

DRAFT REPORT

**Archaeological Monitoring Plan in
Support of Kaumuali'i Highway
Intersection Improvements, Waimea
Ahupua'a, Kona District, Island of
Kaua'i, Hawai'i**

Adjacent TMKs: (4) 1-6-005, 008, and 009 Various
Parcels

Prepared for:

Austin, Tsutsumi & Associates, Inc.

501 Sumner Street, Suite 521

Honolulu, HI 96817-5031

May 2020

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Adjacent TMKs: (4) 1-6-005, 1-6-007, 008, and 009 various parcels

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1 **INTRODUCTION**

2 Under contract to Austin, Tsutsumi & Associates, Inc. (ATA), Pacific Consulting Services,
3 Inc. (PCSI) has prepared this Archaeological Monitoring Plan (AMP) in support of proposed
4 Kaumuali'i Highway Intersection Improvements, Waimea Ahupua'a, Kona District, Island of
5 Kaua'i, Hawai'i. The project proponent is the Department of Transportation (DOT), and the land
6 is owned by the State of Hawai'i. The extent of the proposed project is shown in Figure 1. The
7 project scope of work includes improvements at the intersection of Waimea Canyon Drive and at
8 Menehune Road and Halepule Road along Kaumuali'i Highway.

9 This AMP was prepared in accordance with the SHPD Rules Governing Standards for
10 Archaeological Monitoring Studies and Reports (Hawai'i Administrative Rules [HAR] § 13-279-4).
11 The purpose of this AMP is to provide guidance for the monitoring archaeologist in the field and
12 to ensure all work conforms to Chapter 6E, Hawaii Revised Statutes (HRS) and the following
13 Hawai'i Administrative Rules (HAR):

- 14 • Chapter 275: Rules Governing Procedures for Historic Preservation Review for
15 Governmental Projects Covered Under Sections 6E-8; and
- 16 • Chapter 279: Rules Governing Standards for Archaeological Monitoring Studies and
17 Reports

18 Consultation letters from the SHPD for Chapter 6E-8 Historic Preservation Review for this
19 project are provided in Appendix A. Although no historic properties have been identified within the
20 project area, the Archaeological Literature Review (ALR; Vernon and Clark 2020) notes there is
21 a low to moderate potential to encounter intact subsurface historic properties. The ALR
22 recommended archaeological monitoring guided by an SHPD-approved Archaeological
23 Monitoring Plan.

24 The recommended effect determination for the project was "Effect, with proposed
25 mitigation commitments," which included archaeological monitoring during all ground disturbance
26 conducted during the proposed project. The State Historic Preservation Officer (SHPO) concurred
27 with the effect determination and proposed mitigation.

28 **PROJECT AREA LOCATION AND DESCRIPTION**

29 The proposed project is located at two intersections in Waimea Town on the leeward side
30 of Kaua'i. The project area measures 4.047 hectares (ha) (1.0 acre [ac]). The Tax Map Keys
31 (TMKs) for adjacent parcels to the project area include (4) 1-6-005:002, 1-6-007:018, 028, 048,
32 1-6-008:004, 012, 019, 021, 024, 025, and 1-6-009:001, 003, 004, and 038. Figures 2 through 5
33 show the project areas highlighted on TMK plat maps. All work will be conducted in the State of
34 Hawai'i owned rights-of-way. Project site plans with highlighted locations of ground disturbance
35 are provided in Appendix B.

36 The Waimea Canyon Drive and Kaumuali'i Highway intersection project area measures
37 2.773 ha (.685 ac) and extends from Waimea Canyon drive east to Makeke Road and west to the
38 driveway for the Waimea Tech Center. Proposed ground disturbing work includes demolishing,
39 removing, and replacing sections of asphalt pavement, concrete sidewalks, curbs, various catch
40 basins and drain lines; the relocation of existing signage; and installation of new traffic signal
41 standards, traffic meter pedestals, light poles, electrical duct line, and signage. Installation of new
42 pavement will require excavation to a depth of 63.5 centimeters below surface (cmbs) (24 inches
43 [in]) or more, depending on existing base course depth. Light pole and traffic signal standard
44 installation will require excavations to a minimum of 183 cmbs (6.0 feet [ft]). Excavations for traffic
45 meter pedestals will reach a depth of 63.5 centimeters (cm) (24.0 in) or greater. Excavations for
46 electrical lines will reach up to 107.0 cmbs (42.0 in). Excavation depth for drain lines will exceed

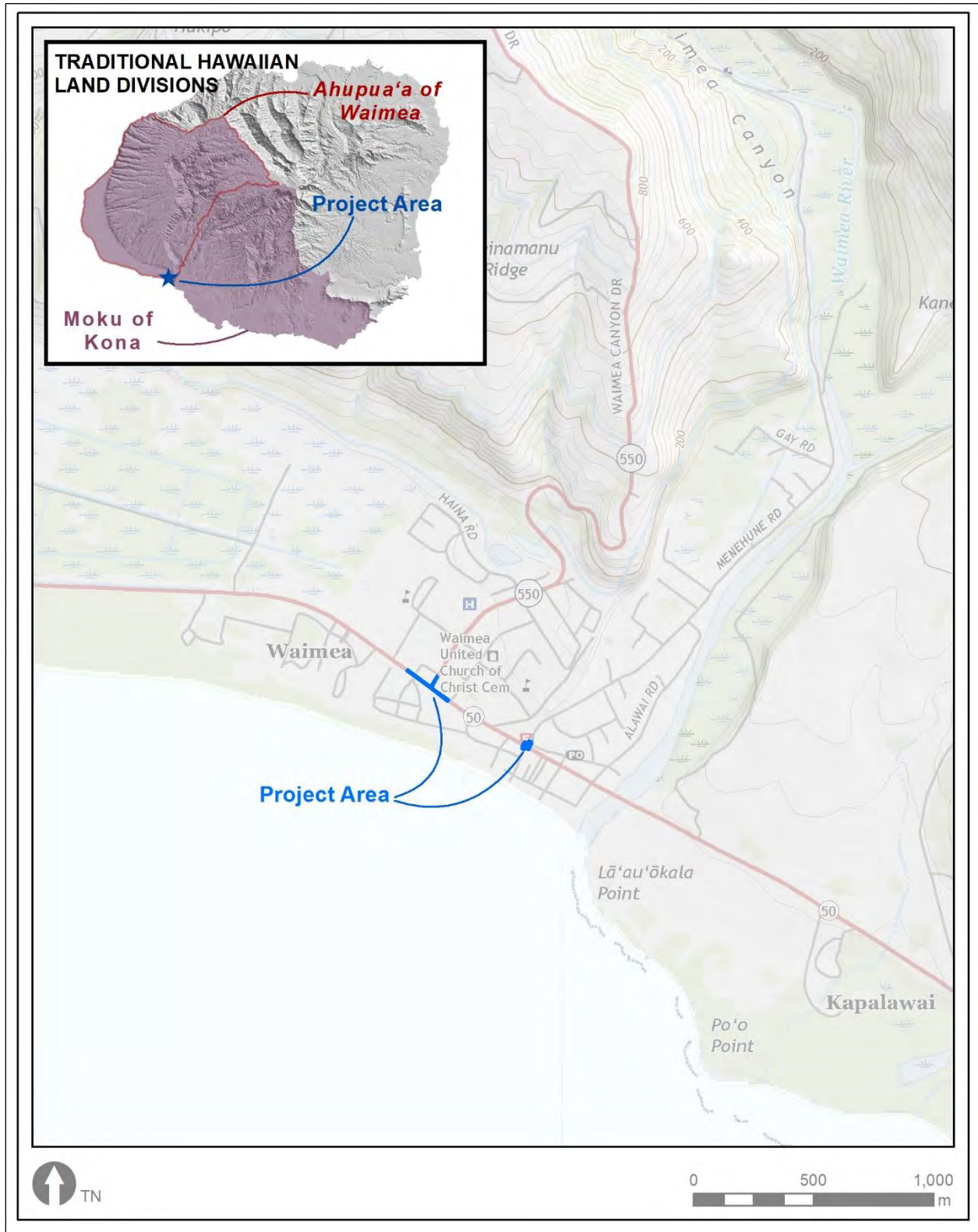
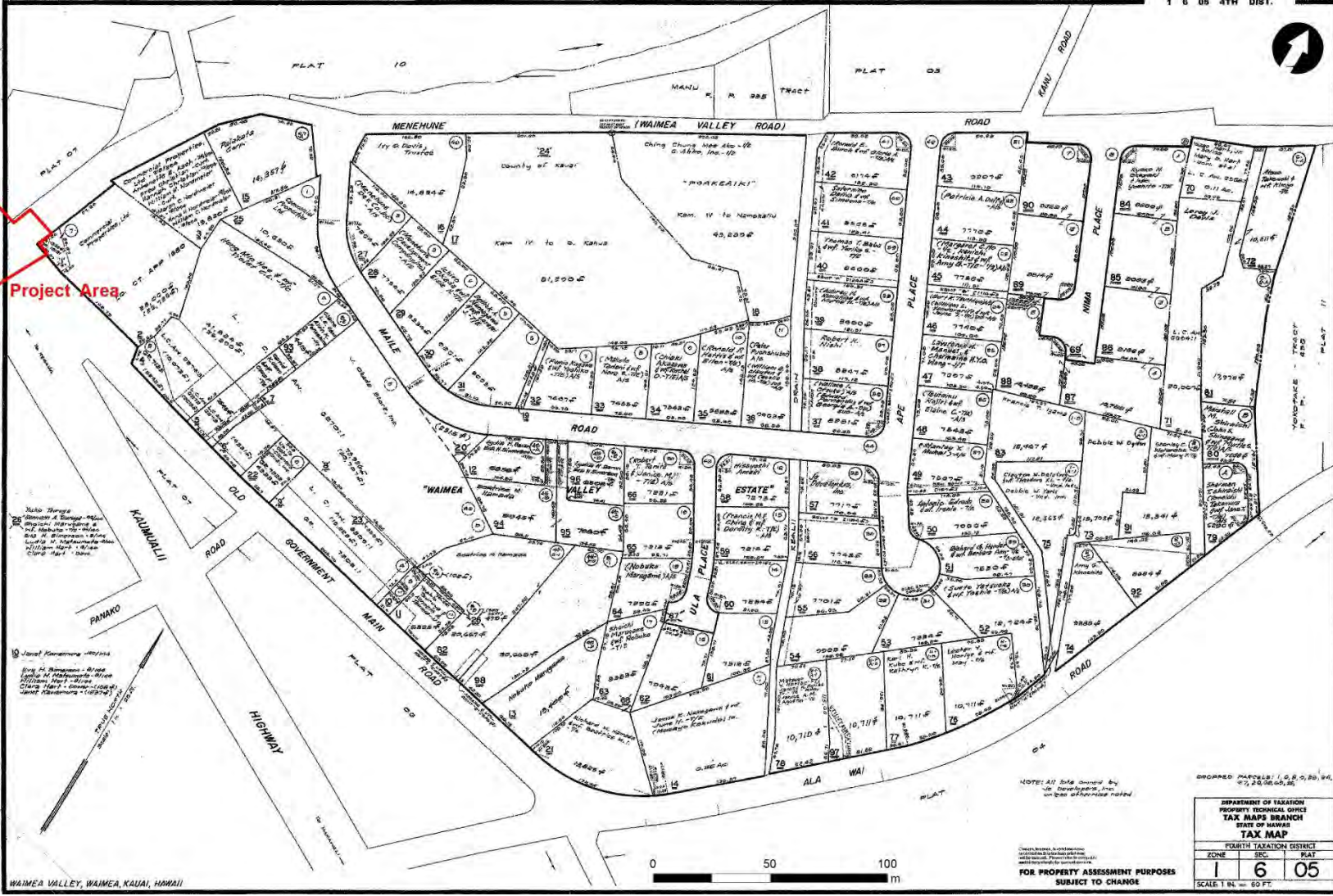


Figure 1. Project Area on 7.5-Minute Series Kekaha and Hanapepe Topographical Quadrangle Maps (USGS 2017a,b).



WAIMEA VALLEY, WAIMEA, KAUAI, HAWAII

DEPARTMENT OF TAXATION
PROPERTY TECHNICAL OFFICE
TAX MAPS BRANCH
STATE OF HAWAII

TAX MAP

FOURTH TAXATION DISTRICT		
ZONE	SEC	PLAT
1	6	05

SCALE 1 IN. = 60 FT.

NOTE: All Sale shown by
this map are subject to
the provisions of the
law.

FOR PROPERTY ASSESSMENT PURPOSES
SUBJECT TO CHANGE

Figure 2. Location of Project Area on Plat Map (4) 1-6-05 (Taxation Maps Bureau 1936, Revised 1974).

1 122 cmbs (4.0 ft). Excavation depth for signage will exceed 63.5 cmbs (24.0 inches). Striping will
2 also be replaced, which does not require ground disturbance.

