

DRAFT
ARCHAEOLOGICAL MONITORING PLAN FOR
GUARDRAIL AND SHOULDER IMPROVEMENTS
AT VARIOUS LOCATIONS, KAUAI, PART 6

Wailua Ahupua‘a, Puna District, Island of Kaua‘i

TMK: (4) 4-1-003 and (4) 4-1-004

Hanalei, Lumaha‘i and Wainiha Ahupua‘a, Halale‘a District, Island of Kaua‘i

TMK: (4) 5-4-003, (4) 5-7-003, (4) 5-8-006, (4) 5-8-007 and (4) 5-8-012

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INTRODUCTION

This Archaeological Monitoring Plan (AMP) is in support of the State of Hawaii Department of Transportation (HDOT) proposed guardrail and shoulder improvements project located on the island of Kauaʻi. The proposed project addresses replacing/upgrading existing guardrail, guardrail end treatments and reflector markers in 56 discontinuous locations along Route 50, Kaumualii Highway, Route 540, Halewili Road, Route 51, Kauaʻi Veterans Memorial Highway, Route 580, Kuamoʻo Road and Route 560, Kūhiō Highway. This work will bring the highway hardware into compliance with the new Federal Highway Administration (FHWA) safety regulations.

This HDOT project is receiving funding from the Federal Highway Administration and requires compliance with Section 106 of the National Historic Preservation Act and the Hawaiʻi Administrative Rules Chapter 6E Historic Preservation Review Process. The Section 106 Area of Potential Effects (APE) and the Chapter 6E project area are synonymous and under HDOT ownership.

The APE has been previously disturbed during grading and road construction within the State Highway Right-of-Way (ROW). The proposed guardrail replacement work will be installed in existing locations set within the ROW. Staging areas will be on previously graded, developed, and paved areas within the ROW or within adjacent driveways. Mechanical removal and installation of guardrail posts and reflector marker posts will require ground disturbing activity in areas sensitive for subsurface archaeological resources.

This AMP was prepared as a precautionary measure in support of the proposed project's historic preservation review under Hawaii Revised Statutes (HRS) Chapter 6E-8 and Hawaii Administrative Rules (HAR) §13-297-4. This AMP has been prepared in accordance with HAR §13-279-4 and will establish procedures for monitoring of all ground disturbing activities of this project in specific locations, including methodology in the event that cultural features or deposits are encountered, provisions for halting work in the area of a potential find in order to carry out the plan and assess and document the find, and procedures for coordinating with the construction crew to ensure they are aware of the requirements of the plan prior to and during construction work. All monitoring will be conducted by a Secretary of the Interior (SOI) qualified archaeologist(s) and supervised by an archaeological principle investigator with a valid permit to conduct archaeology in the State of Hawaiʻi.

PROJECT LOCATIONS AND DETAILS

The proposed project consists of 56 discontinuous locations of existing guardrail replacement work along five State highway routes: 31 locations along Route 50, Kaumualii Highway from Mile Post 1.84 to 16.96, 2 locations along Route 540, Halewili Road from Mile Post 3.89 to 3.90, 1 location on Route 51, Kauaʻi Veterans Memorial Highway at Mile Post 1.24, 10 locations along Route 580, Kuamoʻo Road from Mile Post 0.07 to 5.09 and 12 locations along Route 560, Kūhiō Highway from Mile Post 1.88 to 7.03. These existing, previously constructed guardrails are located on highway routes that transect 10 different ahupuaʻa. Of the 10 ahupuaʻa, four have been determined sensitive for subsurface archaeological resources and/or human remains: the Wailua Ahupuaʻa in Puna Moku, and three ahupuaʻa in Halalea Moku; Hanalei, Lumahaʻi and Wainiha.

The State Historic Preservation Division (SHPD) reviewed the proposed project and in response to FHWA's Section 106 effect determination and HDOT's Chapter 6E effect determination requested archaeological monitoring be conducted in the Wailua, Hanalei, Lumaha'i and Wainiha Ahupua'a by a qualified archaeologist to identify, and provide the opportunity to avoid or mitigate impacts to, subsurface archaeological resources and/or human remains, should they be present. HDOT has agreed to provide archaeological monitoring as requested. SHPD specifies the limits of archaeological monitoring as follows: Route 580, Kuamo'o Road from Mile Post 0.07 to 0.17 and Route 560, Kūhiō Highway from Mile Post 1.88 to 7.03. (See Appendices A-D)

The proposed work within these specified limits consists of removing and replacing 50 feet of existing guardrail end treatments, and reflector markers and removing and installing 28 feet of transition sections of existing guardrail posts and rail. New, replacement guardrail posts will be installed in line with the existing guardrail at a depth no greater than 10 feet below the existing surface. Each replacement section will tie into existing guardrails. All work would be done within the footprint of the existing, previously disturbed ROW. Staging areas would be on previously graded, developed, and paved areas within the ROW, or within adjacent driveways. All ground disturbing activities associated with this project and in the locations specified above as culturally sensitive shall be monitored by an archaeologist qualified meeting the minimum requirements of the Secretary of the Interior's Standards for archaeology.

ENVIRONMENTAL SETTING

Wailua Ahupua'a - Project Area along Route 580, Kuamo'o Road, Mile Post 0.07 to 0.17

Wailua Ahupua'a on the eastern side of Kaua'i in the District of Puna. Of Wailua, Groza et al. (2010) notes the following:

Wailua Ahupua'a, located on the eastern side of the island of Kaua'i, is exposed to the prevailing northeast trade winds and thus experiences 40 to 50 inches of rainfall annually at the seashore. The Wailua River and its tributaries comprise the major drainage system for the central area of the Līhu'e basin. The Līhu'e basin is bounded by the Hā'upu Mountains to the south, Wai'ale'ale to the west and the Makaleha Mountains to the north. Sea level changes in recent geologic time on this side of Kaua'i have submerged the eastern edge of the Līhu'e basin, resulting in the deposition of alluvium, beach and dune sand, and lagoonal clays and marls along the seaward (eastern) side of the Kalepā-Nonou Ridge, through which the Wailua River flows.

The ahupua'a of Wailua is situated in the old moku (or district) of Puna, but today is located in two separate judicial districts. North of the Wailua River is in the district of Kawaihau and south of the river is the Līhu'e District. It is the largest ahupua'a in both district systems, totaling 20,255 acres. Stretching from the shoreline to its mauka extent at Wai'ale'ale (elevation 5080 feet), the ahupua'a encompasses most of the small streams and tributaries that flow into the Wailua River—the largest and singularly navigable river in the State [Handy and Handy 1972:425].

The proposed project area designated for archaeological monitoring in Wailua is located along Route 580, Kuamo‘o Road, from Mile Post 0.07 to 0.17. The project area is contained solely within the existing ROW along Kuamo‘o Road starting at approximately 300 feet west of the Kūhiō Highway where 3 of the 10 of the existing guardrail end treatment replacements along Kuamo‘o Road have been identified for archaeological monitoring. (See Figure 1)

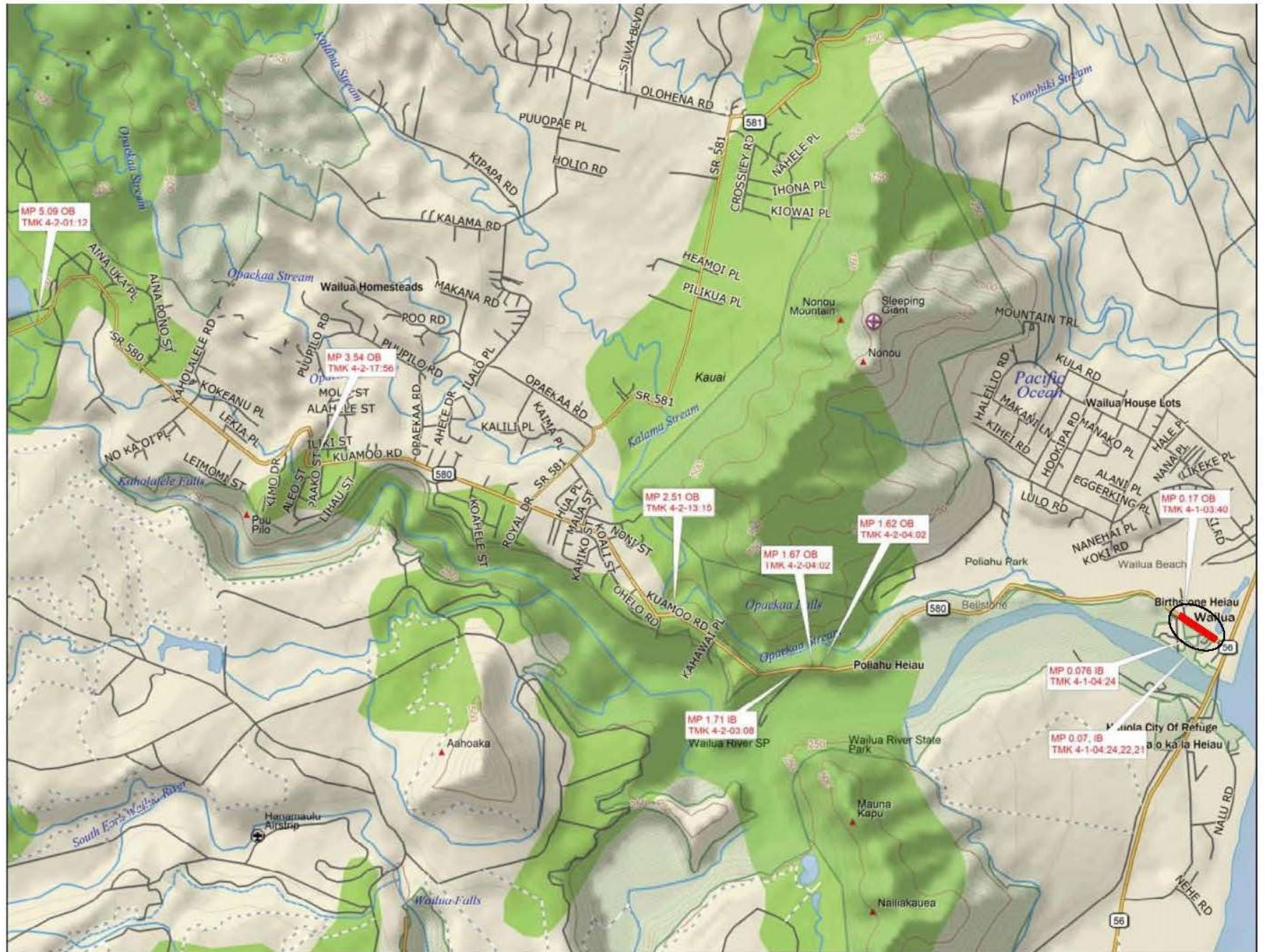


Figure 1. Proposed project area along Kuamoo Road showing all 10 guardrail replacement locations, of which, three require archaeological monitoring. These three locations, between Mile Post 0.07 to 0.17, are within circled area.

