

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Makalapa Navy Housing Area Historic District

Other names/site number: Big Makalapa, Makalapa Navy Housing, Makalapa Neighborhood, TMK: 9-9-002:004

Name of related multiple property listings: N/A

2. Location

Street & number: Bounded by Kamehameha Hwy., Radford Dr., Makapala ridge, and Halawa Stream

City or Town: Honolulu State: Hawai'i County: Honolulu

Not For Publication Vicinity

3. State/Federal Agency Certification

As the designated authority under the National Preservation Act, as amended,

I hereby certify that this ___ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements in 36 CFR Part 60.

In my opinion, the property ___ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

national statewide local

Applicable National Register Criteria:

A B C D

<p>_____ Signature of certifying official/Title:</p> <p>_____ State or Federal agency/bureau of Tribal Government</p>	<p>_____ Date</p>
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<p>In my opinion, the property ___ meets ___ does not meet the National Register criteria.</p>	
<p>_____ Signature of commenting official:</p> <p>_____ Title:</p>	<p>_____ Date</p> <p>_____ State or Federal agency/bureau of Tribal Government</p>

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4. National Park Service Certification

I hereby certify that this property is:

- entered in the National Register determined
- eligible for the National Register removed from
- the National Register
- Other (explain:) _____

Signature of Keeper

Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply)

- Private
- Public - Local
- Public - State
- Public - Federal

Category of Property

(Check only one box)

- Building(s)
- District
- Site
- Structure
- Object

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7. Description

Architectural Classification

(Enter categories from instructions.)

Modern Movement

Materials: (enter categories from instructions.)

Principal exterior materials of property: CONCRETE BRICK and WOOD

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its locations, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Navy Department developed the Makalapa area between 1940-1943 as a work and residential complex. The north side contains the headquarters and support office functions for the Commander in Chief U.S. Pacific Fleet (CinCPacFlt). At its center is the former Makalapa Radio Station site, which handled intelligence and radio transmission. The two residential areas on either side of the radio station, once officially known as "Naval Housing Area V," are popularly known as "Big Makalapa" and "Little Makalapa." Civilian Housing Area Makalapa, ("Little Makalapa"), lies south of Radford Drive. The subject of this document, Makalapa Naval Housing Area Historic District ("Big Makalapa"), is on the western exterior on the slope of the extinct Makalapa Crater and overlooks the waters and shore-based facilities of the Pearl Harbor naval installation, now known as Joint Base Pearl Harbor-Hickam (JBPHH). "Big" Makalapa Naval Housing Area contains one hundred dwellings, forty-seven carports and other ancillary structures within the sixty-acre property. The placement of the structures and roads correspond to the natural topography of the slope of Makalapa Crater. The park-like landscaping, including generous spacing among buildings, is unlike that of other military neighborhoods built during this era. The style of the houses is Modern Movement. The innovative construction methods met the need for rapid completion in the early 1940s military buildup of Pearl Harbor. Although the individual housing units have undergone interior and exterior alterations, the residential neighborhood's overall condition is excellent, and it retains a high level of integrity.

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Narrative Description

A. NATURAL AND MAN-MADE ELEMENTS THAT DEFINE THE DISTRICT

Makalapa Geology

The Makalapa development lies on a geological formation resulting from Pleistocene pyroclastic eruptions occurring between approximately 500,000 and 100,000 years ago. The major eruptions from 'Āliapa'akai Crater (known today as Salt Lake) and Makalapa Crater took place when sea levels were lower than present, with a considerable quantity of particles of older sedimentary and volcanic rocks lain during the earliest activity between 470,000 and 40,000 years ago.¹

The initial geologic events related to the Hālawā-Moanalua plain include a series of Illinoian period eruptions in the East Loch area of Pearl Harbor. The plain formed in two ways: continuous lava production as the basal substrate for the plain and alluvial deposition of the sediments. The youngest deposits of tuff are truncated by reef and limestone that have been correlated with rocks dated 90,000 to 140,000 years old. These air-laid tuffs were above sea level and therefore exposed to constant in situ decomposition and downslope erosion.²

Soils in the area are Kea'au clay and Māmala stony silty clay loam.³ The major processes are deposition of volcanic sediments and growth of an extensive reef platform during periods of higher sea level. The earliest of these, the Waipi'o Stand, occurred several thousand years ago and resulted in sea levels about sixty feet lower than today. Eruptions of the 'Āliapa'akai (Āliamanu) and Makalapa craters probably occurred during this stand. About 125,000 years ago, the sea rose to twenty-five feet above present levels in what is known as the Waimānalo Stand. Reef formation occurred during this period of stability, possibly in irregular patches on former stream divides.⁴

As sea level dropped, wave action against the newly exposed reef would likely have created continuous basal deposits of calcareous sand and gravel detritus atop the coral bedrock across most of the Hālawā-Moanalua plain except in its far north. Once these deposits stabilized, wave and wind action acted on the reef margin to produce coastal sand deposits and dunes. Low-energy terrigenous sedimentation of the northern part of the plane would likely have begun as soon as the sea receded.

¹ K.A. Pankiwskyj, "Geology of the Salt Lake Area, Oahu, Hawaii" in *Pacific Science* Vol. 26(2), 1972, 242-253.

² Ibid, 242-253.

³ D.E. Foote, E. L. Hill, S. Nakamura, and F. Stephens, "Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lānai, State of Hawaii" (Washington D. C., 1972).

⁴ H. T. Sterns, "Geography and Geology" in *Geology and Groundwater Resources of the Island of Oahu, Hawaii, Number 1 in Territory of Hawai'i Division of Hydrography Bulletin* (Spreckelsville, Maui and Honolulu: U.S. Geological Survey, 1935).

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This model of geologic history of the Hālawā-Moanalua plain is consistent with the landscape recorded on pre-military maps of the area as well as with stratigraphic data gathered during archaeological projects.⁵ These layers of tuff and raised reef rise from the near-in shoreline of Pearl Harbor and can be viewed in the road cut that extends along Kamehameha Highway makai (towards the ocean) of Makalapa housing.

The crater of Makalapa contained a freshwater pond in its center. The Hawaiian people who settled the area used it as a fishpond for sustenance where they caught 'ōpae (shrimp) by diverting them into a single enclosure where water was low and then collecting them with gourds. The people living in the area along the Halāwa Stream would hike up the side of the crater, using the Napehā alahēle, the ancient footpath running mauka/makai along the west bluff extending from the Redhill to present-day Hickam Air Force Base and traversing right over the site of Fac. 77, the Admiral's house. The land was later leased to the Honolulu Plantation Company, who used the freshwater reservoir for irrigation purposes between 1900 and 1939. After the Navy acquired land along the shores adjacent to the Makalapa area, the Pacific Naval Air Base Contractors dredged up the harbor for the construction of docks to dock battleships. The earth material from the construction of the docks was deposited into Makalapa Crater and raised the level of the crater floor approximately thirty feet as well as into the gorge between "Big" Makalapa and Little Makalapa from 1939 to 1966. During the construction of H-1, the crater was further filled and leveled to mitigate changes for the freeway access. There are no remnants of the freshwater fishpond today except for the north facing slopes of the extinct crater and the west bluffs of the crater's edge.

Makalapa Naval Housing Development

The layout of "Big" Makalapa Naval Housing Area responds to the natural topography of the west flank of Makalapa Crater. This group of homes for senior and junior Navy officers sits on the west rim and outer west slope of the extinct Makalapa Crater at elevations generally ranging from forty to one hundred feet above sea level.

The "Big" Makalapa Naval Housing Area, designated as Housing Area V, was set apart as Officer Housing.⁶ The boundaries are defined by Kamehameha Highway to the west, the CinCPac complex to the north, the top of the ridge of Makalapa Crater to the east and Radford Drive to the south (see Figure 0010).

"Big" Makalapa contains one hundred dwellings, forty-seven carports and ancillary structures. The road system consists of a single main road that rings the property; the upper portion is called Makalapa Drive and the lower portion is Hālawā Drive. The free-standing carports are situated well apart from sides of

⁵ M.D. Monserrat, "Map of Moanalua and Kahauiki." Hawaii Survey Office Registered Map 1511.

⁶ Five neighborhoods were planned and developed in 1939. All but Makalapa was designed on a grid system

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the road, with green space between the houses and road. Ancillary buildings and structures in the neighborhood include two tennis courts, a former volleyball court converted to a playground area, a basketball court, a swimming pool with two supporting buildings, rock retaining walls and sections of two former bomb shelters.

The housing development has a park-like feel due to its narrow road widths, lack of sidewalks, grassy lawns and trees unobstructed by fencing or walls between houses. The curving, narrow streets reflect the site's complex topography, contrasting the typical geometrical layout of military installations constructed on flat surfaces. The slopes necessitated the construction of retaining walls along some of the streets using the local "mud-rock" (tuff) and lava (basalt) rock, whose natural compositions give the neighborhood a distinctive appearance.

