MAUI



HISTORIC CONTEXT

Maui is the second-largest island in the Hawaiian chain. It is formed from two shield volcanoes joined by a low isthmus. The highly dissected west Maui mountain has a high point of 5,788 feet, much lower than Haleakalā, the dormant volcano that rises over 10,000 feet from sea level. In the pre-western contact period the population and power centers were at Lahaina and the area near Wailuku. Lahaina was also the seat of government for the Kingdom of Hawai'i from 1820-1845.

Whalers arrived at Lahaina, Maui in 1819, followed four years later by missionaries. The crews of the whaling ships, used to having open access to grog and Hawaiian women, were soon rioting over moral laws instituted in 1825 at the suggestion of the missionaries. While Maui was the last of the major Hawaiian Islands to have a mission station, the missionaries here had the patronage of Kamehameha I's sacred widow, Keōpūolani, and the support of Maui's governor, Hoapili. The famous Lahainaluna School, the first high school west of the Rocky Mountains, was established above Lahaina in 1831. The Catholic religion also gained a foothold on Maui, starting in the late 1830s, despite the opposition of the Protestant missionaries. At least a dozen churches erected on Maui in the nineteenth century still stand to witness the efforts of these two Christian sects that greatly affected the culture of Maui and all the islands.

The early nineteenth century on Maui was a period when various agricultural enterprises were tried, including some small-scale attempts at sugar cultivation and milling that did not survive very long. Other crops, including coffee, rice, potatoes, rubber, ranching, as well as pineapple were significant in certain eras and areas of the island. The establishment of homestead agricultural lots on Maui, as on other islands, occurred in the late nineteenth and early twentieth centuries, a history that is not well documented, but allowed immigrant descendants to purchase land in Hawai'i. Like the rest of the islands, many immigrants of various ethnicities arrived on Maui due to the sugar plantations.

The first boom in sugar on Maui, as on other Hawaiian islands, dates to the early 1860s, the Civil War period. A bigger surge in the number of sugar plantations, and acreage planted in sugarcane, was

after the 1875 Reciprocity Treaty. Claus Spreckles arrived from California in 1876 to cultivate sugar, leaving Hawai'i with the overthrow of the monarchy in 1893. The 17-mile Hāmākua Ditch was finished in 1878 by his rivals, the sugar planters and missionary descendants Henry P. Baldwin and Samuel T. Alexander. Their ditch, carrying plentiful East Maui waters, allowed the planting of sugarcane on the arid isthmus lands. The Alexander & Baldwin (A&B) plantation eventually became the largest and the last remaining sugar producer on Maui and in the state. A&B had a major impact on island life with their decision to replace 60-plus ethnically separated plantation camps with one large residential development in Kahului, called "Dream City," constructed in 1949-1963.

World War II (WWII) had an enormous effect on Maui, with the deluge of mainland troops outnumbering island residents by four to one. WWII military construction on Maui started with Naval Air Station (NAS) Puunene, and soon was joined by NAS Kahului (today's Kahului Airport), the huge Marine camp in Kokomo known as Camp Maui, and more than 40 other training sites used by Navy, Marine, and Army personnel. Maui's rigid plantation-based social hierarchy was forever changed after the disruption of WWII.

As agricultural jobs declined, resorts and related tourism developments have provided an increasing percentage of jobs on Maui since Statehood in 1959. The major tourism centers on Maui are now Lahaina, Kā'anapali, Kahana, Kapalua, and the Kīhei-Wailea coast.









HALIIMAILE

Hāli'imaile is situated upcountry, in East Maui. This rural town sits on gently sloping land on the flank of Haleakala, within the Hāli'imaile *ahupua'a*, situated below Makawao.

The portion of the town surveyed has two main clusters of buildings that are offset slightly and separated by Hāli'imaile Road (County Route 371). The two parts of town are a former plantation camp residential area to the north (downslope), and a mixed-use corridor along Hāli'imaile Road, which contains light industrial buildings and agricultural fields, and well-known restaurant, and a few residences just outside of town. The agricultural and shop buildings situated along Hāli'imaile Road that characterize this historic plantation town's baseyard, and the residential neighborhood across Hāli'imaile Road, slightly to the east were originally developed as part of the Hāli'imaile Plantation – a pineapple plantation and camp built in the early 1920s.

Hāli'imaile is defined in Place Names of Hawaii as "maile vines strewn"

- 192 properties surveyed in Hāli'imaile;
- 108 properties evaluated as contributing elements to a potential historic district; proposed boundary shown at left;
- The majority of eligible buildings are Plantation style.

HALIIMAILE ELIGIBILITY



HALIIMAILE ELIGIBLE STYLES



HISTORIC CONTEXT HALI'IMAILE

Hali'imaile is situated upcountry, in East Maui. This rural town sits on gently sloping land on the flank of Haleakala, within the Hali'imaile *ahupua*'a, situated below Makawao. Hali'imaile is defined in *Place Names of Hawai'i* as "*maile* vines strewn"¹²⁴ The town has two main clusters of buildings that are offset slightly - and separated by - Hali'imaile Road (County Route 371). The "New" Hamakua Ditch (built in the early 1900s), extends roughly parallel to Hali'imaile Road to the south. The town's 1,000' high elevation and surrounding fields afford sweeping views in all directions. The town was developed as a pineapple plantation.

The two parts of town are a former plantation camp residential area to the north (downslope), and a mixed-use corridor along Hali'imaile Road, which contains light industrial buildings and agricultural fields (currently sugar cane), and well-known restaurant, and a few residences just outside of town. Historically, a Kahului Railroad line extended from town to the cannery in Kahului, and was used to transport pineapple there for canning. The agricultural and shop buildings situated along Hali'imaile Road that characterize this historic plantation town's baseyard, and the residential neighborhood across Hali'imaile Road, slightly to the east were originally developed as part of the Hali'imaile Plantation – a pineapple plantation and camp built in the early 1920s. The residential neighborhood is comprised of two adjoining grid patterned neighborhoods.

Few changes have altered the overall layout since the 1920s development of this plantation town, although the original worker housing grid was expanded to the north (past Alamuku Street), with three new rows of houses, sometime between the 1940s and 1960s (Maikai Street was added). The first Hali'imaile Plantation, a sugar operation, was started in the 1840s. In December of 1849, Reynolds, "bought half interest in the Hāli'imaile Plantation in East Maui and a few years later became sole owner of it. Reynolds spent considerable money upon the plantation, but in 1855 he became insane and left the islands."¹²⁵ His plantation struggled; Reynolds was "in debt at that time to thirteen Hawaiian and fifteen Chinese workers, plus merchants who had furnished supplies."¹²⁶ In 1856, the plantation was purchased by Charles Brewer II and Captain James Makee and was renamed the Brewer Plantation,¹²⁷ one of only ten sugar companies in the Kingdom of Hawai'i at that time. In 1863, it was sold to 'Judd, Wilder, and Judd,' but the following year its mill burned in a fire, and the remaining machinery was shipped to Oahu.¹²⁸

Following its failed tenure as a sugar plantation, the land at Hali'imaile was eventually put back into active agricultural use with a new, less thirsty crop: pineapple. In 1924, California Packing Corp. ("Calpac") entered into a contract with Maui Agricultural Co. and Haleakala Pineapple Co. to grow pine. Harry A. Baldwin, of the Alexander & Baldwin family, was president of both growers, and controlled many other agricultural and ranching operations on Maui. That same year, 1924, Harry A. Baldwin's daughter, Frances, married a man named J. Walter Cameron.

Maui Agricultural Co. developed Hali'imaile Camp in 1923. Maps from this period show the town had a reservoir. William Alexander Clark, Manager of Grove Ranch, was selected to head Maui Agricultural Co.'s pineapple division, and began planting acres of pineapple immediately. An annual report for the company in 1924 noted that 'an attractive camp for the employees had been built',

¹²⁴ Mary Kawena Pukui, Samuel H. Elbert & Esther T. Mookini, *Place Names of Hawaii* (Honolulu: University of Hawaii Press) 1976

¹²⁵ Ralph S. Kuykendall, The Hawaiian Kingdom, Volume 1, 1778-1854 Foundation and Transformation. University of Hawaii Press, 1938. P. 325.

¹²⁶ Carol A. Maclennan, Foundations of Sugar's Power: Early Maui Plantations, 1840-1860. The Hawaiian Journal of History. P. 51.

¹²⁷ Ralph S. Kuykendall, The Hawaiian Kingdom, Volume 1, 1778-1854 Foundation and Transformation. University of Hawaii Press, 1938. P. 325.

¹²⁸ Carol A. Maclennan, Foundations of Sugar's Power: Early Maui Plantations, 1840-1860. The Hawaiian Journal of History. P. 41.

complete with a repair garage, stables, and other facilities.¹²⁹ Hali'imaile village/camp began with the construction of 120 cottages with "electric lights, running water, shower baths, and a complete system of sewage disposal."¹³⁰

Ca. 1926, Harry A. Baldwin made J. Walter Cameron operations manager of both Maui Agricultural Co. and Haleakala Pineapple Co. In 1932, Maui Agricultural Co. and Haleakala Pineapple Co., Ltd. merged, forming Maui Pineapple Company Ltd., with J. Walter Cameron as its manager, and a headquarters building in Hali'imaile.



Figure 31: Domestic Water Supply Map, Hāli'imaile Camp 1943

By the early 1940s, the small plantation town included an office, general store, hospital, gas station, machine shop, warehouse, several other shops, and in the neighboring housing area, roughly 130 worker houses, a boy scout hall, pool hall, basketball court, theater, gymnasium and vegetable gardens.¹³¹ The baseyard was expanded with the addition of several Quonset huts, likely in the postwar era.