Hanalei, Lumaha'i and Wainiha Ahupua'a-- Project Area along Route 560, Kūhiō Highway,
Mile Post 1.88 to 7.03

The District of Halele'a covers the north side of Kaua'i, and includes several large, stream cut valleys. Kama'i et al. (2016) notes the following about Halele'a:

The nearest temperature tracking station, located in Kīlauea (317 feet [ft] elevation), records an average (mean) minimum of 66 degrees Fahrenheit to an average maximum of 84 degrees Fahrenheit [Armstrong 1983]. Given the project sites' proximity to the coast, the average temperature ranges may be a few degrees higher. Rainfall averages around 80 inches per year [Juvik and Juvik 1998:56]. Earle [1978] describes the Halele'a District surrounding the project area in terms of the natural topography and stream catchments as they relate to *ahupua'a*:

Halelea is divided into nine *ahupua'a*, the boundaries of which were determined by topographic features. The four largest *ahupua'a*—Wainiha, Lumahai, Hanalei, and Kalihiwai—are each based on the catchment basin of a single large stream. The catchment areas of these streams are separated from each other by the dramatic ridges which form the political boundaries between *ahupua'a* . . . these boundaries deviate from the dominant, natural divisions so as to divide sections of critical resources between *ahupua'a*. The five smaller *ahupua'a*—Ha'ena, Waikoko, Waipā, Wai'oli, and Kalihikai—are based on the catchment areas of one or more smaller, permanent streams. [Earle 1978:25]

The proposed project area sites along Route 560, Kūhiō Highway are located within Halalea Moku in the *ahupua'a* of Hanalei, Lumaha'i and Wainiha. Hanalei is the largest valley in the Halele'a District, encompassing 68.5 kilometers of land. Hammatt et al. (2000) makes the following observation regarding Hanalei Ahupua'a:

...It is bounded to the west by Waioli Ahupua'a and on the east by Kalihikai Ahupua'a. The *ahupua'a* is amphitheater-shaped, defined by ridges surrounding the Hanalei River. It extends from sea level in the north at Hanalei Bay to the top of Mt. Wa'ale'ale (5148 ft.) in the south. Three-quarters of the *ahupua'a* lies in the Halele'a Forest Reserve. This valley is a typical windward valley with one large perennial stream – Hanalei River – fed by many tributaries. ...Alluvial floodplains are located on both sides of the river as it meanders down to Hanalei Bay.

Continuing west past Hanalei, through the *ahupua'a* of Wai'oli, Waipa and Waikoko is the *ahupua'a* of Lumaha'i. The following description of Lumaha'i is found in an Archaeological Inventory Survey done for the Wainiha Bridges Project by Stark et al. (2017):

Earle [1978] provides the following overview for Lumaha'i *ahupua'a*:

Lumaha'i is a large *ahupua'a* (36.9 square kilometers) including the catchment area of the major stream, Lumaha'i. Like Wainiha, the Lumaha'i Stream starts in a deep valley thrust into the central mountains of Kaua'i. The upper part of the stream is joined by numerous tributaries, which rush down the steep valley slopes. About 1.5 kilometers (km) from the sea, the stream enters a compact alluvial plain

bounded on either side by the valley ridges and on the sea by low sand dunes. The coast is 1.2 km long with no significant reefs. [Earle 1978:32]

West and adjacent to Lumaha'i is the ahupua'a of Wainiha. The website, Kaua'i Nui Kuapapa (2014) provides the following overview description for Wainiha:

The headwaters of Wainiha river rise in Alaka'i Swamp and Wai'ale'ale lake and flow 14 miles to the sea, making this the longest valley of Kaua'i. Wainiha, with 43.5 square kilometers, is the second largest ahupua'a of Halele'a. The river has formed a narrow, steep sided valley whose cliffs at places rise over 3000 feet from the sea level. Countless tributary streams flow from Alaka'i, especially after the heavy rains that often inundate the area. The valley only widens a little towards the sea to a bay that is usually too rough for any ocean activity.

The proposed project area located in Hanalei, Lumaha'i and Wainiha along Route 560, Kūhiō Highway (Mile Post 1.88 to 7.03) identified for archaeological monitoring is solely contained within the existing ROW. All 10 existing guardrail end treatment replacement locations have been identified for archaeological monitoring. (See Figure 2)

PROJECT ASPECTS TO BE MONITORED

Ground disturbing activity for this project consists of mechanically removing and replacing existing guardrail posts, rail and reflector markers and posts. Where ground disturbing activity occurs, monitoring will be conducted to identify subsurface cultural resources such as artifacts and cultural deposits as well as human remains should they be present, and to afford the opportunity to avoid, minimize, and mitigate potential impacts to human remains and significant subsurface cultural resources. The archaeologist has the authority to temporarily suspend work in the area of a potential find to examine the area and determine if cultural resources or human remains are present.

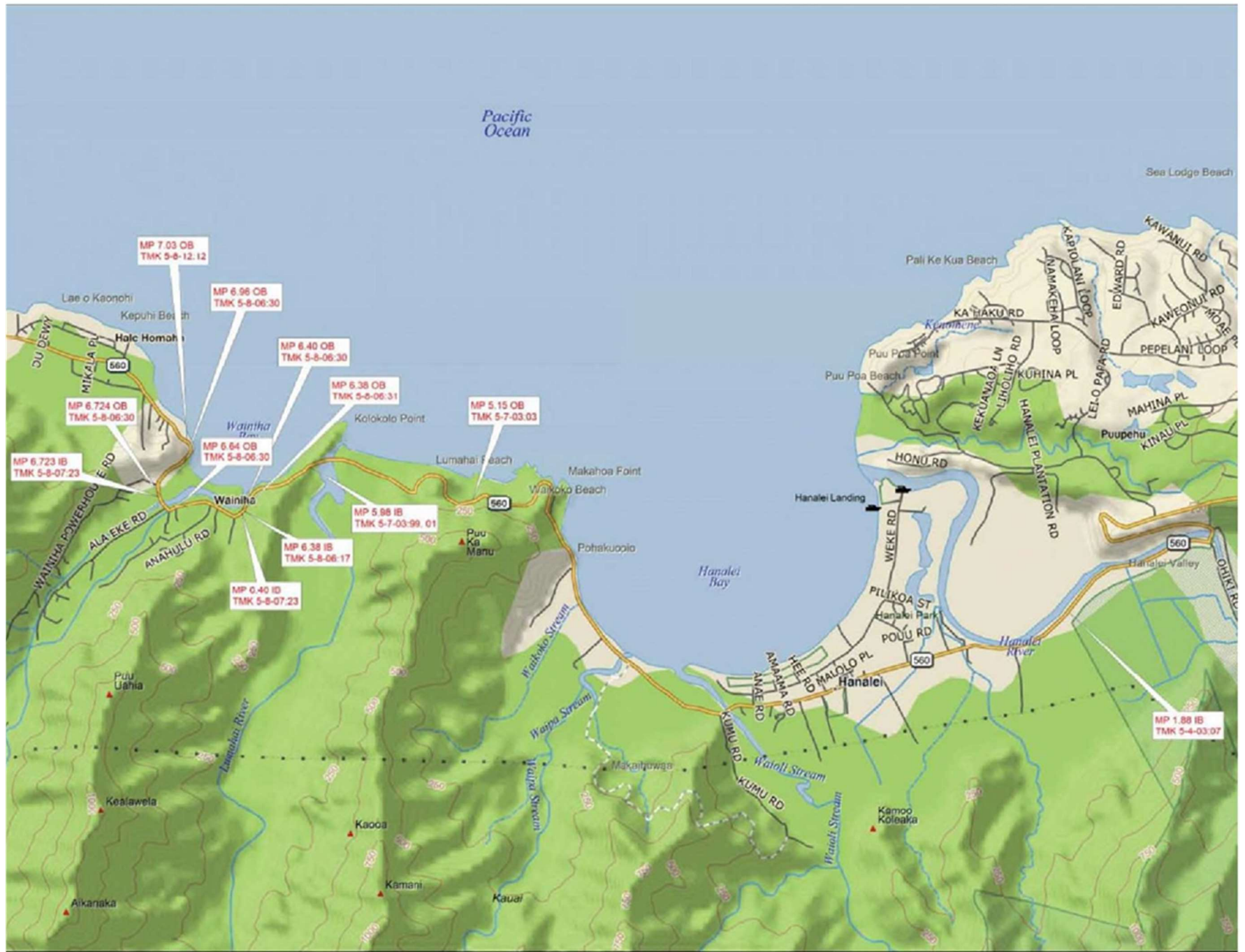


Figure 2. Proposed project area along the North section of Kuhio Highway. All 12 guardrail replacement locations between Mile Post 1.88 to 7.03 require archaeological monitoring.

BACKGROUND RESEARCH AND PREVIOUS ARCHAEOLOGY

Numerous studies indicate that Kaua‘i, while similar to other islands within the Hawaiian archipelago in terms of habitation, settlement, and agricultural patterns, had a unique history due to the proliferation of freshwater. The geography and freshwater of Kaua‘i facilitated the construction of sophisticated irrigation systems from traditional Hawaiian times to the present. Kaua‘i archaeology is challenged by the alterations to the natural and cultural landscape by sugar cultivation in the late 1980s.

Wailua Ahupua‘a - Project Area along Route 580, Kuamo‘o Road, Mile Post 0.07 to 0.17

Wailua is one of two royal centers on the island of Kaua‘i (in addition to Waimea). Wailua contains the largest density of heiau on the island of Kaua‘i and served as an administrative, political and spiritual center during traditional Hawaiian times. (Tulchin and Hammatt, 2009). According to Martha Yent (State Parks Archaeologist), the Wailua area was chosen by the alii (chiefs) for its fertile soil, fresh water, rich marine resources, safe canoe landings, and good surf (Yent 1995). The lower portion of the river valley, makai of Nonou ridgeline to the north and Mauna Kapu to the south, was known as Wailuanuihoano (Wailuanuihoano) or alternately Wailuanuilani. It was an area so sacred that it was kapu (taboo) to makaainana (commoners); only the alii (chiefs), their kahuna (priests) and retainers could reside or visit here (Dickey 1917).

Kamai et al. (2016) note the following about the prominence of Wailua:

Few westerners visited Wailua in the years just after Cook’s arrival and detailed descriptions of the area are scarce. Most of the voyagers during the late eighteenth and early nineteenth centuries landed at Waimea, on the southwestern side of the island, a location that would eventually overshadow Wailua in its royal importance because of the opportunities there to associate and trade with these foreigners [Lydgate 1920].

However, in March 1793, Wailua was still the “capital” of Kaua‘i and Captain George Vancouver, who had already visited the island several times both under Captain James Cook and later as captain of his own expedition, knew this fact well and tried to land there. Although conditions prevented him from anchoring, Vancouver observed the area from offshore and gave this description:

This part seemed to be very well watered, as three other rapid small streams were observed to flow into the sea within the limits above mentioned. This portion of Attouai, the most fertile and pleasant district of the island, is the principal residence of the King, or, in his absence, of the superior chief, who generally takes up his abode in an extensive village, about a league to the southward of the north-east point of the island. Here Enemo the regent, with the young prince Tamooerrie, were now living . . . [Vancouver 1798:221–222]

Within decades of Western contact, the area lost its ancient importance, and likely its population as well. The alii who enjoyed and benefited from their contact with westerners, spent more time in Waimea, the preferred anchorage for visiting ships. Additionally, the Wailua Heiau Complex lost its great significance after the abolishment of the kapu (taboo) system.”

Walden et al. (2015) report the following regarding activity and land awards in Wailua:

Agriculture was widespread along the Wailua River. Bates [1854] described the surrounding environment during a canoe ride up the Wailua River, indicating that the river wound its way through numerous taro plantations as well as orange and coconut tree groves [Bates 1854:190].