All the houses and carports were constructed as one project, creating consistency of materials and design details. The housing complex was originally built with six standardized unit types: three single-family residences (A, B, C) and three duplex residences (D, F, G). The 1948 site plan shows B-1 and C-1, which are B and C modified with attached garages. Type A has four bedrooms, Type B has three and Type C has two. Duplexes Type D has three bedrooms per unit, Type F has two and Type G also has two. All of the structures are two stories, except for three single-story units: Facilities 79, 80 and 261.

The officers' houses at the highest elevations have the best views of the nearby Navy facilities near the Southeast and East Lochs of Pearl Harbor, as well as panoramas of the Wai'anae range to the west and the Ko'olau range to the east. All of the duplex structures are placed closer to the entrance to "Big" Makalapa along Makalapa drive and clustered together off dead-end roads called Kamakani Place and Sāmoa Place. The smaller two-bedroom single-family structures are grouped off Midway Drive and its spur, Makin Place.

The number of house types and varieties grew following World War II as the Navy renovated one or a few houses at a time rather than systematically renovating all units of a type. The additions and modifications have been respectful and sensitive to the original design and do not negatively affect the integrity of the neighborhood.

Immediately following the December 7, 1941 Japanese attack, contractors built concrete shelters in the area for protection against future air raids, while the Navy likely installed a pistol firing range in the southeast corner of the neighborhood during this period as well. Between 1944-1945, after threat of a Japanese strike had abated in the wake of Allied advances in the western Pacific, the Navy built tennis and other ball courts, a swimming pool with ancillary buildings, and an amphitheater. They also erected Quonset huts and two large wood-framed Bachelor Officers' Quarters (BOQ). Few of those 1942-1945 facilities remain; the pool complex and tennis courts are the only extant structures from those years still used for their original functions. The ball courts built between 1944-45 at the south end of the neighborhood have been rebuilt or have changed to other functions as one now has playground

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equipment on the site and the other is currently a basketball court. All temporary World War II buildings (BOQs and Quonset Huts) have been demolished and only relocated sections of some World War II air raid shelters remain.

B. ARCHITECTURAL STYLE

The architectural style of the housing and garage units follows precepts of the Modern Movement. The chief architect, C.W. Dickey, was a versatile designer interested in Hawaiian regional style that applied the “form follows function” concept of modern style to the climatic conditions in Hawai‘i that gained popularity as a local residential design during the late 1930s. These structures were built rapidly with large crews working simultaneously—an efficient building method which influenced the techniques and materials employed by the construction industry from the pre-war period through today.

The modern, minimalist style is evident in the choice of materials (such as plywood for the interior walls), minimal ornamentation, hipped roofs and single-pane double hung windows. The houses are designed to suit Hawai‘i’s climate by integrating cross-ventilation, overhanging eaves and hipped roofs with tapered rafter ends covered by fasciae and asphalt shingle roofing (originally wood-shingled). The carport designs are also simple and easily erected. Three of the houses are one-story; two of these were originally mess halls, and the other was the Transportation Office. The remaining houses are two-story boxy volumes or a combination of one-and two-story sections. Horizontal drop siding is used on the exterior second floor of all two-story buildings.

The prominent building materials are wood, brick and concrete. Of the one hundred houses built, fifty-eight have concrete slab foundations with ground-story walls of concrete brick. The remaining forty-two structures including all the duplex units and all but five of the two-bedroom units are built on post and pier foundations to accommodate the sloping site conditions. Most of the three-bedroom and all of the four-bedroom units have first-floor concrete brick atop slab foundations. The wooden carports have shed roofs with asphalt rolled roofing or built-up gravel-surfaced roofing.

Plan designs are varied but have consistent traits. Most of the units have combination of one and two-story sections: the area of the second floor is approximately forty percent smaller than that of the first floor. All of the units have the main kitchen, living, and dining rooms functions, along with a maid’s quarters, on the first floor. All have a covered entry lanai and large rear lanai or side yard for gatherings. The upper floors held two bedrooms with one bathroom.

The units have similar windows and door types. The majority of the windows in each unit have wood sash, one-over-one light double-hung windows. Most of these windows are paired or tripled. Many are corner windows- a characteristic modern design feature. High on the sidewalls of the living and dining rooms are long, wood-framed sliding windows with paired single lights and wood-framed screens with

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half-round moldings. The wood front entry door is one-panel (or light) over two vertical panels or one single panel.

The window and door framing, cabinets, stairs, and other millwork used are “prefabricated” components as well. At the time, when builders were hand-building and milling on site, the concept of receiving a pre-built component such as a window was innovative. They were delivered to the job site from the mill complete with hardware and fittings while the window sashes and doors were shipped from the U.S. mainland. Canec panels, produced locally from sugar cane, were the typical interior ceiling material. Painting was reduced to one spray-coat of paint or oil on the exposed woodwork.

The units have simple molding and trim throughout. Ceiling trim is typically simple board moldings with an eased edge, and baseboards are typically board moldings with an eased edge with quarter-round shoe and/or top. The ceilings are mostly canec except in the kitchens, bathrooms, and utility areas, where they are plywood. There are v-joint grooves where the canec and plywood panels meet, giving the ceiling a simple, yet pleasing grid pattern throughout. This feature is particularly evident in the second story rooms where the sloped perimeter ceiling emphasizes the pattern.

Common Building Elements

There is considerable uniformity of material and detail among the varied types of residential buildings.⁷ As noted earlier, the predominant construction materials are wood and concrete, and many of the interior design details are also similar, with the major differences between types expressed in the floor plan variations. The typical building elements can be summarized for most of the houses as follows:

Feature	Description
Foundation	Concrete slab (houses with masonry walls on first floor) or post-on-block (all-wood houses)
Exterior walls (first floor)	Wood or concrete brick (8" x 12" x 4") in running bond, topped with a concrete bond beam
Exterior walls (second floor)	Wood (horizontal drop—6½" exposed)
Main Roof	Hipped roof(s) with asphalt shingles, slope of 4.5: 12
Shading roof (between 1 st & 2 nd floors)	Design varies by building type
Eaves	Overhang wall by 3 feet; fascia over tapered rafter ends
Entry porch roof	Usually formed by extension of shading roof
Windows (original)	Wood-frame, 1/1 double-hung or sliding; 1-pane hopper
Window sills (in masonry walls)	Concrete brick (5" x 7.5" x 2.5") sloped
Main entry door (original)	Wood, with two horizontal lights over two vertical panels

⁷ HABS HI-355, pg. 5

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Typical interior doors	Wood: flush, single-panel or five-panel
Interior walls (original)	Plywood
Ceilings (original)	Canec (panels made from sugar cane fiber) or plywood
Hardware	Bronze or brushed nickel finish
Moldings at ceiling and floor	Rectangular with eased edge (.5" – 1" thick); at floors also quarter rounds

The corners of most wood-sided exterior walls have vertical 1"-width rounded or square-profile molding strips. This design detail allowed for quick exterior cladding without the need to worry about exactly matching the horizontal alignment of the boards at the corners.

All houses underwent one or more of the following changes prior to 2000:

- replacing the original roof shingles with asphalt shingles;
- replacing individual windows with ones that do not match originals, often with jalousies;
- enclosing lānai (Hawaiian for porch or patio) with banks of operable windows;
- replacing interior wall and ceiling materials with gypsum board panels (especially when the original plywood and canec materials were damaged or remodeling occurred);
- substituting various replacement fittings rather than matching original bronze or nickel hardware;
- replacing old or installing new light fixtures without attention to original styles;
- installing modern bathroom and kitchen fixtures, finishes, cabinets and equipment.

During the privatization of all military housing in Hawai'i, 'Ohana Military Communities, Forest City Enterprises (Forest City) LLC took over management of all Navy housing, including "Big" Makalapa Naval Housing Area, in 2006.

The Forest City LLC rehabilitation work in Makalapa focused on:

- retaining and repairing original materials and features, including windows and screens;
- health and safety repairs, such as replacing or patching termite/rot damage, and fixing water/sewer lines;
- painting exteriors and interiors;
- replacing window a/c units with split a/c systems and insulating exterior walls and attics;
- installing appropriate wood-frame window types to replace jalousies and metal-frame windows previously installed;
- replacing inappropriate light fixtures with ones more compatible with the 1940s period; and
- upgrading kitchens and bathrooms (some of which had been previously renovated) with

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appropriate cabinets, appliances, fixtures, finishes and accessories.

Some canec ceiling panels that remain in these houses are unusually small, 32" x 16" while some located in the bathrooms are larger and stretch across the full width of the room.

Later renovations of the houses caused the majority of the original canec ceilings to be replaced with gypsum board, while many of the houses renovated by Forest City LLC have painted plywood-ceiling panels.

C. GENERAL PHYSICAL RELATIONSHIP OF BUILDINGS TO EACH OTHER AND TO THE ENVIRONMENT, INCLUDING ANY CHANGES TO THESE RELATIONSHIPS OVER TIME

The neighborhood sits on the slope of Makalapa Crater overlooking Pearl Harbor that gave it a clear vantage point of the December 7, 1941 bombing of Pearl Harbor. At the time of construction, this area was barren and Kamehameha Highway was being widened from a narrow road to a four-lane divided highway. Today this neighborhood is concealed from public view by a six-foot wooden slat fence and densely planted vegetation running the entire length of the neighborhood along the expanded five-lane Kamehameha Highway.