In a somewhat unique development for a Hawai'i plantation camp, in late-1961, amidst Cold War tensions between the United States and the Soviet Union, Maui Pineapple Co. and town residents initiated a multi-family fallout shelter construction program. In response to concerns about the Soviet Union's construction of the Berlin Wall that year, town members and Maui Pineapple Co. had a total of five shelters under construction. The shelters were dug into the ground, constructed of concrete masonry units (CMU), and covered with dirt.¹³²

¹²⁹ Laurel Murphy, *Keiko o ka 'Aina*, July 30, 2013 accessed on August 30, 2016 at <u>http://www.mauinews.com/page/content.detail/id/574955.html</u>

¹³⁰ Laurel Murphy, *Keiko o ka 'Aina*, July 30, 2013 accessed on August 30, 2016 at <u>http://www.mauinews.com/page/content.detail/id/574955.html</u>

¹³¹ S. Takemoto, Map Showing Domestic Water Supply Pipe System at Maui Pineapple Company Ltd. Haliimaile Camp. (December 1937, updated by S. Okada, May 5, 1943.)

¹³² Robert Johnson, "Maui Town Goes All out on Multi-Family Shelters", Honolulu Advertiser, November 18, 1961. P. B.1.



Figure 32: Hāli'imaile Village Subdivision Map 1965

In 1962, Hali'imaile's plantation merged with Baldwin Packers, becoming Maui Pineapple Company. In 1965, Maui Pineapple Company converted the former plantation camp residences into a subdivision. By this time, the town had been expanded with the addition of Maikai/Mahae Streets to the north.¹³³ Lots were sold under fee simple arrangements - first to the company employees who lived there, and subsequently to the public. Around this time, the company-operated dispensary was also closed, and the company-owned Hali'imaile Road was transferred to the County.¹³⁴

¹³³ Hawaii State Archives aerial maps: Folder PPA-33-3 4-94 (ca. 1950) and Folder PPA-36-1 2CC143 (March 6, 1965).

¹³⁴ Honolulu Advertiser. "Haliimaile Town to Be Subdivided." December 7, 1964.



Figure 33: Hawai'i State Archives aerial photograph, Hāli'imaile 1965

Maui Pineapple Company's headquarters remained at Hali'imaile until 1968 when headquarters were moved to Kahului Cannery. In 1969, Maui Land & Pineapple Company, Inc. was created by combining Alexander & Baldwin and the J. Walter Cameron family holdings. The Kahului Cannery closed in 2007, and in 2009, Maui Land & Pineapple Co. ceased pineapple operations. In 2010, former Maui Pineapple Company executives and local investors formed Hali'imaile Pineapple, and took over 1,500 acres of fields, growing pineapples once again. Today, the rural, scenic town has become popular with tourists as the home of a chef-run restaurant (in the former general store), a destination distillery, pineapple tours, and more. Many of these functions are housed in extant, historic buildings from the original plantation's agricultural base yard. Somewhat predictably, the eligible residences in the Hali'imaile survey area are predominantly rendered in the plantation and modern plantation styles.

See data analysis section for more detailed survey findings about Hāli'imaile's buildings.









KULA

The area now called Kula is located upland on the island of Maui, between Lower Kula Road and Highway 377. It is centered about 12 miles from Maui's south coast at an elevation of between 2500' and 3000' along the northern slopes of Haleakala. Kula lies within the *ahupua'a* of Pulehunui.

The key factors in the Kula's development were whaling, the California Gold Rush, sugar mills to the town's northwest, ranches to the northeast, the availability of local homestead land, agricultural production, and eventually development as a place of recreation and respite. Small agricultural plots, homestead and leased lands have resulted in housing stock without consistent design as is often seen in plantation communities. This lack of stylistic conformity and plot size could be considered a hallmark of the area.

The name Kula means "open country" or "plain" and originally referred to the entire moku of Kula, which includes Pulehunui, and extends from sea level to the summit of Haleakala.

- 33 properties surveyed in Kula;
- 11 properties evaluated as contributing elements to a potential historic district; proposed boundary shown at left;
- The majority of eligible buildings are Plantation style.

KULA ELIGIBILITY



KULA ELIGIBLE STYLES



HISTORIC CONTEXT KULA

The area now called Kula is located upland on the island of Maui, between Lower Kula Road and Highway 377.¹³⁵ It is centered about 12 miles from Maui's south coast at an elevation of between 2500' and 3000' along the northern slopes of Haleakala. Kula lies within the *ahupua'a* of Pūlehunui. The name Kula means "open country" or "plain" and originally referred to the entire *moku* of Kula, which includes Pulehunui, and extends from sea level to the summit of Haleakala. The surveyed area is focused on the Kula town of Waiakoa, with a number of plots cultivated in diversified agriculture or used for grazing, and has become "famous for the quality of vegetables and flowers exported to Hawaiian and international markets."¹³⁶ The key factors in the Kula's development were whaling, the California Gold Rush, sugar mills to the town's northwest, ranches to the northeast, and the availability of local homestead land.

Kula supported a native Hawaiian population, numbering 10,700 in 1830, mainly through cultivation of sweet potato. In 1840, Protestant missionaries established a church in Kēōkea, "coinciding with the region's rise to prominence in Irish potato cultivation."¹³⁷ By 1844, Kula was reported to be an often drought ridden yet abundant area, with sweet potato, banana and dry *kalo* under cultivation at elevations below 4000ft, in addition to "large portions…planted with Irish potatoe [sic]," with "a great and increasing demand" for these potatoes. ¹³⁸ Kula's potatoes were highly sought after by whaling crews, who chose to land at Lahaina to resupply with Kula grown potatoes. The 1849 California Gold Rush provided an even greater incentive for farming crops that could be shipped to the California, Kula was known as *Nu Kaleponi* or "New California" where farmers could become wealthy from the Gold Rush without the rigors of mining for gold. When California became self-sufficient, Kula's potato production dropped off precipitously but quickly rebounded, primarily due to continued demand from the whaling industry, which was still a strong part of Hawai'i's economy. During this time, the population dropped precipitously, with only 2,900 in 1853.

Potatoes and other vegetables were farmed by Hawaiian and Chinese farmers prior to the 1847 Mahele, which allowed individual ownership of land, and plots became available as homestead lands. Sugar plantation and ranch lands were consolidated under private ownership. Immigration to the islands provided plantation labor. Laborers often left the plantations upon the completion of their contracts, and Kula and the surrounding areas' opportunities attracted many of them. Chinese farmers had dominated the Kula area prior to sugar-related immigration, and soon, Japanese farmers joined them. Many Portuguese became involved in the development of ranching in Kula and nearby Makawao. Both the Chinese and Japanese engaged in truck farming, and established grocery and other stores in the Kula towns of Kēōkea and Waiakoa.

In Kula, homesteads became available after 1889. Previously, farming was done on leased land. Many former plantation workers purchased homestead plots, but many Chinese, although instrumental in the area's farming, were not able to purchase land since they were not citizens of the Kingdom of Hawai'i. Their farms remained leased plots until the original immigrants' children, born as citizens in the Kingdom (or the Territory), reached adulthood and were able to qualify for homesteads. Nonetheless, the 1890s saw a second wave of Chinese immigration to the area, expanding the 1880s population that had grown to around 5,000.

¹³⁵ Also called Haleakala Highway and Kekaulike Avenue.

¹³⁶ County of Maui, Makawao_Pukalani_Kula Community Plan, 1996. p 6.

¹³⁷ Gail Bartholomew *Maui Remembers: A Local History*, 1994. pg. 115.

¹³⁸ The Polynesian November 23, 1844 pg. 1.



Figure 34: Hawaiian Government Survey Map, Kula 1913

In 1905, a prominent Chinese Kula resident named Shim Mook constructed the Kula pipeline to bring water from the wetter Olinda area. It was built with labor comprised of men and women from the Kula area. Once a reliable water supply was secured, Kula farmers focused on expanding and marketing their crops, organizing a farmers' association that evaluated demand across the island and Territory for Kula produce and negotiated prices.



Figure 35: Copy of Service Titles Map, Kula (1914)

In 1910, a small farm and sanitarium opened in Kēōkea to promote a cure for tuberculosis via fresh air and wholesome food. The Farm, as it was called at the time, produced award-winning crops, and was thought to produce good health outcomes. By 1930, the population had grown to 17,021. In 1937, the state commissioned Charles W. Dickey to design a new 200 bed sanatorium building with Works Progress Administration funds, renaming it the Kula Sanitarium.¹³⁹ This led to a resurgence of the area, with more farmers producing crops and additional shops opening nearby. In the 1930s, a road to the National Park at Haleakala was completed, bringing tourists through Kula. This led to the development of several small hotels and restaurants to serve visitors, including the Kula Lodge, built in 1950.

¹³⁹ Gail Bartholomew *Maui Remembers: A Local History*, 1994. pp 115-116



Figure 36: Hawai'i State Archives aerial photograph, Kula 1965

In 1964, a new highway was constructed which greatly impacted the Kula area. It replaced, and at other points, transected (Lower) Kula Road, allowing to bypass Kula stores and farms. In the 1970s, though the population had dropped again to 9,970, the area produced 35% of Hawai'i's vegetables –

and even larger percentages of the state's onions, tomatoes and lettuce.¹⁴⁰ During the same period, luxury homes were constructed in the area, resulting in a loss of farming lands.¹⁴¹ By 1990, the population was the largest ever at 19,000, reflecting Maui's growth, and the area's desirability.

Eligible buildings constructed in the Kula survey area in the early years were typically single wall, built by Chinese and Japanese carpenters. Small agricultural plots, homestead and leased lands have resulted in housing stock without consistent design as is often seen in plantation communities. This lack of stylistic conformity and plot size could be considered a hallmark of the area.

See data analysis section for more detailed survey findings about Kula's buildings.

¹⁴⁰ Diane Mei Lin Mark *The Chinese in Kula,* 1975. p 38

¹⁴¹ County of Maui, Makawao_Pukalani_Kula Community Plan, 1996. p 10









PAIA

Pāia is located on the northwest shore of east Maui, along the intersections of Hana Highway and Baldwin Avenue. The town is within the ili of Waiaua and Paihiihi, in the ahupuaa of Hamakuapoko. It is divided into two sections, Upper Pāia and Lower Pāia. The upper section is concentrated near the former mill site on Baldwin Avenue, and is approximately one mile southeast from the intersection of Hana Highway and Baldwin Avenue. Lower Pāia extends southwest and northeast along Hana Highway from Baldwin Avenue.