3 At Menehune Road and Halepule Road along Kaumuali'i Highway the project area is the
4 intersection, which measures 1.274 ha (.315 ac). Proposed work is limited to striping. No ground
5 disturbing work will occur at this intersection.

6 ENVIRONMENTAL SETTING

7 Waimea Ahupua'a is located on the west side of Kaua'i and covers more than one-quarter
8 of the island. This *ahupua'a* (traditional Hawaiian land division) comprises the Waimea River
9 Canyon, the Kōke'e uplands, Alaka'i Plateau, numerous inland and coastal valleys, and Mānā
10 Plain. The two project area intersections are situated in an urban environment 400.0 to 900.0
11 meters (m) west of the mouth of Waimea River and roughly 150.0 to 300.0 m inland from the
12 shoreline.

13 TOPOGRAPHY AND SOILS

14 The project area is situated at 2.0–4.0 m above mean sea level (amsl). According to the
15 USDA Web Soil Survey, the soils in the project area are classified as Jaucas loamy fine sand,
16 dark variant, with 0 to 8 percent slopes (JkB), as shown in Figure 6. The Jaucas series are found
17 on vegetated beach areas along the shore. These soils formed in calcareous sand deposits. They
18 are very deep, excessively drained, and have very rapidly permeability (Soil Survey Staff 2017).
19 Areas containing these soils are typically used for recreation and as marine wildlife refuges.
20 Vegetation is urban and consists of sea grape (*Coccoloba uvifera*), coconut (*Cocos nucifera*)
21 (Wagner et al. 1990), and other xerophytic and salt-tolerant plants. From a historic preservation
22 perspective, Jaucas sand deposits are associated with the presence of traditional Hawaiian
23 burials and subsurface cultural deposits.

24 RAINFALL AND VEGETATION

25 Annual rainfall at the project area averages 512.5 millimeters (mm) (20.18 in) per year,
26 with most rain falling in the months between October and March. Giambelluca et al. 2013). The
27 project area is situated along a two-lane road with parking lanes on each side, which are flanked
28 by a landscaped verge that includes manicured grass and trees.

29 HISTORICAL BACKGROUND

30 This section presents ethnohistorical and archaeological background information for the
31 project area. Data from the background research were compiled to create an overview of
32 traditional Hawaiian and historic-era land use and subsistence practices. Previous archaeological
33 research in the vicinity of the project area is reviewed and anticipated archaeological findings are
34 discussed.

35 TRADITIONAL HISTORY

36 The Hawaiian cultural landscape can be described through *mo'ōlelo* and *wahi pana*
37 (significant Hawaiian place names). *Mo'ōlelo* may be myths, legends, proverbs, and events
38 surrounding well-known individuals in Hawaiian history (Pukui and Elbert 1986:254). The following
39 is a discussion of the mythological, traditional, and early historic accounts specific to the study
40 area. The reader is referred to O'Hare et al. (2015) for a broader background of the *ahupua'a* of
41 Waimea.

42

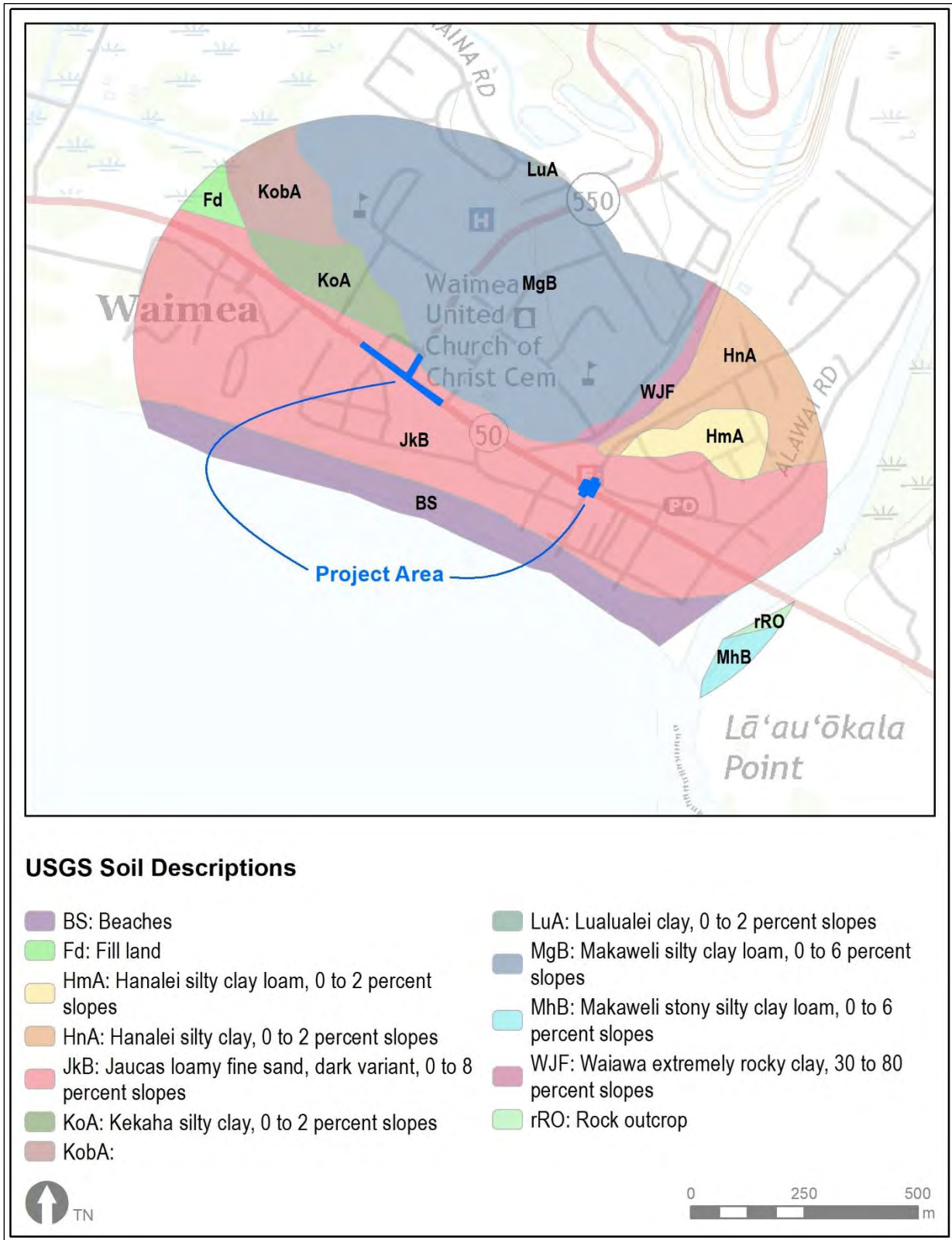


Figure 6. Soil Units Near the Project Area in Waimea Ahupua'a.

1 The project area is situated in the neighboring *'ili*¹ of Kīkīāola, on the west, and Pe'ekaua'i,
2 on the east. Hawaiian legends associated with this portion of Kaua'i are related to the *'auwai*
3 (irrigation ditch) named Kīkīāola ("container [acquired] by [Chief] 'Ola" [Pukui et al. 1974:110]),
4 which is more commonly known as Menehune Ditch, the namesake of its builders (see Kaiwi
5 1917:114 -118). The impressive *'auwai* carried water around the cliff 24 feet above the Waimea
6 River (Handy and Handy 1972:270), and fed a network of *lo'i* (irrigated taro terrace) below the
7 cliff. Bennett (1931) recorded this as Site 26 (State Inventory of Historic Places [SIHP] 50-30-09-
8 0026) during his survey of the island:

9 The noted Menehune ditch (Site 26) is the acme of stone-faced ditches. The problem was
10 that of carrying the water, at a high level, around the corner of a jutting cliff. An added
11 difficulty was the necessity of placing the base of the causeway in the river itself where it
12 was constantly in danger of being washed away by a freshet. It is the Menehune ditch
13 alone that has any record preserved of its construction—and that is a myth [Bennett
14 1931:23–24].

15 The legend of the *'auwai* construction was recorded by Christopher B. Hofgaard in the
16 early 1900s for the *Kauai Historical Society* and is relayed by Bennett (Hofgaard N.D. in Bennett
17 1931:24). The story tells of how the Menehune (a legendary race of small people) were hired by
18 the landowner, Pi, to prepare the stones and construct the *'auwai*.

19 When the time came, he went to the point where the dam was to be built and waited. At
20 the dead of the night he hears the noise and hum of the voices of the Menehunes, on their
21 way to Kīkīāola, each of whom was carrying a stone. The dam was fully constructed, every
22 stone fitting in its proper place, and also the stone *auwai*, or water-course, laid round the
23 band at Kīkīāola. Before the break of day the work was completed and the water of the
24 Waimea River turned in by the dam into the water-course and through the same on to the
25 flats at Waimea [Hofgaard N.D. in Bennett 1931:24].

26 After the work was finished, Pi fed each Menehune a single shrimp. As they left to return
27 to their mountain home, they hummed and rejoiced so loudly a saying came to be: "Wawa ka
28 Menehune i Puukapele ma Kauai, puohu na manu o na loko o Kawainui ma Koolaupoko, Oahu—
29 The hum of the voices of the Menehunes at Puu Ka Pele, Kauai, startled the birds at the pond of
30 Kawainui at Koolaupoko, Oahu" (Hofgaard N.D. in Bennett 1931:24).

31 TRADITIONAL LAND USE

32 Much of what is known of traditional land use comes from ethnohistorical accounts of
33 visitors to Waimea beginning with Captain James Cook. Archaeological evidence is limited due
34 to historic and modern activities, such as commercial sugarcane cultivation and development of
35 Waimea Town (Mills 2005:49). Of the few radiocarbon dates for this portion of Kona District, the
36 earliest was yielded from Waimea Town and ranges from A.D. 1000-1275 (Hammatt and Ida 1993
37 in O'Hare et al. 2015:51). The following section presents several descriptions of Waimea during
38 the late eighteenth and early nineteenth centuries.

39 Captain James Cook anchored in Waimea Bay on January 20, 1778. After a visit to land,
40 Cook and Lieutenant James King recorded land descriptions in their log. King noted roughly 60
41 grass thatched houses west of the Waimea River along the coast and around 40 more inland
42 (Cook 1813:205; Handy and Handy 1972:408). It was estimated that more than 2,000 individuals
43 greeted their arrival (Rickman 1781:217). Cook wrote of the *lo'i*:

44 The greatest part of the ground was quite flat, with ditches full of water intersecting different
45 parts, and roads that seemed artificially raised to some height. The interspaces were, in

¹ Traditional land division smaller than an *ahupua'a*.

1 general, planted with taro, which grows here with great strength, as the fields are sunk below
2 the common level, so as to contain the water necessary to nourish the roots. This water
3 probably comes from the same source, which supplies the large pool from which we filled our
4 casks [Cook 1813:187].

5 At this time, King also noted the soil and other varieties of cultivation:

6 The soil of the Valleys is of a blackish colour intermix'd with sand, & the ground about the
7 Village is cut with ditches of Water intersecting in different parts & roads which are carv'd &
8 seem artificially made. In the dryer places were plantations of Plantains and the paper
9 mulberry trees, kept very clean and in good order, there were but few Coconut trees & those
10 small, with fewer bread fruit trees: The Soil of the higher ground was of a red colour'd stiff
11 consistence & very good, but almost void of cultivation: there are now & then spaces of Potatoe
12 beds & sugar cane, which however are generally in the Valleys. This higher ground is doubt
13 less capable of cultivation, for the grass was very high ; & we observ'd for a considerable e
14 extent it is clear of woods ; this district they call Wy'maia, the Island Atoui ; the larger one to
15 the 'Westward, Neehow . . . & the smaller one Oreehoua & one we saw to Windw. Hoahoo
16 [Handy and Handy 1972:409].

17 In the late eighteenth century, Captain George Vancouver arrived in the Hawaiian Islands.
18 He was impressed with the irrigated agricultural system at Waimea. A map from 1885, shown in
19 Figure 7, illustrates a large area of *lo'i* northeast of the project area at today's Menehune and
20 Halepule Road and Kaumuali'i Highway intersection. Vancouver wrote the first western account
21 of Menehune Ditch:

22 As we proceeded, our attention was arrested by an object that greatly excited our admiration,
23 and at once put an end to all conjecture on the means to which the natives resorted for the
24 watering of their plantations. A lofty perpendicular cliff now presented itself, which, by rising
25 immediately from the river, would effectually have stopped our further progress into the
26 country, had it not been for an exceedingly well constructed wall of stones and clay about
27 twenty-four feet high, raised from the bottom by the side of the cliff, which not only served as
28 a pass into the country, but also as an aqueduct, to convey the water brought thither by great
29 labour from a considerable distance; the place where the river descends from the mountains
30 affording the planters an abundant stream, for the purpose to which it is so advantageously
31 applied. This wall, which did no less credit to the mind of the projector than to the skill of the
32 builder, terminated the extent of our walk; from whence we returned through the plantations
33 whose highly improved state impressed us with a very favorable opinion of the industry and
34 ingenuity of the inhabitants [Vancouver 1801:376–377].