Vehicular access to the two housing areas was altered by the construction of the H-1 freeway that created an impassible trench between both Makalapa Housing units and military property to the east, while the widening of Kamehameha Highway led to the closure of the southern entrance to Little Makalapa from Kamehameha Highway. Additionally, the modification of Radford Drive as a four-lane artery to Pearl Harbor and the popular Navy Exchange discourages pedestrian traffic between Big and Little Makalapa. Anti-terrorism security measures were also added including fencing in formerly open recreational space along the makai side of "Big" Makalapa opposite Little Makalapa.

While the siting of structures is partly in response to the sloping topography, the buildings are also grouped according to house size and the number of bedrooms that reflected the rank of their respective residents. Figure no. 0011 clearly shows that the larger four-bedroom homes are sited at the upper slope of the neighborhood and at lower density. Density is greatest among the duplexes, with the topography determining their placement. The eight L-plan and two "straight" duplexes along Kamakani Place are closely sited because this is a ridge with the land sloping down on three sides. The junior officers' buildings are both smaller in terms of square footage and are more closely spaced. The closest walls of the duplex units are approximately thirty feet apart, while the smaller single-family units are about fifty feet apart and the flag quarters (highest ranking officers' houses) are at least seventy feet apart. There are no defined yards or lots since all of the land is owned by the Navy, but if lot lines were to be drawn, the flag quarters' parcels would have a street frontage of about 150 feet while the single-family and duplex

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units would only have approximately one hundred feet.

There are several large open grassy areas in the neighborhood, including sloping land on the east and west sides of Kamakani Place that become more level near the low points of Makalapa and Midway Drives. Another open, level area near Fac. No. 62 was the site of a 1942 BOQ building that was demolished by 1955.⁸ Another 1942 BOQ that lies outside the proposed historic district was located to the north of and originally attached to Fac. No. 80. and is now a parking lot for Fac. No. 81. The 1942 outdoor theater, formerly near Fac. No. 101 and one of the tennis courts, remained at least until 1966, but its site is now an open, sloping lawn.

The limited changes to the neighborhood's building mix include the addition of the swimming pool complex and other recreational facilities in 1944, the demolition of two World War II-era BOQ's, and outdoor theater in addition to the removal and repositioning of some World War II bomb shelters. Except for the bomb shelters now used for storage and the conversion of two mess halls and a Transportation Office to housing units, the uses of the other buildings have remained the same.

D. APPEARANCE OF THE DISTRICT DURING THE TIME WHEN THE DISTRICT ACHIEVED SIGNIFICANCE AND ANY CHANGES OR MODIFICATIONS SINCE THAT TIME

The neighborhood has been well maintained and not greatly altered since the end of World War II. In the last seven decades there have been two minor changes to the street layout. Betio Place became a cul-de-sac in 1948 (PW drawing OA-N1-1738). Historic maps show that from 1941 through at least 1944 the south end of Midway Drive intersected with Kamehameha Highway.⁹ By 1948 the south end of Midway Drive connected instead with the southern extension of Makalapa Drive, creating the road loop at the south end of the neighborhood (Fourteenth Naval District 1948).

The variety and amount of landscaping in the neighborhood significantly establishes the character of the district and distinguishes it from its surroundings. There were flourishing vegetation around most of the homes—trees, bushes, flowers, groundcover and grass—that vary according to the residents' preferences. Sheltering banyans and several species of palm imbue the neighborhood with a tropical character. The use of local stone in the retaining walls along Makalapa Drive and Makin Place also adds to the district's regional distinctiveness.

⁸ Fourteenth Naval District, [Map of] Pearl Harbor Region, Master Shore Station Development Plan (MSSDP), Naval Housing Complex (Prepared by Harland Bartholomew & Associates, Appendix D in MSSDP, Y& D #794726) 1957.

⁹ Fourteenth Naval District, [Map of] Pearl Harbor, T.H., Makalapa Area, Oahu, T.H., Recreation Area and Officers' Quarters, Showing Conditions on June 30, 1941, #OA-NI-330 (From National Archives II, College Park, Maryland, Cartographic Section, #RG 71, 1404-3-90) 1941; and Navy Yard, [Map of] Pearl Harbor, T.H., Makalapa Crater Area, showing Conditions as of June 30, 1944, #OA-N1-1013 (From National Archives and Records Administration, San Bruno, California, in RG 181, Fourteenth Naval District, District Staff HQ, General Correspondence 1936-1944, Box 2, Folder A1-1, FF12, Shore HQ to CINCPAC) 1944.

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The uniformity of building materials and color ties the neighborhood together. Historic photos indicate that the present-day exterior color scheme is similar to the 1940s original: white paint is used on the wooden portions of the houses while the majority of the concrete brick (unpainted prior to the 1990s) is now painted a buff color that matched its original khaki color. In houses that had painted bricks, the color had usually been white to match the wood portions of the houses.

The mature landscaping is the biggest difference between the original and present appearance of the neighborhood since only small trees were planted in 1941 that have since attained great size and spread over the past seven decades. The two most visible changes to the buildings' exterior are the wholesale replacement of the original roof shingles with asphalt shingles and the enclosure of the lānai on most of the Type A-G houses. There were also two additional large buildings in the neighborhood for the BOQ's, whose sites have been open grassy areas for over fifty years. Removing the outdoor theater created an additional grassy open space. The roads at the south end of the neighborhood had a different layout before the construction of the H-1 and Radford Drive in the 1970s.

E. GENERAL CHARACTER OF THE DISTRICT

Although the residential district sits between Kamehameha Highway and H-1, the noise and excessive heat are effectively minimized by the lush landscaping, narrow roads, and extremely low density of houses that collectively create a quiet, peaceful area typical of the 1940s Hawai'i character.

F. GENERAL CONDITION OF THE BUILDINGS

The condition of the houses and carports at "Big" Makalapa has been high since their construction and continue to function as officer's quarters. Additions and renovations have respected the original architectural design and do not detract or negatively affect their historic integrity.

Forest City's 2006 agreement with the Navy included the 2007-2010 rehabilitation of the historic houses (excluding those previously renovated ca. 2001) in conformance with the Secretary of the Interior (SOI) standards and guidelines with an emphasis on installing a/c systems and upgrading kitchens and bathrooms.

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G. IDENTITY OF THE BUILDINGS THAT DO OR DO NOT CONTRIBUTE TO THE DISTRICT'S SIGNIFICANCE.

List of Contributing Buildings and Original Building Types

Fac. No.	Address or Location	Original House Type	HABS Re # / Type	Additions/Alteration	Contributing
77	37 Makalapa Drive	Type A / 4-bdrms, 2-story	HI-355-A / Type A	Admiral's residence. Increase in square footage with additional program spaces including steward's and utility rooms, dining room, front and back lanai, second floor deck off the study, the second-floor master bedroom over the living room, kitchen and living room altered due to second floor alterations.	Yes
71	25 Makalapa Drive	Type A / 4-bdrms	HI-355-C / Type C	Covered lanai	Yes
72	27 Makalapa Drive	Type A / 4-bdrms	HI-355-C / Type C	Covered lanai	Yes
73	29 Makalapa Drive	Type A / 4-bdrms	HI-255-D / Type D	Dining room added to rear, enlarged enclosed front terrace room, enclosed rear lanai off the utility area.	Yes
74	31 Makalapa Drive	Type A / 4-bdrms	HI-355-C / Type C	Covered lanai	Yes
75	33 Makalapa Drive	Type A / 4-bdrms	HI-355-C / Type C	Covered lanai	Yes
76	35 Makalapa Drive	Type A / 4-bdrms	HI-355-C / Type C	Covered lanai	Yes
78	39 Makalapa Drive	Type A / 4-bdrms	HI-355-C / Type C	Covered lanai	Yes
79	41 Makalapa Drive	Type A / 2-bdrms	HI-355-F / Type F	Single-story designed as a residence, but was used as a junior bachelor officers' mess hall between 1942-1946.	Yes