The major factor contributing to the development of both sections of Pāia was sugar. The cultivation of sugar in the surrounding area directly resulted in the construction of Upper Pāia around Pāia Mill, and contributed to the growth of Lower Pāia as a plantation associated town. Early residential subdivisions developed primarily in Upper Pāia, while Lower Pāia deveoped and remains primarily a commerical area.

The area name Pāia, means "noisy"

- 86 properties surveyed in Pāia;
- 58 properties evaluated as contributing elements to a potential historic district; proposed boundary shown at left;
- The majority of eligible buildings are Early Commercial style.





PAIA ELIGIBLE STYLES



HISTORIC CONTEXT PĀ'IA

Pā'ia, which translates as "noisy" is located on the northwest shore of east Maui. The town is within the *ili* of Waiaua and Paihiihi, in the *ahupuaa* of Hāmākuapoko. It is divided into two sections, Upper Pā'ia and Lower Pā'ia. The upper section is concentrated near the former mill site on Baldwin Avenue, and is approximately one mile southeast from the intersection of Hana Highway and Baldwin Avenue. Lower Pā'ia extends southwest and northeast along Hana Highway from Baldwin Avenue, and south along Baldwin Avenue. The topography of the area slopes gradually from about 600' above sea level at Upper Pā'ia down to sea level at Lower Pā'ia. The area's history is intertwined with Alexander & Baldwin Company (A&B) and its development of irrigation and sugar. The major factor contributing to the development of both sections of Pa'ia was sugar. The cultivation of sugar directly resulted in the construction of Upper Pa'ia around Pa'ia Mill, and contributed to the growth of Lower Pa'ia as a plantation associated town. An additional factor was Kahului Railroad. Once A&B completed (Old) Hāmākua Ditch, providing water to produce large amounts of sugar cane in Maui's isthmus, the company constructed a mill at Pā'ia in 1880 to process these crops, calling it Pā'ia Plantation. A small company town, Upper Pā'ia, was developed around the mill to house the workers needed for the mill, including residential camps for workers of various ethnicities. By the 1930s and 40s, Upper $P\bar{a}$ ia had a population of over 10,000, larger than the county seat, Wailuku. Most residents' needs were seen to in Upper Pa'ia, with the large, company-run Pa'ia Store, smaller camp stores, and two local theaters. Pa'ia Store alone provided auto repair, furniture, clothing, dry goods, groceries and a soda fountain.



Figure 37: c. 1885 map showing Upper and Lower Pā'ia, with Lower Pā'ia (center right) nearly undeveloped.

Lower Pā'ia was not a company owned town, but catered mainly to plantation employees. About 1885, most of the land around Lower Pā'ia was undeveloped, with large tracts owned by Pā'ia

plantation, and Hāmākuapoko Hui, though a few smaller lots were owned by individuals.¹⁴² The town of Lower Pā'ia developed mostly on Hui owned property. Kahului Railroad had reached Lower Pā'ia by 1881, and extended to Upper Pā'ia by 1905, providing transportation between the two and to points beyond. By 1914, a well-developed commercial area clustered around the intersection of "Government Road" and "Road to Mill" (Hāna Highway and Baldwin Avenue, respectively). Establishments included tailors and clothes cleaners, general merchandise stores, drug stores, barber, wholesale liquors, billiards hall, photographer, hotel as well as religious establishments, with dwellings and "tenements" scattered throughout.¹⁴³



Figure 38: 1914 Sanborn Map showing Lower Pā'ia commercial hub.

The earliest residential subdivision, Kahokuoluna Tract, was created in 1923. It was located south off Hana Highway just northeast of Baldwin Avenue. This tract included twenty parcels and a new road (Luna Lane).¹⁴⁴ In 1927, The Tavares Tract was developed west of Baldwin Avenue, with

¹⁴² Department of Accounting and General Services Registered Map No. 1187 Tracing, The Paia Plantation, c. 1885.

¹⁴³ Sanborn Map Co., "Paia, County of Maui, Territory of Hawaii." December 1914.

¹⁴⁴ Department of Accounting and General Services File Plan Map No. 226, Kahukuoluna Tract, dated March 3, 1923.

36 lots, eighteen that fronted Baldwin Avenue, and three new roads.¹⁴⁵ By 1929 Kahokuoluna Tract had not attracted any construction, but Tavares Tract had several commercial buildings and dwellings, and a Tavares Tract annex was under development as well.¹⁴⁶ Also by 1929, auto shops and garages, two theaters, and a hospital had been constructed.¹⁴⁷ In 1930, a fire destroyed approximately 15 buildings, but the town recovered and grew. By 1945, shops lined Hana Highway and much of Baldwin Avenue, including a USO, restaurants, bars and pool halls.¹⁴⁸ The devastating April 1 1946 tsunami destroyed buildings on the Kahului end of town, but by 1950, the damage was repaired, and Lower Pā'ia was as large as ever.¹⁴⁹

In 1948, the Maui Agricultural Company (owner of Pā'ia Plantation) merged with the former Spreckles operation, Hawaiian Commercial and Sugar Company, effectively creating a monopoly on sugar production on Maui. In the 1950s, the company began development of "Dream City" in Kahului, where workers could purchase their own homes. This began Upper Pā'ia's demise, and a subsequent downturn for Lower Pā'ia.



Figure 39: 1954 USGS topographical map showing Upper and Lower Pā'ia, with plantation camps (villages) labeled.

Several things contributed to Lower Pā'ia survival. The Pā'ia Mill continued to grind sugar through at least 1994; with the most direct route between the mill and Kahului going through Lower Pā'ia, workers could still patronize establishments between work and home. The town was privately

¹⁴⁵ Department of Accounting and General Services File Plan Map No. 267, Tavares Tract, dated March 3, 1927.

¹⁴⁶ Department of Accounting and General Services File Plan Map No. 322, Tavares Annex, dated April 18, 1929.

¹⁴⁷ Sanborn Map Co., "Paia, County of Maui, Territory of Hawaii." June, 1929.

 ¹⁴⁸ Sanborn Map Co., "Paia, County of Maui, Territory of Hawaii." June, 1929, corrected to August, 1945.
¹⁴⁹ Hawaii State Archives photo collection. Aerial photo in folder PPA-33-3, #4-108, ca. 1950.

owned; its occupants were not required to move, ensuring local shoppers for stores. Also, tourism to the neighbor islands grew from the 1950s on. Pā'ia became a bustling town again when an influx of windsurfers in the 1980s brought windsurfers and spectators. With Maui's status as one of the world's best islands to visit from the 1990s on, tourism in Lower Pā'ia has combined with windsurfing to revitalize the town's economy.¹⁵⁰

The historic ethnic makeup of Pā'ia was much like that of the rest of Hawai'i, with the influx of immigrants from all over the world to work on the plantation. Like most Hawai'i towns, Japanese were a large part of the population. Perhaps the most unique group to come to the Pā'ia area was the Spanish, who were not a common group in other plantations. It is unknown how many of these immigrants remained in the area, but the area of Pā'ia named Spanish/Hawaiian Village is a tangible reminder of their time at the plantation. Of significant note is that one of Hawai'i's best known women of Japanese ancestry, Representative Patsy Takemoto Mink, co-author of groundbreaking Title IX amendment of the Higher Education Act, the first Asian American woman and woman of non-European ancestry to be elected to Congress, and Hawai'i's first woman elected to Congress, was born and raised in Pā'ia.

Buildings in Pā'ia are mostly commercial and constructed in Early Commercial style. Residences are typically one of the Plantation styles.

See data analysis section for more detailed survey findings about Pā'ia's buildings.

¹⁵⁰ Hawaii Tourism Authority website, <u>http://www.gohawaii.com/maui/</u> accessed September 12, 2016.

Missing a map of Sand Hills survey area









VAILUKU

Wailuku River

The town of Wailuku is located near the north coast, along State Highway 32 (Kaahumanu Avenue) on Maui. Wailuku is the seat of government for Maui County and lies within the ahupua'a of Kahului. This urban area is at about 200' elevation, on the sloping valley of lao Stream as it approaches the coast.

The early development of Wailuku was prompted by the opening of the Wailuku Sugar Co. in 1862. The establishment of Wailuku as the County seat in 1905 encouraged additional business activity as the town became an important commercial center for Maui. By 1882, the water-powered sugar mill was located close to lao Stream, along the west side of what is now N. Market St., which was lined with buildings as it ran south of the mill. The commercial core of Wailuku developed in the area along Market, South High and Main Streets, with dwellings set behind these streets and on side streets. Wailuku was the business center of Maui during the first half of the twentieth century.

The name Wailuku, means "water of destruction"

- 233 properties surveyed in Wailuku;
- 140 properties evaluated as contributing elements to a potential • historic district; proposed boundary shown at left;
- The majority of eligible buildings are Plantation style.

WAILUKU ELIGIBILITY



- EC NC ELIGIBLE/CONTRIBUTING NOT ELIGIBLE/NON-CONTRIBUTING
- NP NOT ELIGIBLE, OUT OF PERIOD UNKNOWN
- XD DEMOLISHED

WAILUKU ELIGIBLE STYLES



HISTORIC CONTEXT WAILUKU

The town of Wailuku, meaning "water of destruction," is located near the north coast, along State Highway 32 (Kaahumanu Avenue) on Maui. Wailuku is the seat of government for Maui County and lies within the *ahupuaa* of Kahului. This urban area is at about 200' elevation, on the sloping valley of **Tao Stream** as it approaches the coast. The early development of Wailuku was prompted by the opening of the Wailuku Sugar Co. The establishment of Wailuku as the County seat in 1905 encouraged additional business activity as the town became an important commercial center for Maui.