35 When British Captain Nathaniel Portlock arrived at Waimea in 1786, Kā'eokūlani, who had
36 been ruling regent of Maui and Moloka'i, ruled Kaua'i and Ni'ihau with his wife Kamakahahei. Their
37 son, Kaumauali'i, was later the last *ali'i nui* of Kauai'i and Ni'ihau before Kamehameha I unified
38 the Hawaiian Islands (Bingham 1855:42; Kuykendall 1938:39). While Wailua was the main royal
39 residence on the island (Bennett 1930:57; Bennett 1931:96), seasonal royal residences were
40 present at Waimea Village (Bingham 1855:242; Cox 1975:5). Portlock noted these large homes
41 during his visit:

42 Being on shore: myself, with my old friend Abbenooe, I observed in the village of Wymoa,
43 about three hundred yards from the beach, a firing of four or five houses, tolerably, large
44 in very good order, with-out inhabitants; on- my asking. Abbenooe the reason of their being-
45 tabooed, he. informed me that they were houses built for the king, whenever he honoured
46 Wymoa with a visit, and that no persons whatever were allowed the use of them in his
47 absence [Portlock 1789:189–190].

48

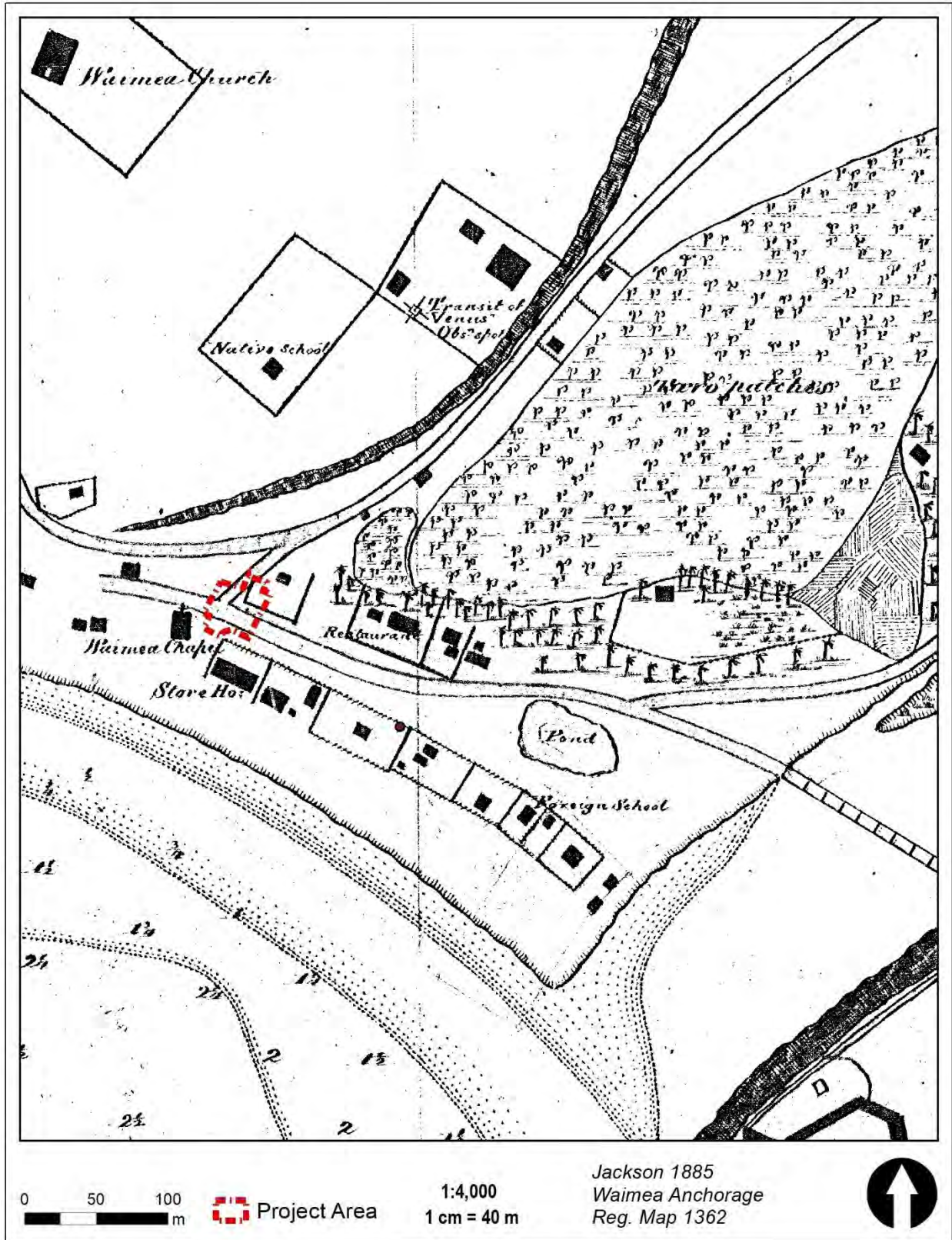


Figure 7. Portion of Map of Waimea Anchorage Illustrating *Lo'i* Northeast of the Project Area at Today's Menehune and Halepule Road and Kaumuali'i Highway (Jackson 1885).

1 **POST-CONTACT HISTORY**

2 Traditional land divisions of the fifteenth and sixteenth centuries persisted until the 1848
3 Māhele, which introduced the concept of private property into Hawaiian society (Kamakau
4 1991:54). During the Māhele, the Land Commission required the Hawaiian chiefs and *konoiki*
5 (land agent for the *alii*) to present their claims to the Land Commission. In return they were
6 granted awards for the land quit-claimed to them by Kamehameha III. The remaining unclaimed
7 land was then sold publicly, “subject to the rights of the native tenants” (Chinen 1958:29). The
8 new western system of ownership resulted in many losing their land. Often claims would be made
9 for discontinuous cultivated plots with varying crops, but only one parcel would be awarded.

10 In Waimea Ahupua‘a, more than 150 *kuleana* awards were granted (Kamai et al.
11 2015a:27). Of these, fifteen claims were awarded in Kīkīāola ‘Ili and more than 50 claims were
12 awarded in Pe‘ekaua‘i ‘Ili. The current project area is situated within and adjacent to Crown Land
13 and several LCAs, which were primarily house lots, or *pahale*. Those nearest to the project area
14 are listed in Table 1. Maps from the early twentieth century, shown in Figures 8 and 9, illustrate
15 the location of LCA parcels in relation to the project area.

16 Missionaries began arriving in Waimea in the early nineteenth century. In 1926, there was
17 both flooding and an influenza epidemic in Waimea (Joerger and Streck 1979:10; Kamakau 1992:
18 274). The flood caused extensive damage to both the *lo‘i* and the newly constructed western
19 structures built by the missionaries. Over the next few decades, the population in Waimea area
20 declined dramatically until the 1870s (Schmitt 1977:13).

Table 1. Land Commission Award Parcels near the Project Area.

LCA	Awardee	Description
387:2	American Sandwich Island Mission	House lot with pasture land
2290, 6674, 9903, 3021	Kaipō, Milieke, and Koolau	House lot
2960	D. Oleloa	House lot
3353:3	Nawaalau	House lot
5362:2	Naumu	House lot
6638	Namokuliu	House lot called “Keonepoko”
7713:42	V. Kamamalu	Kīkīāola ‘Ili

21 During the second half of the nineteenth century, agriculture shifted in Waimea from taro
22 to rice and sugar cultivation. *Lo‘i* were converted to commercial rice fields beginning in the 1860s,
23 often leased by Chinese immigrants (Coulter and Chun 1937:62; Cozad 2008:45; Thrum
24 1877:49). In 1878, Valdemar Knudsen and Christian L’Orange began the first commercial sugar
25 cane production in the Waimea area at Kekaha near Pōki‘i (Condé and Best 1973:141). At its
26 height, Kekaha Sugar Company spanned all of the district, less the *kuleana* lands, from Nu‘alolo
27 to Waimea (Kamai et al. 2015a:31–32).

28 In 1880, the Waimea Sugar Mill Company was established by Conrad and Borghrevink.
29 This estate was much smaller than Kekaha Sugar Company and comprised 200 acres leased
30 from the missionary George Rowell (Soboleski 2015:199). The following is a reminiscence from
31 the son of George Rowell, William E. Rowell, who was born in Hanalei in 1845 and moved to
32 Waimea when he was one year old:

33 With regard to the Waimea Mill Co., the mill, as I remember it, was established and run by the
34 Honolulu Iron Works Co. and Conrad and Borghrevink were planters, and then finally when

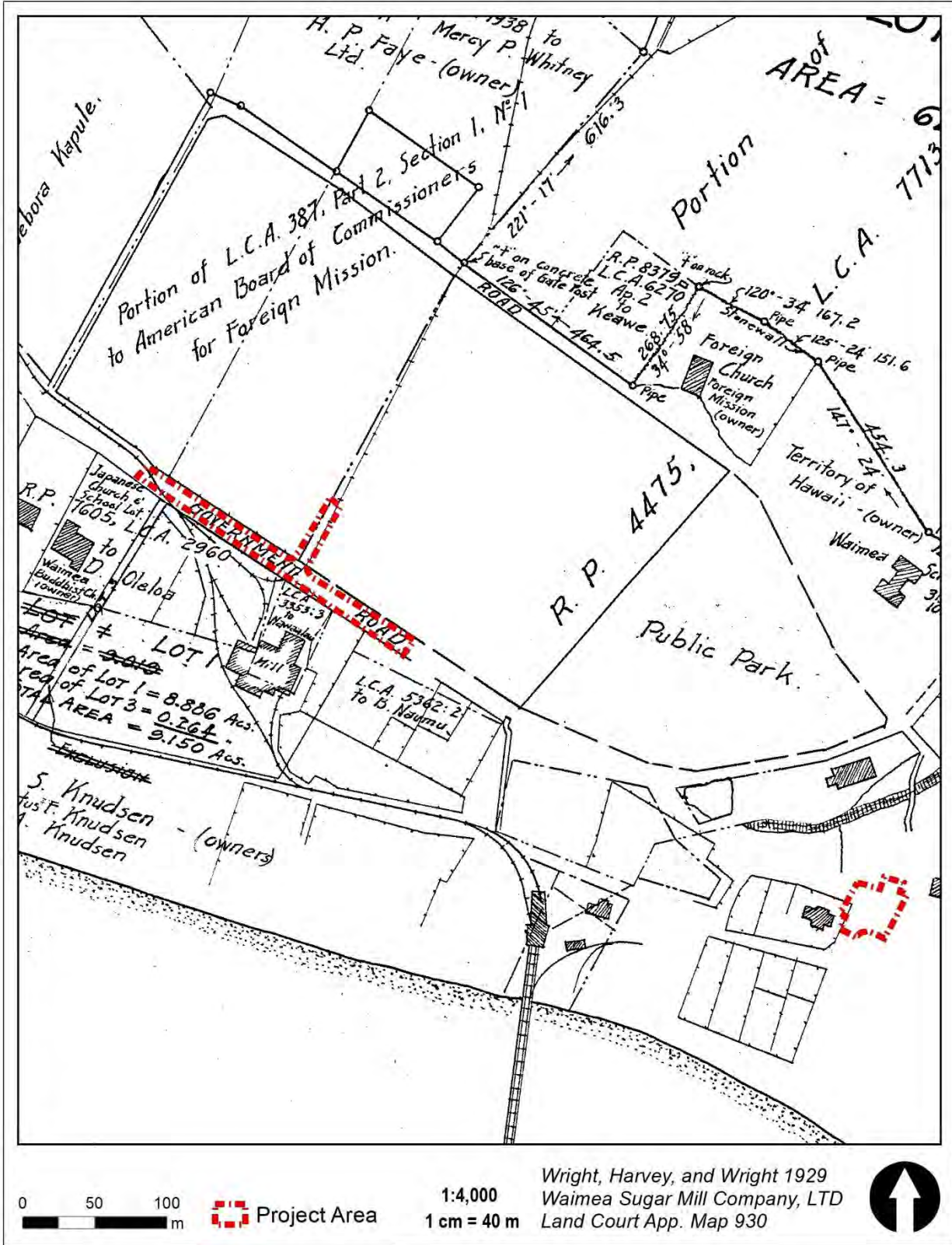


Figure 8. Portion of Land Court Application Map Showing LCA Parcels Near the Project Area at Today's Waimea Canyon Road and Kaumuali'i Highway (Wright, Harvey, and Wright 1929).