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80	43 Makalapa Drive	Type A / 2-bdrms	HI-355-G / Type G	Single-story designed as a residence, but was used as a junior bachelor officers' mess hall between 1942-1946.	Yes
82	38 Makalapa Drive	Type A / 4-bdrms	HI-355-C / Type C	Covered lanai	Yes
83	36 Makalapa Drive	Type A / 4-bdrms	HI-355-C / Type C	Covered lanai	Yes
84	34 Makalapa Drive	Type A / 4-bdrms	HI-355-C / Type C	Covered lanai	Yes
85	32 Makalapa Drive	Type A / 4-bdrms	HI-355-C / Type C	Covered lanai	Yes
86	30 Makalapa Drive	Type A / 4-bdrms	HI-355-C / Type C	Covered lanai	Yes
87	28 Makalapa Drive	Type A / 4-bdrms	HI-355-C / Type C	Covered lanai	Yes
93	37 Hālawa Drive	Type A / 4-bdrms	HI-355-E / Type C	Covered lanai	Yes
57	2 Makin Place	Type B / 3-bdrms	HI-355-K / Type K	Covered lanai	Yes
70	23 Makalapa Drive	Type B / 3-bdrms	HI-355-B / Type B	Added covered lanai; additional first-floor bedroom wing, extended rear with living room and library.	Yes
89	29 Hālawa Drive	Type B / 3-bdrms	HI-355-K / Type K	Covered lanai	Yes
91	33 Hālawa Drive	Type B / 3-bdrms	HI-355-K / Type K	Covered lanai	Yes
95	41 Hālawa Drive	Type B / 3-bdrms	HI-355-K / Type K	Covered lanai	Yes
97	45 Hālawa	Type B / 3-	HI-	Covered lanai	Yes

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	Drive	bdrms	355-K / Type K		
99	49 Hālawa Drive	Type B / 3-bdrms	HI-355-K / Type K	Covered lanai	Yes
101	53 Hālawa Drive	Type B / 3-bdrms	HI-355-K / Type K	Covered lanai	Yes
105	50 Hālawa Drive	Type B / 3-bdrms	HI-355-K / Type K	Covered lanai	Yes
107	46 Hālawa Drive	Type B / 3-bdrms	HI-355-K / Type K	Covered lanai	Yes
109	51 Betio Place	Type B / 3-bdrms	HI-355-K / Type K	Covered lanai	Yes
111	47 Betio Place	Type B / 3-bdrms	HI-355-K / Type K	Covered lanai	Yes
104	52 Hālawa Drive	Type B / 3-bdrms	HI-355-I / Type I	Covered lanai	Yes
106	48 Hālawa Drive	Type B / 3-bdrms	HI-355-I / Type I	Covered lanai	Yes
108	44 Hālawa Drive	Type B / 3-bdrms	HI-355-I / Type I	Covered lanai	Yes
110	49 Betio Place	Type B / 3-bdrms	HI-355-I / Type I	Covered lanai	Yes
31	13 Midway Drive	Type B-1 / 3-bdrms, garage	HI-355-I / Type I	Added storage space in garage	Yes
55	3 Makin Place	Type B-1 / 3-bdrms, garage	HI-355-I / Type I	Added storage space in garage	Yes
56	1 Makin Place	Type B-1 / 3-bdrms, garage	HI-355-K / Type K	Attached carport; covered lanai	Yes
52	2 Midway	Type C / 2-	HI-	Covered lanai	Yes

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	Drive	bdrms	355-J / Type J		
58	4 Makin Place	Type C / 2- bdrms	HI- 355-J / Type J	Covered lanai	Yes
63	20 Makalapa Drive	Type C / 2- bdrms	HI- 355-J / Type J	Covered lanai	Yes
64	22 Makalapa Drive	Type C / 2- bdrms	HI- 355-J / Type J	Covered lanai	Yes
65	24 Makalapa Drive	Type C / 2- bdrms	HI- 355-J / Type J	Stair hall converted to bedrooms; covered lanai	Yes
66	26 Makalapa Drive	Type C / 2- bdrms	HI- 355-J / Type J	Covered lanai	Yes
69	21 Makalapa Drive	Type C / 2- bdrms	HI- 355-J / Type J	Covered lanai	Yes
112	42 Hālawā Drive	Type C / 2- bdrms	HI- 355-J / Type J	Stair hall converted to bedrooms; covered lanai	Yes
113	40 Hālawā Drive	Type C / 2- bdrms	HI- 355-J / Type J	Covered lanai	Yes
114	38 Hālawā Drive	Type C / 2- bdrms	HI- 355-J / Type J	Stair hall converted to bedrooms; covered lanai	Yes
115	36 Hālawā Drive	Type C / 2- bdrms	HI- 355-J / Type J	Covered lanai	Yes
116	34 Hālawā Drive	Type C / 2- bdrms	HI- 355-J / Type J	Stair hall converted to bedrooms; covered lanai	Yes
26	3 Midway Drive	Type C-1 / 2-bdrms, garage	HI- 355-J / Type J	Covered lanai	Yes
27	5 Midway Drive	Type C-1 / 2-bdrms, garage	HI- 355-J / Type J	Covered lanai	Yes
28	7 Midway	Type C-1 /	HI-	Covered lanai	Yes

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	Drive	2-bdrms, garage	355-J / Type J		
29	9 Midway Drive	Type C-1 / 2-bdrms, garage	HI- 355-J / Type J	Covered lanai	Yes
30	11 Midway Drive	Type C-1 / 2-bdrms, garage	HI- 355-J / Type J	Covered lanai	Yes
54	6 Midway Drive	Type C-1 / 2-bdrms, garage	HI- 355-J / Type J	Covered lanai	Yes
59	10 Midway Drive	Type C-1 / 2-bdrms, garage	HI- 355-J / Type J	Covered lanai	Yes
60	12 Midway Drive	Type C-1 / 2-bdrms, garage	HI- 355-J / Type J	Added enclosed storage in garage; covered lanai	Yes
61	14 Makalapa Drive	Type C-1 / 2-bdrms, garage	HI- 355-J / Type J	Attached carport; covered lanai	Yes
62	18 Makalapa Drive	Type C-1 / 2-bdrms, garage	HI- 355-J / Type J	Added enclosed storage in garage; covered lanai	Yes
67	17 Makalapa Drive	Type C-1 / 2-bdrms, garage	HI- 355-J / Type J	Attached carport	Yes
32	4796 & 4798 Kamakani Place	Type D / duplex 3- bdrms per unit	HI- 355-L / Type M	Converted into single-family houses in 2009	Yes
35	4778 Kamakani Place	Type D / duplex 3- bdrms per unit	HI- 355-L / Type M	Converted into single-family houses in 2009	Yes
38	4777 Kamakani Place	Type D / duplex 3- bdrms per unit	HI- 355-L / Type M	Converted into single-family houses in 2009	Yes
41	4797 Kamakani Place	Type D / duplex 3- bdrms per unit	HI- 355-L / Type M	Converted into single-family houses in 2009	Yes
45	9 Makalapa	Type D /	HI-		Yes

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	Drive	duplex 3-bdrms per unit	355-L / Type L		
46	11 Makalapa Drive	Type D / duplex 3-bdrms per unit	HI-355-L / Type M	Converted into single-family houses in 2009	Yes
47	13 Makalapa Drive	Type D / duplex 3-bdrms per unit	HI-355-L / Type M	Converted into single-family houses in 2009	Yes
48	15 Makalapa Drive	Type D / duplex 3-bdrms per unit	HI-355-L / Type M	Converted into single-family houses in 2009	Yes
49	4811 Sāmoa Place	Type D / duplex 3-bdrms per unit	HI-355-L / Type M	Converted into single-family houses in 2009	Yes
50	4819 Sāmoa Place	Type D / duplex 3-bdrms per unit	HI-355-L / Type M	Converted into single-family houses in 2009	Yes
51	4825 Sāmoa Place	Type D / duplex 3-bdrms per unit	HI-355-L / Type M	Converted into single-family houses in 2009	Yes
36	4774 Kamakani Place	Type F / duplex 2-bdrms per unit	HI-355-N / Type O	Converted into single-family houses	Yes
37	4773 Kamakani Place	Type F / duplex 2-bdrms per unit	HI-355-N / Type O	Converted into single-family houses	Yes
33	4792 Kamakani Place	Type G / duplex 2-bdrms per unit	HI-355-M / Type N	Converted into single-family houses	Yes
34	4786 Kamakani Place	Type G / duplex 2-bdrms per unit	HI-355-M / Type N	Converted into single-family houses	Yes
39	4785 Kamakani	Type G /	HI-	Converted into single-family	Yes

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	Place	duplex 2-bdrms per unit	355-M / Type N	houses	
40	4791 Kamakani Place	Type G / duplex 2-bdrms per unit	HI-355-M / Type N	Converted into single-family houses	Yes
42	3 Makalapa Drive	Type G / duplex 2-bdrms per unit	HI-355-M / Type N	Converted into single-family houses	Yes
43	3 Makalapa Drive	Type G / duplex 2-bdrms per unit	HI-355-M / Type N	Converted into single-family houses	Yes
44	7 Makalapa Drive	Type G / duplex 2-bdrms per unit	HI-355-M / Type N	Converted into single-family houses	Yes
201	2 & 4 Makalapa Drive	4-car carport	HI-355-P		Yes
222	2 & 4 Makalapa Drive	4-car carport	HI-355-O		Yes
225	19 & 21 Makalapa Drive	4-car carport	HI-355-O		Yes
226	23 & 25 Makalapa Drive	4-car carport	HI-355-O		Yes
227	27 & 29 Makalapa Drive	4-car carport	HI-355-O		Yes
228	31 & 33 Makalapa Drive	4-car carport	HI-355-O		Yes
230	39 & 41 Makalapa Drive	4-car carport	HI-355-O		Yes
231	36 & 38 Makalapa Drive	4-car carport	HI-355-O		Yes
232	32 & 34 Makalapa Drive	4-car carport	HI-355-O		Yes
233	28 & 30 Makalapa Drive	4-car carport	HI-355-O		Yes
202	4796 & 4798 Kamakani Place	2-car carport	HI-355-P		Yes
203	4792 Kamakani Place	2-car carport	HI-355-P		Yes
204	4786 Kamakani	2-car	HI-		Yes

