

November 30, 2022

300 Ala Moana Blvd, Rm 3-229  
Box 50206  
Honolulu, HI 96850  
Phone: (808) 541-2700  
[FHWA-Hawaii.Intake@dot.gov](mailto:FHWA-Hawaii.Intake@dot.gov)

In Reply Refer To:  
HDA-HI

Dr. Susan Lebo  
Chairperson and SHPO  
State of Hawaii, Department of Land and Natural Resources,  
State Historic Preservation Division and the State Historic Preservation Officer  
601 Kamokila Blvd., Suite 555  
Kapolei, HI 96707

[EMAIL: [DLNR.Intake.SHPD@hawaii.gov](mailto:DLNR.Intake.SHPD@hawaii.gov)]

Subject: Honoapi'ilani Highway Improvements Project  
Invitation to Become Participating and Cooperating Agency  
Respond by: **December 30, 2022**  
Federal Aid Project No.: RAEM-030-1(59)

Dear Dr. Lebo,

The Federal Highway Administration (FHWA), in cooperation with the State of Hawaii Department of Transportation, Highways Division (HDOT), is initiating an Environmental Impact Statement (EIS) for the Honoapi'ilani Highway Improvements Project (the project) from Ukumehame to Launiupoko on the island of Maui. Both state and federal funds will be used for the project including a \$22 million Rebuilding American Infrastructure with Sustainability and Equity (RAISE) construction grant. A National Environmental Policy Act (NEPA) Notice of Intent (NOI) to prepare an EIS was published in the Federal Register on November 22, 2022, and a Hawaii Environmental Policy Act (HEPA) EIS Preparation Notice (EISPN) was published in Hawaii's *The Environmental Notice* on November 23, 2022.

The publication of the NOI and EISPN start a scoping process in which HDOT and FHWA are formally seeking input on the project, as well as information related to any environmental, social, or economic concerns related to the project or project area. A brief overview of the project and proposed alternatives is provided below. For more information, the NEPA NOI and a Supplementary NOI Document as well as the HEPA EISPN are available on the project website, [www.HonoapiilaniHwyImprovements.com](http://www.HonoapiilaniHwyImprovements.com). This website will be updated regularly as the project progresses.

### **Purpose and Need**

Honoapi'ilani Highway (State Route 30) provides the sole access between communities along the west coast of Maui and the rest of the island. The primary purpose of the project is to provide a reliable transportation facility in West Maui and improve Honoapi'ilani Highway's resilience by reducing the highway's vulnerability to coastal hazards. Specifically, the project is intended to address existing coastal erosion and flooding, as well as future coastal erosion and flooding caused by anticipated sea level rise, as delineated by the Hawaii Climate Change Mitigation and Adaptation Commission (HCCC)'s Sea Level Rise Exposure Area (SLR-XA), along the stretch of highway from Ukumehame, approximately milepost 11, in the vicinity of Papalaua Wayside Park to Launiupoko, at milepost 17, the existing southern terminus of Lahaina Bypass. Please see the NOI and Supplementary NOI Documents on the project website for a more detailed description of the project history and preliminary Purpose and Need statement.



### **Project Alternatives and Screening Methodology**

Alternatives include four Build Alternatives and the No-Build Alternative. The proposed Build Alternatives are based on alternatives that were proposed in the Maui County 2005 *Pali to Puamana Parkway Master Plan*, which examined possible realignments of Honoapiilani Highway between Ukumehame and Launiupoko. Early scoping meetings and exchanges conducted in the first half of 2022 have also yielded input critical to refining these alternatives. Adjustments were made with specific consideration for natural resources (water, wetlands, terrain) and the human environment (land use, ownership, cultural and archaeological resources). Build Alternatives are shown on the enclosed map.

During the preparation of the Draft EIS, HDOT and FHWA will evaluate project alternatives using a screening methodology and criteria to be finalized through the scoping process and engineering investigation. Please see the Supplementary NOI Document for a detailed description of the alternatives, screening methodology and criteria. Agencies and the public are invited to comment on the project alternatives and screening criteria. The FHWA and HDOT may modify project alternatives and screening criteria based on scoping input received.

### **Invitation to be a Participating Agency and Cooperating Agency**

Your agency has been identified as one that may have interest in the project, particularly as it relates to historic and cultural sites in the project area. With this letter, we extend to your agency an invitation to become a Participating and Cooperating Agency. This designation does not imply that your agency either supports the proposal or has any special expertise with respect to the evaluation of the project.

Pursuant to 23 United States Code (U.S.C) section 139, participating agencies are responsible to identify, as early as practical, any issues of concern regarding the project's potential environmental or socioeconomic impacts that could substantially delay or prevent an agency from granting a permit or other approval that is needed for the project. We request that your agency's role in the development of the above project include the following as they relate to your area of expertise:

1. Provide meaningful and early input on defining the purpose and need, determining the range of alternatives to be considered, and the methodologies and level of detail required in the alternatives analysis;
2. Participate in coordination meetings and joint field reviews as appropriate; and,
3. Timely review and comment on the pre-draft or pre-final environmental documents to reflect the views and concerns of your agency on the adequacy of the document, alternatives considered, and the anticipated impacts and mitigation.

Please respond to FHWA in writing no later than **December 30, 2022** with an acceptance or denial of this invitation. If your agency declines, please state your reason for declining the invitation. As a note, pursuant to 23 U.S.C. Section 139(d), any Federal agency that chooses to decline the invitation to participate must specifically state in its response that: it has no jurisdiction or authority with respect to the project; has no expertise or information relevant to the project; and does not intend to submit comments on the project.

### **Coordination Plan**

If you decide to become a Cooperating and/or Participating Agency, in accordance with 23 U.S.C. Section 139, we have prepared a Coordination Plan and schedule, which is available for your review and comment on the project website ([www.HonoapiilaniHwyImprovements.com](http://www.HonoapiilaniHwyImprovements.com).)

**Public Meeting**

There will be a daytime and evening virtual scoping meeting and an evening in-person meeting in the project area. The virtual public scoping meetings will be held on December 14, 2022, from 12:00 noon to 2 p.m. and from 6 p.m. and 8 p.m. while the evening in-person meeting will be held on December 15, 2022, from 6 p.m. to 8 p.m. at the Lahaina Community Center. Links to the virtual meetings and additional information is available on the project website.

**Submit written response and comments**

Please submit a written response and/or comments to Lisa Powell, FHWA Project Manager and/or Genevieve Sullivan, HDOT Project Manager, by email or mail to:

Lisa Powell  
FHWA Hawaii Division  
300 Ala Moana Blvd. Rm 3-229  
BOX 50206  
Honolulu, HI 96850  
[Lisa.powell@dot.gov](mailto:Lisa.powell@dot.gov)

Genevieve Sullivan  
HDOT Highways Division  
869 Punchbowl Street, Room 301  
Honolulu, Hawaii, 96813  
[genevieve.h.sullivan@hawaii.gov](mailto:genevieve.h.sullivan@hawaii.gov)

In summary, please respond to FHWA in writing no later than **December 30, 2022** with an acceptance or denial of this invitation. HDOT and FHWA also welcome any comments and input you may have on the proposed project. Information gathered during this process will assist us in evaluating the design and preparation of the Draft EIS. If you have any questions or would like to discuss in more detail the project, you may contact Genevieve Sullivan at 808-587-1834 or Lisa Powell at 808-541-2305.

We look forward to working with you on this project.

Sincerely yours,



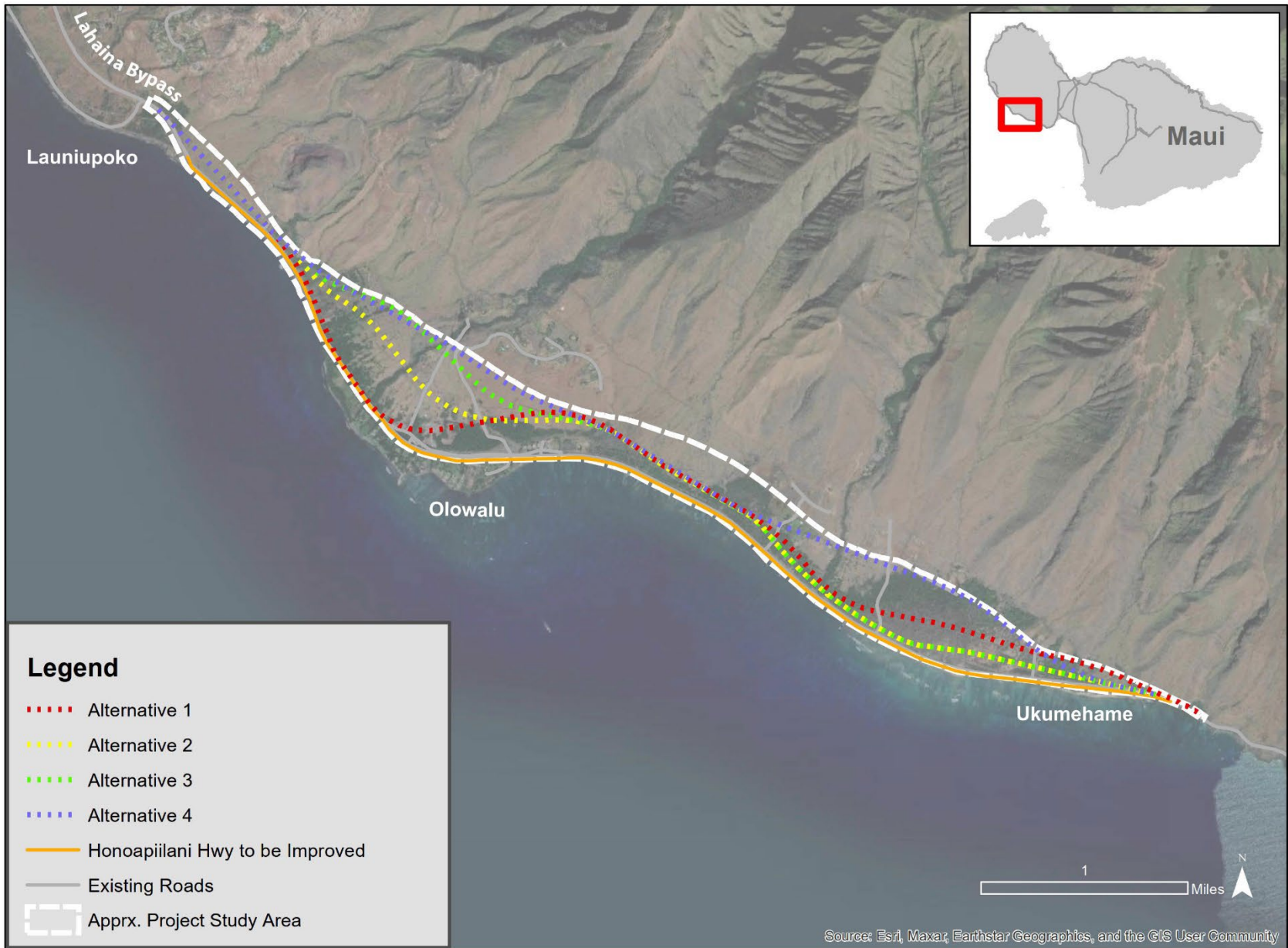
Richelle M. Takara, P.E.  
Division Administrator

Enclosure(s)

CC: Lisa Powell, FHWA  
Genevieve Sullivan, HDOT







**Proposed Build Alternatives with Proposed Project Study Area**

JOSH GREEN, M.D.  
GOVERNOR



**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
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IN REPLY REFER TO:

HWY-PA 2.0755

January 23, 2023

TO: DAWN N. S. CHANG, ESQ.  
STATE HISTORIC PRESERVATION OFFICER  
DEPARTMENT OF LAND AND NATURAL RESOURCES

ATTN: ALAN S. DOWNER, PH.D.  
ADMINISTRATOR AND DEPUTY STATE HISTORIC PRESERVATION  
OFFICER  
STATE HISTORIC PRESERVATION DIVISION