During the Mahele of 1848, roughly 75 acres in Wailua were awarded to 25 individuals with a majority of the *makai* lands being claimed by Debora Kapule and her son Iosia Kaumualii....The remaining land in Wailua was declared Crown Lands under Kamehameha III [Stauffer 1993:113; Yent 1995:9].

According to Saito and Campbell [1987], Lihue Plantation began in 1849. The original 3,000 acres of Lihue Plantation increased by 300 acres at Ahukini in 1866. In 1872, 17,000 acres at Hanamā‘ulu were added, which included an excellent water source. Lihue Plantation continued to expand, leasing 30,000 acres at Wailua in 1878. In 1923, a lease of Wailua lands prompted work on a project to bring water from the south fork of the Wailua River for irrigation and hydroelectric power. In the early 1930s, approximately 100 acres of land had been reclaimed from swamp and bog lands. [Saito and Campbell 1987]

By the 1920s the taro planted in alluvial terraces along the Wailua River was replaced with rice, while the uplands were planted with sugarcane and used for cattle grazing.

Adjacent to Wailua Beach along Kūhiō Highway, the land was part of a railroad ROW. the land was originally owned by the Ahukini Terminal and Railway Company (AT&R). Of this area, Groza et al. (2010) note the following:

The portion of Kūhiō Highway north of Wailua River was originally owned by the Ahukini Terminal & Railway Company (A. T. & R.) as a railroad-right-of-way. The railway later became part of the Lihue Plantation Company...The first portion of the Lihue Plantation Company railroad was laid and the first sugar moved by rail on January 7, 1892. By 1921, the Lihue Plantation Company was reputed to have the most modern and extensive railroad system in the islands. In that same year, the Lihue Plantation Company sponsored the separately incorporated AT&R, which “was inaugurated as a common carrier railroad to operate between Ahukini and Kealia” (Condé and Best 1973)...

In 1934, the Lihue Plantation Company absorbed the AT&R, which then became an operating part of its parent company. By 1957, the conversion from railroad to truck hauling had begun and was completed by 1959...

The known historic properties and human burials in the vicinity and outside of the project area are summarized in the following paragraphs.

The Wailua River State Park was established in 1954 in recognition of the splendid beauty of the Wailua River along with the significant historical and archeological features. The Wailua Complex of Heiau was included in the state park and designated a discontinuous National Historic Landmark in 1962 and listed on the Hawaii State Register of Historic Places in 1981 as

Site 50-30-08-0502. (Walden et al. 2015) It includes Holoholoku [Kalaeokamanu] Heiau (State Inventory of Historic Places (SIHP) Site 50-30-08-106), Pohaku Hoohanau, Birthstones of Kāua‘i alii (Site 108) and Poliahu Heiau (Site 107), sites located in the immediate vicinity of the project area. Malae Heiau (Site 104), located just southwest of the project area along Kūhiō Highway, was converted into cattle pens in the 1830s by Deborah Kapule. Also included in the Wailua River State Park are a possible ritual and/or habitation site (Site 676) and a historic Japanese Cemetery.

Human remains have been discovered in the former Coco Palms property as noted by Stine and Hammatt (2012):

“During the building of the Coco Palms resort, an unknown number of human burials were encountered and reburied at the front of the hotel. In 1973, during construction of a new wing to the hotel more human remains were encountered in sand deposits. In all 34 sets of human remains were documented by Kikuchi, though the actual number of individuals disinterred may be as high as 85 (Hoffman et al. 2005:26). All of these human remains were reinterred at the site of the previous burials, and a plaque was attached to the boulder on the spot to mark it.”

In another encounter, a descendent of the Wailua/Waipouli Lineal Ohana provided personal knowledge during consultations for the Wailua River Bridge Repairs Project that human skeletal remains are buried in the sand north of the Wailua Plantation Bridge and river mouth, and south of the Wailua Plantation Bridge near the portable comfort station. (Note: The portable comfort station has been removed due to beach erosion.) He observed the remains during flooding conditions when he responded to the case in the 1990’s during his tenure with the State Department of Land and Natural Resources, Division of Human Conservation and Resources Enforcement.

In an Archaeological Inventory Survey conducted for the Kūhiō Highway Short-Term Improvements project (Stine and Hammatt 2012), two previously recorded historic properties were documented in the study area. These properties are identified as Cultural Layer, SIHP #50-30-08-1711, Cultural Layer SIHP #50-30-08-3962. A third, previously unrecorded site, a ditch/Auwai was documented and designated SIHP #50-30-08-2158.

Hanalei, Lumaha‘i and Wainiha Ahupua‘a - Project Area along Route 560, Kūhiō Highway, Mile Post 1.88 to 7.03

The designated APE in the three ahupua‘a of Hanalei, Lumaha‘i and Wainiha are located along the North section of Kūhiō Highway, Route 560 (Kāua‘i Belt Road) listed on the National Register of Historic Places (NRHP). Noted as National Register # 03001048 and SIHP # 50-30-02-9396, this North Shore section of the Kāua‘i Belt Road is listed in the National Register under Criteria A and C of the NRHP Registration Form. The boundaries of this historic district are defined by the Kūhiō Highway (Route 560) ROW from Mile Marker 0 in Princeville to Mile Marker 10 at Haena State Park.

Hanalei is the largest ahupua‘a in the moku of Halale‘a. Centuries before Euro-American contact, this ahupua‘a had long provided exceptional possibilities for agricultural and cultural

development by the Hawaiians of Kaua‘i. Hammatt, et al. (2000) cite E.S. Craighill’s and Elizabeth Handy’s description of the ahupua‘a resources that pre-contact Hawaiians used and refined:

Hanalei is unique on Kaua‘i in having a broad river flowing into a magnificent level seaward area...The flats had been the taro *lo‘i* of the Hawaiians, amply irrigated by ditches from the Hanalei River...

Because of an abundance of foods of all sorts, Hanalei was, and still is, one of the most attractive dwelling places in the islands. In addition to its rich lands and water resources, and its beautiful beach, it was close enough to the rich deep-sea fishing grounds off Nāpali coast to supply its people with plenty of fish. [Handy and Handy 1972: 420-21]

This Hawaiian-evolved landscape would see many changes in the nineteenth century with new enterprises being introduced by newly arrived Euro-American missionaries, settlers and entrepreneurs. The following outline some of the economic activity in Hanalei as described by Hammatt et al. (2000):

An enterprise that actually took hold in Hanalei during the 1830s was silk making: Charles Titcomb, an American sailor, started a silk plantation which, by the early 1840s, comprised four varieties of mulberry trees and was reported to have been producing excellent silk [Wilcox 1991:7]. The Hanalei silk plantation “finally encountered financial and other troubles” and the silk-making enterprise was abandoned there in 1844...

...Despite his losses, Titcomb was able to replant his Hanalei fields in coffee with seed procured from Kona. Coffee growing had been introduced to Hanalei in 1842 when John Bernard and Godfrey Rhodes started the Hanalei Coffee Plantation on two pieces of land leased from the Government - “one on the east side of Hanalei River containing ninety acres and one on the west side containing sixty acres [Wilcox 1991:8]...

...Near mid-century, coffee dominated the Hanalei landscape: “a great part of the whole valley, at least to the extent of 1,000 acres, was under cultivation in coffee at this time” [Wilcox 1991:10]...”

Devastating natural occurrences would eventually bring down the once flourishing coffee business and the subsequent rise of the sugar industry. Hammatt et al. (2000) continue the outline of activity in Hanalei:

...they were finally vulnerable – in the 1850s – to natural forces beyond their control. That vulnerability had been foreshadowed earlier, in 1847, when torrential rain flooded the valley, severely damaging the coffee trees. In 1851 and 1852, the Hawaiian islands suffered through a severe drought and a subsequent blight ravaged coffee trees at Hanalei and on all the islands. The plantations were able to continue producing through a few more years but, by the end of the 1850s, the Hanalei plantations were devastated:...

...on March 14, 1853 the land occupied by the Rhodes Coffee Plantation was bought from the Government for \$1,300 and on Sept. 13, 1855 Rhodes sold out his interest in the

plantation for \$8,000 [Wilcox 1991:13]. The man who purchased the land and plantation was Robert Crichton Wyllie, the Hawaiian Kingdom's Minister of Foreign Affairs.

...As Foreign Minister, Wyllie's great ambition was the recognition of the Hawaiian Kingdom as a sovereign nation by the world's powers. But a more personal aspiration also captivated Wyllie: to build for himself a manor at Hanalei quite as magnificent as any he had known in Scotland. So in 1853 he began acquiring tracts of Hanalei land beginning with the Rhodes Coffee Plantation. Wyllie attempted to save the coffee plantation:

“For ten years (Wyllie) doggedly fought against [the] blight which gradually withered the trees. Finally facing reality, he pulled out the dead trees and planted a new crop, sugar. [Hackler 1982:66]

By 1862, Wyllie had “constructed an extensive sugar factory and other buildings at the eastern end of the Valley, along the river, importing much of the machinery from Scotland” [Thousand Friends...1987:32]...

Wyllie continued to purchase lands and grow his sugar plantation until his death in 1865. The plantation was eventually auctioned off and continued operating. Hammatt et al. (2000) describe the decline of sugar into the start of the rice industry in Hanalei:

A Hawaiian Government survey map of 1885 indicates sugar cane growing on both sides of the Hanalei River, extending *makai* near its mouth at Hanalei Bay as well as up in the Hanalei uplands and adjacent *ahupua'a* Kalihikai...

By the last decade of the nineteenth century, the difficulties of growing sugar cane at Hanalei were insurmountable:

...the cane had never done well in that cool, wet climate. Much of it rotted in the lower fields; the upper fields were, it is said, not plowed deeply enough and at times there was not enough water to flume the cane down to the mill. [Wilcox 1991:18-19]

...the last crop was harvested in 1893. By 1899, Albert S. Wilcox had secured control all the plantation: “The lower lands were rented out to Chinese rice-planters and the upper lands between Hanalei and Kalihiwai were planted to imported grasses and turned into a cattle-ranch” [Wilcox 1991:19]. Wilcox would later, in 1916, sell the land to Lihue Plantation Company and W.F. Sanborn [Wilcox 1991:19].

...The rice fields of the 1890s had been expanding during the previous decades as sugar declined. Upon completion of their contracts with the plantation, a number of the immigrant Chinese laborers remained in Hanalei, many becoming merchants or rice farmers, the existing taro *lo'i* providing a ready foundation for conversion to rice paddies.

...During the first decade of the twentieth century, rice-farming by the Chinese continued to be the focus of large-scale economic activity in Hanalei.

...Rice farming declined throughout the Hawaiian islands after the first decades of the twentieth century as lower-priced rice grown in California inundated the market. Chinese

rice planters at Hanalei and elsewhere began selling their fields to immigrant Japanese rice growers.

Hammatt et al. (2000) describe the transition from rice production back to traditional Hawaiian taro farming, which continues to thrive in the valley today, as well as the development of a resort area and the establishment of the Hanalei National Wildlife Refuge:

...As the Japanese farmers phased out rice production in the 1950s and 60s, they converted their fields to taro *lo‘i*. By the late 1980s, taro-growing, which once dominated the traditional Hawaiian landscape, was firmly re-established within Hanalei.