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	Place	carport	355-P		
205	4778 Kamakani Place	2-car carport	HI-355-P		Yes
206	4774 Kamakani Place	2-car carport	HI-355-P	Added covered parking space; 3-car carport	Yes
207	4773 Kamakani Place	2-car carport	HI-355-P		Yes
208	4777 Kamakani Place	2-car carport	HI-355-P		Yes
209	4785 Kamakani Place	2-car carport	HI-355-P		Yes
210	4791 Kamakani Place	2-car carport	HI-355-P		Yes
211	4797 Kamakani Place	2-car carport	HI-355-P		Yes
212	3 Makalapa Drive	2-car carport	HI-355-P		Yes
213	5 Makalapa Drive	2-car carport	HI-355-P		Yes
214	7 Makalapa Drive	2-car carport	HI-355-P		Yes
215	9 Makalapa Drive	2-car carport	HI-355-P		Yes
216	11 Makalapa Drive	2-car carport	HI-355-P		Yes
217	13 Makalapa Drive	2-car carport	HI-355-P		Yes
218	15 Makalapa Drive	2-car carport	HI-355-P		Yes
219	4819 Sāmoa Place	2-car carport	HI-355-P		Yes
220	4825 Sāmoa Place	2-car carport	HI-355-P		Yes
221	4811 Sāmoa Place	2-car carport	HI-355-P		Yes
223	20 & 22 Makalapa Drive	2-car carport	HI-355-P		Yes
224	24 & 26 Makalapa Drive	2-car carport	HI-355-P		Yes
234	27 & 29 Hālawa Drive	2-car carport	HI-355-P		Yes
235	31 & 33 Hālawa Drive	2-car carport	HI-355-P		Yes

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238	39 & 41 Hālawa Drive	2-car carport	HI-355-P		Yes
239	43 & 45 Hālawa Drive	Garage	HI-355-P		Yes
240	47 & 49 Hālawa Drive	Garage	HI-355-P		Yes
241	51 & 53 Hālawa Drive	2-car carport	HI-355-P		Yes
242	50 & 52 Hālawa Drive	2-car carport	HI-355-P		Yes
243	46 & 48 Hālawa Drive	2-car carport	HI-355-P		Yes
245	111 Betio Place	2-car carport	HI-355-P		Yes
247	38 & 40 Hālawa Drive	2-car carport	HI-355-P		Yes
248	34 & 36 Hālawa Drive	2-car carport	HI-355-P		Yes
264	55 & 57 Hālawa Drive	2-car carport	HI-355-P		Yes
265	49 & 51 Betio Place	2-car carport	HI-355-P		Yes
236	35 Hālawa Drive	2-car carport	HI-355-O /		Yes
237	93 Hālawa Drive	2-car carport	HI-355-O /		Yes
246	42 Hālawa Drive (carport on Betio Pl.)	1-car carport	HI-355-P / 1-stall carport		Yes
117/118	Makalapa Drive & Hālawa Drive	Dressing Rm. & Pump Bldg.	HI-261		Yes
S124	Makalapa Drive & Hālawa Drive	Swimming Pool	N/A		Yes
S120	Makalapa Drive	Tennis Court	N/A	Repaved	Yes
S121	Makalapa Drive	Practice Court	N/A	Repaved	Yes
S122	Makalapa Drive	Tennis Court	N/A	Repaved	Yes

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S331	Near Kamehameha Highway & Radford Drive intersection	Telephone Cable Vault	N/A		Yes
N/A	Across Hālawā Drive from Fac. No. 91 & on dirt road adjacent to Fac. No. 42	Air raid shelters	N/A		Yes
N/A	Fronting Fac. Nos. 69-77, 57	Rock retaining wall	N/A		Yes
229	Makalapa Drive	Enclosed four-car garage	N/A	Converted from a four-car carport	No
S-126	Makalapa Drive	Basketball court	N/A	Converted from former tennis court	No
S-127	Makalapa Drive	Volleyball court	N/A	Replaced with playground area	No
N/A	Between Fac. Nos. 75 & 76	Staircase	N/A	Converted from wood to modern materials	No

Detached carports are featured in all but fourteen of the houses. There are two main types of carports: four-car designs shared by two senior officers' houses and two-car designs with storage rooms in the center typically shared by two houses or one former duplex building. Other variations in the carport designs are discussed in this section. The carports are sited between the houses, creating a pleasing variety of alternating patterns in which small carports contrast with larger houses. Additionally, the carports' close proximity to the roads allows the houses to be positioned further from the road to enhance privacy.

In addition to the housing and carports, there are ten other resources in the "Big" Makalapa neighborhood that contribute to the district's significance: six recreational buildings/structures including a pool complex, two tennis courts and a practice tennis court, two retaining walls of local rock, two former air raid shelter remnants, a telephone vault structure and the assorted landscaping features.

The pool complex, including a dressing room building and pump house (Fac. Nos. 117 and 118) flanking the ends of the pool (Fac. No. S-124), is enclosed by wood plank fences that surround the buildings and run the length of the pool. The buildings have concrete brick walls and hipped roofs with gable vents. Although the original enclosure design and materials are unknown, the pool complex

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retains its historic recreational function and layout that contributes to the district's significance.

The two tennis courts (Fac. Nos. S-120 and S-122) and practice court (no facility number) between them are the only other recreational facilities from World War II to retain their original location and function. They have been repaved in recent decades but retain sufficient integrity to play an important role in maintaining the resident's morale.

The retaining walls along the east side of Makalapa Drive and the north side of Makin Place were constructed from local lava rock and tuff that maintain the integrity of location, design, setting, materials and workmanship which contributes to the district both esthetically and historically.

The arched bomb shelter segments were constructed from pre-cast concrete units featuring metal rings for lifting and positioning purposes and range from six to twelve inches in width, five feet in height, and thirteen feet in depth. A comparison between current maps and 1940s maps show that there were initially more shelters with greater length and located in different positions than their present locations. They are important contributing structures, serving as reminders of early World War II when the residents (and the Territory of Hawai'i as a whole) feared another attack.

The concrete 1941 Telephone Cable Vault (Fac. No. S-331) is located at the historic district's southern end and protected important telephone communications for high-ranking officers housed in the area. As with the air raid shelter segments, the concrete was designed to be thick enough to protect the equipment inside from shrapnel, bullets and fire in the event of another attack. This structure, built partly below grade, is a rectangular box with a footprint approximately eight by eight feet and a height of about seven feet above ground level. Its height is ten feet measured from the bottom of the stair that leads to the metal entry door. The entry stair area was enclosed at an unknown date with a corrugated metal shed roof and metal mesh on the sides.

The trees, grass, hedges and other landscaping materials are collectively counted as a contributing site as they comprise one of the defining resources of the neighborhood. The lawns around the houses have been a feature of the landscaping from the earliest years of the neighborhood. The 2002 *Makalapa Neighborhood Cultural Landscape Assessment* by Helber, Hastert and Fee Planners notes the higher-ranking officers' quarters originally had more extensive plantings of palms, trees and shrubs compared to around junior officers' quarters. The original trees have grown, while some have been replaced and more plants have been introduced around the houses and other buildings. The intention behind the original landscaping has been honored, with informal groupings of diverse vegetation creating a park-like quality in the neighborhood.

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Non-contributing resources in the “Big” Makalapa neighborhood

Fac. No. 229 is an enclosed four-car garage built ca. 1990 on the site of a four-car carport as a security measure to protect against car-tampering and is shared by two high- ranking officers. Although this facility was evaluated as non-contributing to the historic district due to its recent construction, it does not detract from the area’s historical significance since its design blends with the district in terms of scale, materials and color. The total enclosure of the building differs from the open carports, including those rebuilt in the 1990s and 2000s.

Fac. No. S-126 is a basketball court that does not appear to date from the neighborhood's period of significance according to a 1944 map (#OA-N1-1013) of the neighborhood that shows a tennis court and an adjacent ball court in this location, both without a facility number. The 1948 Makalapa map (#OA-N1-1672) shows the current facility number but lists it as a volleyball court. Since the court has changed functions since the period of significance, it is counted as a non-contributing resource that is not a detracting element given its location behind several houses (Fac. Nos. 29-33). An additional volleyball court shown on the 1948 map as Fac. No. S-127 has been replaced by a playground area with recently installed equipment that does not contribute to the historic character of the neighborhood, but is also not a detracting element from the historic district’s setting due to its location in a large grassy area and its new playground equipment that serves an appropriate function.