FROM: ANNETTE MATSUDA *Amātenoa*  
ACTING DISTRICT ENGINEER  
HIGHWAYS DIVISION, MAUI DISTRICT

SUBJECT: NATIONAL HISTORIC PRESERVATION ACT: INITIATION OF  
SECTION 106 CONSULTATION, REQUEST FOR CONTACT  
INFORMATION, AND AREA OF POTENTIAL EFFECTS  
CONCURRENCE; INITIATION OF HAWAII REVISIED  
STATUTES (HRS) CHAPTER 6E-8 REVIEW  
HONOAPI'ILANI HIGHWAY IMPROVEMENTS, WEST MAUI,  
UKUMEHAME TO LAUNIUPOKO  
AHUPUA'A OF LAUNIUPOKO, OLOWALU, AND UKUMEHAME,  
DISTRICT (MOKU) OF LĀHAINĀ, ISLAND OF MAUI  
FEDERAL-AID PROJECT NO.: RAEM-030-1(59)  
PORTIONS OF TMK PLATS (2) 4-7-001, 4-8-001, 002, 003, 004, AND  
HONOAPI'ILANI HIGHWAY RIGHT-OF-WAY

On behalf of the Federal Highway Administration (FHWA), the State of Hawai'i Department of Transportation (HDOT) is initiating consultation with the Department of Land and Natural Resources, State Historic Preservation Officer (SHPO) under Section 106 of the National Historic Preservation Act (NHPA) of 1966 and its implementing regulations at 36 Code of Federal Regulations Part 800 (Section 106), as amended (2006), for the Honoapi'ilani Highway Improvement Project. HDOT is also initiating State Historic Preservation Division of the proposed project in accordance with HRS Chapter 6E-8 and Hawai'i Administrative Rules(HAR) 13-275.

This proposed federally funded HDOT project is considered a federal action and Undertaking as defined by 36 CFR §800.16(y). Effective May 1, 2016, FHWA issued a Programmatic Delegation of Authority allowing the HDOT and local public agencies to conduct NHPA Section 106 consultations with the SHPO, Native Hawaiian organizations (NHO), and qualified consulting parties per 36 CFR §800.2(c)(4). The FHWA will remain responsible for all findings and determinations charged to the agency during the Section 106 process. The HDOT has jurisdiction over determining the project's effects under HRS Chapter 6E-8 (HAR 13-275). Pursuant to 36 CFR 800.8(c), the Section 106 consultations will also be integrated with an Environmental Impact Statement (EIS) that will be prepared in compliance with the National Environmental Policy Act (NEPA) and Chapter 343 of HRS, also known as the Hawai'i Environmental Policy Act (HEPA). A Notice of Intent (NOI) to prepare an EIS was published in the Federal Register on November 22, 2022, and a HEPA EIS Preparation Notice (EISPN) was published in the Hawaii's *The Environmental Notice* on November 23, 2022. An invitation to become a Participating and Cooperating Agency under NEPA was sent to your office on November 30, 2022, via e-mail and is attached for your reference.

### **Overview of the Undertaking**

Honoapi'ilani Highway (State Route 30) provides the main access between communities along the west coast of Maui and the rest of the island and is subject to periodic flooding and coastal erosion. The primary purpose of this project is to provide a reliable transportation facility in West Maui by reducing the highway's vulnerability to coastal hazards. Specifically, the project will look at ways to address existing and future erosion and flooding from Ukumehame, at approximately milepost 11, in the vicinity of Pāpalaua Wayside Park to Launiopoko, at milepost 17, the existing southern terminus of Lāhainā Bypass. A more detailed description of the project history and preliminary Purpose and Need statement is available in the NOI Document on the "Info+Doc" page of the project website ([www.HonoapiilaniHwyImprovements.com](http://www.HonoapiilaniHwyImprovements.com)) under the "Documents" section.

### **Area of Potential Effects and HRS 6E Project Area**

Along with the no-build alternative, there are four proposed build alternatives for this study. The proposed Area of Potential Effect (APE) includes all four build alternatives. It extends inland up to three-quarters (3/4) of a mile along the six (6) mile highway corridor and from the base of the West Maui mountains to the existing highway along the coastline, as shown in the enclosed APE and Alternatives Map. The proposed APE is composed predominantly of a coastal plain, which includes the *ahupua'a* of Ukumehame, Olowalu, and Launiupoko. Additional information can be obtained at the project website.

We request your concurrence with the proposed APE.

To reduce redundancy, we propose to combine Section 106 and HRS 6E-8 compliance, where possible. The HRS 6E-8 project area will coincide with the Preferred Alternative once selected.



### **Identification of Historic Properties within the APE**

We expect there are historic properties within the project area and will be doing a surface inventory level survey in the near future. Planning and research for the survey is taking place now.

It is noted that the proposed APE will be the basis for documentary research and surface-level site reconnaissance while an archeological inventory survey to include subsurface testing will be undertaken for the Preferred Alternative that is anticipated to be defined in the Draft EIS. Because of the project's scope and multiple alternatives under consideration, FHWA anticipates developing a Programmatic Agreement for the project pursuant to 36 CFR § 800.14(b), which will stipulate procedures for Section 106 compliance and identify potential avoidance, minimization, or mitigation measures.

We welcome any information you have on historical and cultural sites or concerns known to be present in or around the proposed APE.

### **Consultation**

Pursuant to 36 CFR §800.3(f), HDOT seeks input from the SHPO regarding the proposed list of NHO and potential Section 106 consulting parties provided in the attached NHO and Section 106 Consulting Party List. These agencies, organizations, and individuals are proposed to be invited by formal letter to participate as a Section 106 consulting party and asked to provide a response within 30 days of notification. The list includes NHO currently listed on the U.S. Department of Interior's NHO List. Several of these organizations were already informed of the project in early pre-NEPA outreach, including meetings and additional correspondence.

Upon receipt of responses to the initial Section 106 consultation, additional efforts such as meetings, site visits, and conference calls will be conducted as necessary to address the Section 106 requirements.

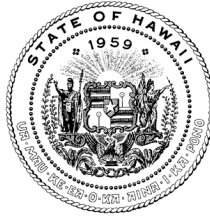
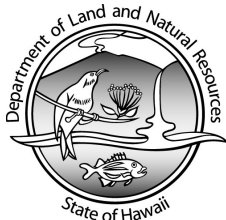
### **Summary**

We respectfully request your concurrence on the proposed APE for the subject Undertaking. In addition, we request that you provide us with any available information on NHO and potential consulting parties that you recommend we include in our outreach for this project. HDOT would appreciate a written response within 30 days from the date of receipt of this letter to Genevieve Sullivan, HDOT Project Manager, via email at [genevieve.h.sullivan@hawaii.gov](mailto:genevieve.h.sullivan@hawaii.gov), or by U.S. Postal Service to Hawai'i Department of Transportation, Highways Division, 869 Punchbowl Street, Room 301, Honolulu, Hawai'i, 96813. Please include the letter reference number noted above. Should you have any questions regarding this request, you may also contact Genevieve Sullivan via email or at (808) 587-1834.

Enclosures

JOSH GREEN, M.D.  
GOVERNOR | KE KOA'AINA

SYLVIA LUKE  
LIEUTENANT GOVERNOR | KA HOPE KIA'AINA



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

LAURA H.E. KAAKUA  
FIRST DEPUTY

M. KALEO MANUEL  
DEPUTY DIRECTOR - WATER

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

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

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

March 21, 2023

Annette Matsuda  
Acting District Engineer  
Highways Division, Maui District  
State of Hawai'i Department of Transportation  
869 Punchbowl Street  
Honolulu, Hawai'i 96813-5097  
Email Reply to: Annette.dh.Matsuda@hawaii.gov  
Electronic Transmittal Only, No Hard Copy to Follow

IN REPLY REFER TO:  
Project No.: 2023PR00135  
Doc. No.: 2303SH16  
Archaeology

Dear Annette Matsuda:

**SUBJECT: Hawai'i Revised Statutes §6E-8 and National Historic Preservation Act (NHPA) Section 106 Review – Initiation of Consultation and Request for Concurrence with the Area of Potential Effects Honoapi'ilani Highway Improvements – West Maui Ukumehame to Launiupoko Ref No. HWY-PA 2.0755, Federal-Aid Project No. RAEM-030-1(59) Launiupoko, Olowalu, and Ukumehame Ahupua'a, Lāhainā District, Island of Maui TMK: (2) 4-7-001, (2) 4-8-001, (2) 4-8-002, (2) 4-8-003, (2) 4-8-004 and Honoapi'ilani Highway Right-of-Way**

The State Historic Preservation Division (SHPD) received a letter dated January 23, 2023 from the State of Hawai'i Department of Transportation (HDOT) to initiate HRS §6E-8 historic preservation review and to initiate the Section 106 historic preservation process on behalf of the Federal Highway Administration (FHWA) for the Honoapi'ilani Highway Improvements in West Maui from Ukumehame to Launiupoko. The HDOT's letter requests information and requests the State Historic Preservation Officer's (SHPO's) concurrence with the proposed Area of Potential Effects (APE) for the project. The SHPD received this submittal on January 25, 2023 (HICRIS Submission No. 2023PR00135.001).

According to the letter received, Honoapi'ilani Highway (State Route 30) is subject to periodic flooding and coastal erosion. The primary purpose of this project is to provide a reliable transportation facility in West Maui by reducing the highway's vulnerability to coastal hazards. The project will look at ways to address existing and future erosion and flooding from Ukumehame, at approximately milepost 11, in the vicinity of Pāpalaua Wayside Park to Launiupoko, at milepost 17, the existing southern terminus of Lāhainā Bypass.

HDOT states that along with the no-build alternative, there are four proposed build alternatives for this study. The proposed APE includes all four build alternatives. It extends inland up to three-quarters of a mile along the six-mile highway corridor and from the base of the West Maui mountains to the existing highway along the coastline. The proposed APE is composed predominantly of a coastal plain and includes the ahupua'a of Ukumehame, Olowalu, and Launiupoko.

HDOT is requesting concurrence with the proposed APE. At this time, **the SHPO has no objections** to the APE as it is defined. However, if prior to any subsurface archeological testing, the APE can be refined based on the preferred alternative, resulting in a reduction of areas in which subsurface testing (disturbance) is warranted, **the SHPD requests this occur**.

Annette Matsuda  
March 21, 2023  
Page 2

HDOT states that an archeological inventory survey (AIS) with subsurface testing will be undertaken for the Preferred Alternative that is anticipated to be defined in the Draft EIS. The SHPD notes that as sea levels rise, erosion is threatening, and at times has removed, significant archaeological data and sites from Hawaiian coastlines.

HDOT states the HRS §6E-8 project area will coincide with the selected Preferred Alternative.

Because of the project's scope and multiple alternatives under consideration, the FHWA anticipates developing a Programmatic Agreement for the project pursuant to 36 CFR § 800.14(b) to stipulate procedures for Section 106 compliance and identify potential avoidance, minimization, or mitigation measures. SHPD received a draft Programmatic Agreement on February 10, 2023 (HICRIS Submission No. 2023PR00135.002).

In response to HDOT's request for a contact list of potential consulting parties, SHPD recommends HDOT refer to the Native Hawaiian Organization Notification List provided by the U.S. Department of the Interior and maintained by the Office of Native Hawaiian Relations at: <https://www.doi.gov/hawaiian/NHOL>. Additionally, we recommend expanding consultation to interested parties such as civic clubs and historic preservation interest groups such as Historic Hawai'i Foundation.