Beginning in the 1960s, the Princeville area began its evolution as a major resort and condominium complex, which continues at the present. At the same time:

...the Federal government became a partner in shaping land use in the Hanalei Valley...by working with the Princeville Development Corporation to acquire land for the U.S. Fish and Wildlife waterbird refuge. The refuge has a supportive policy of continued taro production and the maintenance of the irrigation system and existing houses and farm outbuildings. [Thousand Friends...1987:10]

The Hanalei National Wildlife Refuge was established in 1972 to provide feeding and nesting areas for endangered Hawaiian water birds including the coot, silt, gallinule and duck. It encompasses 917 acres of Hanalei Valley, including 70 acres of ponds, 600 acres of forest and mountain area, and as of 1993, 125 acres of commercial taro fields.

In the ahupua‘a of Lumaha‘i, according to Mahele data, no individual kuleana are recorded, though it can be assumed that in addition to taro, all other common Hawaiian agricultural crops were raised. Similar to Hanalei Ahupua‘a and all valleys in the Halale‘a district except Haena, rice cultivation came to Lumaha‘i during the late 1800s and thrived until the California market with its lower prices caused an end to the rice industry in Halale‘a. Stark et al. (2017) cite the following description of historic activity in Lumaha‘i:

Earle [1978] provides the following overview of turn of the century activity in Lumaha‘i:

Very little is known about the land use of this *ahupua‘a*. Around the turn of this century, there were extensive rice plantations in the alluvial area near the sea. For the earlier historic period (1850), only limited information is available because no land awards were granted to commoners in Lumaha‘i *Ahupua‘a*. The reason for this absence is unclear but it was not for want of a community population [see Schmitt 1966, 1973 for nineteenth century census data]. Perhaps the *ahupua‘a* chief and/or *konohiki* (headman of an *ahupua‘a* land division under the chief) were instrumental in discouraging awards. Extensive bulldozing for pasturage has destroyed all archaeological evidence of pond-fields in the lower section of the valley, but numerous small terrace sites are to be found in the interior. One such site was identified 2.5 km from the sea, during a rapid reconnaissance survey, and others have been described by local hunters. [Earle 1978:33]

Stark et al. (2017) describe the following historical activity in Wainiha:

... The overall settlement pattern, dating to the mid-1800s, exhibited habitation near the coast and agricultural undertakings in the well-watered interior areas. During his island-wide survey of Kauaʻi in 1928-1929, Bennett [1931:136] observed the remains of many terraced house sites and irrigated fields at Maunahina Ridge (Site 153), about 7.2 km (4.5 miles) from the sea. Maunahina is said to be the location of the ancient trail [Wichman 1985:114], as mentioned above, which leads out of Wainiha, up to Kilohana at the north edge of the Alakaʻi Swamp, through Kōkeʻe and down to Waimea on the southwest side of the island, used to take advantage of the resources of the Alakaʻi and as an overland alternative route to Waimea....

... Agriculture and fishing endeavors continued as the mainstay for Wainiha Ahupuaʻa. By the early 1900s Wainiha had its own Chinese community that included not only the rice farmers, but also merchants and other business people (Coulter and Chun 1937). The rice industry eventually went into decline due to disease, pests, and competition from outside Hawaiʻi, and rice lands reverted to *kalo*. Rice cultivation probably served the unintended purpose of keeping the ancient irrigation systems and *loʻi* operational throughout this period. In the 1930s Handy (1940:73) reported both crops being cultivated simultaneously in Wainiha with actually more land seemingly devoted to *kalo* than rice. The valley even had its own commercial *poi* factory at the time. The cultivation of *kalo* is ongoing today, and is the most active agricultural undertaking in the still rural Wainiha Valley.

The APE along the Northshore section of Kūhiō Highway, Route 560 in the ahupuaʻa of Hanalei is located adjacent to the west end of the Hanalei National Wildlife Refuge Historic and Archaeological District (HNWRHAD) (State Site 50-30-03-304) which contains several archaeological resources, including the historic Haraguchi Rice Mill (SIHP #50-30-03-9385). More than 20 individual archaeological sites have been recorded in HNWRHAD, though they are all located outside of the project APE in the Hanalei location.

The North section of Kūhiō Highway (Kauaʻi Belt Road), Route 560, from Mile Post 0 in Princeville to Mile Post 10 in Haʻena is a documented historic district listed on the National Register of Historic Places (NRHP) as National Register #03001048 and SIHP #50-30-02-9396. Of the 15 contributing and two non-contributing elements, the 1968 Lumahaʻi Bridge and three Wainiha bridges (Wainiha Stream Bridge 1, Wainiha River Bridge 2 and 3) fall within the project areas in the ahupuaʻa of Lumahaʻi and Wainiha. The culvert on the westward bound approach to Wainiha River Bridge 2 should be considered a contributing feature of the historic district. Of these elements, only the culvert feature is determined significant under HAR §13-275-6 (Stark et al. 2017). Human remains have also been documented in Wainiha Ahupuaʻa.

EXPECTED FINDINGS

Wailua

The modern built environment adjacent to the project area, which consists of Kuamoʻo Road, the Kūhiō Highway intersection and associated infrastructure, indicates extensive grading, infilling, and possible shoreline stabilization efforts related to the construction of the highway. Adjacent

developments (hotel, business and residential) may have severely impacted subsurface deposits as well.

Background research suggests that while pre-Contact cultural resources (i.e., archaeological sites) in the form of subsurface cultural deposits and burials may have been present adjacent to the project area, the cultural resources were likely severely impacted or removed during the construction of the Lihue Plantation Company railway and Kūhiō Highway. Therefore, based on the results of background research, HDOT anticipates that subsurface cultural resources may include previously disturbed cultural deposits and human remains may be present within the project area.

Hanalei, Lumaha'i, and Wainiha

The modern built environment adjacent to the project areas, which consists of Kūhiō Highway, Route 560 and associated infrastructure, indicates extensive grading and infilling related to the construction of the highway. Similar to Wailua, adjacent developments (hotel, business and residential) may have severely impacted subsurface deposits as well.

Background research suggests that while pre-Contact cultural resources (i.e., archaeological sites) in the form of subsurface cultural deposits and burials may have been present adjacent to the project area, these cultural resources were likely severely impacted or removed during historic land modifications by farmers, ranchers and residential development and more directly, the construction of Kūhiō Highway, Route 560. Therefore, based on the results of background research, HDOT anticipates that subsurface cultural resources may include cultural deposits, human burials, and trail alignments as well as agricultural infrastructure.

MONITORING PROVISIONS

GENERAL PROCEDURES

For the purpose of this plan, the term “historic property” refers to a historic property as defined in Hawaii Administrative Rules §6E-2 of the Chapter 6E historic preservation review process and a historic property as defined in 36 CFR 800.16(l).

Under Hawaii State historic preservation legislation, “Archaeological monitoring may be an identification, mitigation, or post-mitigation contingency measure. Monitoring shall entail the archaeological observation of, and possible intervention with, on-going activities, which may adversely affect historic properties” (HAR §13-13-279-3). Archaeological monitoring will be conducted during all ground disturbing activities associated with the proposed project for identification purposes in the following locations: Kuamoo Road from Mile Post 0.07 to 0.17 and Kuhio Highway from Mile Post 1.88 to 7.03. The results of archaeological monitoring will be used to support the HDOT’s determination of effect for the proposed project.

All monitoring will be conducted by an archaeologist qualified under the Secretary of the Interior (SOI) standards for archaeology and permitted to conduct archaeology in the State of Hawaii subcontracted by the HDOT contracted construction company. He/she will participate in plan reviews, meetings and field visits regarding the project work when there are archaeological concerns. A minimum of one qualified archaeologist is required to monitor each ground disturbing activity. It is the responsibility of the Archaeological Principal Investigator, the HDOT, and the FHWA to ensure there is at least one archaeologist monitoring each ground disturbing activity.

Should potential historic properties be discovered during archaeological monitoring, the archaeologist shall temporarily halt project work in the area to assess the find and document it according to this plan. To comply with the Chapter 6E historic preservation review process, potential historic properties will be evaluated for integrity and site significance in accordance with HAR §13-275-6. Project work in the area of the find may only commence with written notification from SHPD. To comply with the Section 106 historic preservation review process FHWA will notify SHPD and consulting parties and comply with the requirements of 36 CFR 800.13.

If human skeletal remains are encountered during this project, work will immediately halt in the location of the find and SHPD will be notified in writing by the archaeologist and HDOT. If the finding is encountered in situ, the archaeologist, under the direction of the SHPD, will secure the find from further disturbance. The identification and treatment of human skeletal remains will comply with Hawaii State burial law (HRS §6E-43 and HAR §13-13-300) and work in the area of the find shall not resume until SHPD provides HDOT written approval.

METHODOLOGY

Hawaii State historic preservation legislation governing archaeological monitoring programs requires that each monitoring plan discuss eight specific items (HAR §13-13-279-4). The monitoring provisions below address these eight requirements:

1) Anticipated Cultural Resources:

Based on background research, there is potential to encounter subsurface cultural materials, cultural deposits, and human burials within the project area, in specific locations along Kuamo‘o Road and Kūhiō Highway, Route 560.

2) Locations of Cultural Resources:

Historic properties may be encountered anywhere within the project area. Previous Archaeology presents background research performed during the preparation of this document. Of particular concern is the area north and south of the Wailua Plantation Bridge where human remains have been observed. The portions of the project area from Kuamo‘o Road Mile Post 0.07 to 0.17 and Kūhiō Highway, Route 560 from Mile Post 1.88 to 7.03 have been determined by SHPD to have a high likelihood to contain subsurface cultural resources such as human remains and archaeological sites, features, and deposits.

3) Fieldwork:

It is required that at least one qualified archaeologist monitors each ground disturbing activity for all ground disturbing activities associated with the project. Any departure from this will occur only following consultation with and written concurrence from the SHPD. It is the responsibility of the Archaeological Principal Investigator, the HDOT, and the FHWA to ensure there is at least one archaeologist monitoring each ground disturbing activity.

In the event that cultural resources (e.g., stratigraphic layers with cultural resources, trash pits, structural remnants) are encountered, the archaeologist will document the finding(s) and will employ current standard archaeological recording techniques. This will include scaled drawings of the exposed stratigraphy where cultural features or artifacts are exposed as well as recording scaled representative profiles of the stratigraphy from across the project area even if no historically significant sites are encountered.

Documentation of stratigraphy shall be gathered across a scaled grid of the project area locations which require archaeological monitoring, resulting in even representation of the stratigraphy within these locations; documentation shall include scaled profile drawings at least a meter wide, photographs of the stratigraphy with a legible scale included, and a Global Positioning System (GPS) point collected using a submeter accurate system. Documented stratigraphy will be photographed with a legible scale and the locations from where stratigraphy is documented will be recorded on project area maps. Profile walls, and trench floors when applicable, will be cleaned using a hand trowel prior to documentation, unless entering the excavated area poses a threat to safety.

All stratigraphic documentation will include recording the depths in centimeters below surface from top to bottom of each stratigraphic layer, and the soil attributes of each stratigraphic layer using USDA soil descriptions and Munsell soil color charts. All artifacts encountered will be documented in situ when possible in scaled stratigraphic and/or plan view drawings, photographed in the field with a legible scale and north arrow,

and the location of the find will be documented with a GPS using submeter accuracy and on project plans.