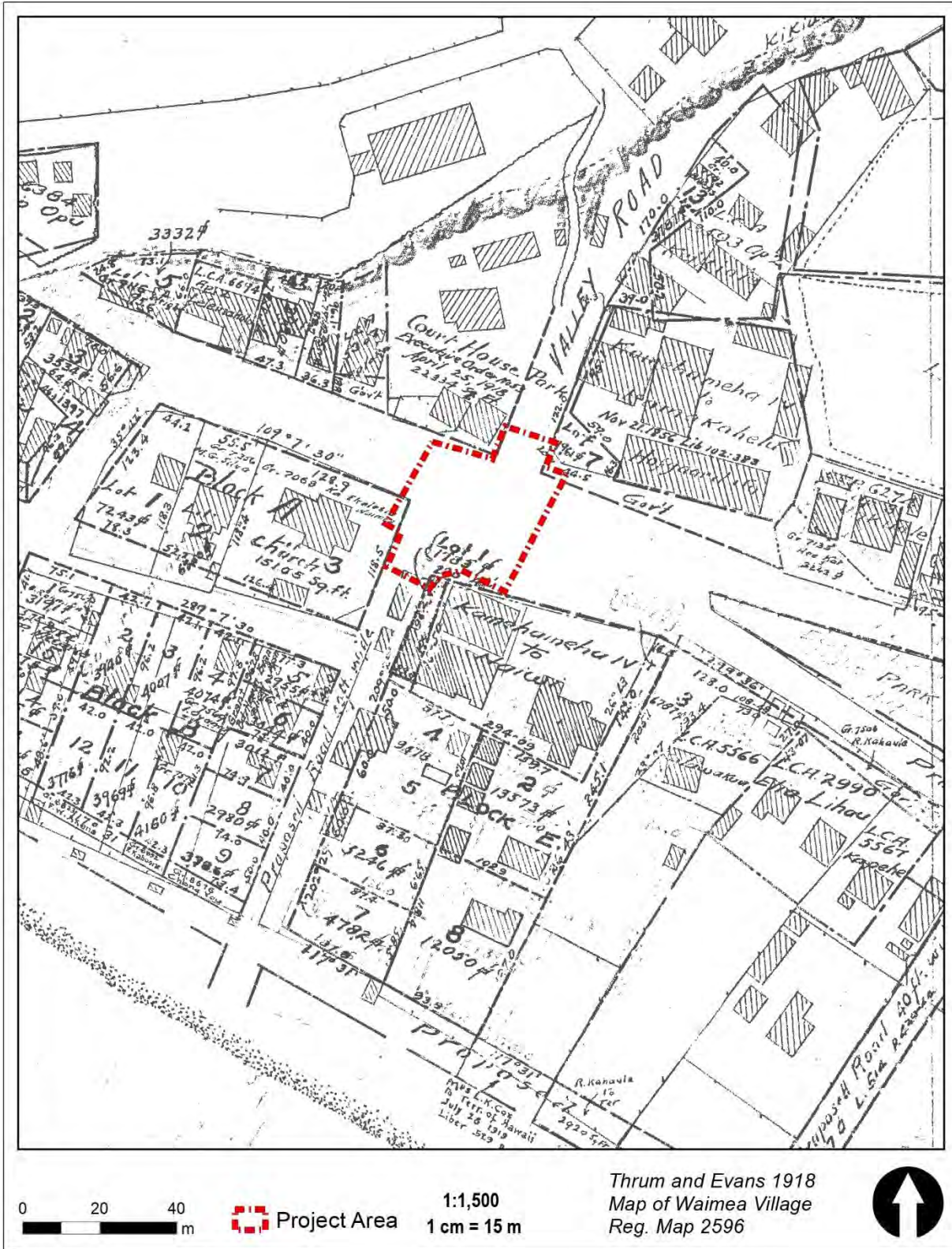


Figure 9. Portion of Map of Waimea Village Showing LCA Parcels Near the Project Area at Today's Menehune and Halepule Road and Kaumuali'i Highway (Thrum and Evans 1918).

1 the planters failed, the Waimea Mill Co. was formed to handle the whole business. The land
2 belonged mostly to my mother, and was leased to the planters in the first instance, and then
3 to the Mill Co. Yes, I was one of the large stockholders, was president for some time, but
4 strange to say, I can't recall how I got my stock, but one thing I am clear about, I haven't got it
5 now [Lydgate 1991:96].

6 The project area at Waimea Canyon Road is immediately north of the former sugar mill
7 and south of the fields, as shown in Figure 10. The mill was constructed and operated by W.D.
8 Schmidt. In 1903, Waimea Ditch was constructed, which carried water four miles from Waimea
9 River to the plantation and replaced the use of brackish water for irrigation (Soboleski 2015:200).
10 The following year, H.P. Faye, a manager at Kekaha Sugar Company, bought the land owned by
11 Rowell and gained controlling interest in the Waimea Sugar Mill Company. In the following years
12 several improvements were made to the operation: the Waimea Ditch was realigned and flumes
13 were replaced with tunnels; the seashore marsh was drained to increase acreage; a railroad was
14 built; and the mill was reconstructed. The railroad ran through the project area at Waimea Canyon
15 Road and Kaumuali'i Highway, connecting the fields, mill, and wharf (see Figure 8). These
16 improvements, along with a higher yielding cane, heavy fertilization, ratoon planting, and
17 mechanization, led to the operation being one of the more modern and efficient in Hawai'i
18 (Soboleski 2015:200). By 1935, 530 acres were under cultivation. The Waimea Sugar Mill
19 Company operated until 1969, at which time Kekaha Sugar Company leased the land.

20 As for rice, it was not a successful crop in the Waimea area, and beginning in the 1930s
21 the fields were being reclaimed for sugar cultivation (Hammatt 2008:27). From the end of the
22 nineteenth century on, the population of Waimea grew (Schmitt 1977:13) and the area saw a
23 boom in development with the rise of sugar, followed by tourism (Coffin 1930:48).

24 PREVIOUS ARCHAEOLOGY

25 Several archaeological investigations have been conducted both in and near the two
26 project area intersections. Previous work has included archaeological reconnaissance and
27 inventory survey, assessment, subsurface testing, and monitoring. Specific to the current project,
28 an Archaeological Literature Review (ALR) was conducted for the proposed Kaumuali'i Highway
29 Intersection Improvements, which recommended the preparation of this monitoring plan (Vernon
30 and Clark 2020). Numerous human burials have been recorded within a 500 m radius of the
31 project area, though none have been recorded within the current project area. The following
32 section focuses on previous archaeological work conducted within approximately 500 m of the
33 current project area in order to compare previous findings of land use. The locations of these past
34 investigations and identified sites² are presented in Figure 11. Table 2 summarizes the previous
35 work, while a detailed discussion is presented for projects with significant findings in the
36 immediate vicinity of the project area. For a broader summary of work in Waimea the reader is
37 referred to O'Hare et al. (2015) and Kamai et al. (2015a).

38 In the 1930s, W. C. Bennet surveyed archaeological sites on Kaua'i Island (Bennett 1931).
39 The only site recorded within 500 m of the project area was Pe'ekauai (Menehune) Ditch, which
40 was documented as Site 26 (SIHP 50-30-09-00026) (Bennett 1931:105–107).

41 During archaeological monitoring in 1975 for construction of the Waimea Town Sewerage
42 System, nine human burials and scattered human remains were inadvertently discovered (Cox
43 1975). At this time, Waimea Town center was designated SIHP 50-30-05-03250, which included
44 a human burial. The eight other burials were designated SIHP 50-30-05-03251 through -03256.
45 Two cultural deposits were also recorded, which were designated SIHP 50-30-05-03244 and –

² All site numbers follow State Inventory of Historic Places (SIHP) Site 50-30-

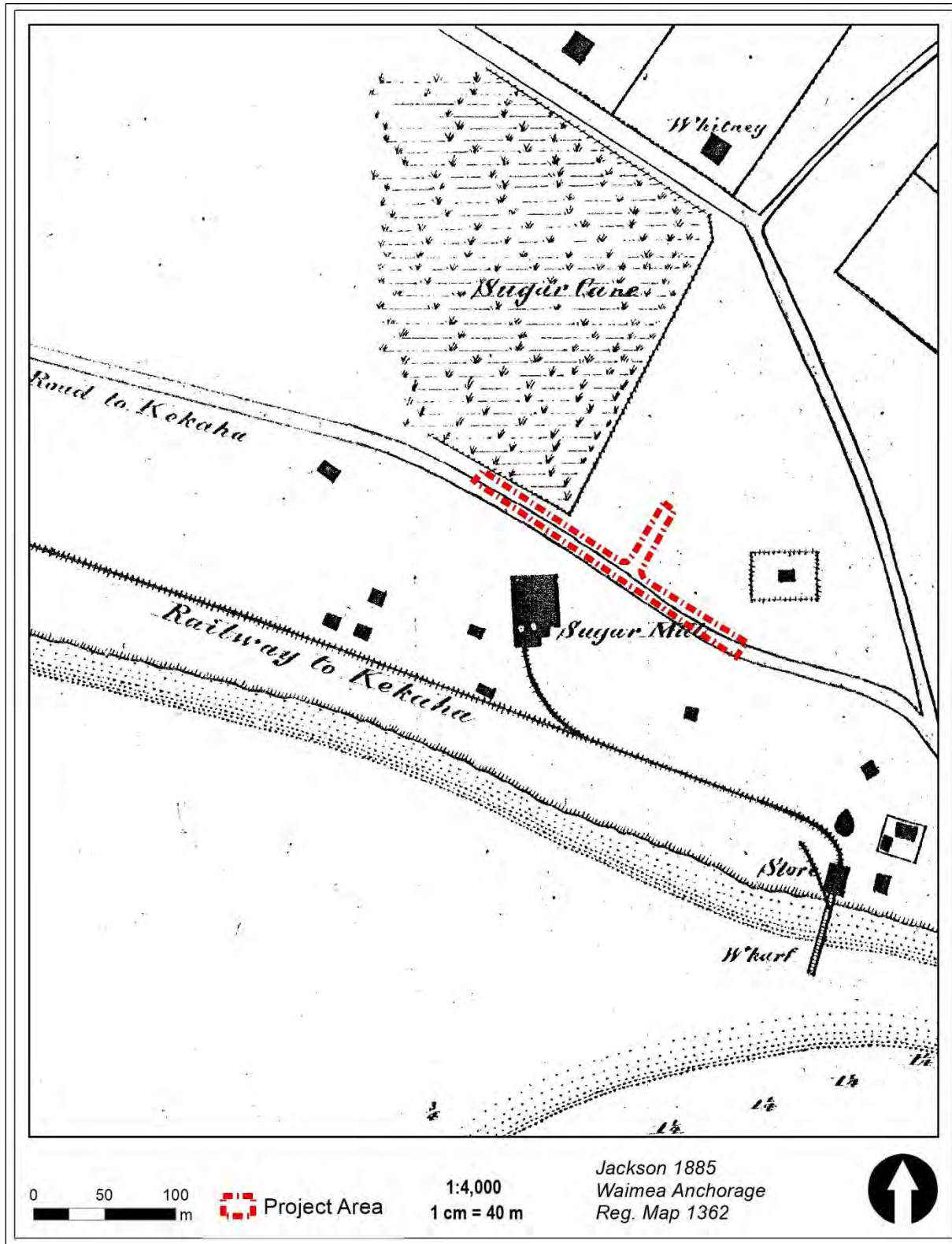


Figure 10. Portion of Historic Map Showing Waimea Sugar Mill Company Fields and Mill Near the Project Area at Today's Waimea Canyon Road (Jackson 1885).