A modern stairway replacing an earlier wooden version leads down to the crater floor between Fac. Nos. 76 and 75; however, neither version dates from the historic period of the neighborhood and are therefore not considered contributing but do not detract from the area’s setting as they are not visible from the majority of the historic district.

H. MOST IMPORTANT CONTRIBUTING RESOURCES

- The residence where Admiral Chester Nimitz lived (Fac. No. 77 at 37 Makalapa Drive) is the neighborhood’s most important building in terms of association with important historical figures.
- Type A buildings located along the upper ridge of Makalapa Crater were built for top Navy officers and are therefore the largest and most detailed structures within the district.
- The carports remain significant resources as they contribute to the alternating pattern in the neighborhood, contrasting with the houses in terms of size and placement relative to the streets.
- The former air raid shelters are important as a representative World War II building type.
- The landscaping and the rock retaining walls are the most valuable non-architectural features.

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I. QUALITIES DISTINGUISHING DISTRICT FROM SURROUNDINGS

The “Big” Makalapa neighborhood is easily distinguished from surrounding areas by its unique topography as it is built on a crater rim and slope that contrasts the relatively level surrounding land.

The “Big” Makalapa neighborhood is bordered on the west side by Kamehameha Highway, which separates the houses from a major fuel farm and other large-scale industrial structures in the Pearl Harbor complex. Radford Drive and the former Radio Station site mark the south boundary of the “Big” Makalapa neighborhood. On the north and northeast sides of the housing area are non-residential buildings. A steep hillside, varying from about ten to forty feet high, along with scrub vegetation on the crater floor, form the neighborhood’s east border.

J. PRESENCE OF ARCHAEOLOGICAL RESOURCES

Although no archaeological surveys have been conducted within the “Big” Makalapa Naval Housing Area, early cultural histories of the Hālawā (whose east side now divides the ‘Ewa and Kona Districts of O‘ahu) and Moanalua ahupua‘a (traditional land divisions from the mountain ridges to the sea) have been richly documented by Anderson and Bouthiller detailing legends dating to at least the late pre-contact period as well as observations of travelers and explorers in the eighteenth and early nineteenth centuries. For example, a significant episode in Hawaiian history that took place on the peak of Maunakapu near the boundary lines of Hālawā and Moanalua occurred in 1785 when the deposed mō‘ī (king) of O‘ahu Kumahana’s son, Kaneoneo, was killed by the Maui mō‘ī Kahekili (Fornander 1969 II: 227). Kahekili took revenge on the conspirators by exterminating the O‘ahu aristocracy and leaving their bones in Moanalua. These accounts testify to the ecological and cultural importance of these ahupua‘a, and especially of Pu‘uloa (Pearl Harbor) and its fertile streams and uplands. The majority of the early Native Hawaiian population apparently resided in and around the drainages feeding into Pu‘uloa and on the terraced lowlands nearby given the relative absence of specific references within historical accounts concerning the Hālawā-Moanalua plain. Apparently, the Hālawā-Moanalua plain was considered unsuitable for large-scale habitation or agricultural use by Native Hawaiians before or after European contact. The fishponds and small coastal settlements that lined both banks of the channel entrance to Pu‘uloa and around the fringe of the harbor according to early historic maps give the best clues to traditional Native Hawaiian use of the area.¹¹ Marine resources, principally the fishponds and the fringing reef, were a focus of traditional Native Hawaiian land-use on the plain.

The “Big” Makalapa housing area is in the ahupua‘a of Hālawā. There was a southeast direction alahele (foot path) that crossed on the west bluffs of Makalapa Crater called Napehā. In ancient Hawai‘i, alahele were used to access and trade resources with people living throughout the ahupua‘a. Napehā trail began at the mountain ridge base of Keka‘anianio-Kapūkakī, passed along the west bluff of Makalapa Crater and ended at the south shore of Hālawā ahupua‘a.

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There is a dearth of archaeology around both Big and Little Makalapa. This portion of Pu'uloa is a landmass consisting of fill dredged from the harbor overlying shoreline fishponds and the filled in Makalapa crater formerly called Kapūkakī. McAllister designated Makalapa Crater as site 101 (SIHP 50-80-13-00101) and wrote that it was used as a freshwater pond in 1933. During the Great Māhele of 1848, cattle were being ranched around Makalapa. According to testimony, the Makalapa lands were not fit for sugar and instead used for pasture. In 1930, McAllister recorded the first nineteen archaeological sites in the ahupua'a of Moanalua along with three enclosed paddocks around the crater and ten sites in Hālawa (nine coastal fishponds and Moku'ume'ume, otherwise known as Ford Island). None of the historic sites McAllister recorded are located near the "Big" Makalapa housing area.

The former 25-acre Loko Kunana Fishpond (SIHP 50-8-013-00102) was located near the mouth of Hālawa Stream in the ahupua'a of Hālawa. One of the largest recorded fishponds along the south shore of O'ahu on many maps for the ahupua'a of Moanalua was the 332-acre Loko Lelepaua that was adjacent to Loko Waiaho. Today the main runways of the Honolulu International Airport stand where these two fishponds once existed. To the west of Loko Waiaho was Loko Keoki (McAllister 1933:101). The fishponds, coast and shoreline of Pu'uloa would be transformed into one of the largest, most important naval bases in the world.

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8. Statement of Significance

Applicable National Register Criteria

(Mark one or more boxes for the criteria qualifying the property for National Register listing.)

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of constructions or represents the work of master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D. Property has yielded, or is likely to yield, information important in pre-history or history.

Criteria Considerations

(Mark all the boxes that apply.)

- A. Owned by religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

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Areas of Significance

(Enter categories from instructions.)

MILITARY

COMMUNITY PLANNING & DEVELOPMENT

ARCHITECTURE

Period of Significance

1940-1945

Significant Dates

1940

1941-1945

Significant Person

(Complete only if Criterion B is marked above.)

Admiral Chester William Nimitz

Cultural Affiliation

Architect/Builder

Dickey, Charles William (C.W.)

Contractors, Pacific Naval Air Bases

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Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

“Big” Makalapa Naval Housing Area is significant at the state level under three Criteria: A (Events), B (People) and C (Architecture). It meets Criterion A by reflecting the political, economic and social events impacting the Pearl Harbor basin. During the 1930s and early 1940s, events led to in American preparations to counter increased Japanese militarism in the Pacific, including the build-up of U.S. Navy strength at Pearl Harbor. This relocation of forces to Hawai‘i necessitated massive construction of infrastructure such as housing within a very short time span. “Big” Makalapa is fulfills Criterion B since Facility 77 was the residence of the Commander-in-Chief of the Pacific Fleet Admiral Chester Nimitz, who, along with Army General Douglas MacArthur, directed the successful war effort against Japan following the attack on Pearl Harbor. “Big” Makalapa is relevant under Criterion C as the neighborhood and buildings embody the distinctive characteristics of the period and typify the planning and construction of military residences in the early 1940s. The period of significance starts with Makalapa’s construction in 1940 and ends in late November 1945, when Nimitz left his command to become Chief of Naval Operations in Washington, D.C.

In addition to meeting the three National Register criteria, the lands on which the historic district were constructed have had a long history of Native Hawaiian occupation, for which all tangible manifestations have been obliterated by the United States Navy’s development of the area. The earlier history, when recalled, adds another layer of understanding to the place and its names.

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Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Criteria A

It meets Criterion A on the state level for by reflecting the political, economic and social events impacting the Pearl Harbor basin as Hawai'i transitioned from an independent kingdom to a territory of the United States prior to World War II. World events culminated in American preparations to counter increased Japanese militarism in the Pacific, including the build-up of U.S. Navy strength at Pearl Harbor and the subsequent Japanese attack on the facility on December 7, 1941. This relocation of forces to Hawai'i necessitated massive construction of infrastructure such as housing within a very short time span. "Big" Makalapa neighborhood is significant for its involvement in the Navy's preparation for World War II and its response to the outbreak of war in the Pacific. "Big" Makalapa was constructed to accommodate the expanded presence of the US military in a Pacific Ocean-wide war and was the scene of important wartime decisions that were key to American success.

Traditional Native Hawaiian Presence

The ahupua'a of Hālawa is located west of Honolulu in the moku (traditional district) of 'Ewa. Although the ahupua'a was neither the most populated or powerful in the sense of chiefly authority, Hālawa is one of the most sacred places on O'ahu and served as a buffer between the power holders of O'ahu prior to Paiea Kamehameha I's reign (1795—1819) as sovereign over the unified Hawaiian archipelago. The land division extends from the Maunakapu summit ridge of the Ko'olau range, to the east shoreline of Ke-Awalau-o-Pu'uloa (the traditional name for Pearl Harbor) and to the south shore towards the harbor mouth of Pu'uloa.¹⁰ The entire shoreline of Hālawa was poetically called Nā-Maka-o-Hālawa, which translates as "the eyes of Hālawa" referring to the once abundant pipi, or pearl oysters.¹¹ The geographical features of the uplands are two gulches called Kamananui and Kamanaiiki with the sources of Hālawa's two streams starting at the base of each gulch and converging into the Hālawa Stream. From the uplands to the eastern foothill of the ahupua'a is Makalapa Crater. The eastern boundary line of the traditional ahupua'a ran across the crater's eastern bluff.¹² From the crater to the east shore, the west boundary of the land included the flat island of Moku'ume'ume.