**Please submit** all forthcoming information and correspondence related to the subject project to SHPD via HICRIS to Project No. 2023PR00135 using the Project Supplement option.

The SHPD looks forward to continuing the Section 106 process for the proposed project.

The HDOT and the FHWA are the offices of record for this undertaking. Please maintain a copy of this letter with your environmental review record for this undertaking.

Please contact Andrew McCallister, Maui Lead Archaeologist IV, at [Andrew.McCallister@hawaii.gov](mailto:Andrew.McCallister@hawaii.gov) or at (808) 652-1510 for matters regarding archaeological resources. Please contact Stephanie Hacker, Historic Preservation Archaeologist IV, at [Stephanie.Hacker@hawaii.gov](mailto:Stephanie.Hacker@hawaii.gov) or at (808) 692-8046 for matters regarding this letter.

Aloha,

*Susan A. Lebo*

Signed For

Alan S. Downer, PhD

Administrator, State Historic Preservation Division

Deputy State Historic Preservation Officer

cc: Meesa Otani, FHWA ([Meesa.Otani@dot.gov](mailto:Meesa.Otani@dot.gov))  
Genevieve Sullivan, HDOT ([Genevieve.h.Sullivan@hawaii.gov](mailto:Genevieve.h.Sullivan@hawaii.gov))  
Andrew McCallister, SHPD ([Andrew.McCallister@hawaii.gov](mailto:Andrew.McCallister@hawaii.gov))





February 16, 2024

Meesa Otani  
Environmental Engineer  
Hawaii Division  
Federal Highway Administration  
300 Ala Moana Blvd., Room 3-306  
Honolulu, HI 96850

Ref: *Honoapiilani Highway Improvements Project*  
*Hawaii*  
*ACHP Project Number: 020521*

Dear Ms. Otani:

On January 29, 2024, the Advisory Council on Historic Preservation (ACHP) received your notification and supporting documentation regarding the potential adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information you provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act, does not apply to this undertaking. Accordingly, we do not believe our participation in the consultation to resolve adverse effects is needed.

However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Should the undertaking's circumstances change, consulting parties cannot come to consensus, or you need further advisory assistance to conclude the consultation process, please contact us.

Pursuant to Section 800.6(b)(1)(iv), you will need to file the final Section 106 agreement document (Agreement), developed in consultation with the Hawaii SHPO and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the Agreement and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with your notification of adverse effect. If you have any questions or require our further assistance, please contact Mandy Ranslow at (202) 517-0218 or by e-mail at

mranslow@achp.gov and reference the ACHP Project Number above.

Sincerely,

A handwritten signature in black ink that reads "Artisha Thompson". The signature is written in a cursive style with a large initial "A".

Artisha Thompson  
Historic Preservation Technician  
Office of Federal Agency Programs



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Hawaii Federal-Aid Division**

March 25, 2024

300 Ala Moana Blvd, Rm 3-229  
Box 50206  
Honolulu, Hawaii 96850  
Phone: (808) 541-2700  
[FHWA-Hawaii.Intake@dot.gov](mailto:FHWA-Hawaii.Intake@dot.gov)

In Reply Refer To:  
HDA-HI

Dawn N. S. Chang, Esq.  
State Historic Preservation Officer  
Department of Land and Natural Resources  
601 Kamokila Boulevard, Suite 555  
Kapolei, HI 96707

Subject: National Historic Preservation Act Section 106 Consultation,  
Honoapiilani Highway Improvements Project,  
West Maui: Ukumehame to Launiupoko  
Ahupuaa of Launiupoko, Olowalu, and Ukumehame, Island of Maui, State of Hawaii  
Federal-aid Project No. RAEM-030-1(59)  
HICRIS Project No. 2023PR00135  
TMK: (2) 4-7-001, (2) 4-8-001, (2) 4-8-002, (2) 4-8-003, (2) 4-8-004 and  
Honoapiilani Highway Right-of-Way

Dear Ms. Chang:

The Federal Highway Administration (FHWA), in cooperation with the State of Hawaii Department of Transportation (HDOT), is studying alternatives for the Honoapiilani Highway from Ukumehame to Launiupoko on the island of Maui. Honoapiilani Highway (State Route 30) provides the main access between communities along the west coast of Maui and the rest of the island and is subject to periodic flooding and coastal erosion. The primary purpose of the project is to provide a reliable transportation facility in West Maui by reducing the highway's vulnerability to coastal hazards. Specifically, the project will look at ways to address existing and future erosion and flooding from Ukumehame, at approximately milepost 11, in the vicinity of Papalaua Wayside Park to Lauiopoko, at milepost 17, the existing southern terminus of Lahaina Bypass.

Both state and federal funds will be used for the project. A National Environmental Policy Act (NEPA) Notice of Intent (NOI) to prepare an EIS was published in the Federal Register on November 22, 2022. Because this project employs federal funding, it is subject to review under Section 106 of the National Historic Preservation Act of 1966, as amended (54 United States Code 300101 et seq.) and its implementing regulations (36 Code of Federal Regulations [CFR] Part 800), *Protection of Historic Properties*.

In accordance with Section 106, the HDOT, on behalf of the FHWA, initiated consultation with the State Historic Preservation Division (SHPD), and asked for concurrence on the Area of Potential Effect (APE) on January 23, 2023. The letter also included the list of proposed Section



106 consulting parties and asked SHPD for any available information on other potential consulting parties. In a letter dated March 21, 2023, SHPD responded with no objection to the APE as defined and recommended potential consulting parties for the project.

Enclosed is the Reconnaissance Level Architectural Historic Resource Survey (RLS). This report includes built historic properties including historic districts, sites, buildings, and structures. Please note a second report identifying archeological sites will be submitted at a later date. The enclosed RLS report details the methodology used to identify properties, identifies architectural historic properties within the APE, and includes FHWA's evaluation of eligibility for listing in the National Register of Historic Places (HRHP). Determination of project effects has yet to be made. FHWA requests the State Historic Preservation Officer's review of the enclosed report. If you agree with the adequacy of the report to identify architectural historic properties and the eligibility determinations within the report, please inform us within 30 days of receipt of this letter of your concurrence.

If you have any questions, please feel free to contact Meesa Otani, Environmental Engineer, at (808) 541-2316 or by email at [meesa.otani@dot.gov](mailto:meesa.otani@dot.gov). Thank you for your assistance.

Sincerely yours,

for Richelle M. Takara, P.E.  
Division Administrator

Enclosure

cc: Pua Aiu, HDOT  
Genevieve Sullivan, HDOT

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

SYLVIA LUKE  
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



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

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

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

RYAN K.P. KANAKA'OLE  
FIRST DEPUTY

DEAN D. UYENO  
ACTING DEPUTY DIRECTOR - WATER

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

July 9, 2024

Richelle M. Takara  
Division Administrator  
U.S. Department of Transportation  
Federal Highway Administration  
Hawaii Federal-Aid Division  
300 Ala Moana Blvd., Rm 3-229  
Box 50206  
Honolulu, HI 96850

IN REPLY REFER TO:  
**Project No.:** 2023PR00135  
**Document No.:** 2407JLP02  
Architecture

Dear Richelle M. Takara,

**RE: Reconnaissance Level Architectural Inventory Survey for the Honoapiilani Highway Improvements, West Maui, from Launiupoko to Ukumehame  
Hawaii Department of Transportation (HDOT) and the Federal Highway Administration (FHWA)  
National Historic Preservation Act Section 106 Consultation, Honoapiilani Highway Improvements Project, West Maui: Ukumehame to Launiupoko, Federal-aid Project No. RAEM-030-1(59)  
Ahupuaa of Lanuiupoko, Districts of Olowalu and Ukumehame, Island of Maui  
TMK: (2) 4-7-001, (2) 4-8001, (2) 4-8-002, (2) 4-8-003, (2) 4-8-004, and Honoapiilani Highway Right-of-Way**

Thank you for the opportunity to review the Reconnaissance Level Architectural Inventory Survey for the Honoapiilani Highway Improvements, West Maui, from Launiupoko to Ukumehame (RLS). The RLS was prepared by WSP, on behalf of the Hawaii Department of Transportation and the Federal Highway Administration. The purpose of the survey is to identify historic properties within the area of potential effects (APE) for the Honoapiilani Highway Improvements Project, which is a federal undertaking as defined by 36 CFR §800.16(y). The survey assessed architectural resources that were 35 years old or older to determine their eligibility for listing in the National Register of Historic Places.

We have reviewed the above cited survey and concur with your findings. A total of forty architectural historic properties were included within the survey. They included eight previously identified properties and thirty-two newly evaluated properties. Three of the surveyed properties were determined to be individually eligible for listing in the National Register of Historic Places and Hawaii Register of Historic Places. Ten properties were determined to be contributing resources to a National Register eligible historic district, referred to within the survey as the Olowalu Sugar Plantation Historic District.

**However, SHPD cannot accept the RLS as a Final draft and has the following comments and corrections:**

1. Please identify the name of the consulting firm that produced the report and summarize the how the contributors meet the Secretary of the Interior's Professional Qualification Standards. Contributors to an architectural survey must meet the standards for either Architecture, Historic Architecture, or Architectural History.
2. What is the total or estimated acreage of area surveyed? Please identify the total or estimate acreage within the abstract on page 1.
3. Please request SIHP numbers for all newly surveyed properties determined eligible for listing in the Hawaii and National Registers of Historic Places, individually or as contributing to an eligible district, and update the tables on pages 14-18 to include the SIHP numbers.
4. Please ensure that you justify or provide evidence for your determinations of eligibility or ineligibility that take into consideration the seven aspects of integrity, criteria A-D (National Register), and a-e (State historic property assessment). For example, AR2 was assessed as not contributing to the potentially eligible historic district, but a justification was not provided for why it did not meet Criterion A, justification focused mainly on alteration and lack of integrity. See marked up RLS for SHPD comments.
5. Please be careful of making unsubstantiated assumptions or claims within your survey report. For example, on page 36, the survey claims that the house, "likely served as the home for upper-level employees." If the sources cited all assume that it served as a home for upper-level employees, it would be good to clarify and contextualize the basis for their claim/assumption. A similar claim was made about AR5 on page 42; AR7 on page 50; It would be appropriate to substantiate the claim and connection with Pioneer Mill Company or Olowalu Sugar Company. See marked up RLS for SHPD comments.
6. Figures 4.125 and 4.129 are the same image. It is not appropriate to use a "representative image" of a historic resource type within a survey that is being used to determine the integrity and eligible of historic resources for the purposes of Section 106. Such surveys should have photographic documentation of each resource surveyed to convey information about the integrity of specific resources.
7. Please note that the RLS did not consistently evaluate the historic properties pursuant to HRS § 6E-8 and HAR § 13-275-5 and 6. To utilize the RLS for future HRS § 6E-8 consultation, please include significance assessments pursuant to HAR § 13-275-6.

Please review the marked up RLS and make the corresponding corrections noted above. Upon revision, please send one text-searchable, PDF of the survey that is clearly marked FINAL, along with a copy of this review letter to the Kapolei Office, attention SHPD Librarian; and please upload one text-searchable PDF of the survey that is clearly marked FINAL to HICRIS Project # 2023PR00135.

FHWA are the offices of record for this undertaking. Please maintain a copy of this letter with your environmental review record. If you have any questions about this undertaking or if there is a change to the scope of work, please contact Jessica Puff, Architecture Branch Chief, at (808) 692-8023 or by email at [jessica.puff@hawaii.gov](mailto:jessica.puff@hawaii.gov).