All artifacts shall be collected by the archaeologist and labeled with provenience information and the date of the find, at minimum. As appropriate, sampling will include the collection of representative bulk sediment samples, and/or on-site screening of measured volumes of feature fill to determine feature contents. When additional data may be gleaned from exposed stratigraphy, soil sampling may occur using standard archaeological methods appropriate to the type of data to be analyzed. All data collection will be overseen in the field by an archaeologist meeting the Secretary of the Interior's qualifications for archaeological professionals.

The locations from where stratigraphy as well as any in situ finding are exposed and documented will be recorded using a handheld GPS unit with submeter accuracy. The location from where the GPS data is gathered will also be recorded with the archaeologist's field notes and provided in the archaeological monitoring report. For example, all GPS points may be taken from the northern most corner of an exposed stratigraphic profile.

It is the responsibility of the HDOT and the FHWA to ensure the archaeological firm contracted to conduct archaeological monitoring during the project is equipped with the required staffing and sub-meter accurate GPS equipment prior to the start of work.

Should subsurface deposits or features be identified, construction activity in the vicinity will stop immediately, the find will be secured from further disturbance, and the SHPD will be consulted to determine the next steps for feature recording and documentation, which may include manual excavation and sampling.

If human remains are identified, construction activity in the vicinity will be stopped and no exploratory work of any kind will be conducted unless specifically requested by the SHPD. SHPD, the Kaua'i Police Department, and the medical examiner will be notified immediately and the SHPD will be consulted to determine next steps.

All human skeletal remains encountered during excavation will be handled in compliance with HAR §13-13-300 and HRS §6E-43.

4) Archaeologist's Role:

The on-site archaeologist will have the authority to stop work immediately in the area of any potential findings so that documentation and an assessment of the find can proceed, and appropriate treatment can be determined. In addition, the archaeologist will have the authority to slow and/or suspend construction activities in order to ensure the necessary archaeological sampling and recording can take place.

5) Coordination Meeting:

Before work commences on the project, the on-site archaeologist shall hold a coordination meeting to orient the construction crew to the requirements of the archaeological monitoring plan. All construction personnel are required to receive this orientation prior to starting in-

field project work. HDOT will coordinate with the archaeologist to ensure a log of all personnel who receive this orientation is recorded.

At this meeting the monitor will emphasize his or her authority to temporarily halt construction and state that all finds (including objects such as bottles) are the property of the landowner and may not be removed from the construction site. At this time, it will be made clear that the archaeologist must be on site to conduct on-site archaeological monitoring during all ground disturbance activities in the specified locations including grading, grubbing and/or drilling and excavation work. Additionally, the archaeologist and construction crew will review the project plans prior to project initiation and again prior to conducting any work within Wailua, Hanalei, Lumaha'i and Wainiha Ahupua'a. It is the responsibility of the HDOT, the FHWA, the Archaeological Principal Investigator, and the on-site archaeologist(s) to ensure proper coordination so that the necessary number of archaeologists are on site each day. A minimum of one archaeologist shall directly monitor each ground disturbing activity.

6) Laboratory Work:

If laboratory work occurs, it will be conducted in accordance with HAR §13-13-279-5(6). Laboratory analysis of non-burial related finds will be tabulated, and standard artifact and midden recording will be conducted as follows. Artifacts will be documented as to provenience, measurements, weight, type of material, and presumed function. Scaled curation-quality photographs of all artifacts will be taken and included in the archaeological monitoring report. Faunal bone and shell midden materials will be sorted down to species, when possible, and then tabulated by provenience.

As appropriate, collected charcoal material obtained within intact cultural deposits will be analyzed for species identification. Charcoal samples ideal for dating analyses will be subjected to wood identification prior to being sent to Beta Analytic, Inc. for radiocarbon dating. If appropriate, artifacts may be sent to the University of Hawaii-Hilo Geoarchaeology Lab for Energy-Dispersive X-ray Fluorescence (EDXRF) analysis in order to identify and possibly geographically locate the source material. All analyzed samples, provenience information, and results will be presented in table form within the archaeological monitoring report.

7) Report Preparation:

Within 90 days of the end of field work, an archaeological monitoring report meeting the requirements HAR §13-13-279-5 will be prepared by an archaeologist that meets the minimum requirements under HAR §13-281 and submitted to SHPD by HDOT. The archaeological monitoring report will include all data required by this plan to have been collected including scaled maps and photographs of all areas subjected to archaeological monitoring, representative stratigraphic profiles, and a discussion of the monitoring methods and archaeological results. Photographs of ground disturbing activities will be included in the monitoring report even if no historically significant sites are documented.

Should burial treatment be completed as part of the monitoring effort, a summary of this treatment will be included in the monitoring report. Should burials and/or human remains be identified, the HDOT contracted construction company's subcontracted

archaeologist(s) will provide all appropriate additional written documentation (e.g., letters, memos, reports) that may be requested by the SHPD.

8) Archiving Materials:

All human burial materials will be addressed in accordance with SHPD directives. Materials not associated with burials will be temporarily stored at the HDOT contracted archaeologist's curation facilities until an appropriate curation facility is selected, in consultation with the landowner and the SHPD. All data generated will be stored at the HDOT contracted archaeologist's offices.

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APPENDIX A, SHPD 6E-8 Letter Requesting Archaeological Monitoring



DAVID Y. IGE
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STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES

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CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAKOOLANE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

July 7, 2021

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Email: Lawrence.j.Dill@hawaii.gov
Electronic Transmittal Only, No Hard Copy to Follow

IN REPLY REFER TO:
Project No.: 2020PR35090
Submission No.: 2020PR35090.002
Doc. No.: 2106SH20
Archaeology

Dear Lawrence J. Dill:

**SUBJECT: Chapter 6E-8 Historic Preservation Review –
Initiation of Consultation and Request for Concurrence with Effect Determination
Guardrail and Shoulder Improvements at Various Locations, Kaua'i, Part 6
Ref. No. HWY-K 4.210001, Federal Aid Project No. STP-0700(086)
Hanapepe, Wahiawa, Lawai, Haiku, Niumalu, Kalapaki, Wailua, Hanalei, Lumaha'i and
Wainiha Ahupua'a, Kona, Puna, and Halale'a District, Island of Kaua'i
TMK: (4) 1-8-008:035 and 066, (4) 2-1-001:001 and 003, (4) 2-5-004:014, (4) 2-5-011:075,
(4) 3-3-002:011, (4) 3-3-002:012, (4) 3-3-011:005, (4) 3-3-018:002 and 004, (4) 3-4-005:003,
(4) 3-4-005:008, (4) 3-4-005:012, (4) 3-4-005:017, (4) 3-4-005:018, (4) 3-4-005:019, (4) 3-4-
006:001, (4) 3-4-006:002, (4) 3-4-006:012, (4) 3-4-007:002, (4) 3-4-007:008, (4) 3-4-017:002,
(4) 3-6-002:016, (4) 4-1-003:040, (4) 4-1-004:002, (4) 4-1-004:021, 022, and 024, (4) 4-2-
001:012, (4) 4-2-003:008, (4) 4-2-013:015, (4) 4-2-017:056, (4) 4-2-040:002, (4) 5-4-003:007,
(4) 5-4-004:010, (4) 5-7-003:003, (4) 5-7-003:999 and 001, (4) 5-8-002:002, (4) 5-8-006:030,
031, 032 and 037, (4) 5-8-012:012**

The State Historic Preservation Division (SHPD) received a letter dated January 5, 2021 from the State of Hawai'i Department of Transportation (HDOT) to initiate the Chapter 6E historic preservation review process and to request the State Historic Preservation Officer's (SHPO's) concurrence with the effect determination for the Guardrail and Shoulder Improvements project, Part 6 at Various Locations on the island of Kaua'i. The SHPD received this submittal on January 13, 2021 (Originally submitted to SHPD's HICRIS system as 2021PR00039).

The proposed Hawai'i Department of Transportation (HDOT) project will receive funding from the Federal Highways Administration (FHWA) and has therefore been determined a federal undertaking as defined in 36 CFR 800.16(y). The proposed project is subject to compliance with Section 106 of the NHPA and historic preservation review under Hawaii Revised Statutes (HRS) §6E-8.

The proposed project involves safety improvements to the highway by replacing/upgrading existing guardrail in 56 discontinuous locations along Route 50, Kaunualii Highway, Route 540, Halewili Road, Route 51, Kauai Veterans Memorial Highway, Route 580, Kuamoo Road and Route 560, Kuhio Highway.

The 56 discontinuous areas are located as follows:

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- 31 locations along Route 50, Kaumualii Highway from Milepost 1.84 to Milepost 16.96.
- 2 locations on Route 540, Halewili Road from Milepost 3.89 to Milepost 3.90.
- 1 location on Route 51, Kaua'i Veterans Memorial Highway (formerly Kapule Highway), at Milepost 1.24.
- 10 locations along Route 580, Kuamoo Road from Milepost 0.07 to Milepost 5.09.
- 12 locations along Route 560, Kuhio Highway from Milepost 1.88 to Milepost 7.03.

The total width of the ROW between these mileposts varies between 20 ft and 170 ft. The total depth of work extends no greater than 10 feet below the existing surface. Additionally, the following staging areas will be provided for each of the 56 guardrail replacement locations:

- A construction work zone of varying lengths by 10 ft wide as measured from the edge of the travelway (the white stripe) along the guardrail to the center of the paved roadway.
- A 20 ft long by 10 ft wide buffer zone on both ends of the guardrails.

The proposed work includes grading, grubbing and rebuilding eroded backslopes, removing and replacing, in the same location, existing guardrail, guardrail end treatments and reflector markers, and paving under guardrails in 21 of the 56 total locations. These 21 locations are stationed along Kaumualii Highway, between Mile Post 2.11 and Mile Post 4.45.

For the remaining 35 locations, the proposed work includes removing and replacing, in the same location, 50 feet of existing guardrail end treatments and reflector markers, and removing and installing, in the same location, 28 feet of transition sections of existing guardrail posts and rail. The work in these areas will not include grading, grubbing, rebuilding of backslopes, and paving under guardrails.

The proposed scope of work for all 56 locations will be done within the footprint of the existing, previously disturbed State Highways right-of-way (ROW). Staging areas will be on previously graded, developed and paved areas within the ROW or within adjacent driveways.

Ground disturbing activity anticipated for the 21 locations along Kaumualii Highway consists of mechanically grubbing and grading existing roadway shoulders and rebuilding eroded backslopes at existing guardrail. This ground disturbing activity will not occur at the other 35 locations. Additional ground disturbing activity for all 56 locations includes mechanical removal (pulling) of existing reflector marker posts, guardrail posts and cables. There are no existing anchor blocks to be removed on this project. All ground disturbing activity will be located within the project area from the edge of the existing paved shoulder and will not extend beyond the existing ROW and below 10 ft. from the existing grade.

Grading and compacting equipment for the 21 locations along Kaumualii Highway will be stationed along the guardrail within the 10' wide staging area on the existing paved shoulder and paved roadway. Any holes left from pulling existing guardrail posts will be backfilled and compacted with handheld tools. New guardrail posts with an area of 0.167 ft² each and spaced at 6'-3" apart will be pounded into the ground in line with existing post locations at a depth no greater than 8 ft. (Note: These dimensions are the same as the existing guardrail posts to be replaced.) Post pounding equipment will be stationed along the guardrail within the 10' wide staging area on the existing paved shoulder and paved roadway. Should the contractor choose to use drilling equipment for post installation, drilled holes will be no larger than 12" in diameter, no greater than 8' deep and backfilled and compacted after post installation with handheld tools. Drilling equipment will be stationed in the 10' wide staging area.