Hālawa is of great significance and revered by many Kānaka 'Ōiwi (Native Hawaiians) because the ancestral matriarch of the Kānaka 'Ōiwi, Papahānaumoku was born there.¹³ Many current Hawaiian families trace their genealogy to Papahānaumoku. The prayer chant *Kumulipo* describes the origins of life and several

¹⁰ Mary Kawena Puku'i, *Ke awa lau o Puuloa: Hawaiian Historical Society Report no. 52* (Honolulu, 1943).

¹¹ Samuel Kamakau, *Ka Po'e Kahiko: The People of Old* (Honolulu: Bishop Museum Press, 1964), 83.

¹² Author Unknown, "Ma Ke Kauoha: Kuahaua Koho Baloka Wae Moho," *Kuokoa* (Honolulu: Kuokoa, 1924). August 28 1924.

¹³ Queen Lili'uokalani, *The Kumulipo: An Account of the Creation of the World According to Hawaiian Traditions* (Honolulu: Pueo Press, 1897).

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lineages of the Hawaiian people and says the universe was created during the night of Makali'i (the Pleiades).¹⁴ From the darkness came Kumulipo, the male, and Pō'ele, the female, who gave birth to the multitudes of deities and the elements of land and sea. Then came the first life forms on Earth followed by the nā kini lehulehu (multitudes of man) and the nā kini lani ali'i (multitudes of chiefs).¹⁵ Papahānamoku had a daughter, Ho'ohokukalani, who gave birth to Hāloanaka. According to the Kumulipo, Hāloanaka was born in the form of a root (other stories say Hāloanaka was a fetus).¹⁶ Either way, the child was still born. Hāloanaka was buried at the east corner of the house of Ho'ohokukalani, which traditional narratives locate at Waolani, in the ahupua'a of Nu'uaniu. From the "root" the kalo (taro) first sprouted.¹⁷ The kalo was called Hāloanakalaukapalili, literally meaning the "progenitor of all the people [Kānaka 'Ōiwi] of the Earth."

"Big" Makalapa is located in the 'ili (a subdivision of an ahupua'a) of Kunana that refers to the extinct crater eroded by wind and water and filled by material dredged up from the harbor. Makalapa is translated as "ridge features," referring to the formation of the edges of the crater.¹⁸ There was a freshwater pond within the crater.¹⁹

Waters near to and within the crater

Near the historically significant area were two small loko (ponds), a larger loko, an island, and mud flats. The loko associated with the area of Makalapa were loko i'a (fishponds), which in ancient times played vital social, economic, and political roles. The entire Ke-Awalau-o-Pu'uloa was the breadbasket for the thirteen ahupua'a along the shore. The two small loko were called Wailolowai and Wailolokai whose original meanings and functions have been lost.²⁰ Traditional narratives describe the fauna common to all the loko along the shores of Ke-Awalau-o-Pu'uloa. One of them was the 'anae, or mullet, cultivated in the loko i'a. Also abundant was the pipi, or pearl oyster, for which the area was traditionally known.²¹ Those have mostly disappeared. According to legend, Kānekua'ana, a mo'ō (a supernatural being usually taking the form of a lizard that dwells in water) had brought the pipi from one of the ancestral lands called Kahiki. It was an abundant food source for the people of Hālawā, but it was also protected by Kānekua'ana to ensure that they weren't overharvested. The person charged with enforcing kāmāwai (traditional law) of harvesting was called the konohiki or headman; it was his duty to supervise and maintain the laws under the ali'i 'aimoku (the ruling chief of the district). One day during the kapu (forbidden) period of harvesting, an old woman broke the law and gathered pipi. The konohiki

¹⁴ Davida Malo, *Ka Mo'olelo Hawai'i: Hawaiian Traditions*, trans. by Malcolm Naea Chun (Honolulu: First People's Production, 2006), 4.

¹⁵ Queen Lili'uokalani. *The Kumulipo*, 2.

¹⁶ Davida Malo, *Ka Mo'olelo Hawai'i*, 185.

¹⁷ *Ibid*, 185.

¹⁸ Mary Kawena Puku'i and Samuel H. Elbert, *Hawaiian Dictionary* (Honolulu: University of Hawai'i Press, 1986), 224 and 194.

¹⁹ McAllister, *Archaeology of Oahu* (Honolulu: Bishop Museum Press, 1933), 102.

²⁰ Elspeth P Sterling and Catherine C. Summers, *Sites of Oahu* (Honolulu: Bishop Museum Press, 1962), 47.

²¹ Puku'i, *Ke awa lau o Puuloa*.

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inspected the harvest of the lawai'a (fishermen), including the old woman. The konohiki emptied her bag into the sea, scolded her and demanded payment. Kānekua'ana saw this and was not pleased, because the mo'ō was fond of the old woman, a relative. In retaliation, Kānekua'ana took most of the pipi from Ke-Awalau-o-Pu'uloa back to Kahiki.²² The larger loko, Loko Kunana, was situated northwest of Makalapa. It was a loko i'a kuapā (walled fishpond) where deep-sea fishes, including manō (sharks), were raised. Within the larger loko i'a kuapā, there was a small loko called Loko Muliwai. The ali'i directed the maka'āinana (commoners) to build this particular fishpond. It was noted in *The Sites of O'ahu* that:

*Kunana Pond is at the base of Hālawā Stream and was connected with Kūāhūa Island (see Fig. 0002). The name is from the mother of Ka'ahupahau who often fished there. Her name was Ku-a-nana, child of Nana.*²³

Loko Kunana is also mentioned in McCallister's 1933 *Archaeology of Oahu*:

*Kunana has been partly filled in but was formerly 25 acres in extent. Kūāhūa Island forms one side and the opposing wall is formed by Hālawā. The two walls running between the land and the island are 1800-feet and 1950-feet long, approximately 5-feet wide, and 3-feet high.*²⁴

As the story goes, Kunana [Ku-a-Nana] was a chiefess who had a miscarriage while gathering limu (seaweed) along the shores of Ke-'Awalau-o-Pu'uloa. According to Hawaiian tradition regarding unfortunate births of chiefs, the stillborn is to be taken to the sea to return to the spirit world and may be transformed into a supernatural being or another life form. In this story, that stillborn child was transformed into a shark and called Ka'ahupahau.²⁵ Ka'ahupahau was also regarded as an ali'i wahine (chiefess) because in many narratives about Ka'ahupahau, she had the traits of a chiefess in terms of protecting the people of Ke-Awalau-o-Pu'uloa.²⁶ The mud flats of Loko Ola are also closely connected with Makalapa. However, as with many loko along the shores of Ke-Awalau-o-Pu'uloa, its associated lore has been lost.

Hawaiian trails in the area

In ancient Hawai'i, the maka'āinana would travel on foot using the alahele, which in the ahupua'a of Hālawā followed a mauka-makai direction. The maka'āinana would use the trail to trade food. The ali'i would often travel on a footpath called alaloa, analogous to a vehicle highway, which ran east-west.

²² Moses Manu "The Legend of Ke-ao-melemele," *Kuakoa*, April 25 1885.

²³ Sterling, *Sites of Oahu*, 10.

²⁴ McAllister, *Archaeology of Oahu*, 102.

²⁵ Puku'i *Ke awa lau o Puuloa*

²⁶ "He Moololo Kaaō Hawaii no Keliikau o Kau," in *Home Rula Republika: Ka Wahaolelo o ka Lehulehu*, January 6 1902, 7. <http://www.nupepa.org>

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During the time of harvest called makahiki, the ali'i would travel on the alaloa in the company of Lonoikamahiki (Lono), the deity of agriculture and peace. There was an ancient alahele along the west bluff of Makalapa Crater called Napehā.

Hawaiian people living in the area

Makalapa area did not have many inhabitants prior to the mid-1800s. The settlement pattern occurred mostly along the coastline from the present mouth of Hālawa Stream to the merger of the two streams of Kamananui and Kamanaiiki as well as into the gulches of the ahupua'a.