Sincerely,



Dawn N. S. Chang  
Hawaii State Historic Preservation Officer  
Chair, Department of Land and Natural Resources

ATT: SHPD RLS Markup.pdf

CC: Meesa Otani, FHWA  
Pua Aiu, HDOT  
Genevieve Sullivan, HDOT





U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Hawaii Federal-Aid Division**

August 27, 2024

300 Ala Moana Blvd, Rm 3-229  
Box 50206  
Honolulu, Hawaii 96850  
Phone: (808) 541-2700  
[FHWA-Hawaii.Intake@dot.gov](mailto:FHWA-Hawaii.Intake@dot.gov)

In Reply Refer To:  
HDA-HI

Dawn N. S. Chang, Esq.  
State Historic Preservation Officer  
Department of Land and Natural Resources  
601 Kamokila Boulevard, Suite 555  
Kapolei, HI 96707

Subject: National Historic Preservation Act Section 106 Consultation,  
Honoapi‘ilani Highway Improvements Project,  
West Maui: Ukumehame to Launiupoko  
Ahupuaa of Launiupoko, Olowalu, and Ukumehame, Island of Maui, State of Hawaii  
Federal-aid Project No. RAEM-030-1(59)  
HICRIS Project No. 2023PR00135  
TMK: (2) 4-7-001, (2) 4-8-001, (2) 4-8-002, (2) 4-8-003, (2) 4-8-004 and  
Honoapiilani Highway Right-of-Way

Dear Ms. Chang:

The Federal Highway Administration (FHWA), in cooperation with the State of Hawaii Department of Transportation (HDOT), is studying alternatives for the Honoapi‘ilani Highway from Ukumehame to Launiupoko on the island of Maui. Honoapiilani Highway (State Route 30) provides the main access between communities along the west coast of Maui and the rest of the island and is subject to periodic flooding and coastal erosion. The primary purpose of the project is to provide a reliable transportation facility in West Maui by reducing the highway’s vulnerability to coastal hazards. Specifically, the project will look at ways to address existing and future erosion and flooding from Ukumehame, at approximately milepost 11, in the vicinity of Papalaua Wayside Park to Lauiopoko, at milepost 17, the existing southern terminus of Lahaina Bypass.

Both state and federal funds will be used for the project. A National Environmental Policy Act (NEPA) Notice of Intent (NOI) to prepare an EIS was published in the Federal Register on November 22, 2022. Because this project employs federal funding, it is subject to review under Section 106 of the National Historic Preservation Act of 1966, as amended (54 United States Code 300101 et seq.) and its implementing regulations (36 Code of Federal Regulations [CFR] Part 800), *Protection of Historic Properties*.

In accordance with Section 106, the HDOT, on behalf of the FHWA, initiated consultation with the State Historic Preservation Division (SHPD), and asked for concurrence on the Area of Potential Effect (APE) on January 23, 2023. The letter also included the list of proposed Section

106 consulting parties and asked SHPD for any available information on other potential consulting parties. In a letter dated March 21, 2023, SHPD responded with no objection to the APE as defined and recommended potential consulting parties for the project. On March 25, 2024, FHWA provided SHPD with a Reconnaissance Level Architectural Historic Resource Survey (RLS). SHPD concurred with the determinations of eligibility in that report in a letter dated July 9, 2024.

Enclosed is the Honoapi‘ilani Archaeological Complex Site Descriptions and Significance Evaluations. This report includes a historic context and evaluation of identified archaeological sites located within the APE. The enclosed report details the methodology used to identify archaeological sites, identifies archaeological historic properties within the APE, and includes FHWA’s evaluation of eligibility for listing in the National Register of Historic Places (NRHP). Determination of project effects has yet to be made. FHWA requests the State Historic Preservation Officer’s review of the enclosed report. If you agree with the adequacy of the report to identify archaeological historic properties and the eligibility determinations within the report, please inform us within 30 days of receipt of this letter of your concurrence. If SHPD will not be able to respond to the entire report within 30 days, we request that you prioritize review of the eleven (11) priority sites included in the file labeled “Priority Sites AA2216 HP Complex Descriptions Archaeology Survey Corridors 08212024.”

If you have any questions, please feel free to contact Meesa Otani, Environmental Engineer, at (808) 541-2316 or by email at [meesa.otani@dot.gov](mailto:meesa.otani@dot.gov). Thank you for your assistance.

Sincerely yours,

for Richelle M. Takara, P.E.  
Division Administrator

Enclosure

cc: Pua Aiu, HDOT  
Genevieve Sullivan, HDOT

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

SYLVIA LUKE  
LIEUTENANT GOVERNOR | KA HOPE KIA'AINA



DAWN N. S. CHANG  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
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RYAN K.P. KANAKA'OLE  
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AQUATIC RESOURCES  
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ENGINEERING  
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HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

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

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

October 11, 2024

Richelle M. Takara, P.E.  
Division Administrator  
Federal Highway Administration, Hawai'i Federal-Aid Division  
U.S. Department of Transportation  
300 Ala Moana Boulevard, Room 3-229, Box 50206  
Honolulu, Hawai'i 96850  
Email Reply to: FHWA-Hawaii.Intake@dot.gov  
Electronic Transmittal Only, No Hard Copy to Follow

IN REPLY REFER TO:  
Project No.: 2023PR00135  
Doc No.: 2410SH08  
Archaeology  
Architecture  
History and Culture

Dear Richelle Takara:

**SUBJECT: National Historic Preservation Act (NHPA) Section 106 Review – Continued Consultation and Request for Concurrence with Determinations of Eligibility Honoapi'ilani Highway Improvements Project West Maui Ukumehame to Launiupoko FHWA Ref. No. HAD-HI, Federal-Aid Project No. RAEM-030-1(59) Launiupoko, Olowalu, and Ukumehame Ahupua'a, Lahaina District, Island of Maui TMK: (2) 4-7-001, (2) 4-8-001, (2) 4-8-002, (2) 4-8-003, (2) 4-8-004 and Honoapi'ilani Highway Right-of-Way**

The State Historic Preservation Division (SHPD) received a letter dated August 27, 2024 from the Federal Highway Administration (FHWA) to continue the Section 106 historic preservation process and to request the State Historic Preservation Officer's (SHPO's) concurrence with the determination of eligibility for historic properties identified within the Area of Potential Effects (APE) for the Honoapi'ilani Highway Improvements project in West Maui from Ukumehame to Launiupoko on the island of Maui. The SHPD received this submittal on August 27, 2024 (HICRIS Submission No. 2023PR00135.011). Also submitted with FHWA's letter was a portion of document referred to by FHWA as the *Honoapi'ilani Archaeological Complex Site Descriptions and Significance Evaluations*, describing eleven identified archaeological sites and providing an assessment of significance and integrity to meet the eligibility requirements under Hawai'i Revised Statutes (HRS) Chapter 6E as well as for the NHPA Section 106 process.

The FHWA, in cooperation with the State of Hawaii Department of Transportation (HDOT), is studying alternatives for the Honoapi'ilani Highway (State Route 30) from Ukumehame to Launiupoko on the island of Maui. The project will assess ways to address existing and future erosion and flooding from Ukumehame, at approximately milepost 11, in the vicinity of Papalaua Wayside Park to Lauiopoko, at milepost 17, the existing southern terminus of Lahaina Bypass.

The proposed project, in cooperation with the HDOT, will receive funding from the FHWA and is therefore a federal undertaking as defined in 36 CFR 800.16(y); the FHWA determined the proposed project is subject to compliance with Section 106 of the NHPA. Pursuant to the Programmatic Delegation of Authority (May 2016), the FHWA has delegated Section 106 consultation to HDOT. The Section 106 historic preservation consultation process for the proposed undertaking will be carried out under a phased identification approach guided by a Programmatic Agreement, which is currently under development. The project is also subject to historic preservation review under Hawai'i Revised Statutes (HRS) §6E-8.



The HDOT and FHWA contracted the archaeological firm, 'Āina Archaeology, to conduct a survey to identify surface archaeological sites within the APE. On August 27, 2024, the SHPD received Submission 2023PR00135.012, which is a more complete version of what FHWA refers to as *Honoapi'ilani Archaeological Complex Site Descriptions and Significance Evaluations* report. During a phone call on October 10, 2024, between HDOT [Pua Aiu] and SHPD [Stephanie Hacker], HDOT clarified that the full report is forthcoming.

At this time the FHWA is requesting whether SHPD agrees with the adequacy of the report to identify archaeological historic properties as well as the SHPO's concurrence with FHWA's determinations of eligibility for the surface archaeological historic properties. FHWA's letter states, if the SHPD will not be able to respond to the entire report within 30 days, the FHWA requests that the SHPD prioritize review of the eleven priority sites that fall within the current preferred alternative.

The eleven priority sites have been determined by the FHWA as eligible for listing in the National Register of Historic Places (NRHP). **The SHPO concurs** with the FHWA's determinations and asserts that these sites are integral components of a broader NRHP-eligible archaeological historic district, which encompasses a significant traditional cultural place and a cultural landscape.

While the SHPO is providing concurrence on these eleven historic properties to facilitate the FHWA in moving forward with its compliance requirements, it is imperative to emphasize that these sites—along with additional historic properties identified in the report—are crucial to understanding the broader context of this archaeological historic district. **The SHPO requests** that, as the Section 106 process develops, the FHWA conducts additional identification efforts and thoroughly assesses the presence of a historic district. A comprehensive evaluation of the features comprising the west Maui cultural landscape is essential to ensure effective preservation, documentation, and stewardship of our shared cultural legacy.

The SHPD anticipates receiving from the FHWA the complete archaeological report for review and acceptance.

**Please submit** all forthcoming information and correspondence related to the subject project to SHPD via HICRIS under Project No. 2023PR00135 using the Project Supplement option.

The HDOT and the FHWA are the offices of record for this undertaking. Please maintain a copy of this letter with your environmental review record for this undertaking.

Please contact Stephanie Hacker, Historic Preservation Archaeologist IV, at [Stephanie.Hacker@hawaii.gov](mailto:Stephanie.Hacker@hawaii.gov) or at (808) 692-8046 for matters regarding archaeological resources or this letter.

Aloha,



Dawn N. S. Chang, Esq.  
DLNR Chairperson  
State Historic Preservation Officer

cc: Meesa Otani, FHWA (Meesa.Otani@dot.gov)  
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# Draft Programmatic Agreement

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**PROGRAMMATIC AGREEMENT  
AMONG  
THE FEDERAL HIGHWAY ADMINISTRATION,  
THE STATE OF HAWAI‘I DEPARTMENT OF TRANSPORTATION,  
AND THE  
THE HAWAI‘I STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
HONOAPI‘ILANI HIGHWAY IMPROVEMENTS,  
MAUI KOMOHANA, MAUI COUNTY, HAWAI‘I**

**WHEREAS**, the United States Department of Transportation, Federal Highway Administration (FHWA) plans to fund the Honoapi‘ilani Highway Improvements Project (Undertaking), pursuant to Pub.L. 116-260, FY 2021 Appropriations Act, known as the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants and through an earmark in the 2022 Infrastructure Investment and Jobs Act (Pub.L. 117-58), which would realign Honoapi‘ilani Highway between Ukumehame and Launiupoko in Maui Komohana (West Maui); and

**WHEREAS**, the State of Hawai‘i Department of Transportation (HDOT) is the sponsor of the Undertaking, and the FHWA has invited HDOT to become an invited signatory to this Programmatic Agreement (PA); and

**WHEREAS**, the FHWA’s action requires review under the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.) and is considered an Undertaking as defined by 36 C.F.R. 800.16(y) and is subject to review under Section 106 of the National Historic Preservation Act of 1966 (NHPA) (54 U.S.C. § 306108) and its implementing regulations, 36 C.F.R. Part 800, *Protection of Historic Properties*, as amended; and

**WHEREAS**, the Undertaking is intended to address existing coastal erosion and flooding, as well as future coastal erosion and flooding caused by anticipated sea level rise, as delineated by the Hawai‘i Climate Change Mitigation and Adaptation Commission (HCCC)’s Sea Level Rise Exposure Area (SLR-XA); and