Where grading and grubbing along the existing guardrail at the 21 locations along Kaumualii Highway is necessary to clear overgrowth of grass and low shrubbery prior to removal and replacement of guardrail and reflector markers and installation of paving under the guardrails, ground disturbance will occur within 2 ft or less from the edge of paved shoulder at a depth of 4 to 6 inches. When leveling and compacting of disturbed ground is necessary prior to guardrail replacement and paving, handheld tools will be used so as not to further disturb existing slopes.

Where grading and grubbing at the terminal ends of the guardrail at the 21 locations along Kaumualii Highway is necessary to clear overgrowth of grass and shrubbery prior to removal and installation of guardrail end treatments,

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ground disturbance will occur within 2 ft or less from the edge of paved shoulder and extend no greater than 20 feet from the end of the guardrail end treatment at a depth of 4 to 6 inches. New guardrail end treatments will be installed within the same line as the existing guardrail end treatments and will consist of 1 post with an area of 0.25 ft² and 7 posts with an area of 0.167 ft² each, spaced 6'-3" apart and pounded into the ground at a depth no greater than 8 ft. When reshaping, leveling and compacting of disturbed ground is necessary, grading equipment and/or handheld tools will be used.

Removal and replacement of reflector markers on delineator posts will occur behind the guardrails at 2 ft or less from the edge of paved shoulder. Reflector markers will be installed on delineator posts with an area of 0.329 in² and will be pounded into the ground with handheld equipment to a depth no greater than 2 ft.

Within the APE HDOT identified one known historic property, Hoinakaunalehua Stream Bridge, and one known historic district, the North Section of Kuhio Highway (Kauai Belt Road).

Hoinakaunalehua Stream Bridge, built in 1950, is a reinforced concrete, double box culvert typical of post-war bridges built after 1945. Because it is covered by 25 feet of compacted earth and engineered soil and rock, the structure has no bridge railings and transitions. The existing guardrails over the culvert are not part of the 56 existing guardrail locations to be replaced on this project, therefore no work will occur in the area of this structure for the proposed project.

Portions of the APE in the Ahupua'a of Hanalei, Lumahai and Wainiha are located along the north section of Kuhio Highway (Kauai Belt Road) which is listed in the National Register of Historic Places (NRHP) under National Register No. 03001048 and assigned State Inventory of Historic Place No. 50-30-02-9396. This north shore section of the Kauai Belt Road is listed in the NRHP as a Historic District significant under Criteria A and C. The Kauai Belt Road, is assessed as significant under Criteria a, and c, of the State of Hawai'i significance criteria pursuant to HAR §13-275-6. The boundaries of this historic district span Kuhio Highway from Mile Marker 0 in Princeville to Mile Marker 10 at Haena State Park. The beginning and end points of the district were selected to encompass the portion of the Kauai Belt Road that retains the greatest historic integrity and character. Within the district, the roadway is relatively unaltered and is the most spectacular portion of Kauai's historic belt road system, both in its historic character and its scenery. It is the only portion of the Kauai Belt Road that retains historic integrity. The historic district includes the road, the existing Hanalei Valley Scenic Overlook, and thirteen historic bridges and culverts that date to 1912.

Per the Section 106 process for this project, in a letter dated March 17, 2021 FHWA states that through previous consultations with stakeholders, HDOT has adopted mitigation measures to address adverse effects from guardrail work along this historic district. These mitigation measures incorporate painting guardrails along this historic district a shade of brown that better blends into the natural environment of the scenic historic byway and shall be made part of the project's specifications.

According to HDOT, there are no known historic properties which will be affected within the project area along this North section of Kuhio Highway. The portions of the project area that cross the Wainiha River where existing guardrail end treatments will be removed and replaced include three steel bridges built less than 50 years ago. These have been deemed as non-contributing structures within the historic district of Kuhio Highway, North Shore section and are therefore not identified as historic properties (Final Archaeological Inventory Survey Report for the Wainiha Bridges Project, Wai'oli, Waipā, Waikoko, Lumahai, and Wainiha Ahupua'a, Halele'a District, Kaua'i, Stark, Kama'i, Folk and Hammatt, December 2017).

The HDOT has determined the proposed project will result in *no historic properties affected*.

Due to the possibility of encountering subsurface archaeological resources and/or human remains, the SHPO requests archaeological monitoring is conducted by a qualified archaeologist to identify and provide the opportunity to avoid or mitigate impacts to subsurface historic properties, should they be present, in the following areas: Kuamoo Road from Mile Post 0.07 to 0.17 and Kuhio Highway from Mile Post 1.88 to 7.03.

If the HDOT agrees to having archaeological monitoring conducted in the areas designated above, please submit to SHPD's HICRIS Project No. 2020PR35090 a written commitment to submit an archaeological monitoring plan to

APPENDIX A continued

Lawrence Dill
July 7, 2021
Page 4

be approved by SHPD prior to the start of the proposed project, at which time the SHPO will provide concurrence with the HDOT's effect determination. If the HDOT does not agree to having archaeological monitoring conducted, the Chapter 6E historic preservation review process shall continue.

The HDOT and FHWA are the offices of record for this project. Please maintain a copy of this letter with your environmental review record for this project.

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: Janil Ke, HDOT Project Engineer (janil.ke@hawaii.gov)
Eric Fujikawa, P.E., HDOT Project Manager (eric.i.fujikawa@hawaii.gov)
Meesa Otani, FHWA (Meesa.Otani@dot.gov)

APPENDIX B, SHPD 106 Letter Requesting Archaeological Monitoring



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 HI 96707

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

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCES MANAGEMENT
CONSERVATION AND COASTAL ZONE
CONSERVATION AND RESOURCES IMPROVEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAPOLANE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

June 29, 2021

Meesa Otani, Environmental Engineer
Federal Highway Administration, Hawai'i Federal-Aid Division
U.S. Department of Transportation
300 Ala Moana Boulevard, Room 3-306
Box 50206
Honolulu, Hawai'i 96850
Email Reply to: Meesa.Otani@dot.gov
Electronic Transmittal Only, No Hard Copy to Follow

IN REPLY REFER TO:
Project No.: 2020PR35090
Submission No.: 2020PR35090.003
Doc. No.: 21065H20
Archaeology

Dear Meesa Otani:

**SUBJECT: National Historic Preservation Act (NHPA) Section 106 Review –
Continued Consultation and Request for Concurrence with the Effect Determination
Guardrail and Shoulder Improvements at Various Locations, Kaua'i, Part 6
Ref. No. HDA-HI, Federal Aid Project No. STP-0700(086)
Hanapepe, Wahiawa, Lawai, Haiku, Niumalu, Kalapaki, Wailua, Hanalei, Lumaha'i and
Wainiha Ahupua'a, Kona, Puna, and Halale'a District, Island of Kaua'i
TMK: (4) 1-8-008:035 and 066, (4) 2-1-001:001 and 003, (4) 2-5-004:014, (4) 2-5-011:075,
(4) 3-3-002:011, (4) 3-3-002:012, (4) 3-3-011:005, (4) 3-3-018:002 and 004, (4) 3-4-005:003,
(4) 3-4-005:008, (4) 3-4-005:012, (4) 3-4-005:017, (4) 3-4-005:018, (4) 3-4-005:019, (4) 3-4-
006:001, (4) 3-4-006:002, (4) 3-4-006:012, (4) 3-4-007:002, (4) 3-4-007:008, (4) 3-4-017:002,
(4) 3-6-002:016, (4) 4-1-003:040, (4) 4-1-004:002, (4) 4-1-004:021, 022, and 024, (4) 4-2-
001:012, (4) 4-2-003:008, (4) 4-2-013:015, (4) 4-2-017:056, (4) 4-2-040:002, (4) 5-4-003:007,
(4) 5-4-004:010, (4) 5-7-003:003, (4) 5-7-003:999 and 001, (4) 5-8-002:002, (4) 5-8-006:030,
031, 032 and 037, (4) 5-8-012:012**

The State Historic Preservation Division (SHPD) received a letter dated March 17, 2021 from the Federal Highway Administration (FHWA) to request the State Historic Preservation Officer's (SHPO's) concurrence with the Section 106 effect determination for the Guardrail and Shoulder Improvements Project at Various Locations, Part 6 on the island of Kaua'i. The SHPD received this submittal on March 18, 2021.

The proposed State of Hawai'i Department of Transportation (HDOT) project will receive funding from the Federal Highway Administration (FHWA) and has therefore been determined a federal undertaking as defined in 36 CFR 800.16(y). The proposed project is subject to compliance with Section 106 of the NHPA and historic preservation review under Hawaii Revised Statutes (HRS) §6E-8. Pursuant to the Programmatic Delegation of Authority (May 2016), the FHWA has delegated Section 106 consultation to the HDOT.

The proposed project involves safety improvements to the highway by replacing/upgrading existing guardrails in 56 discontinuous locations along Route 50, Kaunualii Highway, Route 540, Halewili Road, Route 51, Kauai Veterans Memorial Highway, Route 580, Kuamoo Road and Route 560, Kuhio Highway. Initially, the proposed project identified 21 existing guardrail replacement locations on Kaunualii Highway from Milepost 2.10 to Milepost 4.46. The proposed work for these 21 locations includes grading, grubbing and rebuilding eroded back slopes, removing and replacing existing guardrail, guardrail end treatments and reflector markers, and paving under guardrails. An additional 35 guardrail replacement areas were later added to the proposed project as follows:

APPENDIX B continued

Meesa Otani
June 29, 2021
Page 2

- 10 locations along Route 50, Kaunualii Highway from Milepost 1.84 to Milepost 16.96
- 2 locations on Route 540, Halewili Road from Milepost 3.89 to Milepost 3.90
- 1 location on Route 51, Kauai Veterans Memorial Highway, at Milepost 1.24
- 10 locations along Route 580, Kuamoo Road from Milepost 0.07 to Milepost 5.09
- 12 locations along Route 560, Kuhio Highway from Milepost 1.88 to Milepost 7.03.

The proposed work for these 35 locations involves removing and replacing 50 feet of existing guardrail end treatments and reflector markers and removing and installing 28 feet of transition sections of existing guardrail posts and rail. The work in these areas would not include grading, grubbing, rebuilding of backslopes, and paving under guardrails.

FHWA states the scope of work for all 56 locations would be done within the footprint of the existing, previously disturbed State Highways right-of-way (ROW). Staging areas would be on previously graded, developed and paved areas within the ROW or within adjacent driveways. All 56 locations include the following staging areas:

- A construction work zone of varying lengths by 10 ft wide as measured from the edge of the travelway (the white stripe) along the guardrail to the center of the paved roadway; and
- A 20 ft long by 10 ft wide buffer zone on both ends of the guardrails.

The Area of Potential Effects (APE) was revised from 22.98 acres for the initial 21 guardrail replacement locations (HICRIS Submission No. 2020PR33538 [Formerly SHPD Log No. 2020.01431], Doc. No. 2007SH16) to 92.49 acres for all 56 guardrail replacement locations (HICRIS Submission No. 2020PR35090.001, Doc No. 2101SH14). SHPD's response stated no objections to the APE as it is defined.

FHWA's letter states extensive historical, cultural and archaeological background information for the APE was gathered through researching SHPD's library and several on-line cultural and historical resources. Based on this information, there are no known archaeological sites within the APE, which is the previously graded highway ROW. FHWA identified one known historic property, Hoinakaunalehua Stream Bridge, and one known historic district, the North Section of Kuhio Highway (Kauai Belt Road), within the APE.