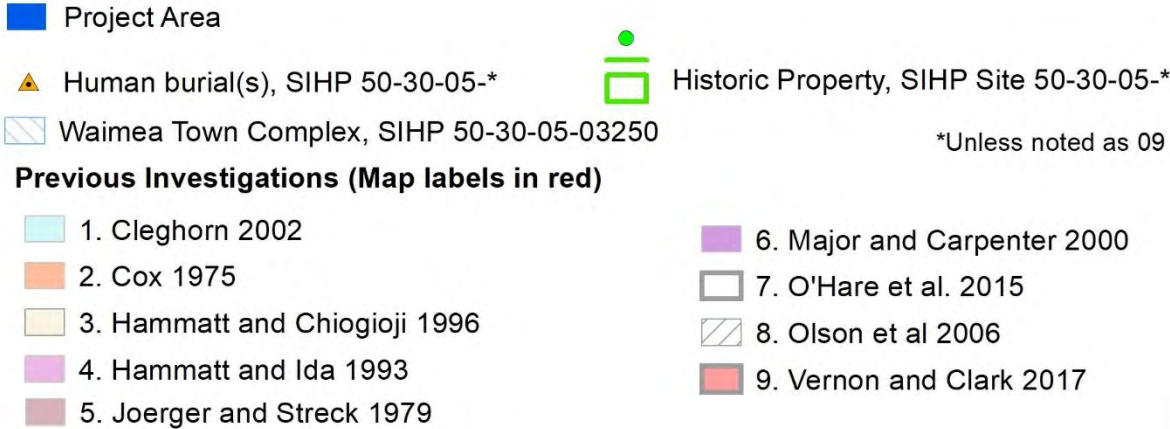
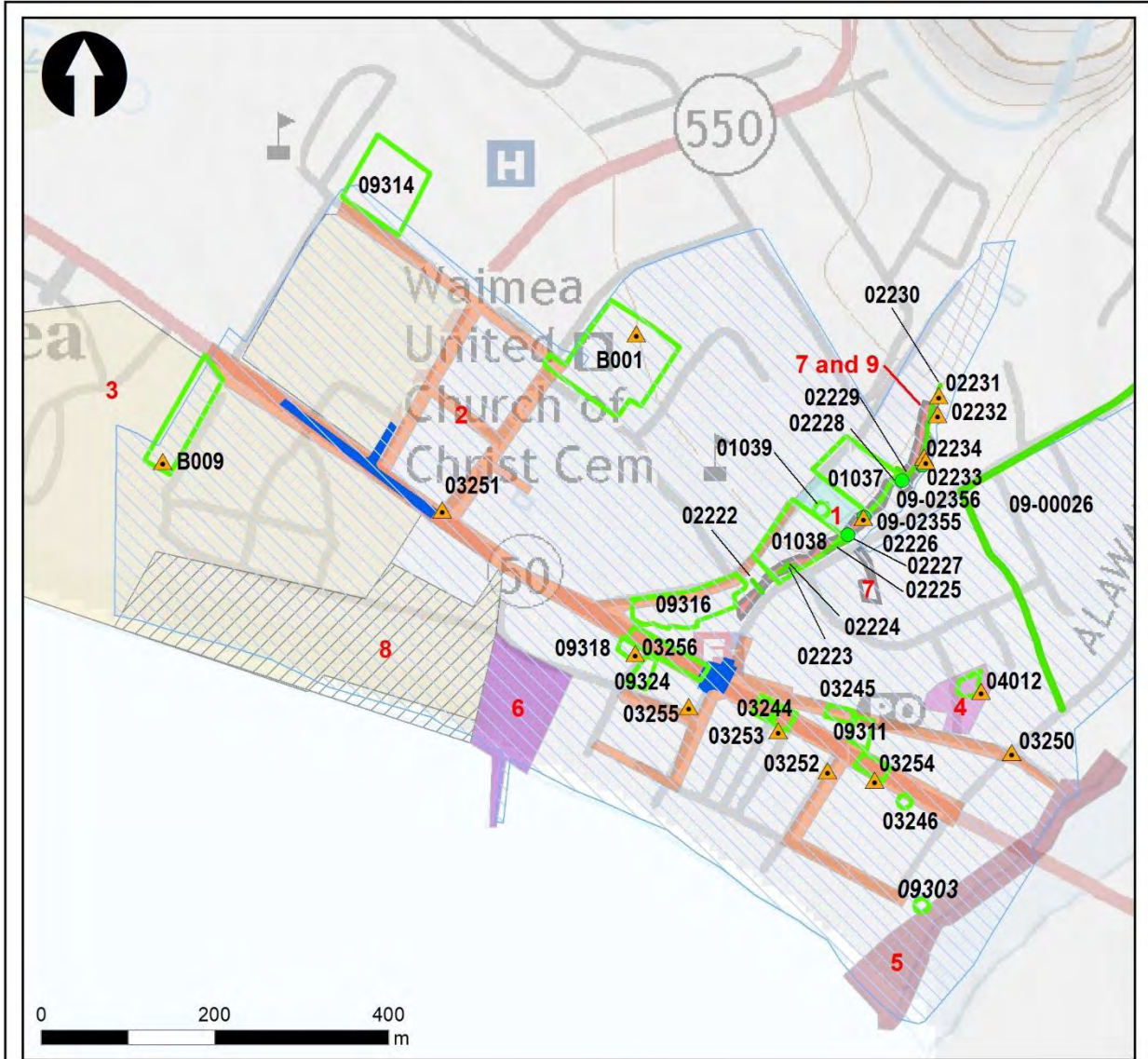


Figure 11. Previous Archaeological Investigations and Identified Historic Properties within .5 km of the Project Area.

Table 2. List of Previous Archaeological Studies and Finds within 500 Meters of the Project Area.

Author & Year	TMK(s) or Location	Nature of Study	SIHP* Site 50-30-	Results
Bennett 1931	Island-wide	Survey	09-00026	Pe'ekaua'i Ditch (Menehune Ditch)
Cox 1975	Streets throughout Waimea Town	Monitoring	05-03244 and 05-03245 05-03246 05-03250 05-03251–03256	Cultural deposits Historic house platform Waimea Town Complex and human burial Nine human burials found during monitoring along several Waimea Town roads
Joerger and Streck 1979	Waimea River Bank	Reconnaissance survey	-	Exposed soil stratigraphy on west bank of Waimea River near the mouth showed recent fill
Kikuchi and Remoaldo 1992	Statewide	Cemeteries of Kaua'i	05-B001	Waimea Hawaiian Church and Cemetery
Hammatt and Ida 1993	(4) 1-2-005:082	Inventory survey	05-04012	Cultural layer (AD 1000–1275) and human burial
Hammatt and Chiogioji 1996	Kikiaola Lands	Archaeological assessment	-	Noted two historic cemeteries, Waimea Plantation Cottages, and Waimea Mill building
Major and Carpenter 2000	(4) 1-6-007:001	Subsurface testing	-	-
Cleghorn 2002	(4) 1-6-010:002	Inventory survey	05-01037 05-01038 05-01039	Waimea Parsonage Waimea Dispensary Transit of Venus marker
Olson et al. 2006	(4) 1-6-008:001	Assessment with subsurface testing	-	-

Table 2. List of Previous Archaeological Studies and Finds within 500 Meters of the Project Area.

Author & Year	TMK(s) or Location	Nature of Study	SIHP* Site 50-30-	Results
O'Hare et al. 2015	(4) 1-6-003:056; 1-6-005:017; 1-6-010:001-003	Inventory survey	05-02222	Historic wall
			05-02223	Historic remnant wall
			05-02224	Remnant historic building foundation
			05-02225	Historic remnant wall
			05-02226	Historic incinerator
			05-02227	Historic building foundation
			05-02228	Historic remnant wall
			05-02229	Historic remnant wall
			05-02230	Historic wall
			05-02231	Cave with human burial
			05-02232	Cave with human burial
			05-02233	Possible human burial in cave
			05-02234	Low mound/possible human burial
			Vernon and Clark 2017	(4) 1-6-003:056 and 1-6-010:001-003
05-02234	Low mound/possible human burial; retaining wall and terrace			
09-02355	Low mound/possible human burial			
09-02356	Bell stone			

*SIHP (State Inventory of Historic Places)

1 03245. Finally, a historic stone house platform was recorded off of Kaumuali'i Highway, which
2 was designated SIHP 50-30-05-03246.

3 Site 03251 is situated on the corner of Makeke Road and Kaumuali'i Highway, adjacent
4 to the project area, as shown in Figure 12. The following description is from Cox (1975:14–15):

5 A single adult: Probably an extended burial. Only feet to upper legs excavated, remainder
6 was left in situ. Discovered about July 2 or 3, 1975 by construction crew, before the
7 Archaeological Research Center Hawaii, Inc. was brought on this project.

8 Location: On Makeke Road, above (*mauka*; inland of) Kaumuali'i Highway; adjacent to tax
9 map key parcel number (4)1-6-009; 20 feet north of Sewer Manhole A-17, 5 feet west of
10 pipe, centerline, about 5 feet below existing road surface.

11 The disturbed portion of the remains were reburied as near to the original location as
12 possible, i.e., just off the edge of the trench. This reburial took place during back fill
13 operations on or about the 3rd or 7th of July. This find has been assigned site number 30-
14 05-3251.

15 In the early 1990s, Cultural Surveys Hawai'i (CSH) conducted subsurface testing in a 1.0-
16 acre parcel in Waimea Town (Hammatt and Ida 1993). A prehistoric cultural layer, (SIHP 50-30-
17 05-04012) was recorded at 100 cm below ground surface. Radiocarbon-dated charcoal from the
18 cultural layer yielded a date range of A.D. 1000 to 1275. A probable prehistoric burial was also
19 recorded and designated as Site 04012.

20 Pacific Legacy, Inc. conducted an archaeological inventory survey of a 69.7 square meter
21 parcel on Menehune Road (Cleghorn 2002). Three historic properties were recorded: the Waimea
22 Parsonage (SIHP 50-30-05-01037); the Waimea Dispensary (SIHP 50-30-05-01038 [Feature 1]);
23 and the Transit of Venus Marker (SIHP 50-30-05-01039).

24 In 2014, CSH conducted an archaeological inventory survey in support of the Menehune
25 Road Rockfall project along the cliff edge at Menehune Road and a small area to the southeast
26 (O'Hare et al. 2015). A total of 12 historic properties were recorded. These properties included
27 four walls and two retaining walls (SIHP 50-30-05-02222, -02223, -02225, and -02228–2230), two
28 structural base remnants (SIHP 50-30-05-02224 and -02227), a low mound (SIHP 50-30-05-
29 02234), an incinerator (SIHP 50-30-05-02226 [Site 02226]), and two burial caves (SIHP 50-30-
30 05-02232 and -02233). With the exception of SIHP 50-30-05-02232, which dates to the pre-
31 Contact period based on the artifacts observed on the cave floor, all sites date to the historic
32 period. Additionally, SIHP 50-30-05-02231, a burial cave, was identified (O'Hare et al. 2015:54).
33 According to the project's rockfall mitigation measures, Sites 02223, 02224, 02230, 02232, 02233,
34 and 02234 were covered with metal mesh netting, while Sites 02222, 02225, 02226, 02227,
35 02228, and 02229 were partly or completely destroyed during installation of the metal mesh
36 netting. As a result of these findings, CSH prepared an Archaeological Monitoring Plan (Kamai
37 et al. 2015a), a Burial Site Component of a Preservation Plan (BSCPP-for Sites 02231, 02232,
38 02233, and 02234 (Kamai et al. 2015b), and a Burial Treatment Plan (BTP).

39 Pacific Consulting Services, Inc. (PCSI) conducted archaeological monitoring of various
40 ground disturbing activities associated with implementing rockfall mitigation measures along
41 Menehune Road in 2017 (Vernon and Clark 2017). This project overlapped with a majority of the
42 area surveyed by CSH, which was described in the preceding paragraph (see O'Hare et al. 2015).
43 A total of five new historic properties were recorded during the course of the monitoring project.
44 These sites include a mound/possible burial marker, designated as Feature 2 of Site 2234; a rock
45 retaining wall and terrace, designated as Feature 3 of Site 02234; a mound/possible burial marker,
46

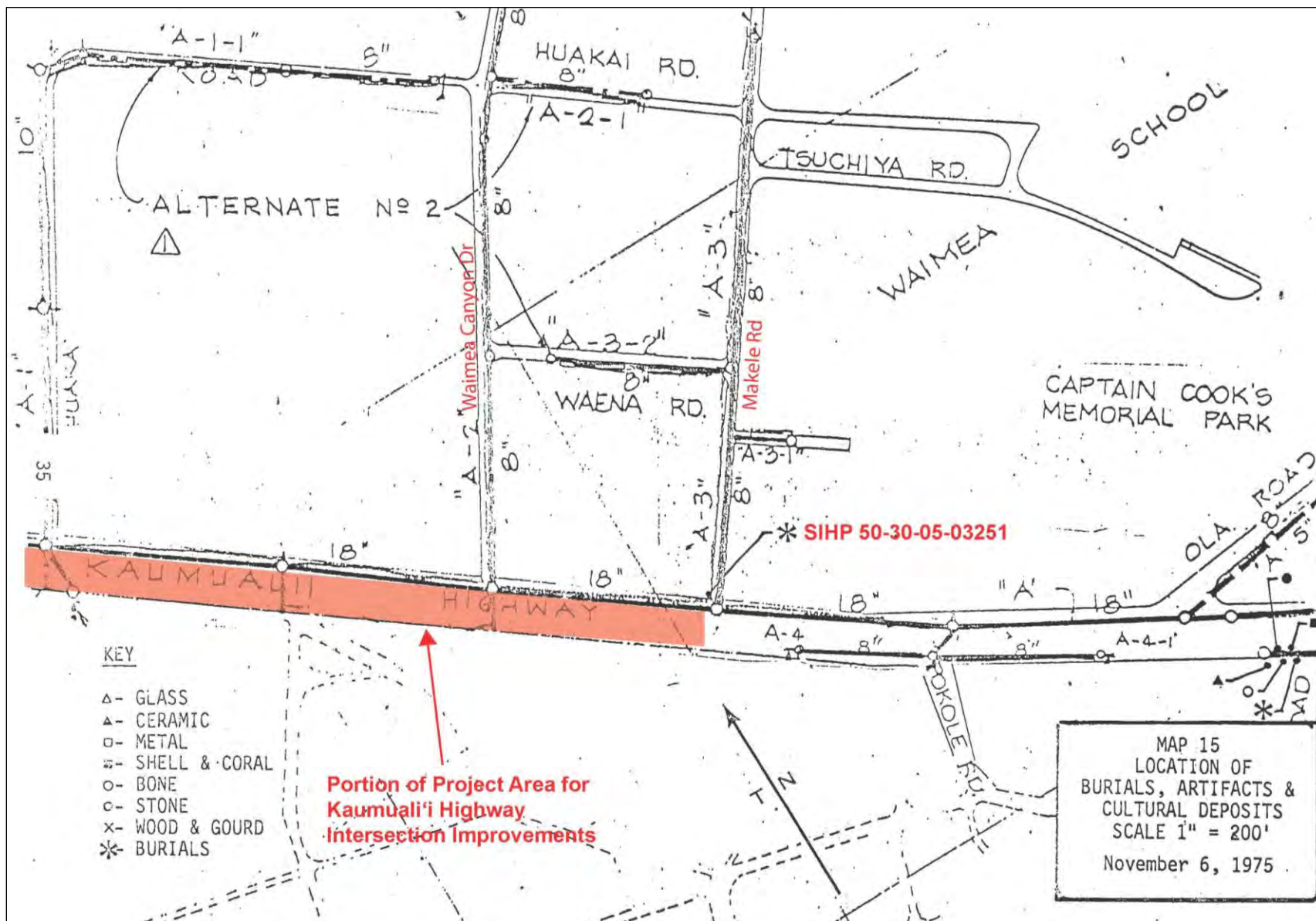


Figure 12. Map From Cox (1975:35) Showing Location of SIHP 50-30-05-03251 in Relation to the Current Project Area.