The 1862 formation of the Wailuku Sugar Co. provided an economic base for the growth and development of the area.¹⁵¹ By 1882, the water-powered sugar mill was located close to **Tao Stream**, along the west side of what is now N. Market St., which was lined with buildings as it ran south of the mill. Additional buildings, appearing to be either associated with the mill or businesses, were clustered south and west of the mill. A dense area of Land Court Award lots with scattered buildings extended along the bottom land on both sides of **Tao Stream**.¹⁵² These lots reflected the remains of Wailuku's extensive, pre contact taro *lo'i*.¹⁵³

In 1890 the mill was moved about 1 mile to the northeast to a site along Halewili Street, and steamdriven equipment was installed.¹⁵⁴ The original mill site was used as stables for Wailuku Sugar Co. During the years after the mill was moved, the area south of the original mill site had mores streets laid out and more buildings developed. The commercial core of Wailuku developed in this area, along Market, South High and Main Streets, with dwellings set behind these streets and on side streets.¹⁵⁵ By 1915 the densest area of business development was along Market Street, between Mill and Main Streets. Buildings here lined both sides of the street with little or no space between them. Businesses included several barbershops, tailors, restaurants, and food markets, as well as jewelry, cobbler, drug, hardware and paint, cleaner, and harness shops.¹⁵⁶ With all of these shops, Wailuku was the business center of Maui during the first half of the twentieth century.¹⁵⁷ Additionally, housing was built on the side streets surrounding the business core, and along Mill Street near the 1890 mill.¹⁵⁸

Typo?

¹⁵¹ Don J. Hibbard, *Buildings of Hawaii*. (Charlottesville: University of Virginia Press). 2011. P. 187.

¹⁵² M.D. Monsarrat, "HIDAGS, Registered Map #1261, Map of a Portion of Wailuku, Maui." 1882.

 ¹⁵³ Gail Bartholomew, *Maui Remembers, A Local History.* (Honolulu: Mutual Publishing). 1994. P. 127.
¹⁵⁴ William H. Dorrance, *Sugar Islands, The 165-year Story of Sugar in Hawaii.* (Honolulu: Mutual Publishing). 2000. P. 66.

¹⁵⁵ Sanborn Map Co., "Wailuku, County of Maui, Territory of Hawaii." March 1, 1915.

¹⁵⁶ Sanborn Map Co., "Wailuku, County of Maui, Territory of Hawaii." March 1, 1915.

¹⁵⁷ Gail Bartholomew, *Maui Remembers, A Local History*. (Honolulu: Mutual Publishing). 1994. P. 128.

 ¹⁵⁸ USGS, "Topographic Map of the Island of Maui." 1/62500 scale. 1922. and Sanborn Map Co.
"Wailuku." 1915



Figure 40: 1927 Wailuku Sanborn Map Sheet 9, showing area south of Main Street

By 1951 the core area of businesses and residences had expanded in all directions. Businesses and residences were located along Market Street north of **Tao Stream**. Expansion also occurred in areas west of High Street, south of Wells Street, and east of Market Street.¹⁵⁹

The area east of Waiale Road remained undeveloped through at least 1930. This area, called the Sand Hills, was a site of pre contact burials. By 1937 Kaahumanu Avenue was built through the Sand Hills to connect with the east end of Main Street and the streets of Naniloa and Halenanai Drives were laid out.¹⁶⁰ By 1950, houses were built along these streets, and the nearby neighborhoods along South Church Street and Kalua Road, south west of Wells Park, were laid out and built up with houses.¹⁶¹

¹⁵⁹ Sanborn Map Co., "Wailuku, County of Maui, Territory of Hawaii." Corrected to April 30, 1951.

 ¹⁶⁰ "Map Shows Districts in Wailuku for Cleanup Drive Purposes." *Maui News*. April 24, 1937. P. 1.
¹⁶¹ Hawaii State Archives photo collection. Aerial photo in folder PPA-33-3, #4-88, ca. 1950. Sanborn Map Co., "Wailuku, County of Maui, Territory of Hawaii." Corrected to April 30, 1951.



Figure 41: 1950 Wailuku Sanborn Map Sheet 9 showing growth in the same area as shown in the figure above.

The ethnic history of Wailuku generally follows the typical pattern of immigration common to most former sugar plantation areas in Hawai'i. Native Hawaiians and contract laborers from China initially worked at Wailuku Sugar Co. under haole upper management. By the mid-1880s the workforce at the plantation included Portuguese, South Pacific Islanders, Americans, and Norwegians. By 1901 it included Spanish immigrants and African-Americans. Koreans arrived in 1903 and Filipinos in 1906.¹⁶² Japanese became a sizable segment of Wailuku's population after their arrival in 1895. By 1925 there were almost 20,000 persons of Japanese heritage living on Maui, amounting to about forty percent of the island's population.¹⁶³

 ¹⁶² George Engebretson, *Exploring Historic Wailuku*. (Honolulu: Watermark Publishing). 2000. P. 6.
¹⁶³ Gail Bartholomew, *Maui Remembers, A Local History*. (Honolulu: Mutual Publishing). 1994. P. 55, 56.



Figure 42: 1965 aerial photograph showing further development of Wailuku, as well as Sand Hills.

In the Sand Hills and South Church St. / Kalua Road areas, almost ³/₄ of the houses are plantation style or a derivative; modern plantation, craftsman plantation, or contemporary plantation.

See data analysis section for more detailed survey findings about Wailuku/Sand Hills' buildings.

MOLOKA'I



HISTORIC CONTEXT

Moloka'i is the fifth largest island in the Hawaiian chain, but just 38 miles long by 10 miles wide, generally a long narrow shape with the Kalaupapa peninsula projecting from the center of the north coast. Located close to the islands of Lanai and Maui, these three now make up Maui County, with the exception of Kalaupapa and the adjacent valley, which form Kalawao County. In the pre-western contact centuries Moloka'i was honored in legend, and said to be the birthplace of the hula. Evidence of the island's importance is also recorded in the remains of more than 50 fishponds and one of the largest *heiau* in the Pacific, in the ahupua'a of Kawela.

Encounters with foreigners on Moloka'i during the early-contact-period (1780s to 1820s) are not well documented. The first missionary couple to settle on the island was Harvey and Rebecca Hitchcock, who resided here from 1832 to about 1851, with a sequence of missionaries assisting for stints of no more than four years. The population of Moloka'i declined precipitously from over 6,000 in 1832 to approximately 1,000 in 1910, due to introduced diseases and out-migration, mostly to other islands in the chain.

In the mid-nineteenth century King Kamehamaha V had a retreat and ranch on Moloka'i, in Kaunakakai and in the western part of the island, respectively. The piers at the east end of the island made Puko'o and Kamalōo the commercial centers of Moloka'i in that century. Attempts to establish sugar plantations occurred on the island in the nineteenth- and early-twentieth-century, but due to lack of water for the sugar fields, ranching prevailed.

The lands of Kamehameha V eventually became Moloka'i Ranch, which was the dominant economic force on the island during the twentieth century. The establishment of large-scale pineapple plantations, led by California Packing Corporation (later Del Monte) and by Libby, McNeill and Libby drove the creation of the communities of Kualapu'u and Maunaloa. Moloka'i's population rose as workers for the pineapple plantation were imported, mostly from the Philippines and some

from Japan. With relatively fewer immigrants and immigrant descendants than other islands, Moloka'i remains the island with the highest percentage of Native Hawaiians, except for Niihau.

George Cooke, manager of the Moloka'i Ranch for four decades (ca. 1908 to 1948) was a proponent of the Hawaiian Homes Commission, and helped the development of homestead lots for Hawaiians. See the Ho'olehua context for more about the history of homesteading and pineapple plantations. Kualapu'u town has both pineapple plantation and Moloka'i Ranch history evident in its buildings.



HOOLEHUA

The area of Hoolehua on Molokai Island is located upland, at an elevation of about 650', along State Highway 480 (Farrington Avenue) and adjacent streets, in a band approximately one to two miles from the north coast. Hoolehua lies within the two *ahupua'a* of Hoolehua and Kepuhi.

The area of Hoolehua was developed as homestead tracts under the 1921 (Federal) Hawaiian Homes Commission Act. Development of Hoolehua began in 1922 when approximately 6,000 acres (bounded by the sea cliff on the north, airport on the south, Kahuuwai Gulch on the west, and Kulea Street on the east) were divided into forty-acre homestead parcels for lease to Native Hawaiians. The large lots of the homesteads vary in character, ranging from cleared areas to wooded lots. Historically, the nearby pineapple plantations provided the economic means for construction in this community.

The area was named after a former pre-contact *ali'i* of the area, Chief Hoolehua.

- 74 properties surveyed in Hoolehua;
- 9 properties evaluated as contributing elements to a potential historic district; proposed boundary shown at left;
- The majority of eligible buildings are Modern Movement style.







HOOLEHUA ELIGIBILITY



HOOLEHUA ELIGIBLE STYLES



HISTORIC CONTEXT HO'OLEHUA

The area of Ho'olehua on Moloka'i Island is located upland, at an elevation of about 650', along State Highway 480 (Farrington Avenue) and adjacent streets, in a band approximately one to two miles from the north coast. Ho'olehua lies within the two *ahupua'a* of Ho'olehua and Kepuhi. Ho'olehua is arid with a generally flat or gently sloping terrain. The area was named after a former pre-contact *ali'i* of the area, Chief Ho'olehua, and developed as homestead tracts under the 1921 (Federal) Hawaiian Homes Commission Act. The large lots of the homesteads vary in character, ranging from cleared areas to wooded lots. Historically, the nearby pineapple plantations provided the economic means for construction in this community.

Development of Ho'olehua began in 1922 when approximately 6,000 acres (bounded by the sea cliff on the north, airport on the south, Kahu'uwai Gulch on the west, and Kulea Street on the east) were divided into forty-acre homestead parcels for lease to Native Hawaiians. Leases were made for ninety-nine years at one dollar per year to Hawaiians of at least fifty percent Hawaiian blood. These 167 parcels, each approximately forty acres, provided five acres for a home and subsistence garden and thirty-five acres to grow crops for income.