**WHEREAS**, the FHWA has coordinated NHPA Section 106 compliance with the NEPA process and is preparing an Environmental Impact Statement (EIS); and

**WHEREAS**, the FHWA, in consultation with the Hawai‘i State Historic Preservation Officer (SHPO), is entering into this Section 106 PA in accordance with 36 C.F.R. § 800.14(b)(1)(ii) because the Undertaking’s effects on historic properties cannot be fully determined prior to approval of the Record of Decision; and

**WHEREAS**, the FHWA in coordination with HDOT, and in consultation with the SHPO, established an Area of Potential Effects (APE) (**Appendix 2**) in accordance with 36 C.F.R. § 800.4(a)(1) to consider potential direct and indirect effects associated with each of the Undertaking’s alternatives evaluated in the Draft EIS; and



47 **WHEREAS**, due to the size of the APE, limited access, and number of alternatives under consideration,  
48 the FHWA and HDOT, in consultation with the SHPO, agreed to phased identification, pursuant to 36  
49 C.F.R. § 800.4(b)(2), as provided in this PA; and

50  
51 **WHEREAS**, HDOT intends to use the historic properties identification efforts and documentation  
52 prepared for this Undertaking and as described in this PA (Stipulation III) to comply with Hawai'i Revised  
53 Statutes (HRS) § 6E and its administrative provisions at Hawai'i Administrative Rules (HAR) § 13-275,  
54 *Rules Governing Procedures for Historic Preservation Review for Governmental Projects Covered Under*  
55 *Sections 6E-7 and 6E-8, HRS*, as described in **Appendix 1**. The State Historic Preservation Division (SHPD)  
56 therefore has the authority to determine whether or not any report generated under HRS § 6E and its  
57 administrative rules is adequate; and

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59 **WHEREAS**, the Advisory Council on Historic Preservation (ACHP), was invited to participate in the  
60 Section 106 consultation and the development of this PA and has declined to participate; and

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62 **WHEREAS**, the FHWA in coordination with HDOT has consulted with Native Hawaiian Organizations  
63 (NHOs) listed in **Appendix 3**, for which the Ahupua'a of Launiupoko, Olowalu, and/or Ukumehame have  
64 religious and/or cultural significance and has invited them to be Concurring Parties to this PA; and

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66 **WHEREAS**, the FHWA in coordination with HDOT held multiple Consulting Party meetings (listed in  
67 **Appendix 4**), has consulted with Consulting Parties, including NHOs, listed in **Appendix 3** regarding the  
68 effects of the Undertaking on historic properties and has invited them to sign this PA as Concurring  
69 Parties; and

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71 **WHEREAS**, historic properties were found during an archaeological reconnaissance study located within  
72 the Department of Land and Natural Resources (DLNR) Lands, and the FHWA has invited DLNR to be an  
73 invited signatory to this PA.

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75 **NOW, THEREFORE**, the FHWA, HDOT, SHPO, agree that the Undertaking shall be implemented in  
76 accordance with the following stipulations to take into account the effect of the Undertaking on historic  
77 properties.

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79 **STIPULATIONS**

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81 The FHWA, in coordination with HDOT, shall ensure that the following measures are carried out.

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83 **I. Roles and Responsibilities**

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85 A. The FHWA is the agency official legally responsible for all Section 106 findings and  
86 determinations and shall ensure that the terms of this PA are carried out to complete the  
87 Section 106 process. The FHWA shall continue consultation with the NHOs, individuals and  
88 organizations included in Appendix 3 and as described in this PA.

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90 B. HDOT, as the Undertaking sponsor, will assist the FHWA in the implementation of this PA,  
91 including the coordination, management, and overseeing of the implementation of the SHPD-  
92 approved plans and reports including the Archaeological Inventory Subsurface Survey Plan  
93 (AISSP) and any necessary mitigation plans (e.g., archaeological monitoring plan, burial  
94 treatment plan) required by this PA for continuing archaeological investigations of the preferred

95 alternative through final design and construction of the Undertaking with the assistance of  
96 individuals meeting the requirements of Stipulation II.  
97

- 98 C. The SHPO, individually or through staff at SHPD, shall advise the FHWA in carrying out Section  
99 106 responsibilities for the Undertaking. Based on information provided by the FHWA or by  
100 HDOT, on behalf of the FHWA, the SHPO, individually or through staff at the SHPD, shall respond  
101 to requests for comments and/or concurrence within the specified review periods regarding the  
102 FHWA's National Register of Historic Places (NRHP) eligibility evaluations and proposed  
103 measures to avoid, minimize, or mitigate any adverse effects on archaeological historic  
104 properties that may be identified.  
105

## 106 **II. Qualifications**

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108 All investigations carried out pursuant to this PA shall be conducted by or under the supervision of an  
109 individual meeting the Secretary of the Interior's (SOI) Professional Qualifications Standards for  
110 Archaeology or Architectural History, as applicable, pursuant to 36 CFR Part 61, Appendix A, and  
111 pursuant to HAR § 13-281, "Rules Governing Professional Qualifications," and HAR § 13-282, "Rules  
112 Governing Permits for Archaeological Work" in the State of Hawai'i.  
113

## 114 **III. Identification and Evaluation of Historic Properties**

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- 116 A. The FHWA, in coordination with HDOT, will ensure all historic properties (both above ground  
117 and below ground) identified within the APE are assessed for NRHP eligibility in accordance with  
118 36 C.F.R. § 800.4(c). The FHWA will consider information provided by an individual or  
119 organization included in Appendix 3 who attaches religious and/or cultural significance to a  
120 property within the APE in making determinations of eligibility.  
121
- 122 B. HDOT, in coordination with the FHWA, completed the identification and evaluation of  
123 architectural historic properties pursuant to 36 C.F.R. § 800.4(b) and (c). A Reconnaissance Level  
124 Architectural Inventory Survey (RLS) report was completed that identified and assessed 40  
125 architectural properties within the APE. Three architectural properties were determined to be  
126 individually eligible for listing in the NRHP and ten were determined to be contributing  
127 resources to a NRHP-eligible historic district, referred to in the RLS as the Olowalu Sugar  
128 Plantation Historic District. SHPD concurred with these eligibility determinations in a letter  
129 dated July 9, 2024.  
130
- 131 C. HDOT, in coordination with the FHWA, has completed the identification and initial evaluation of  
132 archaeological properties pursuant to 36 C.F.R. § 800.4(b) and (c). This identification and  
133 evaluation effort involved an archaeological reconnaissance surface survey comprising each of  
134 the four proposed alternatives within the APE. The archaeological survey area was defined by a  
135 300-foot-wide corridor along the centerline of each proposed alternative. The archaeological  
136 survey area totaled approximately 464 acres and included both 100% pedestrian survey and  
137 targeted drone flyovers. The results of the archaeological survey were provided in a document  
138 titled *Honoapi'ilani Archaeological Complex Site Descriptions and Significance Evaluations*.  
139 Twenty-eight (28) archaeological historic properties were identified and evaluated within  
140 Ukumehame Ahupua'a, seven (7) in Olowalu Ahupua'a, and three (3) in Launiupoko Ahupua'a.  
141

- 142 D. HDOT’s archaeologist, on behalf of HDOT and the FHWA, evaluated all 38 archaeological historic  
143 properties as individually eligible for listing in the National Register of Historic Places. SHPD  
144 concurred with eleven (11) of these eligibility determinations in a letter dated October 11, 2024,  
145 and provided no response on the remaining twenty-seven (27) archaeological historic  
146 properties. HDOT’s archaeologist also noted that the sites in each ahupua’a extended beyond  
147 the archaeological survey boundaries. Because the horizontal and vertical extents of a potential  
148 historic district could not be determined based on a reconnaissance survey, no historic district  
149 has been identified by the FHWA at this time, pending additional investigations as described in  
150 this PA.  
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- 152 E. HDOT, in coordination with the FHWA, will complete an archaeological inventory survey (AIS) for  
153 any areas not previously surveyed within the preferred alternative. Additionally, subsurface  
154 archaeological testing will proceed through the design of the preferred alternative as locations  
155 become accessible.  
156
- 157 F. HDOT, in coordination with the FHWA, will ensure an AISSP is prepared and implemented as  
158 part of the identification and evaluation of archaeological historic properties pursuant to 36  
159 C.F.R. § 800.4(b) and (c) and HAR § 13-276.  
160
- 161 G. HDOT intends to use the identification and documentation of historic properties prepared for  
162 this Undertaking to meet the requirement of HRS § 6E-8. SHPD shall have authority to  
163 determine the adequacy of the AISSP pursuant to HAR § 13-275 and HAR § 13-276. SHPD’s  
164 written approval will be provided to all Signatories, Concurring and Consulting Parties.  
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166 **IV. Archaeological Inventory Subsurface Survey**

167 The area for subsurface archaeological survey is defined as the Undertaking’s preferred alternative and  
168 includes the proposed roadway right-of-way (ROW) and areas designated for utility installation,  
169 excavation, grading, connector roads, or construction access and laydown areas.  
170

171 A. Archaeological Inventory Subsurface Survey Plan

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- 173 1. The AISSP will be developed by HDOT’s archaeologist in consultation with the  
174 Engineering Design Team, as well as Signatories, Concurring and Consulting Parties.  
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- 176 2. HDOT will provide the initial draft of the AISSP to SHPD, Signatories, Concurring and  
177 Consulting Parties for a 30-calendar-day review and comment period.  
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- 179 3. The written comments on the AISSP will be shared with SHPD for consideration in  
180 preparing SHPD’s review comments to HDOT and the FHWA. SHPD shall have an  
181 additional 15-calendar-day review period (total 45-calendar days) upon receipt of all  
182 written comments received by HDOT and the FHWA from Signatories, Concurring and  
183 Consulting Parties.  
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- 185 4. HDOT will share SHPD’s comments with Signatories, Concurring and Consulting Parties.  
186 The comments may be posted to the Honoapiilanihighway.com website.



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- 5. If SHPD does not respond within any 45-calendar-day review period, HDOT, in coordination with the FHWA, may assume SHPD’s concurrence and move forward accordingly. HDOT, in coordination with the FHWA, will implement the AISSP.
- 6. Subsurface survey fieldwork shall be completed to the extent practicable prior to final design so that any unanticipated discoveries (i.e., archaeological sites or human burials) may be considered in final design and measures incorporated to avoid and/or minimize potential effects on historic properties and/or human burials.
- 7. HDOT, in coordination with the FHWA, will provide a status update to the Signatories, Concurring and Consulting Parties of the status of archaeological investigations on a quarterly basis via email and, when requested, via meeting. Once HDOT’s archaeologist sends an end-of-fieldwork notice to SHPD, these reports will stop.

**B. Archaeological Inventory Survey Report**

- 1. The AIS report will be submitted to SHPD for their concurrence on adequacy will contain results of the above ground pedestrian survey of the preferred alternative and subsurface survey.
- 2. The initial draft of the AIS report will be provided to SHPD, Signatories, Concurring and Consulting Parties for a 30-calendar-day review and comment period. The reports may be posted to Honoapiilanihighway.com.
- 3. The written comments received on the draft AIS report will be shared with SHPD for consideration in preparing SHPD’s review comments to HDOT and the FHWA. SHPD shall have an additional 15-calendar-day review period (total 45-calendar days) upon receipt of all written comments received by HDOT and the FHWA from Signatories, Concurring and Consulting Parties.
- 4. If SHPD does not respond within the 45-calendar-day review period, HDOT, in coordination with the FHWA, may assume SHPD’s concurrence and move forward accordingly.