1 designated as Site 02355; a deposit of historical refuse, designated as Feature 2 of Site 01038,
2 associated with the Waimea Dispensary; and a bell stone designated as Site 02356.

3 **HISTORIC STRUCTURES NEAR THE PROJECT AREA**

4 Several historic structures listed on both the Hawai'i and the National Register of Historic
5 Places are near the current project area. All of these structures are also included in SIHP 50-30-
6 05-03250, which is the Waimea Town Complex. The following structures are listed on both the
7 Hawai'i and National Register of Historic Places: the Cook Landing Site (SIHP 50-30-05-09303);
8 the historic Bishop National Bank (SIHP 50-30-05-09311); the Gulick-Rowell House (SIHP 50-30-
9 05-09314); the Waimea Educational Center (50-30-05-09316); and the Yamase Building (SIHP
10 50-30-05-09318). Additionally, the Masuda Building (SIHP 50-30-05-09324) is near the project
11 area, which is listed on the Hawai'i Register of Historic Places.

12 **ANTICIPATED HISTORIC PROPERTIES IN THE PROJECT AREA**

13 Several archaeological sites were previously identified along Kaumuali'i Highway in
14 Waimea Town. Burial sites include nine human burials and scattered human remains designated
15 SIHP 50-30-05-03251 through -03256, which were recorded by Cox (1975) during monitoring of
16 construction of the Waimea Town Sewerage System. Based on these previous findings, it is
17 anticipated that similar historic properties (burials and subsurface cultural deposits) could possibly
18 be present in the project area. Nearest to the current project area is Site 03251, a burial
19 encountered on the northwest corner of Makeke Road and Kaumuali'i Highway, just outside the
20 project area, and Site 03256, a burial and cultural deposit situated along Kaumuali'i Highway west
21 of Menehune Road and Halepule Road.

22 **ARCHAEOLOGICAL MONITORING METHODS**

23 This section details the extent of monitoring and the methods and procedures to be
24 employed during field and laboratory work. All archaeological monitoring activities will be
25 conducted in compliance with Chapter 6E, HRS, HAR Chapter 13-279 (*Rules Governing*
26 *Standards for Archaeological Monitoring Studies and Reports*).

27 **PROJECT PERSONNEL**

28 A senior archaeologist, qualified under Hawai'i Administrative Rules (HAR) § 13-281, will
29 serve as principal investigator (PI) for the project. The PI will be responsible for overall project
30 organization and quality assurance for field and laboratory work and report content. The
31 archaeological monitor will have satisfactory fieldwork experience in Hawai'i or have completed
32 adequate college-level coursework in Anthropology and Hawaiian Archaeology.

33 **EXTENT OF ARCHAEOLOGICAL MONITORING**

34 The archaeologist(s) will conduct on-site monitoring of all ground-disturbing activities that
35 penetrate below previously disturbed fills and base course within the road prism (Table 3). At
36 Waimea Canyon Drive and Kaumuali'i Highway intersection, activities requiring archaeological
37 monitoring include trenching for drain lines and electrical duct lines; installation of light poles,
38 traffic meter pedestals, and traffic signal standards; and road pavement excavations. Installation
39 of new pavement will require excavation to a depth of 63.5 cmbs (24 in) or more, depending on
40 existing base course depth. Light pole and traffic signal standard installation will require
41 excavations to a minimum of 183 cmbs (6.0 ft). Excavations for traffic meter pedestals will reach
42 a depth of 63.5 cm (24.0 in) or greater. Excavations for electrical lines will reach up to 107.0 cmbs
43 (42.0 in). Excavation depth for drain lines will exceed 122 cmbs (4.0 ft). Excavation depth for

1 signage will exceed 63.5 cmbs (24.0 inches). Striping will also be replaced, which does not require
 2 ground disturbance; no archaeological monitoring is required for this activity.

3 At Menehune Road and Halepule Road along Kaumuali'i Highway the project area is the
 4 intersection, which measures 1.274 ha (.315 ac). Proposed work is limited to striping; no ground
 5 disturbing work will occur at this intersection; no archaeological monitoring is required for this
 6 activity.

Table 3. List of Ground-Disturbing Activities Requiring Archaeological Monitoring.

Proposed Ground-Disturbing Activity ¹	Estimated Excavation Depth	On-Call/On-Site Monitoring Necessary
Drain Line Trenching	At least 122.0 cmbs ² (4.0 feet)	Yes; On-site
Electrical Duct Line Trenching	Up to 107.0 cmbs (42.0 inches)	Yes; On-site
Light Pole Installation	At least 183 cmbs (6.0 feet)	Yes; On-site
Road Pavement Excavation	63.5 cmbs (25.0 inches)	Yes; On-site
Traffic Signal Standard	At least 183 cmbs (6.0 feet)	Yes; On-site
Traffic Meter Pedestal	At least 63.5 cmbs (25.0 inches)	Yes; On-site

1. below previously disturbed fills and base course within the road prism
2. *cmbs = centimeters below surface

7 **PRE-CONSTRUCTION CONFERENCE**

8 Before ground-disturbing work begins at the project area, the on-site archaeologist will
 9 explain to the entire construction crew what materials may be encountered and the procedures to
 10 follow if archaeological materials are found, as well as the role of the archaeological monitor. At
 11 this time it will be made clear that the archaeological monitor must be on-site for these ground-
 12 disturbing activities (see Table 3) and that the archaeologist has the authority to stop work
 13 *immediately*, if necessary.

14 **HALTING OF EXCAVATION ACTIVITY**

15 The monitoring archaeologist has the authority to halt construction in the vicinity of any
 16 find so that the provisions of this AMP can be carried out. The consulting archaeological firm will
 17 make it clear to the construction personnel that the archaeologist has the authority to halt work
 18 when it is deemed appropriate.

19 **MONITORING METHODS**

20 The archaeological monitor will closely observe all soil removal activities (e.g., grading
 21 and trenching). Following monitoring of soil removal, trench faces will be examined for cultural
 22 material and subsurface features. If any archaeological materials are encountered during the
 23 monitoring of ground-disturbing activities, work will be stopped immediately in that area and the
 24 monitoring archaeologist will investigate the nature of the discovery. Photographs of excavations
 25 and the stratigraphic sequences will be documented and included in the report even if no
 26 historically significant sites are documented during the field work.

27 The archaeological monitor will compile daily monitoring logs. These logs will minimally
 28 include a description of daily activities, sites or features recorded, personnel on-site, and problems
 29 encountered and corrective action taken.

1 **TREATMENT OF HISTORIC SITES AND DEPOSITS**

2 If an intact cultural layer, living surface, structural components (e.g., foundations),
3 archaeological subsurface features (e.g., hearths, pits, postholes, etc.), artifacts, charcoal or
4 midden deposits or trash pits are encountered, then the following actions will be taken:

- 5 • Selected, sorted charcoal samples will be collected for the possibility of radiocarbon
6 analysis (particularly if the charcoal appears in a prehistoric context). Charcoal
7 samples will be subject to taxa identification prior to submittal for radiocarbon analysis.
- 8 • In situ cultural layers and pit features will be sampled and matrix will be screened
9 through 1/4- or 1/8-inch wire mesh.
- 10 • Bulk samples of midden (faunal/floral material) if present will be collected.
- 11 • All prehistoric artifacts will be collected.
- 12 • All historic artifacts will be collected unless large trash or refuse pits are encountered,
13 in which case a sample of diagnostic artifacts will be collected (which will result in a
14 biased sample). Historic artifacts not collected will be documented in the field with
15 photographs containing scales and will be quantified and described
- 16 • Standard documentation will be carried out, including to-scale maps, profiles,
17 photographs, detailed soil and provenience descriptions, and interpretation.

18 **TREATMENT OF HUMAN REMAINS**

19 If human remains are identified, work will immediately stop in that locale, and the SHPD
20 and DOT will be notified immediately of the find. No further work will take place in that locale—
21 including screening of back dirt, cleaning and/or excavation of the burial area, or exploratory work
22 of any kind—unless explicitly requested by the SHPD.

23 Any human skeletal remains identified during monitoring shall be treated as an inadvertent
24 discovery and be dealt with in accordance with Chapter 6E-43 of the Hawaii Revised Statutes
25 (HRS) and HAR § 13-300-40.

26 **LABORATORY WORK**

27 Laboratory work will be conducted in accordance with HAR Chapter 13-279 (*Rules*
28 *Governing Standards for Archaeological Monitoring Studies and Reports*). Artifacts will be
29 catalogued and analyzed, along with any samples of midden materials that have been collected.
30 Charcoal and other datable materials will be submitted for dating analysis, provided samples were
31 collected in situ from prehistoric contexts that show no signs of intermixing with historic materials;
32 e.g., charcoal obtained from distinct fire features in solely pre-Contact deposits. Charcoal from
33 undisturbed traditional contexts may be submitted to a specialist for identification to taxon and
34 then, if the material is short-lived and native, submitted to a specialized laboratory for dating
35 analysis.

36 **REPORT PREPARATION**

37 Following completion of fieldwork, a draft Archaeological Monitoring Report (AMR)
38 compliant with HAR Chapter 13-279 will be prepared and submitted to the SHPD/DLNR for
39 review.

40 **DISPOSITION OF MATERIALS**

41 All field records, maps, photographs, and related documents and archaeological materials
42 will be temporarily curated at the consulting archaeologist's firm. Final disposition of these records
43 and related materials will be determined in consultation with the land owner and the SHPD.

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21 Services, Box 25286, Denver, Colorado.
- 22 2017b *U.S. Geological Survey 7.5 minute topographic map, Kekaha Quad*. Available at U.S.
23 Geological Survey Maps/U.S. Department of War Maps, USGS Information Services,
24 Box 25286, Denver.
- 25 Vancouver, George
26 1801 *A Voyage of Discovery to the North Pacific Ocean and Round the World*. Vol. I. John
27 Stockdale, London.
- 28 Vernon, Nicole I. and Stephan D. Clark
29 2017 *Archaeological Monitoring Report in Support of Menehune Road Rockfall Mitigation,*
30 *Waimea Ahupua'a, Kona District, Island of Kaua'i, Hawai'i, TMKs: (4) 1-6-003:056*
31 *and 1-6-010:001–003*. Prepared by Pacific Consulting Services, Inc., Honolulu.
- 32 Vernon, Nicole I, and Stephen D. Clark
33 2020 *Archaeological Literature Review Report in Support of Kaumuali'i Highway*
34 *Intersection Improvements, Waimea Ahupua'a, Kona District, Island of Kaua'i,*
35 *Hawai'i, Adjacent TMKs: (4) 1-6-005, 1-6-007, 008, and 009 various parcels.*
36 Prepared by Pacific Consulting Services, Inc.
- 37 Wagner, W.L., D. R. Herbst, and S. H. Sohmer
38 1990 *Manual of the Flowering Plants of Hawai'i*. University of Hawai'i and Bishop Museum,
39 Presses, Honolulu.
40
41

**APPENDIX A: CHAPTER 6E-8 REVIEW LETTERS FROM THE STATE HISTORIC
PRESERVATION DIVISION**

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DAVID Y. IGE
GOVERNOR OF
HAWAII



**STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES**

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

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

ROBERT K. MASUDA
FIRST DEPUTY

JEFFREY T. PEARSON, P.E.
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

March 20, 2018

Larry Dill, P.E.
Hawai'i Department of Transportation
Highways Division, Kaua'i District
1720 Haleukana Street
Lihue, Hawai'i 96766
Email: Lawrence.j.dill@hawaii.gov

IN REPLY REFER TO:
Log No.: 2017.01913
Doc. No.: 1803SH04
Archaeology

Dear Mr. Dill:

**SUBJECT: Chapter 6E-8 Historic Preservation Review –
Consultation for Kaunualii Highway Intersection Improvements Project
at Waimea Canyon Drive and Menehune Road/Halepule Road
Ref. No. HWY-K 4.170379, Federal-Aid Project No. 50B-01-14
Poki'ikauna Ahupua'a, Waimea District, Island of Kaua'i
TMK: (4) 1-6-005, 1-6-007, 008, 009**

The State Historic Preservation Division (SHPD) received a consultation letter dated August 24, 2017 from the State of Hawaii Department of Transportation (HDOT) for the Kaunualii Highway Intersection Improvements Project at Waimea Canyon Drive and Menehune Road/Halepule Road. SHPD received this submittal on August 28, 2017.