According to FHWA, Hoinakaunalehua Stream Bridge, built in 1950, is a reinforced concrete, double box culvert typical of post-war bridges built after 1945 and would fall under the Advisory Council on Historic Preservation's Common Post-1945 Bridges Program Comment. Because it is covered by 25 feet of compacted earth and engineered soil and rock, the structure has no bridge railings and transitions. The existing guardrails over the culvert are not part of the 56 existing guardrail locations to be replaced on this project therefore no work will occur in the area of this structure for the proposed project.

Portions of the APE in the Ahupua'a of Hanalei, Lumahai and Wainiha are located along the north section of Kuhio Highway (Kauai Belt Road) which is listed in the National Register of Historic Places (NRHP) under National Register No. 03001048 and assigned State Inventory of Historic Place No. 50-30-02-9396. This north shore section of the Kauai Belt Road is listed in the NRHP as a Historic District significant under Criteria A and C. The boundaries of this historic district span Kuhio Highway from Mile Marker 0 in Princeville to Mile Marker 10 at Haena State Park.

FHWA states that through previous consultations with stakeholders, HDOT has adopted mitigation measures to address adverse effects from guardrail work along this historic district. These mitigation measures incorporate painting guardrails along this historic district a shade of brown that better blends into the natural environment of the scenic historic byway and shall be made part of the project's specifications.

According to a letter from HDOT dated January 5, 2021, there are no known historic properties which will be affected within the APE along this North section of Kuhio Highway. The portions of the APE that cross the Wainiha River where existing guardrail end treatments will be removed and replaced include three steel bridges built less than 50 years ago. These have been deemed as non-contributing structures within the historic district of Kuhio Highway, North Shore section and are therefore not identified as historic properties (Final Archaeological Inventory

Meesa Otani
June 29, 2021
Page 3

Survey Report for the Wainiha Bridges Project, Wai'oli, Waipā, Waikoko, Lumaha'i, and Wainiha Ahupua'a, Halele'a District, Kaua'i, Stark, Kamai, Folk and Hammatt, December 2017).

The FHWA has determined the proposed project will result in *no historic properties affected*.

Due to the possibility of encountering subsurface archaeological resources and/or human remains, the SHPO requests archaeological monitoring is conducted by a qualified archaeologist to identify and provide the opportunity to avoid or mitigate impacts to subsurface historic properties, should they be present, in the following areas: Kuamoo Road from Mile Post 0.07 to 0.17 and Kuhio Highway from Mile Post 1.88 to 7.03.

If the FHWA agrees to having archaeological monitoring conducted in the areas designated above, please submit to SHPD's HICRIS Project No. 2020PR35090 a written commitment to submit an archaeological monitoring plan to be approved by SHPD prior to the start of the proposed project, at which time the SHPO will provide concurrence with the FHWA's effect determination. If the FHWA does not agree to having archaeological monitoring conducted Section 106 consultation shall continue.

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 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: Janil Ke, HDOT Project Engineer (janil.ke@hawaii.gov)
Eric Fujikawa, P.E., HDOT Project Manager (eric.i.fujikawa@hawaii.gov)

APPENDIX C, HDOT Letter Committing to Archaeological Monitoring

DAVID Y. IGE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
KAUAI DISTRICT
1720 HALEUKANA STREET
LIHUE, HAWAII 96766

JADE T. BUTAY
DIRECTOR

Deputy Directors
LYNN A.S. ARAKI-REGAN
DEREK J. CHOW
ROSS M. HIGASHI
EDWIN H. SNIFFEN

IN REPLY REFER TO:
HWY-K 4.210224

July 13, 2021

TO: THE HONORABLE SUZANNE CASE
CHAIRPERSON AND STATE HISTORIC PRESERVATION OFFICER
DEPARTMENT OF LAND AND NATURAL RESOURCES

ATTN: THE HONORABLE ALAN DOWNER, PH.D.
ADMINISTRATOR AND DEPUTY STATE HISTORIC PRESERVATION OFFICER
STATE HISTORIC PRESERVATION DIVISION

FROM: LAWRENCE J. DILL, P.E. *LD*
DISTRICT ENGINEER, KAUAI, HIGHWAYS DIVISION

SUBJECT: HAWAII REVISED STATUTES, CHAPTER 6E-8 EFFECT DETERMINATION
GUARDRAIL AND SHOULDER IMPROVEMENTS AT VARIOUS LOCATIONS,
KAUAI PART 6
AHUPUAA OF HANAPEPE, WAHIAWA, AND LAWAI, KONA MOKU;
AHUPUAA OF HAIKU, NIUMALU, KALAPAKI, AND WAILUA, PUNA MOKU;
AHUPUAA OF HANAIEI, LUMAHAI, AND WAINIHA, HALALEA MOKU;
KAUAI ISLAND
FEDERAL-AID PROJECT NO. STP-0700(086)
TAX MAP KEYS: (4) 1-8-008:035 AND 066, (4) 2-1-001:001 AND 003, (4) 2-5-
004:014, (4) 2-5-011:075, (4) 3-3-002:011, (4) 3-3-002:012, (4) 3-3-011:005, (4) 3-3-
018:002 AND 004, (4) 3-4-005:003, (4) 3-4-005:008, (4) 3-4-005:012, (4) 3-4-005:017,
(4) 3-4-005:018, (4) 3-4-005:019, (4) 3-4-006:001, (4) 3-4-006:002, (4) 3-4-006:012, (4)
3-4-007:002, (4) 3-4-007:008, (4) 3-4-017:002, (4) 3-6-002:016, (4) 4-1-003:040, (4) 4-1-
004:002, (4) 4-1-004:021, 022, AND 024, (4) 4-2-001:012, (4) 4-2-003:008, (4) 4-2-
013:015, (4) 4-2-017:056, (4) 4-2-040:002, (4) 5-4-003:007, (4) 5-4-004:010, (4) 5-7-
003:003, (4) 5-7-003:999 AND 001, (4) 5-8-002:002, (4) 5-8-006:030, 031, 032 AND
037, (4) 5-8-012:012

Thank you for your letter dated July 7, 2021 (Project No. 2020PR35090, Submission No. 2020PR35090.002, Doc. No. 2106SH20) in response to the Hawaii Department of Transportation's (HDOT) letter dated January 5, 2021 requesting the State Historic Preservation Officer's (SHPO) concurrence with a determination of no historic properties affected under HRS Chapter 6E-8, for the Guardrail and Shoulder Improvements at Various Locations, Kauai, Part 6 project.

In the letter, the SHPO requested that archaeological monitoring be conducted by a qualified archaeologist to identify and provide the opportunity to avoid or mitigate impacts to subsurface historic properties, should they be present in the following areas: Kuamoo Road from Mile Post 0.07 to 0.17 and Kuhio Highway (Route 560) from Mile Post 1.88 to 7.03.

Ms. Case
July 13, 2021

HWY-K 4.210224
Page 2

In response to the SHPO's request, this letter serves as a written commitment to conduct archaeological monitoring at the stated locations and an archaeological monitoring plan will be submitted to the State Historic Preservation Division (SHPD) for review and approval prior to the start of the proposed project. The archaeological monitoring plan will be prepared in accordance with Hawaii Administrative Rules (HAR) Chapter 13-279-4 for implementation during ground disturbing activities that have the potential to encounter archaeological resources. Following completion of archaeological monitoring, an archaeological monitoring report meeting the requirements of HAR Chapter 13-279-5 shall be submitted to SHPD for review and acceptance.

With the commitment to conduct archaeological monitoring, HDOT requests SHPO's concurrence with the determination of no historic properties affected for the Guardrail and Shoulder Improvements at Various Locations, Kauai, Part 6 project.

Should you have any questions or require additional information, please contact Eric Fujikawa, Project Manager at (808) 241-3015 or by email at eric.i.fujikawa@hawaii.gov, or Janil Ke, Project Engineer at (808) 241-3027 or by email at janil.ke@hawaii.gov.

APPENDIX D, FHWA Letter Committing to Archaeological Monitoring



U.S. Department
of Transportation
**Federal Highway
Administration**

Hawaii Federal-Aid Division

July 12, 2021

300 Ala Moana Blvd, Rm 3-229
Box 50206
Honolulu, Hawaii 96850
Phone: (808) 541-2700
FHWA-Hawaii.Intake@dot.gov

In Reply Refer To:
HDA-HI

Alan S. Downer, Ph.D.
Deputy 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 Effect Determination
Guardrail and Shoulder Improvements at Various Locations, Kauai, Part 6
Ahupuaa of Hanapepe, Wahiawa, and Lawai, Kona Moku; Ahupuaa of Haiku,
Niumalu, Kalapaki, and Wailua, Puna Moku; Ahupuaa of Hanalei, Lumahai and
Wainiha, Halalea Moku, Kauai Island
Federal-aid Project No. STP-0700(086)
Tax Map Key(s): (4) 1-8-08:35 & 66, 2-1-01:01 & 03, 2-5-11:75, 2-5-04:14,
3-3-02:11, 3-3-02:12, 3-3-11:05, 3-3-18:02 & 04, 3-4-05:03, 3-4-05:08, 3-4-05:12,
3-4-05:17, 3-4-17:02, 3-4-05:17, 3-4-05:18, 3-4-05:19, 3-4-06:01, 3-4-06:02,
3-4-06:12, 3-4-07:02, 3-4-07:08, 3-6-02:16, 4-1-03:40, 4-1-04:02, 4-1-4:21, 22, & 24,
4-2-01:12, 4-2-04:02, 4-2-03:08, 4-2-13:15, 4-2-17:56, 5-4-03:07, 5-4-04:10,
5-7-03:03, 5-7-3:999 & 01, 5-8-02:02, 5-8-06:30, 31, 32 & 37, 5-8-12:12
HICRIS Project Number: 2020PR35090

Dear Dr. Downer:

Thank you for your letter dated June 29, 2021 (Project No. 2020PR35090, Submission No. 2020PR35090.003, Doc No. 2106SH20) in response to the Federal Highway Administration's (FHWA) letter dated March 17, 2021 requesting the State Historic Preservation Officer's (SHPO) concurrence with a determination of no historic properties affected under Section 106 of the National Historic Preservation Act of 1966, as amended, for the Guardrail and Shoulder Improvements at Various Locations, Kauai, Part 6 project.

In the letter, the SHPO requested that archaeological monitoring be conducted by a qualified archaeologist to identify and provide the opportunity to avoid or mitigate impacts to subsurface historic properties, should they be present in the following areas: Kuamoo Road from Mile Post 0.07 to 0.17 and Kuhio Highway (Route 560) from Mile Post 1.88 to 7.03.

In response to the SHPO's request, this letter serves as a written commitment to conduct archaeological monitoring at the stated locations and an archaeological monitoring plan will be submitted to the State Historic Preservation Division (SHPD) for review and approval prior to the start of the proposed project. The archaeological monitoring plan will be prepared in

accordance with Hawaii Administrative Rules (HAR) Chapter 13-279-4 for implementation during ground disturbing activities that have the potential to encounter archaeological resources. Following completion of archaeological monitoring, an archaeological monitoring report meeting the requirements of HAR Chapter 13-279-5 shall be submitted to SHPD for review and acceptance.