**V. Application of the Criteria of Adverse Effect for Historic Properties**

- A. The FHWA, in coordination with HDOT and in consultation with the SHPO, Signatories, and Concurring and Consulting Parties, will apply the criteria of adverse effect (36 C.F.R. § 800.5(a)(1)) to historic properties within the APE, and document its findings.
- B. If, as a result of this analysis, the FHWA determines that the Undertaking may have an adverse effect on any historic property, the FHWA, in coordination with HDOT, will consult with the SHPO, Signatories, and Concurring and Consulting Parties to avoid, minimize, or mitigate adverse effects.

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- C. The FHWA, in coordination with HDOT, will implement any of the Undertaking’s scope or design modifications or conditions in order to avoid, minimize or mitigate adverse effects, as agreed upon through consultation.

**VI. Treatments to Resolve Adverse Effects to Historic Properties**

The FHWA, in coordination with HDOT and in consultation with the SHPO, Signatories, and Concurring and Consulting Parties, has determined that the following treatment measures, either singularly or in combination, may be applied to resolve adverse effects to historic properties:

- A. Educational Interpretation. This educational interpretation may include displays, markers, educational pamphlets, brochures or booklets, posters, websites, or other similar accessible information to educate members of the public on one or more architectural and/or archaeological historic property within the APE. The interpretive element will use images and maps to the extent feasible to convey information to the public.
- B. Photogrammetry. HDOT may hire a consultant to conduct historic property documentation through the use of photogrammetry, which requires taking high-resolution digital images to construct 3-D models of above ground resources including individual structures and buildings or landscape features. Using a high-resolution camera affixed to a drone, digital images will be taken at multiple angles and aligned to extract spatial and visual data to create a digital 3-D model. Data will be extracted from the model, including precise measurements and dimensions, colors, textures, and close-up historic details of the historic property. The model will then be made available for public viewing, if appropriate.
- C. Recordation of Architectural Historic Property. Prior to any substantial alteration or demolition of an individual above ground architectural historic property, documentation may be undertaken to record the adversely affected property through a digital photography package or Historic American Buildings Survey (HABS)/Historic American Engineering Record (HAER)/Historic American Landscapes Survey (HALS) Level III recordation (68 Fed. Reg. 43159), as appropriate.
- D. Recordation of Archaeological Historic Property without Data Recovery. Prior to any substantial alteration or demolition of an individual above ground archaeological historic property, documentation may be undertaken to record the adversely affected property through digital photography, scaled plan view, profile drawings, and narrative descriptions meeting the archaeological documentation specified in HAR § 13-276 pertaining to AIS investigations.
- E. Archaeological Data Recovery. Data recovery excavations may be considered in consultation among the FHWA, HDOT, SHPO, Signatories, Concurring and Consulting Parties. If it is determined by the FHWA through consultation that archaeological data recovery is an appropriate treatment, HDOT will ensure that HDOT’s archaeologist prepares an archaeological data recovery plan (Archaeological DRP) that includes each affected archaeological historic property.

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1. If possible, a single Archaeological DRP will be prepared for the Undertaking.
2. HDOT will provide the initial draft of the Archaeological DRP to SHPD, Signatories, Concurring and Consulting Parties for a 30-calendar-day review and comment period.
3. The written comments received will be shared with SHPD for consideration in preparing SHPD’s review comments to HDOT and the FHWA. SHPD shall have an additional 15-calendar-day review period (total 45-calendar days) to take comments provided in writing by other Consulting Parties into consideration in preparing SHPD’s written review comments.
4. If SHPD does not respond within the 45-calendar-day review period, HDOT, in coordination with the FHWA, may assume SHPD’s concurrence with the Archaeological DRP, and move forward accordingly following written notification to SHPD, Signatories, Concurring and Consulting Parties.
5. HDOT, in coordination with the FHWA, shall ensure the archaeological data recovery excavations are carried out in accordance with the approved Archaeological DRP and all data recovery fieldwork is completed prior to initiation of construction.
6. HDOT’s Archaeologist will prepare an Archaeological Data Recovery Report summarizing the archaeological data recovery results.
7. HDOT will provide the Archaeological Data Recovery Report to SHPD, Signatories, Concurring and Consulting Parties for a 30-calendar-day review and comment period.
8. The written comments received will be shared with SHPD for consideration in preparing SHPD’s review comments to HDOT and the FHWA. SHPD shall have an additional 15-calendar-day review period (total 45-calendar days), to take comments provided in writing by other Consulting Parties into consideration in preparing SHPD’s written review comments.
9. Following receipt of comments, HDOT, in coordination with the FHWA and in consultation with SHPD, Signatories, and Concurring and Consulting Parties, will finalize and approve the Archaeological Data Recovery Report.

**VII. Native Hawaiian and Consulting Parties Section 106 Consultation**

- A. The FHWA, in coordination with HDOT, shall continue to carry out Section 106 consultation with the Maui Lāna’i Islands Burial Council (MLIBC), Signatories, Concurring and Consulting Parties for the identification and evaluation of historic properties identified according to the terms of this PA.



321 B. The FHWA, in coordination with HDOT, shall carry out consultation with MLIBC, recognized  
322 descendants and NHOs, Signatories, Concurring and Consulting Parties for any unanticipated  
323 discoveries. The consultation will include identification, evaluation as to whether a discovery  
324 meets the definition of a historic property, and consideration of measures to avoid, minimize, or  
325 mitigate adverse effects.

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327 **VIII. Applicability of this PA to Changes in Undertaking Scope**

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329 This PA satisfies the FHWA’s responsibilities under Section 106 and is based on information about this  
330 Undertaking as defined in the EIS. It is the FHWA’s responsibility to notify the SHPO, Signatories,  
331 Concurring and Consulting Parties of any changes to the Undertaking’s design, scope, or footprint and,  
332 through consultation, to determine whether any changes to the design, scope, or footprint invalidate  
333 both the environmental commitments made in the Final EIS and Record of Decision, including those  
334 made in this PA. In the event the FHWA chooses to re-open Section 106 consultation for this  
335 Undertaking, the FHWA shall implement the following measures:

- 336
- 337 A. If the change is within the current APE, then the FHWA shall notify the SHPD of any changes to  
338 design or scope in writing. The SHPD shall respond within 30 calendar days of receipt of the e-  
339 mail or letter. Receipt is the date of the e-mail or the date received in HICRIS.
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  - 341 B. If the change is outside the current APE, the FHWA, in coordination with HDOT and in  
342 consultation with the SHPO, shall assess and revise the APE as necessary to incorporate any  
343 additional areas not previously considered under this PA.
  - 344
  - 345 C. The FHWA shall consult the Signatories to this PA to determine if the provisions of this PA  
346 should be applied to the additional areas, and if this PA should be applied, whether this PA  
347 needs to be amended in accordance with Stipulation XIII to include those areas.
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349 **IX. Post-Review Discoveries**

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- 351 A. In accordance with 36 C.F.R. § 800.13(b)(3), the FHWA, in coordination with HDOT and in  
352 consultation with the SHPO, will apply the NRHP Criteria for Evaluation (36 C.F.R. § 60.4) to  
353 evaluate any newly identified historic properties and consider measures to avoid, minimize or  
354 mitigate adverse effects on historic properties. Additionally, the FHWA, in coordination with  
355 HDOT, will consult pursuant to Stipulation III.
  - 356
  - 357 B. The FHWA shall forward their evaluation of the newly identified historic properties to the SHPO  
358 for review and concurrence.
  - 359
  - 360 C. If SHPD does not respond within the 30-calendar day review period, the FHWA may assume  
361 SHPD’s concurrence with the eligibility determinations.
  - 362
  - 363 D. If evidence of burials, human remains, or potential human remains is encountered during  
364 construction, HDOT shall suspend all work in the immediate vicinity, protect the remains from  
365 further disturbance, and immediately contact the SHPO, the FHWA, , MLIBC, Maui Police  
366 Departments, Signatories, Concurring and Consulting Parties.
  - 367

- 368 E. HDOT’s initial notification may be via phone but must be followed by written notification via  
369 email. In addition to email, HDOT’s notification to the SHPO must include written notification to  
370 HICRIS Project No. 2023PR00135 and include date, time, and identification of all parties who  
371 were notified.  
372
- 373 F. Identification, documentation, and treatment of all burials, human remains, or potential human  
374 remains encountered during construction will be carried out in accordance with State laws  
375 (Appendix 1).  
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377 **X. Confidentiality**  
378

379 Sensitive information concerning the location, character, or ownership of archaeological resources and  
380 properties on which burials, human remains, or potential human remains are identified may be withheld  
381 from public disclosure in accordance with Section 304 of the NHPA (54 U.S.C. § 307103).  
382

383 **XI. Monitoring and Reporting**  
384

385 Each year following the execution of this PA until it expires or is terminated, HDOT will submit to the  
386 FHWA a written status of each PA stipulation.  
387

388 The FHWA, in coordination with HDOT, shall provide all parties to this PA a written annual summary  
389 report detailing work undertaken pursuant to its terms and associated findings. Such report shall include  
390 any scheduling changes proposed or implemented, any issues encountered relating to historic or  
391 cultural sites, any disputes and objections received in the FHWA’s efforts to carry out the terms of this  
392 PA. Additionally, the annual summary report shall include the status of the PA stipulations provided by  
393 HDOT to the FHWA.  
394

395 HDOT will provide written notification to the FHWA for concurrence once all stipulations have been  
396 completed. Upon the FHWA’s concurrence and the FHWA’s notification therein to all parties to this PA,  
397 the Section 106 process will be deemed completed.  
398

399 **XII. Dispute Resolution**  
400

401 Should any Signatory, Concurring or Consulting Party to this PA object at any time to any actions  
402 proposed or the manner in which the terms of this PA are implemented, the FHWA shall notify all  
403 parties and initiate consultation to resolve the objection. If the FHWA determines that such objection  
404 cannot be resolved, the FHWA will:  
405

406 A. Forward all documentation relevant to the dispute, including the resolution proposed by the  
407 FHWA, to the ACHP. The ACHP shall provide the FHWA with its advice on the resolution of the  
408 objection within 30 calendar days of receiving adequate documentation. Prior to reaching a final  
409 decision on the dispute, the FHWA shall prepare a written response that takes into account any  
410 timely advice or comments regarding the dispute from ACHP, Signatories, and Concurring  
411 Parties and provide them with a copy of this written response. The FHWA will then proceed  
412 according to the final decision.  
413

414 B. If the ACHP does not provide its advice regarding the dispute within the 30-calendar-day review  
415 period, the FHWA may make a final decision on the dispute and proceed accordingly. Prior to

416 reaching such a final decision, the FHWA shall prepare a written response that takes into  
417 account any timely comments regarding the dispute from the Signatories and Concurring Parties  
418 to this PA and provide them and the ACHP with a copy of such written response.  
419

420 C. The responsibilities of the FHWA to carry out all other actions subject to the terms of this PA  
421 that are not the subject of the dispute remain unchanged.  
422

423 **XIII. Amendments**  
424

425 This PA may be amended when such an amendment is agreed to in writing by all Signatories. The  
426 amendment will be effective on the date a copy signed by all signatories is filed with the ACHP.  
427

428 **XIV. Termination**  
429

430 If any signatory to this PA determines that its terms will not or cannot be carried out, that party shall  
431 immediately consult with the other parties to attempt to develop an amendment per Stipulation XIII. If  
432 an amendment cannot be reached within 30 calendar days, any Signatory may terminate the PA upon  
433 written notification to the other Signatories.  
434

435 Once the PA is terminated, and prior to work continuing on the Undertaking, the FHWA must either (a)  
436 execute an agreement pursuant to 36 C.F.R. § 800.6 or (b) request, take into account, and respond to  
437 the comments of the ACHP under 36 C.F.R. § 800.7. The FHWA shall notify the Signatories as to the  
438 course of action they will pursue.  
439