The HDOT is responsible for conducting the Hawaii State Historic Preservation process. Per HAR §13-275-3 HDOT shall provide SHPD with information as to the number of historic properties within a proposed project area, their significance, the impact of the proposed project on the historic properties, and any proposed mitigation measures. Within 90 days of receipt of adequate information SHPD will provide a written response which either concurs or does not concur with HDOT's effect determination for a proposed project.

For SHPD to provide a letter of determination the following steps, described in greater detail in HRS §13-275, must be completed and submitted concurrently:

- 1) Identification and inventory, to determine if historic properties are present in the project's area and, if so, to identify and document them;
 - a. The agency shall first consult with SHPD to determine if the area proposed for the project needs to undergo an inventory survey to determine if historic properties are present. This shall include a tax map key for the parcel or parcels involved and a map to locate and define the boundaries of the project area;

*To aid in SHPD's review, include an account of the research materials and/or repositories referenced in order to ensure the agency conducted a best faith effort to identify known or potential historic properties in the project area.
- 2) Evaluation of significance;
 - a. If a historic property is identified, an assessment of significance shall occur. The agency shall make this assessment or delegate this assessment in writing. This assessment shall be made by someone meeting the Secretary of the Interior's professional qualification standards;

- b. Prior to submission of significance evaluations for properties, other than architectural properties, the agency shall consult with ethnic organizations or members of the ethnic group for whom some of the historic properties may have significance under criterion "e" to seek their views on the significance evaluations;
 - c. The concurrence of the SHPD is required before significance is finalized. The assessment shall 1) present a table which lists each historic property and identifies all applicable criteria of significance for each property, 2) provide justification for classifying the property within these criteria and 3) provide evidence of any consultation shall be submitted with the assessment to include, a description of the consultation process used, a list of the individuals or organizations contacted, and a summary of the views and concerns expressed;
 - d. If there is an agreement that none of the historic properties are significant, then historic preservation review ends and SHPD shall issue its written concurrence in the form of a "no historic properties affected" determination;
 - e. When significant historic properties are present, then impacts of the proposed action on these properties shall be assessed, and mitigation commitments shall be devised as needed.
- 3) Effect determination;
- a. The effects of a project shall be determined by the agency. Effects include direct as well as indirect impacts. One of the following effect determinations must be established:
 - (a) "No historic properties affected"
 - (b) "Effect, with proposed mitigation commitments"
- 4) Mitigation commitments, committing to acceptable forms of mitigation in order to properly handle or minimize impacts to significant properties;
- a. If a project will have an effect on significant historic properties, then a mitigation commitment proposing the form of mitigation to be undertaken for each significant property shall be submitted by the agency to the SHPD for review and approval. See HAR §13-275-8 for a description of the five forms of mitigation that can occur.
 - b. If historic properties with significance, so evaluated under criterion "e" are involved, the agency shall consult with ethnic organizations or members of the ethnic group for whom the historic properties have significance under criterion "e" to seek their views on the proposed forms of mitigation.
 - c. The proposed mitigation commitment shall include 1) a table of the significant historic properties, indicating which form or forms of mitigation is proposed for each property 2) brief text justifying these proposed treatments and 3) if properties deemed significant under paragraph §13-275-6 (b) (5) are involved, a description of the consultation process used, a list of the individuals and organizations contacted, and a summary of the views and concerns expressed.

The SHPD looks forward to receiving HDOT's submittal meeting the requirements of HRS §13-275 for the proposed project.

The HDOT is the office of record for this undertaking. Please maintain a copy of this letter with your environmental review record for this undertaking.

Please contact Stephanie Hacker, Oahu Archaeologist, at (808) 692-8046 or at Stephanie.Hacker@hawaii.gov for matters regarding archaeological resources or this letter.

Aloha,

Alan Downer

Alan S. Downer, PhD
Administrator, State Historic Preservation Division
Deputy State Historic Preservation Officer

DAVID Y. IGE
GOVERNOR OF
HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
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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

February 20, 2020

Larry Dill, P.E.
District Engineer, Kaua'i Highways Division
State of Hawai'i Department of Transportation
1720 Haleukana Street
Lihue, Hawai'i 96766
Email: Lawrence.J.Dill@hawaii.gov

IN REPLY REFER TO:
Log No.: 2019.01268
Doc. No.: 2002SH12
Archaeology

Dear Larry Dill:

**SUBJECT: Chapter 6E-8 Historic Preservation Review –
Request for Concurrence with the Effect Determination
Kaumuali'i Highway Intersection Improvements at Waimea Canyon
Drive and Menehune Road/Halepule Road
Ref. No. HWY-K 4.190117, Project No. 50B-01-14
Waimea Ahupua'a, Kona District, Island of Kaua'i
TMK: (4) 1-6-005, 008, and 009 various parcels**

The State Historic Preservation Division (SHPD) received a letter dated June 3, 2019 from the State of Hawai'i Department of Transportation (HDOT) to request the State Historic Preservation Officer's (SHPO's) concurrence with the Chapter 6E effect determination for the Kaumuali'i Highway Intersection Improvements at Waimea Canyon Drive and Menehune Road/Halepule Road project on the island of Kaua'i. The SHPD received this submittal on June 3, 2019. Submitted with HDOT's letter was a draft archaeological report in support of the proposed project titled, *Archaeological Literature Review Report in Support of Kaumuali'i Highway Intersection Improvements, Waimea Ahupua'a, Kona District, Island of Kaua'i, Hawai'i Adjacent TMKs: (4) 1-6-005, 008, and 009 Various Parcels* (Vernon and Clark, November 2018).

According to the draft Archaeological Literature Review (ALR) report, the proposed project is located at two discontinuous intersections in Waimea Town on the leeward side of Kaua'i. The scope of work includes improvements at the intersection of Waimea Canyon Drive and at Menehune Road and Halepule Road along Kaumuali'i Highway; all work will be conducted in the State of Hawai'i owned rights-of-way. The project area measures 4.047 hectares (1.0 acre). The portion of the project area located at the intersection of Menehune Road and Halepule Road measures 1.274 hectares (0.315 acre). The proposed work at this location is limited to striping and no ground disturbing work will occur at this intersection. The portion of the project area located at Waimea Canyon Drive and the Kaumuali'i Highway intersection measures 2.773 hectares (0.685 acre) and extends from Waimea Canyon drive east to Makeke Road and west to the driveway for the Waimea Technology Center.

Proposed ground disturbing work includes demolishing, removing, and replacing sections of asphalt pavement, concrete sidewalks, curbs, various catch basins and drain lines; relocating existing signage; and installing new traffic signal standards, traffic meter pedestals, light poles, and signage. Installing new pavement will require excavation to a depth of 63.5 centimeters below surface (cmbs) (24 inches) or more, depending on the depth of the existing base course. Light pole and traffic signal standard installation will require excavations to a minimum of 183 cmbs (6.0 feet). Excavations for traffic meter pedestals will reach a depth of 63.5 centimeters (cm) (24.0 in) or greater. Excavations for electrical lines will reach up to 107.0 cmbs (42.0 in). The depth of excavation for drain lines will

exceed 122 cmbs (4.0 ft). The depth of excavation for signage will exceed 63.5 cmbs (24.0 inches). Striping will also be replaced, which does not require ground disturbance.

The identification efforts reported in the ARL found that several archaeological sites were previously identified along Kaunuaui Highway in Waimea Town, although no historic properties have been identified within the project area. The portion of the project area at Waimea Canyon Drive was formerly adjacent to the Waimea Sugar Mill Company's fields, mill, and railroad. Prior to the sugar production era, several LCAs were present to the north and south of the project area intersections, along the former road that led from Waimea Village to Kekaha. Records indicate these LCAs primarily consisted of house lots.

Also identified near the project area are burial sites and scattered human remains, designated State Inventory of Historic Places (SIHP) Nos. 50-30-05-03251 through 50-30-05-03256, recorded by Cox (1975) during monitoring of the construction of the Waimea Town Sewerage System. Based on these previous findings, it is anticipated that similar historic properties (burials and subsurface cultural deposits) could possibly be present in the project area. Of the two project area locations, archaeological sites and human burials appear more concentrated near the Menehune Road and Halepule Road intersection, which is not a location where ground disturbance will occur during the current project. One human burial was recorded by Cox (1975) just outside the project area intersection at Waimea Canyon Drive.

Although no historic properties have been identified within the project area, the ALR notes there is a low to moderate potential to encounter intact subsurface historic properties. The ALR recommends archaeological monitoring guided by an SHPD-approved Archaeological Monitoring Plan.

HDOT's effect determination for the proposed project is "Effect, with proposed mitigation commitments." The proposed mitigation is archaeological monitoring during all ground disturbance conducted during the proposed project. The **SHPO concurs** with the effect determination and proposed mitigation.

Please submit a draft archaeological monitoring plan meeting the requirements of HAR §13-279-4 for SHPD's review and approval prior to the start of the proposed project.

Although the ALR report does not fulfill the requirements of an archaeological inventory survey as specified in Hawai'i Administrative Rules (HAR) §13-276, it serves to facilitate project planning and supports the historic preservation review process. The SHPD requests HDOT please send two hardcopies of the document, clearly marked FINAL, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library. Additionally, when submitting the electronic version, please copy Lehua.k.Soares@hawaii.gov.

The HDOT is the office 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 or at (808) 692-8046 for matters regarding archaeological resources or this letter.

Aloha,
Alan Downer

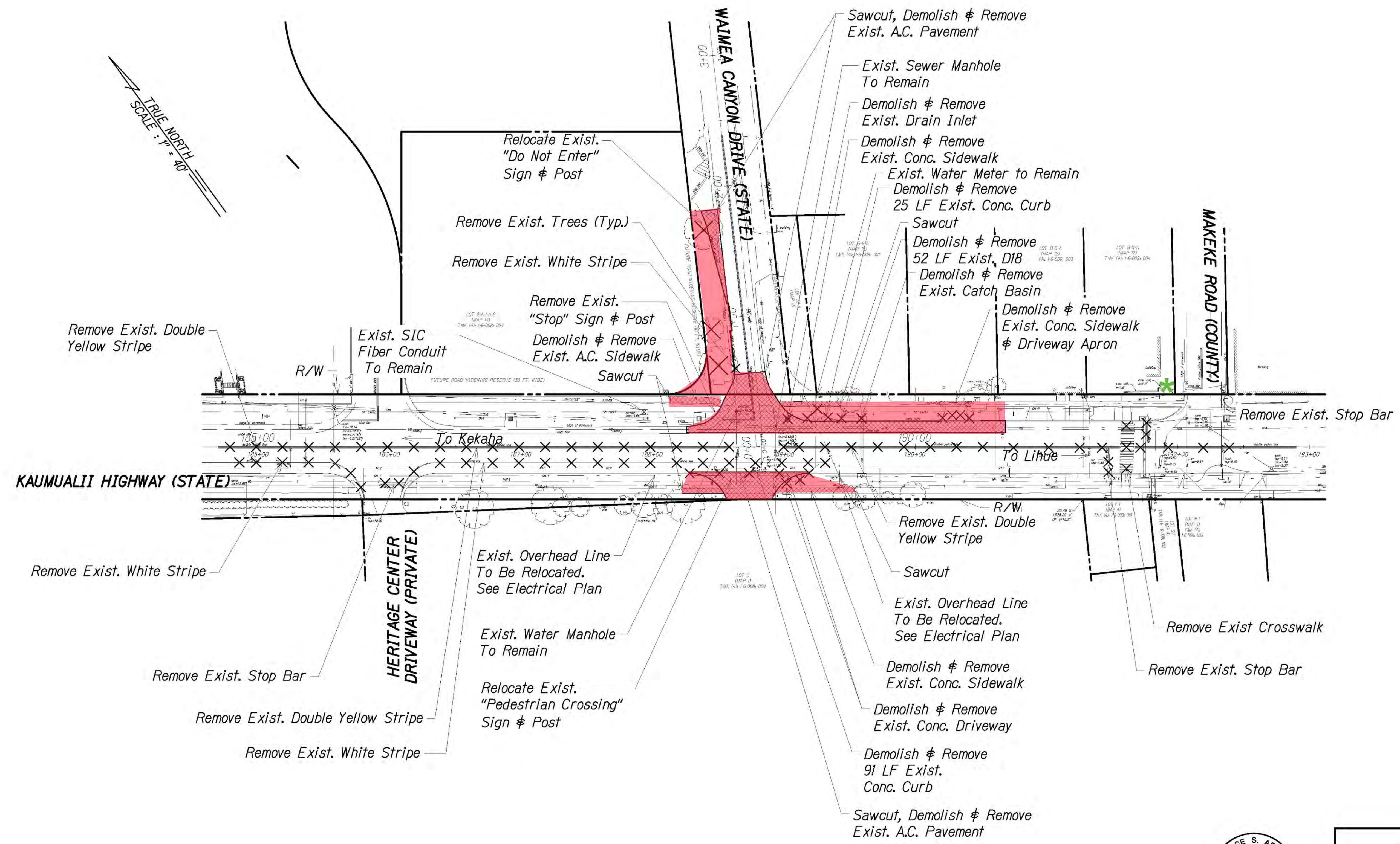
Alan S. Downer, PhD
Administrator, State Historic Preservation Division
Deputy State Historic Preservation Officer

cc: Jeff Aguinaldo, HDOT (jeff.j.aguinaldo@hawaii.gov)