The dry area proved to be poor for most crops, but excellent habitat for pineapple cultivation. Ca. 1926, when Libby, McNeill & Libby (Libby) opened a pine plantation at Maunaloa, West Moloka'i, they began contracting with homesteaders to grow fruit. Initially, the homesteaders grew their own fruit and sold it to the plantation. This rankled the Territorial government and suit was brought against the Hawaiian Homes Commission for allowing homesteaders to illegally sublease their land. Many homesteaders worked at various jobs for the plantations, and rarely worked their own land. Eventually the suit was settled in favor of subleasing, and the plantation assembled adjoining leased homesteads into contiguous field blocks that were planted, maintained, and harvested by the company. This block system, as opposed to individual lot cultivation, kept company costs down. By about 1935, 128 homesteaders had fruit growing on their land for Libby's, and about twenty-five homesteads grew fruit for California Packing Company (CPC), which opened a plantation at Kualapu'u in 1927. During the Depression, with the bottom dropping out of the pineapple market, the plantations honored their growing contracts to the homesteaders by purchasing the contracted fruit and then destroying it. This gave Ho'olehua homesteaders a profitable return on their land during some very lean economic years.¹⁶⁴

Fruit from the Libby contracts was initially trucked to Kolo Wharf on the south shore of Moloka'i for barge shipment to Honolulu. After the construction of the deeper wharf at Kaunakakai, ca. 1929, Libby shipped from there to Honolulu. CPC signed its first contracts with Ho'olehua growers in 1929 and from its first harvest, used Kaunakakai for shipments to Honolulu.¹⁶⁵

¹⁶⁴ Jack L. Larsen and Dr. Thomas A. Marks, *1894-2010, Hawaiian Pineapple Entrepreneurs* (Private publisher). 2010. pp. 373-375.

¹⁶⁵ Larsen, *Entrepreneurs*, p. 371.



Figure 43: Hawai'i State Archives aerial photograph, Ho'olehua 1950

Historic aerial photographs of Ho'olehua dated 1950 show a spatial layout of lots and buildings that corresponds very closely to the layout of the 167 forty-acre parcels of the original homesteads. This lot arrangement corresponds closely to many of the property boundaries today. The economic force behind construction by the master lessees was primarily the pineapple plantations; Libby was leasing about 3,500 acres at Ho'olehua in the mid-1960s.



Figure 44: Hawai'i State Archives aerial photograph, Ho'olehua 1964

In 1970, the Libby plantation was purchased by Dole, which promptly closed their growing operation ca. 1975. Del Monte stopped pineapple production at its Kualapu'u plantation in 1988, ending the Ho'olehua leases. The ca. 1969 construction of the nearby Kualapu'u Reservoir helped to diminish the lessees' loss of pineapple contracts by providing irrigation water to make diversified agriculture a more viable option than previously.

Forty-acre parcels (approximately 500' x 3,400') were oriented roughly north-south, extending between the area's main streets running east-west, Pu'u Kapele Ave., Farrington Ave., Mo'omomi Ave., and Keonelele Ave./ Airport Loop/ Mauna Loa Highway. Homes were located on these streets, along the narrow ends of the parcels, and cultivated land extended behind the houses. These parcels remain almost entirely owned by the Hawai'i Department of Hawaiian Homelands (DHHL) and are leased to native Hawaiians who maintain a blood quantum of at least fifty percent Hawaiian. Thus, the primary ethnic composition of this area was, and continues to be, native Hawaiian.



Figure 45: Google Earth, Ho'olehua 2013

DHHL has since performed a variety of additional subdivisions on some of the parcels, including creating five-acre home lots, one-acre home lots, fifteen-acre cultivation plots, and other parcels. Most of the eligible houses in Ho'olehua today are single-wall, wood construction, rendered in a plantation, modern plantation, or modern movement style.

See data analysis section for more detailed survey findings about Ho'olehua's buildings.









KUALAPUU

The area of Kualapuu on Molokai Island is located upland, at an elevation of about 850', at the intersection of Hawaii State Highways 470 and 480 (Farrington Avenue), about 21/2 miles from the north coast. Kualapuu lies primarily within the ahupua'a of Naiwa with a small portion of its northwestern end in the ahupua'a of Hoolehua.

The key factor in the development of this area was the California Packing Company (CPC, a forerunner of Del Monte). CPC built the town of Kualapuu as a village for its employees, including housing and infrastructure. Many of these buildings were built by CPC in the 1920s-1930s using a construction crew from Honolulu. The site of the early CPC buildings was the area along what is now Okana Street. By early 1950, additional rows of worker housing had been built along Kalae Highway, just west of its junction with Farrington Avenue.

The Hawaiian meaning of Kualapuu is "hill overturned."

- 83 properties surveyed in Kualapuu;
- 53 properties evaluated as contributing elements to a potential • historic district; proposed boundary shown at left;
- The majority of eligible buildings are Plantation style.

KUALAPUU ELIGIBILITY



UNKNOWN DEMOLISHED XD

KUALAPUU ELIGIBLE STYLES



HISTORIC CONTEXT KUALAPU'U

The area of Kualapu'u on Moloka'i Island is located upland, at an elevation of about 850', at the intersection of Hawai'i State Highways 470 and 480 (Farrington Avenue), about 2¹/₂ miles from the north coast. Kualapu'u lies primarily within the ahupua'a of Nā'iwa with a small portion of its northwestern end in the ahupua'a of Ho'olehua. The Hawaiian meaning of Kualapu'u is "hill overturned." Kualapu'u is arid and sited on the plains between the East and West Moloka'i shield volcanos. Planted fields of coffee and diversified agriculture extend to the southwest of Kualapu'u and rising terrain of wooded hillside reaches northeast. Kualapu'u Reservoir (1.4b gallons) and Kualapu'u Cinder Cone (1000' elevation) are nearby to the southwest. The key factor in the development of this area was the Del Monte pineapple plantation.

One of the earliest plantation developments at Kualapu'u occurred in 1901 when Moloka'i Ranch set up headquarters after their nearby, short-lived sugar plantation (American Sugar Co., 1900-1901) went out of business.166 In 1927 the California Packing Company (CPC, a forerunner of Del Monte) began a pineapple plantation on the plains in central Moloka'i with land for the plantation leased from Moloka'i Ranch and from Hawaiian homesteaders at Ho'olehua. The lease from Moloka'i Ranch consisted of over 3,600 acres of undeveloped pasture land at Kualapu'u. This pineapple operation was cultivation only; fruit was trucked to the wharf at Kaunakakai and barged to Honolulu for canning.167 Kualapu'u, the site of former headquarters, housing, and field operations buildings for Moloka'i Ranch, including a superintendent's house, was expanded to become the CPC headquarters on Moloka'i.168

CPC built the town of Kualapu'u as a village for its employees, including housing and infrastructure. Many of these buildings were built by CPC ca. 1928, using a construction crew from Honolulu. The site of the Moloka'i Ranch development and early CPC buildings was the area along what is now Okana Street.169 Kualapu'u underwent a rather extensive development under CPC during the 1920s and 1930s, with many amenities added for the workers; post office, barber shop, pool room, clubhouse, theater, and cock fighting ring. In 1932 the CPC compound at Kualapu'u consisted of about seventy-six buildings northeast of Farrington Avenue and lined in rows roughly paralleling that street. The buildings for single men, bath houses, garages, warehouses, two dispensaries, and a store. Y.K. Yuen & Co. purchased the Kualapu'u Market in 1937.170

The Depression had reduced CPC's production at Kualapu'u. By the end of World War II, demand had returned to the pineapple market, and the plantation made large leases of Hawaiian Homestead lands amounting to over 2,000 acres. Shortly after the war, CPC drilled a deep well 1,860' down into Moloka'i's lens of fresh water at Kualapu'u for irrigation of their crop. This well came just in time to help ameliorate the unprecedented 1951 drought.171 This needs to be verified -

This needs to be verified some Molokai pineapple was shipped to Maui for canning at Kahului, where CPC established a cannery in 1925

¹⁶⁶ William H. Dorrance. *Sugar Islands, The 165-year Story of Sugar in Hawaii* (Honolulu: Mutual Publishing). 2000. pp. 54-55. Marie D. Strazar. *Molokai in History, A Guide to the Resources* (Honolulu: Hawaii State Foundation on Culture and the Arts). 2000. p. 18.

¹⁶⁷ Jan K. Ten Bruggencate, *Hawaii's Pineapple Century, A History of the Crowned Fruit in the Hawaiian Islands* (Honolulu: Mutual Publishing). 2004. pp. 64-65.

¹⁶⁸ Jack L. Larsen and Dr. Thomas A. Marks, *1894-2010, Hawaiian Pineapple Entrepreneurs* (Private publisher). 2010. p. 373.

¹⁶⁹ Strazar, *Molokai in History*. p. 18. U.S. Department of the Interior, Kualapuu Quadrangle, 1/31,680 scale topographic map. 1922. California Packing Corpn. Camp, Kualapuu, Molokai, T.H., map. 1932. ¹⁷⁰ "Yuen Gains Recognition," *Maui News*. October 12, 1938. P. 1.

¹⁷¹ Larsen, Entrepreneurs, p. 379



Figure 46: Hawai'i State Archives aerial photograph, Kualapu'u 1950

By early 1950, additional rows of worker housing had been built along Kala'e Highway, just west of its junction with Farrington Avenue. Housing for management was "of more substantial construction with larger lawns and gardens separating one from another" and located northeast of the Kala'e Highway worker houses.172 Buildings were wood, plantation style, and painted gray with green corrugated metal roofs.

During the 1950s Kualapu'u hosted semi-weekly cockfights during the season, which ran from December to August.173 "Gambling was a major pastime, there was always a close association between [CPC] and the community at all levels."174

¹⁷² Strazar, *Molokai in History*. P. 18.

 ¹⁷³ Edward Norbeck, Pineapple Town, Hawaii. (Berkeley, CA: University of California Press). 1959. P. 67.
¹⁷⁴ Strazar, *Molokai in History*. P. 19.



Figure 47: Hawai'i State Archives aerial photograph, Kualapu'u 1964

Plantation workers were mostly Filipino, with Chinese and Japanese workers also in the community. CPC management and virtually all supervisors were Caucasian, with Japanese gradually taking some of these duties.

In 1984, Kualapu'u was separated from CPC/ Del Monte control and worker houses offered for sale, with residents given first right of refusal.





Figure 48: Google Earth Map, Kualapu'u 2013

Most of the eligible houses in the Kualapu'u survey area are rendered in plantation or modern plantation styles.