With the commitment to conduct archaeological monitoring, the FHWA requests the SHPO's concurrence with the determination of no historic properties affected for the Guardrail and Shoulder Improvements at Various Locations, Kauai, Part 6 project. If the SHPO objects to the no historic properties affected determination, please inform us within 30 days of receipt of this letter. In the absence of a SHPO response by this date, the FHWA will assume SHPO's concurrence with this determination and will proceed with the proposed project.

If you have any questions, please feel free to contact me at (808) 541-2316 or by email at meesa.otani@dot.gov. Thank you for your assistance.

Sincerely yours,



Digitally signed by
MEESA T. OTANI
Date: 2021.07.12
15:48:51 -10'00'

Meesa Otani
Environmental Engineer

cc: Lawrence Dill, HDOT, HWY-K
Janil Ke, HDOT, HWY-K

APPENDIX E, SHPD 6E-8/106 Letter Regarding Determination Concurrence



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

ROBERT K. MASUDA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

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

July 13, 2021

Meesa Otani, Environmental Engineer
Federal Highway Administration, Hawai'i Federal-Aid Division
U.S. Department of Transportation
300 Ala Moana Boulevard, Room 3-306
Box 50206
Honolulu, Hawai'i 96850
Email Reply to: Meesa.Otani@dot.gov

IN REPLY REFER TO:
Project No.: 2020PR35090
Submission No.: 2020PR35090.004
Submission No.: 2020PR35090.005
Doc. No.: 2107SH09
Archaeology

Lawrence J. 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
Electronic Transmittal Only, No Hard Copy to Follow

Dear Meesa Otani and Lawrence Dill:

SUBJECT: Chapter 6E-8 and National Historic Preservation Act (NHPA) Section 106 Review – Continued Consultation and Request for Concurrence with the Effect Determination Guardrail and Shoulder Improvements at Various Locations, Kaua'i, Part 6 Ref. No. HDA-HI and HWY-K 4.210224, Federal Aid Project No. STP-0700(086) Hanapepe, Wahiawa, Lawai, Haiku, Niumalu, Kalapaki, Wailua, Hanalei, Lumaha'i and Wainiha Ahupua'a, Kona, Puna, and Halale'a District, Island of Kaua'i TMK: (4) 1-8-008:035 and 066, (4) 2-1-001:001 and 003, (4) 2-5-004:014, (4) 2-5-011:075, (4) 3-3-002:011, (4) 3-3-002:012, (4) 3-3-011:005, (4) 3-3-018:002 and 004, (4) 3-4-005:003, (4) 3-4-005:008, (4) 3-4-005:012, (4) 3-4-005:017, (4) 3-4-005:018, (4) 3-4-005:019, (4) 3-4-006:001, (4) 3-4-006:002, (4) 3-4-006:012, (4) 3-4-007:002, (4) 3-4-007:008, (4) 3-4-017:002, (4) 3-6-002:016, (4) 4-1-003:040, (4) 4-1-004:002, (4) 4-1-004:021, 022, and 024, (4) 4-2-001:012, (4) 4-2-003:008, (4) 4-2-013:015, (4) 4-2-017:056, (4) 4-2-040:002, (4) 5-4-003:007, (4) 5-4-004:010, (4) 5-7-003:003, (4) 5-7-003:999 and 001, (4) 5-8-002:002, (4) 5-8-006:030, 031, 032 and 037, (4) 5-8-012:012

The State Historic Preservation Division (SHPD) received a letter dated July 12, 2021 from the Federal Highway Administration (FHWA) and a letter dated July 13, 2021 from the State of Hawai'i Department of Transportation (HDOT) for the Guardrail and Shoulder Improvements project at Various Locations, Part 6 on the island of Kaua'i. This letter serves to reply to both the FHWA's letter and the HDOT's letter. Please note, for the purpose of this letter the term "historic property" refers to a historic property as defined in Hawaii Administrative Rules §6E-2 of the Chapter 6E historic preservation review process and a historic property as defined in 36 CFR 800.16(i).

The proposed HDOT project will receive funding from the FHWA and has therefore been determined a federal undertaking as defined in 36 CFR 800.16(y). The proposed project is subject to compliance with Section 106 of the NHPA and historic preservation review under Hawaii Revised Statutes (HRS) §6E-8. The SHPD reviewed the proposed project and in a response to the FHWA's Section 106 effect determination and HDOT's Chapter 6E effect determination requested archaeological monitoring is conducted by a qualified archaeologist to identify, and provide

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the opportunity to avoid or mitigate impacts to, subsurface historic properties, should they be present, in the following areas: Kuamoo Road from Mile Post 0.07 to 0.17 and Kuhio Highway from Mile Post 1.88 to 7.03 (SHPD HICRIS Submission 2020PR35090.002, Doc. No. 2106SH21; SHPD HICRIS Submission 2020PR35090.003, Doc. No. 2106SH20).

The proposed project involves safety improvements to the highway by replacing/upgrading existing guardrail in 56 discontinuous locations along Route 50, Kaunualii Highway, Route 540, Halewili Road, Route 51, Kauai Veterans Memorial Highway, Route 580, Kuamoo Road and Route 560, Kuhio Highway. Initially, the proposed project identified 21 existing guardrail replacement locations on Kaunualii Highway from Milepost 2.10 to Milepost 4.46. The proposed work for these 21 locations includes grading, grubbing and rebuilding eroded backslopes, removing and replacing existing guardrail, guardrail end treatments and reflector markers, and paving under guardrails. An additional 35 guardrail replacement areas were later added to the proposed project as follows:

- 10 locations along Route 50, Kaunualii Highway from Milepost 1.84 to Milepost 16.96
- 2 locations on Route 540, Halewili Road from Milepost 3.89 to Milepost 3.90
- 1 location on Route 51, Kauai Veterans Memorial Highway, at Milepost 1.24
- 10 locations along Route 580, Kuamoo Road from Milepost 0.07 to Milepost 5.09
- 12 locations along Route 560, Kuhio Highway from Milepost 1.88 to Milepost 7.03.

The proposed work for these 35 locations involves removing and replacing 50 feet of existing guardrail end treatments and reflector markers and removing and installing 28 feet of transition sections of existing guardrail posts and rail. The work in these areas would not include grading, grubbing, rebuilding of backslopes, and paving under guardrails.

The scope of work for all 56 locations will be done within the footprint of the existing, previously disturbed State Highways right-of-way (ROW). Staging areas will be on previously graded, developed and paved areas within the ROW or within adjacent driveways. All 56 locations include the following staging areas:

- A construction work zone of varying lengths by 10 ft wide as measured from the edge of the travelway (the white stripe) along the guardrail to the center of the paved roadway; and
- A 20 ft long by 10 ft wide buffer zone on both ends of the guardrails.

The Area of Potential Effects (APE) (synonymous with the Chapter 6E project area) was revised from 22.98 acres for the initial 21 guardrail replacement locations (HICRIS Submission No. 2020PR33538 [Formerly SHPD Log No. 2020.01431], Doc. No. 2007SH16) to 92.49 acres for all 56 guardrail replacement locations (HICRIS Submission No. 2020PR35090.001, Doc No. 2101SH14).

Extensive historical, cultural and archaeological background information for the APE was gathered through researching SHPD's library and several on-line cultural and historical resources. Based on this information, there are no known archaeological sites within the APE, which is the previously graded highway ROW. One historic property, Hoinakaunalehua Stream Bridge, and one known historic district, the North Section of Kuhio Highway (Kauai Belt Road), were identified within the APE.

According to FHWA, Hoinakaunalehua Stream Bridge, built in 1950, is a reinforced concrete, double box culvert typical of post-war bridges built after 1945 and would fall under the Advisory Council on Historic Preservation's Common Post-1945 Bridges Program Comment. Because it is covered by 25 feet of compacted earth and engineered soil and rock, the structure has no bridge railings and transitions. The existing guardrails over the culvert are not part of the 56 existing guardrail locations to be replaced on this project therefore no work will occur in the area of this structure for the proposed project.

Portions of the APE in the Ahupua'a of Hanalei, Lumahai and Wainiha are located along the north section of Kuhio Highway (Kauai Belt Road) which is listed in the National Register of Historic Places (NRHP) under National Register No. 03001048 and assigned State Inventory of Historic Place No. 50-30-02-9396. This north shore section of the Kauai Belt Road is listed in the NRHP as a Historic District significant under Criteria A and C. The boundaries of this historic district span Kuhio Highway from Mile Marker 0 in Princeville to Mile Marker 10 at Haena State Park.

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FHWA's March 17, 2021 states that through previous consultations with stakeholders, HDOT has adopted mitigation measures to address adverse effects from guardrail work along this historic district. These mitigation measures incorporate painting guardrails along this historic district a shade of brown that better blends into the natural environment of the scenic historic byway and shall be made part of the project's specifications.

According to a letter from HDOT dated January 5, 2021, there are no known historic properties which will be affected within the project area along this North section of Kuhio Highway. The portions of the project area that cross the Wainiha River where existing guardrail end treatments will be removed and replaced include three steel bridges built less than 50 years ago. These have been deemed as non-contributing structures within the historic district of Kuhio Highway, North Shore section and are therefore not identified as historic properties (Final Archaeological Inventory Survey Report for the Wainiha Bridges Project, Wai'oli, Waipā, Waikoko, Lumaha'i, and Wainiha Ahupua'a, Halele'a District, Kaua'i, Stark, Kamai, Folk and Hammatt, December 2017).

The FHWA has determined the proposed project will result in *no historic properties affected*.

As stated above, due to the possibility of encountering subsurface archaeological resources and/or human remains, the SHPO requested archaeological monitoring is conducted by a qualified archaeologist to identify and provide the opportunity to avoid or mitigate impacts to subsurface historic properties, should they be present, in the following areas: Kuamoo Road from Mile Post 0.07 to 0.17 and Kuhio Highway from Mile Post 1.88 to 7.03.

The FHWA's letter dated July 12, 2021 commits to conducting archaeological monitoring at the stated locations and to submitting an archaeological monitoring plan to the SHPD for review and approval prior to the start of the proposed project. Based on this commitment, and the information provided by FHWA during the Section 106 process, the SHPO concurs with FHWA's determination of *no historic properties affected*.

Likewise, the HDOT's letter dated July 13, 2021, commits to conducting archaeological monitoring per the Chapter 6E historic preservation process, at the stated locations and to submitting an archaeological monitoring plan to the SHPD for review and approval prior to the start of the proposed project. The SHPD's letter dated July 7, 2021 erroneously commits to providing concurrence with the HDOT's determination of "No historic properties affected", upon HDOT's agreement to conduct archaeological monitoring under a SHPD approved archaeological monitoring plan, however in compliance with the Chapter 6E historic preservation review process, because the archaeological monitoring will be conducted for identification of historic properties should they be present, the SHPD does not have enough information to concur with the effect determination at this time. Please submit an archaeological monitoring plan (AMP) meeting the requirements of HAR §13-279-4 for SHPD's review and approval. Upon SHPD's approval of the AMP, the project may commence per the Chapter 6E process.

The SHPD looks forward to continuing the Section 106 and Chapter 6E processes for the proposed project and to receiving a single draft AMP for SHPD's review and acceptance prior to the start of the project.

Please submit a draft AMP meeting the requirements of HAR §13-279-4 for SHPD's review and approval to SHPD's HICRIS system under Project No. 2020PR35090 using the Project Supplement module.

The HDOT and the FHWA are the offices of record for this project. 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

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