**APPENDIX B: MODIFIED DESIGN PLANS HIGHLIGHTING LOCATIONS OF GROUND
DISTURBANCE**

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DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	50B-01-14	2020	11	44



NOTE:
 All Exist. Pavement Markings To Be Removed Shall Be Eradicated Completely. Exist. Stripe Should Not Be Seen After Eradication. Seal Eradication Area With Seal Coat Or Approved Equal. Acceptance Based On Engineers Approval.

Location of Ground Disturbance

Approximate Location of SIHP 50-30-05-03251

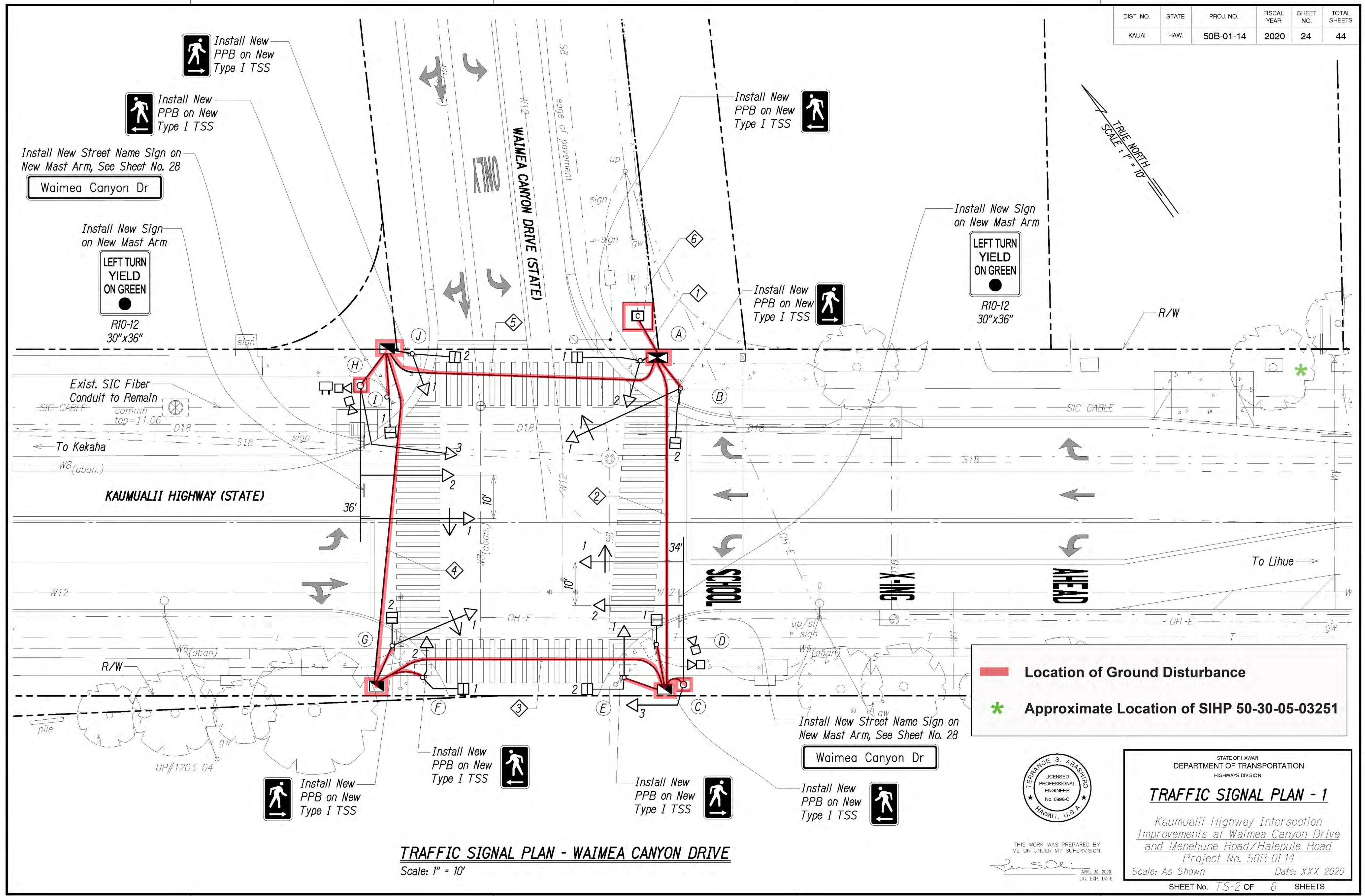
SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 APRIL 30, 2020
 LIC. EXP. DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
DEMOLITION PLAN
WAIAMEA CANYON DRIVE
Kaumualii Highway Intersection Improvements at Waiamea Canyon Drive and Menehune Road/Halepule Road
 Project No. 50B-01-14
 Scale: As Shown Date: XXX 2020
 SHEET No. D-1 OF 1 SHEETS

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	50B-01-14	2020	24	44



SURVEY PLOTTED BY	DATE
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

TRAFFIC SIGNAL PLAN - WAIMEA CANYON DRIVE
 Scale: 1" = 10'

Location of Ground Disturbance

Approximate Location of SIHP 50-30-05-03251



STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

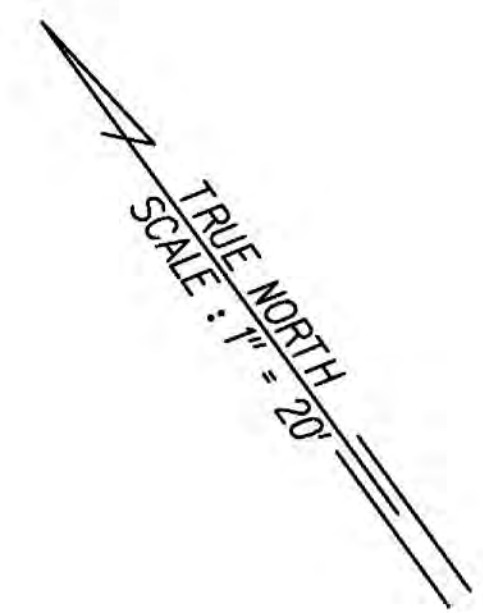
TRAFFIC SIGNAL PLAN - 1

Kaumualii Highway Intersection Improvements at Waimea Canyon Drive and Menehune Road/Halepule Road
 Project No. 50B-01-14

Scale: As Shown Date: XXX 2020

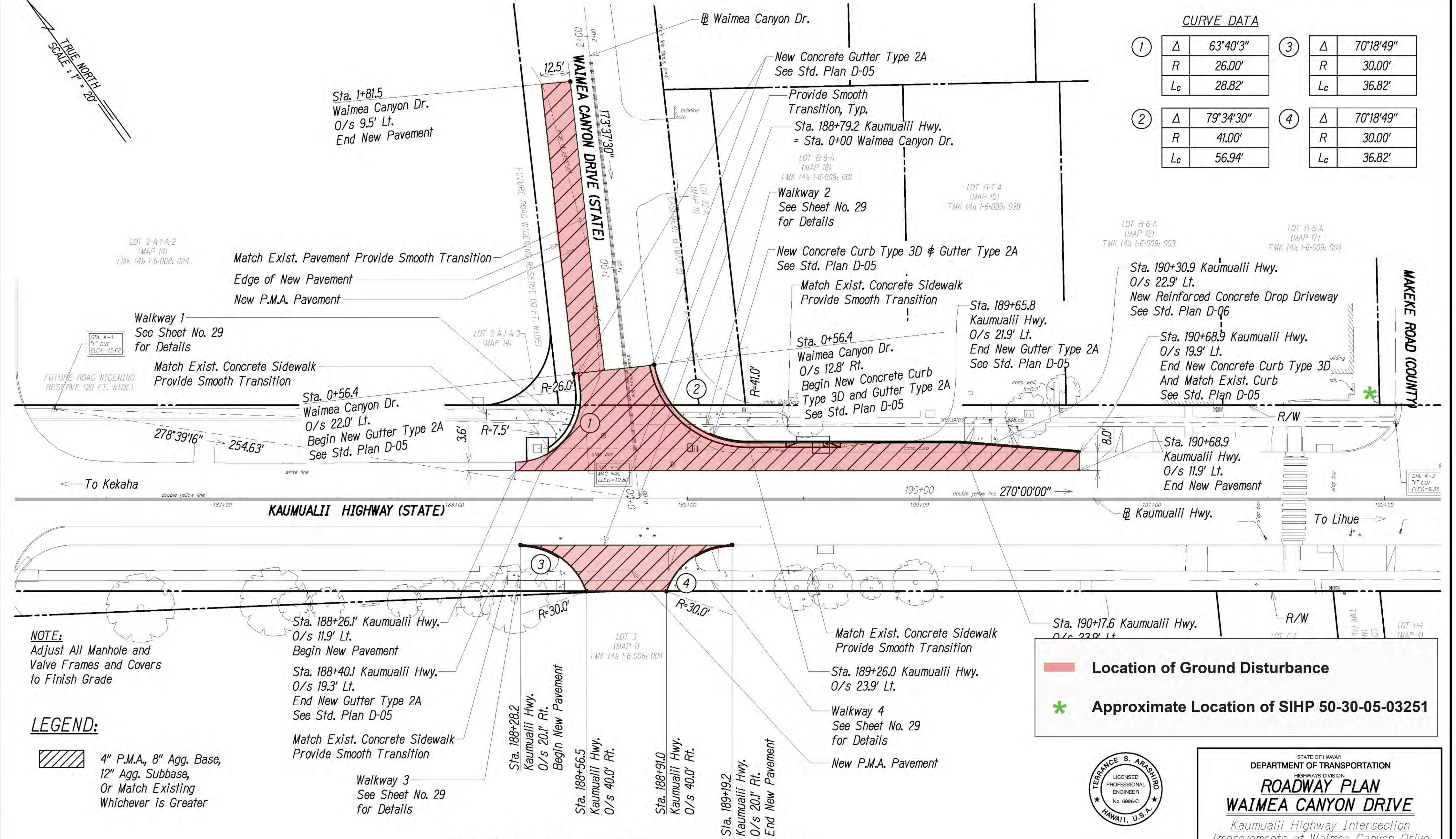
SHEET No. TS-2 OF 6 SHEETS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 APR 30, 2020
 LIC. EXP. DATE



CURVE DATA

①	Δ	63°40'3"	③	Δ	70°18'49"
	R	26.00'		R	30.00'
	Lc	28.82'		Lc	36.82'
②	Δ	79°34'30"	④	Δ	70°18'49"
	R	41.00'		R	30.00'
	Lc	56.94'		Lc	36.82'



NOTE:
Adjust All Manhole and Valve Frames and Covers to Finish Grade

LEGEND:
 4" P.M.A., 8" Agg. Base, 12" Agg. Subbase, Or Match Existing Whichever is Greater

Location of Ground Disturbance
 Approximate Location of SIHP 50-30-05-03251

SURVEY PLOTTED BY	DATE
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

ROADWAY PLAN - WAIMEA CANYON DRIVE
Scale : 1" = 20'



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ROADWAY PLAN
WAIMEA CANYON DRIVE
Kaumualii Highway Intersection
Improvements at Waimea Canyon Drive
and Menehune Road/Halepule Road
Project No. 50B-01-14
Scale: As Shown Date: XXX 2020
SHEET No. RP-1 OF 1 SHEETS