See data analysis section for more detailed survey findings about Kualapu'u's buildings.
ANALYSIS OF SURVEY FINDINGS

This section presents the overall survey findings from a data perspective. This chapter begins with a statewide analysis of; total number of resources surveyed, current use, decade of construction of surveyed resources, architectural styles, eligibility and resources not evaluated. The statewide analysis is followed by similar analysis for each of the islands surveyed.



Total Number of Resources Surveyed

The above chart shows the total number of resources surveyed (2,256) by island, including buildings, bridges, parks and others. This includes 976 on Hawai'i Island, 516 on Kaua'i, 545 on Maui, and 219 on Moloka'i.



Chart 3: Number and percentage of buildings constructed before and after the 50 year Period of Significance date of 1981.

Illustrated in the chart above, of the properties whose construction dates were found for the statewide survey, 1781(79%) were constructed within the 50 year cut-off date for period of

Chart 2: Total surveyed resources by island

significance (1981 or earlier). The remaining 475 (21%) were constructed more recently, or had unknown construction dates.

Current Use

Statewide, the vast majority of resources surveyed were residential, in keeping with the original intent of the survey, although features with non-residential uses were included, representing approximately 18% of the total.



Chart 4 Current use of all resources surveyed.

As shown in the chart above, the vast majority of resources surveyed were residential buildings, comprising approximately 81% of the total. About 9 percent were commercial resources, and the remaining resources were of other, assorted usage types, including about 3% that are unknown. This is important information regarding those resources that are buildings, as residential buildings typically make use of differing architectural styles than do commercial or other non-residential buildings.



Figure 49: Example of 1913 commercial building, Paia, Maui



Figure 50: Example of 1935 residential building, Sand Hills, Maui

Decade of Construction

The majority of the surveyed resources' construction dates were prior to the 50 year cut-off date of 1981. The construction dates for the majority of surveyed resources fell between 1930 and 1989, with the largest number of construction dates within the 1930s.



Chart 5: Construction dates of resources in all survey areas, by decade.

As shown in the chart above, the resources surveyed ranged in known construction date from the earliest, 1860 to the most recent, 2016. Three of the four islands had resources with construction dates prior to 1900, and all islands had construction dates later than 2010. By decade, the largest percentage of resources remaining in the surveyed areas across the state were constructed during the 1930s, though a relatively significant number were also constructed during the 1940s, 50s, and 70s. This may be attributed to increased construction during these decades due to strong sugar and pineapple production, increases in tourism, and faster transport to and from the islands. Alternately, it could represent the survival of resources due to economic lulls that prevented owners from demolishing their buildings and constructing new.



Figure 51: 1936 Art Deco building in Hanapepe, Kauai

Figure 52: 1949 Streamlined Modern building in Hanapepe, Kauai

Architectural Style

By far the most common architectural styles in the statewide survey are the various Plantation styles, with Plantation and Modern Plantation having the largest representation. Some more unique styles were also found, including Art Deco, International Style, Pueblo and Queen Anne. The modern movement, which was the original focus of the survey, represents only 14% of the total resources surveyed.



Chart 6 : Architectural styles of resources in all surveyed areas.

The chart above shows the variety of architectural styles found in the survey. The most prevalent single style in the state is Plantation Style. The chart below shows the predominance of the various related Plantation Styles, which include the sub-types Contemporary Plantation, Craftsman Plantation, Modern Plantation, and Plantation, and make up 60% of the total resources surveyed.



Chart 7: Statewide architectural styles with all Plantation styles combined.



Figure 53: Example of Early Plantation Style (1924), Hanalei, Kauai



Figure 54: Example of Art Deco Style theater (1925), Naalehu, Hawaii Island

Eligibility

More surveyed resources were evaluated as eligible than not eligible, with the larger number of these assessed as contributing elements, rather than having individual significance. Across all four islands, only 29 resources were evaluated as individually eligible, while 1,306 were evaluated contributing to a potential historic district. This means that the individually eligible resources represent only 1% of the total resources surveyed, but resources evaluated represent 58% of the total surveyed.



Chart 8: Total number and percentage of resources evaluated as EC, ES or Not Eligible

The above chart shows 1335 resources (59%) evaluated eligible in the two eligible categories, EC and ES, as well as 921 evaluated not eligible. Statewide, 1306 (58%) were evaluated as EC, and 29 (1%) were evaluated as ES. The large number of resources evaluated Eligible Contributing as compared with those evaluated as Eligible Significant indicates a strong potential for historic districts on all of the islands, even if many of the resources are not individually noteworthy.



Chart 9: Total number of eligible and not eligible resources by island.

Chart 9 on the previous page illustrates that, broken down by island, Hawai'i Island had 636 EC resources, and 8 ES. Kaua'i had 257 that were evaluated as EC, and 11 ES. Maui had 317 EC resources, and 9 ES. Finally, Moloka'i had 96 resources evaluated as EC, and 1 evaluated as ES.



Chart 10: Total percentages of all eligible and not eligible resources by island.

The four charts (Chart 8) above show that most of the islands have a larger percentage of resources evaluated as eligible than not eligible. On Hawai'i Island, 66 percent of the surveyed resources were evaluated eligible; 49 percent on Kaua'i; 60 percent on Maui; and 44 percent on Moloka'i.

Not Evaluated

Of all of the resources surveyed, 225 were not evaluated for eligibility statewide; 5 each in Hāwī and Hilo, 11 in Kapa'au, 6 in Kealakekua, 13 in Laupāhoehoe, 28 in Nā'ālehu, 23 in Pāpa'aloa, 10 in Waimea, 8 in Hanalei, 17 in Hanapēpē, 3 in Kapa'a, 5 in Līhu'e, 56 in Hāli'imaile, 2 in Kula, 9 in Pā'ia, 12 in Wailuku, 5 in Ho'olehua, 3 in Kualapu'u, and 4 in unidentified towns. A number of these were either vacant lots, or were part of another surveyed property, while some others were not readily visible from the public right of way. The remainder were not evaluated for undisclosed reasons.

Hawai'i Island

Hawai'i Island had the largest number of resources that were surveyed, with 976. Of these, approximately two-thirds were found eligible, with 636 evaluated contributing, and eight evaluated individually eligible. Most surveyed resources on Hawai'i Island were constructed between 1930 and 1959, with the largest number constructed during the 1940s. Plantation styles far outnumbered other styles in the surveys on this island, again making up approximately two-thirds of all resources surveyed.



Chart 11: Construction dates for all surveyed resources by decade for Hawai'i Island.

The majority of resources that remain in the surveyed areas on Hawai'i Island, as shown in the chart above, date to between 1930 and 1960, with the largest number dating to the 1940s. This may be partly attributable to the continued strength of sugar on the island, as well as rebuilding after the 1946 tsunami. The Big Island had the earliest known construction date in the survey, with an 1860 wooden church in Kealakekua.



Chart 12: Architectural styles of all surveyed resources for Hawai'i Island.

On Hawai'i Island, following the statewide trend, the vast majority (632) of surveyed buildings were constructed in one of the Plantation styles (including Contemporary Plantation, Craftsman Plantation, Modern Plantation, and Plantation styles). Less common styles are also found on the Island of Hawai'i, including Art Deco, (two residences in Kapa'a, and one building of unknown use in Waimea) and Streamline Moderne (one residence in Laupāhoehoe). Both styles are more typically

associated with urban areas, and are also rarely seen in residential architecture, making these rural residential examples anomalous, and special.

Kaua'i

Surveys on Kaua'i made up nearly one-quarter of the total resources evaluated in the Statewide Survey, but had the most resources evaluated individually significant, with eleven. Unlike the other islands, 1960s and 70s construction dates were more common in Kaua'i's surveyed areas, though the 1930s was also strong. The strongest decade for Kaua'i's surveyed areas was the 1970s. In keeping with the construction dates, the most common style found on Kaua'i is the Modern Movement, followed by Plantation styles, including Modern Plantation.



Chart 13: Construction dates by decade for all surveyed resources on Kaua'i.

Data in Chart 12 shows that the majority of Kaua'i's surveyed resources were constructed during the 1970s, though a significant number were also constructed in the 1930s and 60s.



Chart 14: Architectural styles for all surveyed resources on Kaua'i.

Like the rest of the state, Kaua'i has a predominance of Plantation Style buildings. However, as Chart 13 shows, it has the highest number of Modern Movement buildings found in the statewide survey. This was especially true in Līhu'e, where 96 of the 124 examples on the island were found. Kaua'i also had examples of Art Deco, Pueblo, International and Queen Anne Style buildings. An Art Deco theater and commercial building, in addition to a Pueblo industrial building are found in Hanapēpē. The International and the Queen Anne Style buildings are residences in Hanalei.

Maui

Maui's surveyed areas represent approximately one-quarter of the total surveyed resources. Only nine were evaluated as individually eligible, while 317 were evaluated as contributing. Construction dates in Maui's surveyed areas were most prevalent in the 1930s through 1950s, but the 1930s had by far the largest representation. The surveyed areas on Maui very much followed the statewide trend, with Plantation styles represented, with Art Deco, Colonial Revival and Mission/Spanish revival identified.



Chart 15: Construction dates by decade for all surveyed resources on Maui.

On Maui the majority of resources that remain in the surveyed areas were constructed in the 1930s and 40s, as Chart 14 illustrates, with a peak in 1939, likely driven by plantation construction in Hāli'imaile. The 1950s likely remained strong due to the construction of Kahului as "Dream City" for plantation workers, but with the increase in mechanization in the sugar industry after the 1940s, Maui's population declined by over 10,000 residents, resulting in less construction in the later decades. The earliest extant resource in Maui's surveyed areas was a church built in 1895 in Kula



Chart 16: Architectural styles for all surveyed resources on Maui.

Chart 15 shows that the Plantation styles are most common, with Contemporary Plantation, Craftsman Plantation, Modern Plantation and Plantation styles making up 285 of the total 545 resources surveyed. Maui also has several atypical styles, including Art Deco, Colonial Revival and Mission/Spanish Revival. The Art Deco and Colonial Revival styles were identified in residences in Wailuku, Kula, and Pā'ia, while the Mission/Spanish Revival styles were found in residential and commercial buildings in Hāli'imaile and Pā'ia.