440 **XV. Duration**  
441

442 This PA will be null and void if its terms are not carried out within fifteen (15) years from the date of its  
443 execution. Prior to such time, the FHWA may consult with the other Signatories to reconsider the terms  
444 of the PA and amend it in accordance with Stipulation XIII.  
445

446 Execution of this agreement by the FHWA, SHPO, and HDOT, and implementation of its terms is  
447 evidence that the FHWA has taken into account the effects of this Undertaking on historic properties  
448 and has afforded the ACHP an opportunity to comment.  
449  
450



451 **PROGRAMMATIC CAGREEMENT**  
452 **AMONG**  
453 **THE FEDERAL HIGHWAY ADMINISTRATION,**  
454 **THE STATE OF HAWAI'I DEPARTMENT OF TRANSPORTATION,**  
455 **AND THE**  
456 **THE HAWAI'I STATE HISTORIC PRESERVATION OFFICER**  
457 **REGARDING THE**  
458 **HONOAPI'ILANI HIGHWAY IMPROVEMENTS,**  
459 **MAUI KOMOHANA, MAUI COUNTY, HAWAI'I**

460  
461 **SIGNATORY**

462  
463 State of Hawai'i Department of Land and Natural Resources (DLNR)

464  
465  
466 By: \_\_\_\_\_ Date: \_\_\_\_\_

467 Dawn N. S. Chang, Esq.

468 DLNR Chairperson

469 State Historic Preservation Officer

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**PROGRAMMATIC AGREEMENT  
AMONG  
THE FEDERAL HIGHWAY ADMINISTRATION,  
THE STATE OF HAWAI'I DEPARTMENT OF TRANSPORTATION,  
AND THE  
THE HAWAI'I STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
HONOAPI'ILANI HIGHWAY IMPROVEMENTS,  
MAUI KOMOHANA, MAUI COUNTY, HAWAI'I**

**SIGNATORY**

Federal Highway Administration

By: \_\_\_\_\_ Date: \_\_\_\_\_

Richelle M. Takara, PE  
Division Administrator

491 **PROGRAMMATIC AGREEMENT**  
492 **AMONG**  
493 **THE FEDERAL HIGHWAY ADMINISTRATION,**  
494 **THE STATE OF HAWAI'I DEPARTMENT OF TRANSPORTATION,**  
495 **AND THE**  
496 **THE HAWAI'I STATE HISTORIC PRESERVATION OFFICER**  
497 **REGARDING THE**  
498 **HONOAPI'ILANI HIGHWAY IMPROVEMENTS,**  
499 **MAUI KOMOHANA, MAUI COUNTY, HAWAI'I**

500  
501 **INVITED SIGNATORY**

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503 State of Hawai'i Department of Transportation  
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507 By: \_\_\_\_\_ Date: \_\_\_\_\_  
508 Edwin Sniffen, Director  
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**PROGRAMMATIC AGREEMENT  
AMONG  
THE FEDERAL HIGHWAY ADMINISTRATION,  
THE STATE OF HAWAI'I DEPARTMENT OF TRANSPORTATION,  
AND THE  
THE HAWAI'I STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
HONOAPI'ILANI HIGHWAY IMPROVEMENTS,  
MAUI KOMOHANA, MAUI COUNTY, HAWAI'I**

**INVITED SIGNATORY**

State of Hawai'i Department of Land and Natural Resources

By: \_\_\_\_\_ Date: \_\_\_\_\_

Dawn Chang  
Chairperson

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**PROGRAMMATIC AGREEMENT  
AMONG  
THE FEDERAL HIGHWAY ADMINISTRATION,  
THE STATE OF HAWAI'I DEPARTMENT OF TRANSPORTATION,  
AND THE  
THE HAWAI'I STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
HONOAPI'ILANI HIGHWAY IMPROVEMENTS,  
MAUI KOMOHANA, MAUI COUNTY, HAWAI'I**

**CONCURRING PARTY**

[Name/Organization]

By: \_\_\_\_\_ Date: \_\_\_\_\_

[Name]

[Title]

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**Appendix 1. HDOT's Hawai'i Revised Statutes (HRS) § 6E Compliance**



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**Memorandum**

**To: All Signatories, Concurring and Consulting Parties, and the Public**

**From: State of Hawai'i Department of Transportation (HDOT)**

**Re: Hawai'i Revised Statutes (HRS) § 6E Compliance**

The Programmatic Agreement (PA) for this project incorporates references to both Federal and State laws and regulations to allow these review processes to work in tandem to the extent possible. Should compliance issues arise under Federal or State law, HDOT and FHWA are committed to resolving disputes through the Dispute Resolution stipulation provided in the PA (Stipulation XII).

In a letter dated January 23, 2023, HDOT initiated consultation with the State Historic Preservation Officer (SHPO) under Section 106 of the National Historic Preservation Act (NHPA) of 1966 and its implementing regulations at 36 C.F.R. Part 800. In addition, HDOT initiated Hawai'i Revised Statutes (HRS) § 6E and Hawai'i Administrative Rules (HAR) § 13-275 historic preservation review with the State Historic Preservation Division (SHPD) for the proposed project. Although the Federal Highway Administration (FHWA) retains approval authority over Section 106, HDOT has jurisdiction over determining the project's effects under HRS § 6E-8 and its administrative provisions in HAR § 13-275.

To reduce redundancy, HDOT intends to combine Section 106 and HRS § 6E-8 compliance where possible.

**Roles and Responsibilities**

HDOT, as project sponsor, in coordination with the FHWA, will be responsible for the management and development of the SHPD-approved plans and reports including the Archaeological Inventory Subsurface Survey Plan (AISSP) and any necessary mitigation plans (e.g., archaeological monitoring plan, burial treatment plan) required for continuing archaeological investigations of the preferred alternative through final design and construction of the project with the assistance of individuals meeting the requirements of Stipulation II.

The SHPD shall advise HDOT in carrying out its State Historic Preservation Review responsibilities for the project. Based on information provided by HDOT, the SHPD shall respond to requests for comments and/or concurrence within the specified review periods.

**Qualifications**

All historic properties investigations and documentation carried out pursuant to this Memorandum shall be conducted by or under the supervision of an individual meeting the HAR § 13-281, *Rules Governing Professional Qualifications*, in their respective professional discipline. Historic properties investigations and documentation shall meet the requirements of HAR § 13-275 and the appropriate HAR for specific types of studies. Archaeologists will have a permit to do archaeological work in Hawaii per HAR § 13-282. HDOT will identify an osteologist who can be available on an as-needed basis in the event the ethnicity of a burial is needed, or bone fragments cannot be positively identified as human by the on-site archaeologist.

599 **Project Area**

600

601 The HRS § 6E-8 Project Area will coincide with the Preferred Alternative, once selected.

602

603 **Identification and Evaluation of Historic Properties**

604

605 HDOT intends to use the investigations and documentation of historic properties prepared for this  
606 project and as described in the PA (Stipulation III) to comply with HRS § 6E and its administrative  
607 provisions in HAR § 13-275, *Rules Governing Procedures for Historic Preservation Review for*  
608 *Governmental Projects Covered Under Sections 6E-7 and 6E-8, HRS*. HDOT will evaluate potential historic  
609 properties for integrity and significance in accordance with HAR § 13-275-6.

610

611 **Phased Archaeological Inventory Survey and Archaeological Subsurface Survey Plan**

612

613 HDOT, in coordination with FHWA, intends to conduct a phased identification and evaluation of  
614 archaeological historic properties for this project. The first phase, consisting of an above-ground  
615 archaeological reconnaissance survey, is described in Stipulation III of the PA, as mentioned above. For  
616 the second phase, an AISSP will be developed and implemented as described in the PA, Stipulation IV. A  
617 final AIS report will be prepared that includes the results of the archaeological surface reconnaissance  
618 survey and the archaeological subsurface survey and provided to SHPD for concurrence on adequacy.

619

620 **Determining Effects to Historic Properties**

621

622 HDOT, in coordination with FHWA, will determine the effects to significant historic properties within the  
623 preferred alternative consistent with HAR § 13-275-7. One of the following effect determinations will be  
624 made for each significant historic property or group of significant historic properties:

625

626 1. No historic properties affected.

627

628 2. Effect with proposed mitigation commitments.

629

630 The effect determinations shall be sent to SHPD for review and concurrence and posted on  
631 honoapiilanihighway.com with notification to Signatories, Concurring and Consulting Parties of the PA  
632 for their comments. After 30 calendar days, HDOT shall send all comments received to SHPD. SHPD  
633 shall provide its approval, or non-approval with comments, within 45 calendar days of receipt of an  
634 HDOT request for agreement on its effect determinations. Receipt date shall be the date a letter is  
635 received in HICRIS.

636

637 **Mitigation Measures**

638

639 Following SHPD's written acceptance of the AIS report and effect determinations, HDOT will provide  
640 mitigation measures to SHPD pursuant to HAR § 13-275, 277, -278, and -279.

641

642 *Archaeological and Cultural Monitoring*

643

644 Per HAR § 13-279-3, Archaeological monitoring may be a mitigation measure.

645

646 Following completion of the AIS, HDOT shall oversee the development of an Archaeological and Cultural  
647 Monitoring Plan (Monitoring Plan) for implementation prior to the initiation of project construction. The  
648 Monitoring Plan will be developed pursuant to HAR § 13-279, *Rules Governing Standards for*  
649 *Archaeological Monitoring Studies and Reports*, in consultation with the PA’s Signatories, Concurring and  
650 Consulting Parties and submitted for a 30-calendar-day review and comment period.

- 651
- 652 1. Archaeological monitoring during construction will be conducted by HDOT and under the  
653 supervision of an Archaeologist meeting the qualifications stated above in the Qualifications  
654 Section.  
655
  - 656 2. HDOT, through its archaeologist, may hire cultural monitors at the request of NHOs listed in  
657 Appendix 3. Cultural monitor responsibilities will be defined in the Monitoring Plan.  
658
  - 659 3. The relationship between the construction crew and the cultural monitors will be defined in  
660 the monitoring plan. For example, if bones are found or a historic site is breached, the  
661 cultural monitor will have the authority to stop all work within 100 feet of the find.  
662
  - 663 4. HDOT shall contract with an on-call osteologist who can be in the field within 24 hours  
664 should additional expertise be needed to identify bones found in the Project Area. The Lead  
665 Archaeologist, in consultation with SHPD, will make the call as to whether an osteologist is  
666 needed on-site.  
667

#### 668 *Pre-Construction Training*

- 669
- 670 1. Prior to construction activities, HDOT, in coordination with the FHWA, will conduct pre-  
671 construction on-site archaeological and cultural awareness training led by HDOT’s  
672 archaeological monitor and cultural monitors. The training will explain HDOT’s approach to  
673 HRS § 6E-8 compliance, conditions and requirements set forth in this PA, procedures to  
674 follow if archaeological or cultural remains are found, and roles and responsibilities of  
675 HDOT’s archaeological and cultural monitors.  
676
  - 677 2. HDOT will provide meeting participants with contact information for those required to  
678 receive discovery notifications.  
679
  - 680 3. This Memorandum will be an addendum to the construction contract.  
681

#### 682 **Data Recovery**

683

684 In the event that adverse effects cannot be avoided, data recovery is the only mitigation option provided  
685 in HAR § 13-275-8. Data recovery of sites will follow HAR § 13-278.  
686

687 HAR § 13-275-8(2) requires that for properties evaluated as significant under criterion “e” the agency  
688 must consult with ethnic organizations or members of the ethnic group for whom the properties have  
689 significance. For this project, all sites significant under criterion “e” are significant to Native Hawaiians,  
690 and HDOT has consulted with NHOs listed in Appendix 3 to seek their views on proposed forms of  
691 mitigation in the event adverse effects cannot be fully avoided and data recovery is considered  
692 insufficient.