Moloka'i

Moloka'i represents just 10% of the total resources surveyed, and was the only island to have more resources that were evaluated not eligible than eligible. Moloka'i also had the fewest evaluated individually eligible, with only one. Construction dates of surveyed resources on Moloka'i fell mainly in the 1930s, with 36% during this decade alone. Plantation styles of architecture were also the most common on Moloka'i, representing 48% of the resources surveyed.



Chart 17: Construction dates by decade for all surveyed resources on Moloka'i.

Chart 16 illustrates that the vast majority of surveyed resources on Moloka'i were constructed during the 1930s, with no other decade having nearly as many surviving resources.



Chart 18: Architectural styles for all surveyed resources on Molokai.

Like Maui, more than half of the surveyed buildings on Moloka'i were constructed in a Plantation style, here either Modern Plantation or Plantation. However, as Chart 17 shows, the largest single group of resources was constructed in a mixture of styles.

RECOMMENDATIONS

This survey has brought to light several essential areas for recommended future research and documentation. These recommendations can generally be divided into three categories; 1) Further work on properties included in this survey (verify architectural styles, verify eligibility evaluations, develop/investigate historic districts, and develop individual nominations, directed research on Criterion B); 2) Undertake surveys on other resources outside of this survey (mid-century neighborhoods, infrastructure); 3) Follow-on research on sub-themes (development of Hawai'i architectural style guide, historic context report on Homestead lands, and others) that would support the work in the two previous categories.

FURTHER WORK ON PROPERTIES IN THIS SURVEY

VERIFY ARCHITECTURAL STYLES

It is recommended that further work be undertaken to reconcile the architectural styles assigned to the buildings in this survey. It was found that in many cases, architectural styles were assigned to buildings in error, in that the building is assigned a style that is not appropriate/does not correlate with the survey photographs and style methodology. These should be reviewed by an experienced architectural historian or historic architect, and corrected as appropriate. The development of a comprehensive Hawaii architectural style guide would be helpful here.

VERIFY ELIGIBILITY EVALUATIONS

It is recommended that further work be undertaken to reconcile the eligibility evaluations made on the buildings in this survey. It was found that in a few cases, buildings were evaluated as ES or EC in error, in that the building photographed does not appear to be eligible for the State or National Registers. These evaluations should be reviewed by an experienced architectural historian or historic architect, and corrected as appropriate. Additionally, investigation into the important residents of the surveyed areas would contribute to these eligibility evaluations – for example, Ellison Onizuka was raised in Kealakekua, while Patsy Mink was born and raised in Pā'ia, and therefore, Criterion B may be warranted.

VERIFY DATA/REVISE DATA COLLECTION METHOD IN THE FIELD

It is recommended that further work be undertaken to reconcile the data issues noted earlier in the Data Limitations section of this report. Inconsistencies noted in the survey data most frequently occurred in fields which required the surveyors to enter data manually, without the assistance of drop-down menus, and also where fields were not required by the data collection program to be filled. Going forward, in future survey work, use of required fields and dropdown menus could help alleviate most, if not all, of these occurrences. Inclusion of a default "unknown" option for fields is recommended as well. If dropdown menus are not feasible, such as in the "Year_Built" field, a greater level of post-fieldwork review is recommended.

DEVELOP HISTORIC DISTRICTS

It is recommended that further assessment and evaluation be made of each of the potential districts identified thus far, to determine whether they are significant, cohesive as a district, and retain sufficient integrity to warrant nomination to the State and/or National Register of Historic Places. (See Methodology section for the approach that was used in developing the preliminary district boundaries.) If districts meet the NRHP criteria they should be nominated for listing.

A total of $\frac{21}{21}$ preliminary historic districts were identified among the four islands' individual towns/areas surveyed. These preliminary districts, listed below and shown in maps in their

respective historic context sections, warrant further research. Specific recommendations and comments relating to these historic areas follow. (Historic districts were <u>not</u> identified as appropriate for four of the towns that were surveyed; 1) Waimea, Island of Hawai'i, 2) Hanalei, Kaua'i, 3) Kula, Maui, and 4) Ho'olehua, Moloka'i.)

ISLAND OF HAWAII

hāwī/Kapa'au, hawa<u>i'i island (north kohala)</u>





Two separate historic districts are recommended for these two survey areas, as both towns exhibit ample integrity. It is recommended that additional surveys occur in this North Kohala area; a joint archeological and architectural survey may be warranted, as the area is very important in pre-contact and royal Hawaiian History. The North Kohala Community Association should be engaged as a possible partner in developing nominations.



This relatively small survey area and associated potential historic district is likely only a portion of a larger, surrounding historic district. It is recommended that additional surveys be undertaken in this area prior to pursuing the historic district, to ensure that the district is as complete as possible. (The original intent was for two other areas to be included in this survey. It is recommended that that work be completed first.)

KEALAKEKUA, HAWAI'I ISLAND



Two small clusters situated along Māmalahoa highway in Kealakekua are recommended as potential districts, or two separate portions of one discontiguous district. As the hometown of Ellison Onizuka, the first Asian-American astronaut, who died on the Space Shuttle *Challenger*, Criterion B should be considered with respect to any districts or individual nominations. It is recommended that these two largely commercial clusters be considered with respect to one of the Main Street America programs. This town's linear alignment along Māmalahoa Highway would further make for an interesting case study (along with Kula on Maui) for how transportation corridors affect a town's development. Note: Kona Historical Society is in the town and could be a helpful resource in future preservation and research initiatives.

LAUPĀHOEHOE, HAWAI'I ISLAND



One large and one small cluster situated near Mamalahoa Highway in Laupahoehoe are recommended as two portions of one discontiguous district.

PAPA'ALOA, HAWAI'I ISLAND



Two residential building clusters on either side of Māmalahoa Highway in Papa'aloa are recommended as two portions of one discontiguous district. (The setting should be evaluated closely; one resident mentioned his neighborhood used to be surrounded by the plantation, but now its surroundings are wilderness.) Future studies may be warranted on two architectural types: 1) A future study on the 1980s houses in Papa'aloa, which a resident explained to surveyors was a type developed by a big Maui/mainland company thus explaining why this A-frame style does not fit with the tropical environment, and; 2) Kekoa Camp Road has interesting duplexes with inset porches, which is a unique style of a plantation house. Note: The senior center in Papa'aloa could be a helpful resource in future research on that town.

NĀ'ĀLEHU, HAWAI'I ISLAND



The extant historic residences in Nā'ālehu make up a cohesive and intact grouping that extends along both sides of Māmalahoa Highway as one potential historic district. Many of the residences are associated with the former Hutchinson sugar plantation.



No district recommended.¹⁷⁵

¹⁷⁵ The residential area surveyed in Waimea does not have a sufficient number of contributing resources to warrant a cohesive historic district.

KAUA'I HANALEI, KAUA'I



No district recommended.¹⁷⁶

¹⁷⁶ In recent years, Hanalei has become a popular destination for wealthy second homeowners / celebrities, and a vacation destination for tourists. The influx of tourists and wealthy mainlanders has resulted in the development of many large residences. Features of the built environment noted by surveyors include, "Lots of 6' privacy fences and McMansions…mostly 2-story newer construction that takes up large amounts of its parcel…Lots are overcrowded with secondary structures (often

HANAPĒPĒ, KAUA'I



This historic town is situated along a river. Survey work should be expanded to include more potential historic resources along the river, including buildings, bridges, levees, easements and embankments. These resources and features are likely formative to the history of the town. Most of these are currently inaccessible to the public, and a cursory investigation should be made whether it would be possible to develop an interpretive walking trail here, integrated into the

marked as guesthouse in survey); makes it hard to properly date and identify primary structure." These characteristics have distinctly reduced the historic integrity of the town. Design guidelines were never put in place in Hanalei, and would likely have curbed this kind of non-compatible development.

historic town, which is already a visitor destination point. Note: this historic town's success is due to many factors, including preservation and business initiatives that began in the late 1980s.



This town appears to be in the beginning stages of redevelopment. Many older houses are extant, but most have been altered in some way. Commercial developments are encroaching on the neighborhood; many of the former houses along Kūhiō Highway have been converted into businesses. Since this area may be on the brink of change, an exploration of possible design guidelines and zoning modifications along Kūhiō Highway is recommended. These may provide opportunities to preserve the town's historic character by reinforcing the historic residential styles.



The portion of the residential area surveyed that dates to the mid-century period should be evaluated as its own district. These mid-century residences largely date from the late-60s/early 70s, and thus SHPD's regulations state that it would be too early to list them as a district on the Hawai'i Register. However, they could be listed on the National Register of Historic Places, which does allow buildings under 50 years. (This proposed district would be separate and distinct from the earlier residences to the west that are already on the Kaua'i Historic Resources List, as shown in the Lihu'e Town Core Urban Design Plan, adopted in March, 2010) Design guidelines should be developed now, to ensure that this neighborhood remains intact as it nears 50 years in age. Any potential districts in Lihue should consider inclusion of other historic buildings in town (outside the survey area), such as the library, convention hall, ILWU building, and Rice Street.

MAUI HĀLI'IMAILE, MAUI



The proposed district for this historic pineapple plantation town would include the buildings and shops associated with the plantation baseyard and former Maui Pineapple headquarters, the residences originally built as worker housing, and the neighborhood park in between. It is recommended, however, that the survey area be expanded to include the additional buildings associated with the former plantation slightly farther west, along Hāli'imaile Road. Note: In 2006, Maui Land & Pineapple & A&B undertook a series of community planning workshops and began developing a General Plan for Hāli'imaile's future. It is recommended that the findings of these efforts be followed up on/investigated for input into preservation initiatives.

KULA, MAUI



No district recommended. The Kula survey area does not warrant a historic district because it has relatively few clustered contributing resources. However, it has not been heavily developed, and does have some individually eligible buildings (the Church of the Holy Ghost is already listed). This town's linear arrangement along Lower Kula Road would make for an interesting case study (along with Kealakekua on the Big Island) for how transportation corridors affect a town's development.

PĀ'IA, MAUI



The (lower) Pā'ia area that was surveyed implemented design guidelines roughly 25 years ago. Since that time, the influx of windsurfers and tourists to the town has only increased. Most of the buildings surveyed are commercial, although some residential buildings converted to commercial functions are included as well. Although the town does still retain historic fabric, many buildings exhibit a 'Disneyfied' character, likely as a result of the design guidelines. It is recommended that 1) the design guidelines be reviewed for their effectiveness; and that 2) Upper Pā'ia, mauka of the former sugar mill, be surveyed in the future. (Note: A highway/bypass may be constructed in the next decade around the town, which could threaten some of the properties on Baldwin Avenue.)



The extant historic residences in Wailuku make up two intact groupings situated both sides of Kaohu Street. They should be evaluated as either two discontiguous sections of one potential historic district, or possibly as two separate districts. Any future district(s) should consider the existing Wailuku Historic District. Note: The Wailuku Redevelopment Area Design Guidelines, 2006, is a resource that should be referenced in support of future preservation efforts.

SAND HILLS, MAUI



This eclectic residential neighborhood should be evaluated as one historic district, and should consider the existing Wailuku Historic District. Note: The Wailuku Redevelopment Area Design Guidelines, 2006, is a resource that should be referenced in support of future preservation efforts.

MOLOKA'I

HO'OLEHUA, MOLOKAI



No district recommended. The area surveyed in Ho'olehua does not warrant a historic district because it has relatively few contributing resources. Many of the structures are tract homes, buildings were spread out, and there is not sense of cohesion for an overall district.

KUALAPU'U, MOLOKAI



This surveyed areas of Kualapuu and Kalae, on Molokai largely retain integrity and warrant further investigation as two separate historic districts. The potential Kalae district is made up of houses which were all constructed in the same year, in the same style, and by the same builder. The potential Kualapuu district is a mixture of commercial and residential buildings

The follow-on work for the historic districts should be undertaken in keeping with the guidance in the National Park Service's National Register Bulletins "How to Apply the National Register Criteria for Evaluation" and "Defining Boundaries for National Register Properties, and "Historic Residential Suburbs: Guidelines for Evaluation and Documentation for the National Register of Historic Places."

DEVELOP INDIVIDUAL NOMINATIONS

It is recommended that further assessment and evaluation be made of each of the potentially eligible individual buildings ("ES" buildings /Eligible Significant, and "EC" buildings/Eligible Contributing) to determine whether they are sufficiently significant and historically intact to warrant nomination to the State and/or National Register of Historic Places. (See Methodology section for the approach that was used in developing these evaluations.) If these buildings are evaluated as meeting the NRHP criteria for significance, and retain sufficient integrity, they should be nominated for listing.

A total of 1,306 buildings were identified as "EC"/ eligible contributing, and a total of 29 buildings were identified as "ES" /eligible significant. Due to these high numbers, a full list is not presented in this section, but is included as an Appendix.

- The first step in developing individual nominations would be to determine, which, of any of the ES or EC buildings are already on the State or National Registers.
- For all ES properties not already listed, a second step would be to undertake an intensive level survey (ILS) to further evaluate significance and integrity.
- This follow-on work should be undertaken in keeping with the guidance in the National Park Service's National Register Bulletins including, "How to Apply the National Register Criteria for Evaluation" and "How to Complete the National Register Nomination Form."
- These resources may best be assessed based on Multiple Property Nomination criteria, and potentially nominated to the HRHP or NRHP using Multiple Property Documentation Forms.

NRHP CRITERION B DIRECTED RESEARCH

Initial research for this report revealed that Ellison Onizuka was raised in Kealakekua on Hawai'i Island, and that Patsy Mink was born and raised in Pā'ia on Maui. These are both small towns, and may have buildings or resources that are directly connected to these important former residents. The same may also be true for other towns included in this survey. Therefore it is recommended that baseline research be undertaken in each town where an important person is known to have lived to determine if their family/childhood homes, or other buildings strongly associated with that person's life, are extant.

SURVEYS ON OTHER RESOURCES

RESIDENTIAL MID-CENTURY NEIGHBORHOOD SURVEYS

It is recommended that SHPD undertake additional neighborhood surveys that target mid-century neighborhoods. This survey project was actually originally designed to document residences in select areas, with a focus on the mid-century period. However, during the survey undertaking, the effort was expanded to include all eras, in addition to other types of resources, including commercial and public buildings, as well as recreational facilities. Further, the findings of the surveys are that most of the historic buildings are from earlier periods. Neighborhoods developed between roughly 1945 and 1965 should be identified and surveyed, since the tail end of this period is just now reaching 50 years in age, and may still be intact.

The effort for these neighborhood surveys should reference the National Park Service's National Register Bulletin "Historic Residential Suburbs: Guidelines for Evaluation and Documentation for the National Register of Historic Places," which provides an overview on suburbanization in the United States (1830 through 1960), as well as information on historical trends in Subdivision Land Development and Design, and more.

Other existing historic contexts and publications that may be helpful in assessing Mid-Century neighborhoods are:

- *Preserving the Past* 1995 and 2000 Conference Proceedings which provide background information and guidance on research and preservation of Mid-Century resources.
- Jeanne Lambin. *Preserving Resources from the Recent Past*. Washington DC: National Trust for Preservation, 2007;
- Jackson, Kenneth T. Crabgrass Frontier: The Suburbanization of the United States. New York: Oxford University Press, 1985;
- Dolores Hayden. *Building Suburbia: Green Fields and Urban Growth*. New York: Pantheon Books, 2003;
- Paul Goldberger. "The Modernist Manifesto," Preservation 60, May 2008, (3) 30-35.

UNDERTAKE SURVEYS OF INFRASTRUCTURE ETC

Not every resource is a building. Some of the resources that are so important to the fabric of a town or neighborhood are other types of properties, such as open spaces, recreational facilities, roads, bridges, etc. For example, parks and their expansion, or destruction, can define a neighborhood's character, and similarly, transportation networks and their changes over time have drastic impacts on these areas. For the most part, the survey work undertaken for this project did not include infrastructure features. It is recommended that SHPD undertake additional surveys of roads, highways and bridges, and irrigation systems (ditches and canals), that contributed to the development of the towns and neighborhoods surveyed. For example, ditches and canals were especially important in the towns of Nā'ālehu and Pā'ia

These resources may best be assessed based on Multiple Property Nomination criteria, and potentially nominated to the HRHP or NRHP using Multiple Property Documentation Forms.

FOLLOW-ON RESEARCH

The following directed research projects would support future evaluation and survey work.

DEVELOP HAWAIIAN ARCHITECTURAL STYLE GUIDE

It is recommended that SHPD undertake a formal guideline on Hawaiian Architectural Styles. This Guide would identify in detail the nuances of the common historic architectural styles found in Hawaii. For example, plantation style architecture and single-wall construction in Hawaii have both frequently been documented in various reports and surveys, but thus far no comprehensive history has been published on either. Further, the Hawaiian Regional architecture and its typologies warrants a comprehensive overview. (The style names and definitions that were used in this survey would need to be updated in keeping with the findings of any new Hawaiian Architectural Style Guide.)

DEVELOP HISTORIC CONTEXT REPORT ON HOMESTEADS

It is recommended that SHPD undertake a historic context report on Homesteading in Hawaii. This would explore the history of the practice and its effects on the development of rural areas and towns in Hawaii.

DEVELOP ADDITIONAL CONTEXTS

Additional contexts that could be pursued that focus on specific factors and how they influenced the built environment:

INDUSTRIAL (LARGE-SCALE) AGRICULTURE (SUCH AS SUGAR AND/OR PINEAPPLE). Plantations developed housing for their workers, and often included additional amenities such as theaters and community centers for the workers. Housing is often laid out with yards and/or garden areas, and is (was) located within easy walking distance of the mill or processing facility. This is a statewide context, and relates especially to the following neighborhoods and towns:

- Hāwī, Hawaii Island
- Hilo, Hawaii Island
- Laupāhoehoe, Hawaii Island
- Nā'ālehu, Hawaii Island
- Hanapēpē, Kauai
- Kapa'a, Kauai
- Līhu'e, Kauai
- Hāli'imaile, Maui
- Pā'ia, Maui
- Wailuku, Maui
- Ho'olehua, Molokai
- Kualapu'u, Molokai

Which area of Wailuku surveyed in this document was directly associated with sugar or pineapple? All survey areas appear to be associated with Wailuku's growth as the civic and commercial center of Maui, not with plantations.

RANCHING/FARMING.

Few areas in Hawai'i have a continuous history of ranching or farming, since much of the land has been developed for other uses. Parker Ranch in Waimea, and Haleakala Ranch near Kula, contributed to the retention of ranch-related activities in their respective towns. Kula has a strong history of farming, with a climate that has allowed for the growth of crops not typically seen in Hawai'i. This is an island or town context, and relates to the following:

- Waimea, Hawaii Island
- Kula, Maui

TIDAL WAVES.

The tsunamis of 1946, and 1960 hit the entire Territory/State of Hawai'i, but they had the greatest impact on the north and east shores of Hawai'i Island, inundating Hilo and the first Laupāhoehoe town. Both events required extensive redevelopment with major changes in order to minimize damage from future inundations after they were rebuilt. Additionally, a 1957 tsunami caused significant destruction on the north shore of Maui. Although this context is statewide, for this report's purposes, it is an island or town context, and relates to the following:

- Hilo, Hawaii Island
- Laupāhoehoe, Hawaii Island
- Hanalei, Kauai
- Pā'ia, Maui

RAILWAY/HIGHWAY CONSTRUCTION.

Railroads were developed on the islands, with Hawai'i Island having a line along the Hamakua and Kohala coast, and Maui one between Wailuku and Kahului, extending farther along the island's north

coast to Pā'ia and beyond. These lines that served the plantations likely contributed to the growth of housing around them. The Hawai'i Island line was greatly damaged by the 1946 tsunami, resulting in its closure. This also resulted in the redevelopment of at least part of the railway right-of-way into the Hawai'i Belt Road, which continues to serve a key function in transportation on the island today, and allows for continued development along its route. The Maui railroad continued operation until 1966, serving the plantation and its workers. This is mainly a context specific to individual towns, and relates to the following:

- Laupāhoehoe/Pāpa'aloa, Hawaii Island
- Hāli'imaile, Maui
- Pā'ia, Maui

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