- 693
- 694 1. HDOT in consultation with the SHPD and NHOs, will continue consultation to determine if
- 695 alternate mitigation under HAR § 13-275-8(2) is appropriate.
- 696
- 697 2. With respect to unmarked Native Hawaiian burials, the development of burial treatment
- 698 plans will be consistent with HAR § 13-300, *Rules of Practice and Procedure Relating to*
- 699 *Burial Sites and Human Remains*. If MLIBC determines that a burial is to be relocated, HDOT
- 700 will consult with MLIBC to determine appropriate reinterment, which may include relocation
- 701 to project property in the vicinity of the discovery as appropriate and as determined
- 702 through consultation.
- 703
- 704 3. *Curation*. HDOT, in coordination with SHPD, will curate recovered materials in accordance
- 705 with applicable laws, including HAR § 13-278, *Rules Governing Standards for Archaeological*
- 706 *Data Recovery Studies*. HDOT shall consult with public and private institutions to pursue
- 707 opportunities to provide public access to the recovered materials.
- 708
- 709 4. *Access*. HDOT will ensure NHOs have access to sites they wish to steward. Access will
- 710 include safe parking areas for up to ten vehicles, areas to store rocks or tools, and an area to
- 711 gather before or after accessing the site. Access does not presume any improvements to
- 712 access sites.
- 713
- 714 5. *Stewardship*. HDOT will ensure that NHOs have an opportunity to remove the rocks from
- 715 sites that will be impacted by construction of the Project. This will include allowing adequate
- 716 time to gather the rocks and providing a location to store the rocks. NHOs will provide
- 717 HDOT with point-of-contact (POC) information to coordinate this activity.
- 718
- 719 6. Most of the Archaeological sites are located on Department of Land and Natural Resources
- 720 (DLNR), Land Division Lands and will be transferred to the DLNR Division of Forestry
- 721 sometime after the relocated highway is built. HDOT has invited DLNR to be an invited
- 722 signatory to this agreement and to develop a stewardship agreement with interested NHOs.
- 723 Failure to finalize an agreement prior to signing this document will not affect
- 724 implementation of the final document.
- 725
- 726 7. The design team will work with NHOs to use rocks affected by the construction of the
- 727 project, in retaining walls or other parts of the project, where appropriate. NHOs will
- 728 provide HDOT with POC information to coordinate these activities.
- 729
- 730 8. *Burials*. HDOT shall provide a burial relocation site, to be chosen in consultation with the
- 731 MLIBC and recognized descendants, in each of the three (3) ahupua'a affected by the
- 732 project. MLIBC and recognized descendants will work with HDOT on the design, materials,
- 733 and construction of each burial site. If the land chosen belongs to another state agency,
- 734 HDOT will facilitate agreements regarding access and use of the land. DLNR-SHPD will have
- 735 long-term management of the site, including decisions on whether additional burials from
- 736 other projects will be allowed to be interred at these sites.

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**Post-Review Discoveries**

Archaeology

1. If new archaeological properties are discovered or unanticipated effects to significant archaeological historic properties are identified during construction, and there is no archaeologist present at the discovery location to conduct monitoring as described in Stipulation IV.B, HAR § 13-280, *Rules Governing General Procedures for Inadvertent Discoveries of Historic Properties During a Project Covered by the Historic Preservation Review Process*, shall apply.
2. HDOT will consult with the SHPD, Signatories, Concurring and Consulting Parties regarding the need to expand the areas identified for archaeological monitoring during construction to include locations where the project would involve excavation within 150 feet of identified artifacts.

Human Remains






1. If evidence of burials, human remains, or potential human remains is encountered during construction, HDOT shall suspend all work within 20 feet of the remains, protect the remains from further disturbance, and immediately use the contact protocols in Appendix 5. HDOT will implement the procedures at HAR § 13-300, *Rules of Practice and Procedure Relating to Burial Sites and Human Remains*, for inadvertent discoveries of human remains. Construction activities in the location of the discovery will be suspended pending notification to and consultation among the SHPD, HDOT, MLIBC, and parties included in Appendix 4, in accordance with these procedures. Notification will be by e-mail, unless an alternative method is specifically requested.
2. HDOT will consult with the parties included in Appendix 3 regarding the need to expand the areas identified for archaeological monitoring during construction to include locations where the project would involve excavation within 150 feet of the unanticipated discovery of human remains.

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774

**Appendix 2. Area of Potential Effects Map**





- Legend**
-  Area of Potential Effects
  -  Study Segment of the Existing Honoapiʻilani Highway
  -  Roads
  -  Streams
  -  Mile Marker



Service Layer Credit Sources: Esri, HERE, DeLorme, increment P Corp., NPS, NRCAn, Ordnance Survey, © OpenStreetMap contributors, USGS, NGA, NASA, CGIAR, N



### **Appendix 3: List of Consulting Parties**

Prefix	First	Middle	Last	Title	Organization/Agency
Ms.	Dawn		Chang	State Historic Preservation Officer and Chairperson	State of Hawai'i, Department of Land and Natural Resources
Dr.	Susan		Lebo	SHPD	State of Hawai'i, Department of Land and Natural Resources
Ms.	Leimana		DaMate	Executive Director	State of Hawai'i, Department of Land and Natural Resources, 'Aha Moku
Mr.	Ikaika	J.	Anderson	Chair	State of Hawai'i, Department of Hawaiian Homelands
Dr.	Sylvia		Hussey	CEO	State of Hawai'i, Office of Hawaiian Affairs
Mr.	Kamakana	C.	Ferreira	Lead Compliance Specialist	State of Hawai'i, Office of Hawaiian Affairs
Ms.	Lauren		Morawksi		State of Hawai'i, Office of Hawaiian Affairs
Ms.	Leslie		Iaukea	SHPD, Culture and History Branch Chief	State of Hawai'i, Department of Land and Natural Resources
Mr.	Chris		Nakahashi	SHPD Cultural Historian	State of Hawai'i Department of Land and Natural Resources
Ms.	Yvette		Celiz	Lāhainā Representative	Maui County Cultural Resources Commission
Dr.	Janet		Six	Principal Archaeologist	Maui County
Mr.	Andrew		McCallister	SHPD Maui Archaeologist	State of Hawaii, Department of Land and Natural Resources
Mr.	Hinano	R.	Rodrigues		NHO
Ms.	Anela		Jackson	President	'Aha Mālama, Corp.
Mr.	Ke`eaumoku		Kapu	Chief Executive Officer	'Aha Moku O Maui Inc.
Mr.	Felimon		Sadang		'Aha Moku O Maui Inc.
Mr.	Kamaka		Bancaco		'Aha Moku O Maui Inc.
Mr.	Hailama		Farden	President	Association of Hawaiian Civic Clubs
					Lahaina Hawaiian Civic Club
Ms.	Blossom		Feiteira	President	Association of Hawaiians for Homestead Lands
Mr.	Samson	L.	Brown	President	Au Puni O Hawai'i
Mr.	Joseph	Kuhio	Lewis	Chief Executive Officer	Council for Native Hawaiian Advancement
Ms.	Chelsie		Evans	Executive Director	Hawaiian Community Assets, Inc.
Ms.	Kiersten		Faulkner	Executive Director	Historic Hawai'i Foundation
Ms.	Kaipo		Kincaid		Hui Kako'o 'Āina Ho'opulapula
Ms.	Amy	Hanaialii	Gilliom	President	Hui O Wa'a Kaulua
Ms.	Lori		Sablas	Cultural Advisor	Kaanapali Beach Hotel



Mr.	Kimokeo		Kapahulehua	President	Kimokeo Foundation
Mr.	Manny		Kuloloio	Makuakāne	Kulolo'i'a Lineage - I ke Kai 'o Kulolo'i'a
Mr.	Theo		Morrison	Executive Director	Lahaina Restoration Foundation
Mr.	Ekolu		Lindsey III	President	Maui Cultural Lands, Inc/ descendant -- Ukumehame
Ms.	Nicole		McMullan		Maui Historical Society, Bailey House Museum
Mr.	Kaipo		Kekona	Po'o -- Kā'anapali Moku	Aha Moku O Maui Inc.
Ms.	Uilani		Kapu	Treasurer	Na Aikane 'O Maui Inc
Kumu	Kapono`ai		Molitau		Nā Hanona Kūlike 'o Pi'ilani
Ms.	Patty		Nishiyama		Na Kupuna o Maui
Ms.	Maraea	K.	Nekaifes		Nekaifes Ohana
Mr.	Clifford		Naeole	Hawaiian Cultural Advisor	The Ritz-Carlton Kapalua
					Queen Lili'uokalani Children's Center
Ms.	Dana	Naone	Hall		
Mr.	Kainoa		Horcajo	Founder	Kipuka Olowalu
Ms.	Karin		Osuga		Kipuka Olowalu
Ms.	Lois		Reiswig	President	Maui Arts League
Mr.	Pomaikai		Benevedes		
Ms.	Velma		Mariano		
Ms.	Noelani		Ahia		
Mr.	Nameaaea		Hoshino		NHO
Ms.	Jaclyn		Fujjita		
Ms	Fay		McFarlane		
Mr.	George	Tosh K.	Fujjita		NHO-Kaluna Palafox Ohana
	Kaulu		Nahooikaika		NHO-Kaho'oikaika Ohana
Ms.	Tiare		Lawrence		NHO- Kaho'oikaika Ohana
Ms.	Malihini	Keahi	Heath		NHO- Haia Ohana
Ms.	Kahikilani		Niles		
Mr.	Brian	Kaniela Naeole	Naauao		Naeole/Naauao Ohana
Mr.	Foster		Ampong		NHO
Ms.	Linda		Nahina Magalanes		Nahina Ohana
Ms	Victoria		Kaluna-Palafox		NHO-Kaluna-Palafox Ohana
			Saffrey Ohana		NHO Saffrey Ohana
Mr.	Al		Lagunero		Olowalu Cultural Reserve -- Precursor to Kipuka Olowalu
Ms.	Davianna		McGregor		Protect Kaho'olawe Ohana
Mr.	Michael		Naho'opi'i	Executive Director	Kaho'olawe Island Reserve Commission
Ms.	Beth		Mantalvo	Executive Director	Hui O Wa'a Kaulua

Mr.	Nainoa		Thompson	President & Master Navigator	Polynesian Voyaging Society
Mr.	Kawika		Farm	Planner Supervisor	Cultural Resources Commission, Maui County
Mr.	Steve	L	Phillip		
Ms.	Jessica		Puff	SHPD Architectural Historian	SHPD, Hawaii Department of Land and Natural Resources
Mr.	Stanley		Solamillo	Architect	Maui County Planning Dept
Ms.	Michele		Hoopii		Pili Koko
Mr.	Archie		Kalepa		NHO

**Appendix 4: List of Section 106 and 6E Consulting Party Meetings and Dates**



## **Consulting Party Meeting Dates**

April 7, 2022, In-person with NHOs from the area, set up by Keeaumoku Kapu  
April 7 and 8, 2022, Hinano Rodrigues  
April 8, Ekolu Lindsay, Kipuka Olowalu/Olowalu Cultural Reserve  
March 29 & 30, 2023, Virtual  
May 31, 2023, NHO, FHWA Field Visit  
June 1, 2023, Presentation to Maui Cultural Resources Commission  
July 27, 2023, Virtual: Archaeology/Cultural  
August 2, 2023, Virtual: Architecture  
November 2, 2023, SHPD, FHWA, HDOT  
November 18, 2023, NHO Field Visit  
November 20, 2023, Virtual: Archaeology/Cultural  
March 28, 2024, SHPD Field Visit  
September 22, 2024, Presentation to Na Kupuna o Lahaina Advisory Board, NHOs, Consulting Parties:  
    Archaeology and Programmatic Agreement  
September 26, 2024, NHOs and other Consulting Parties, Virtual: Archaeology and Programmatic  
    Agreement