Ownership of the land

The lineage of landlords in Hālawa changed often. O'ahu went from being an independent island kingdom to part of the Kingdom of Hawai'i and remained loyal to the descendants of Pai'ea Kamehameha I. Prior to Kamehameha I taking control of O'ahu in 1795, the last independent ali'i 'aimoku was Kalanikūpule, who ruled not just O'ahu but also Moloka'i, Maui, Lāna'i and Kohemalamalamaokanaloa (Kaho'olawe). Kalanikūpule had planned to conquer Hawai'i Island, but John Young and Isaac Davis, Kamehameha I's foreign advisors, got wind of the plan. To forestall the invasion of Hawai'i Island, Kamehameha I and his forces instead traveled to O'ahu and defeated Kalanikūpule at the battle of Kaleleka'anae.²⁷ When the new ali'i 'aimoku, Kamehameha I redistributed the lands of O'ahu to his chiefs in order to assert his rule over the land in his absence, the chiefs appointed to Hālawa as joint haku'āina (landlords) were John Young and Isaac Davis. Davis died in 1810 leaving no kauoha (spoken will) as to who would inherit his title. From 1795 until 1847, Hālawa, including Makalapa, was governed by these trusted foreigners and their children. In 1848, things changed. In traditional Hawaiian thinking, land wasn't "owned" but rather stewarded by the residents of the ahupua'a. However, as foreigners gained influence with the paramount chiefs, this thinking underwent a change referred to as Māhele, during which land was divided and titles of ownership transferred.²⁸ This changed the traditional social, economic, and political structures. Land became a commodity, which had unfortunate consequences for the traditional way of life.

Mataio Kekūanāo'a, a kaukau ali'i or secondary chief who served under the mō'i, became the new haku'āina of Hālawa. Kekūanāo'a was a descendant of high chiefs of O'ahu and Hawai'i Island. He was connected to Kamehameha I through two marriages to descendants of Kamehameha I. He married Kalanipauahi, daughter of Pauli Ka'oleioku, a son of Kamehameha I. Because of this marriage, Kekūanāo'a adopted Princess Ruth Ke'elikōlani, the daughter of Kalanipauahi, as his own. Although she was po'olua (having two fathers), Kekūanāo'a nevertheless claimed her as his daughter. Kekūanāo'a

²⁷ Kleiger, P. Christiaan, *Na Maka o Halawa: A History of Halawa Ahupua'a, O'ahu*, (Honolulu: Bishop Museum Press, 1995), 30.

²⁸ Kame'eleihiwa, Lilikalā, *Native Land and Foreign Desires: Pehea Lā e Pono Ai?* (Honolulu: Bishop Museum Press, 1992), 8.

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also married Elizabeth Kīna‘u (the daughter of Kamehameha I and wife Kalakua Kaheiheimālie) and had five children: David Kamehameha, Moses Kekūāiwa, Mō‘ī Lota Kapuāiwa Kamehameha V, Mō‘ī Alexander Liholiho Kamehameha IV, and Princess Victoria Kamāmalu. Through either lineage, the title of haku‘āina was passed down the line to direct descendants of Kamehameha I. Kekūnāo‘a was granted the ‘ili of Kunana [LCA 7712] through the Māhele of 1848. Christiaan Kleiger, author of *Nā Maka o Hālawā*, noted that “Kunana seems to have been a traditional independent ‘ili, or ‘ili kūpono whose landlord would be directly responsible to the king rather than to a konohiki [supervisor of the land].”²⁹ It may be the reason why Kekūnāo‘a was granted the land that became its own “konohiki” or haku‘āina.

Kekūnāo‘a handed the ‘ili of Kunana down to his children, then to Ruth Ke‘elikōlani.³⁰ She was the last of Kekūnāo‘a’s children to serve as haku‘āina of the ‘ili. Upon her death in 1883, Ke‘elikōlani willed all her inherited lands, including the ‘ili of Kunana, to her closest cousin as the last direct descendant of Kamehameha I, Princess Bernice Pauahi Bishop, founder of Kamehameha Schools. Her link to Kamehameha I was through her mother, Laura Kanaholo Konia, the daughter of Kamehameha I’s son, Pauli Ka‘oleioku. In 1898, fourteen years after the death of Princess Bernice Pauahi Bishop in 1884, the trustees of her estate and Kamehameha Schools leased the ‘ili of Kunana to the Honolulu Sugar Company, which later changed its name to Honolulu Plantation Company (HPL).³¹

Historic maps from as late as the 1930s indicate the area were undeveloped. If any historic sites existed on or in the crater, they have been obliterated by the sugar industry and military activity. However, the interior of Hālawā Valley was not without historic properties. A twenty-year archaeological survey and data recovery project related to the construction of the H-3 freeway through Hālawā identified extensive pre-contact sites within the valley including Kleiger’s 1898 notes detailing an enclosure adjacent to Makalapa Crater later used by the Aiea Dairy.³² Unfortunately, there were no requirements for archaeological studies when Makalapa was developed. Therefore, no archaeological sites have been recorded within the housing area.

In the late nineteenth and early twentieth centuries, Makalapa was located near a number of railroad lines. The O‘ahu Railway & Land Company (OR&L) was founded to service an agricultural and subdivision development scheme covering the western and northern sections of O‘ahu. Its founder, Benjamin Franklin Dillingham, received a royal charter in 1889 and proceeded to build a narrow-gauge track west from Iwilei. The OR&L track traveled in a straight line from Ke‘ehi Lagoon to approximately the present site of the Nimitz Gate and proceeded north before turning west along the coast of Pearl Harbor. A spur at ‘Aiea crossed the present Richardson Field, Aloha Stadium grounds, and then headed

²⁹ Kleiger, *Na Maka o Halawa*, 40.

³⁰ *Ibid*, 44.

³¹ *Ibid*, 81.

³² *Ibid*, 81.

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north to the Aiea Sugar Mill, operated by the Honolulu Plantation Company. The Honolulu Plantation Company connected its own private plantation railroad system to the OR&L at the Pu'uloa Station also located also near the Nimitz Gate. A line from Pu'uloa Station went north, skirting Little Makalapa and Makalapa Crater on the east before crossing the site of the present Foster Village on the way to Āliamanu Crater and Hālawā Valley. The military had rights for use of this line as far as its Āliamanu ammunition storage facility. (The line was probably abandoned by 1939, when plans for Little Makalapa were made, as it is unlikely that ammunition would be transported close to a housing area.) Another line went southwest from the Pu'uloa Station to the base of the Hawaiian Dredging Company, which cleared the opening of Pearl Harbor and had other major military dredging contracts, located at Watertown on the east side of the Pearl Harbor entrance. The last line extended south to Fort Kamehameha. The only physical components of these railroad lines on the east side of Pearl Harbor in existence today are rails embedded in concrete within the Pearl Harbor Shipyard, a bridge inside the base crossing Hālawā Stream, the OR&L right of way along the Pearl Harbor shoreline, and the cut in the cliff at Richardson Field used by the OR&L trains to rise from the coastal flats and reach the Aiea Sugar Mill.³³

Changes to the landscape

The introduction of new technology, fauna, flora and ownership divisions and land use also affected conditions within Ke-Awalau-o-Pu'uloa and access by Native Hawaiians. Peter Corney, one of the earliest Euro-American residents on O'ahu, wrote that in 1818 there were many divers employed to obtain pearl oysters. Corney himself had facilitated the process of harvesting oysters by presenting the king with an oyster dredge (a device that undoubtedly destroyed the oyster beds).³⁴ While the introduction of cattle throughout the Islands was seen as a beneficial source of protein and possible ranch employment, King Kamehameha I's initial ten-year kapu on killing the animals had the unanticipated effect of creating a bovine population explosion during which the hungry cattle denuded the landscape and facilitated soil erosion. Invasive plants were much more resistant to the depredations of cattle than native plant species, and they also tended to be more aggressive in establishing themselves and altering existing food sources.

During the Great Māhele, the land was divided, with one third becoming Crown Lands, another third granted to the Chiefs, and the remainder owned by the population. Foreigners could gain title, and the maka'āinana (tenants to the land) were encouraged to file claims for property that they worked. Unfortunately, most Native Hawaiians were dispossessed as they did not understand the concept of land title and lost their opportunity to gain ownership. Furthermore, the new laws granted a landowner the right to deny access to anyone not "specifically designated as the Land's rightful owner."³⁵ This proved especially consequential where there were food resources. The development of extensive upland

³³ Henry F. Bonnell, *Hawaiian Rails of Yesteryear* (Hawai'i: The Hawaiian Railway Society, 1997), 2 and 4.

³⁴ Navy Department Library. *The U.S. Navy in Hawaii, 1826-1945, an Administrative History*. Accessed June 8, 2014. <http://www.history.navy.mil/docs/wwii/pearl/hawaii.htm>.

³⁵ Kame'eleihiwa, *Native Land and Foreign Desires: Pehea Lā e Pono Ai?*, 9

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commercial agriculture removed huge areas of vegetation and led to further massive sedimentation of the oyster beds within Pearl Harbor.

Native landowners (royalist entities such as the Bishop and Queen Emma Estates) permitted traditional resource gathering of such items as 'ōpae (freshwater shrimp). 'Ōpae gathering continued until the estates were forced to give up their properties through condemnation by the U.S. Government for Navy use of East and other Lochs. The Navy also contributed to pollution by accidental discharge of oil and other contaminants and restricted access rights due to security concerns during the period leading up to World War II.

Pearl Harbor Naval Base

In 1840, U.S. Navy commander Charles Wilkes sounded "Pearl River" and reported that, "if the water upon the bar (entrance) should be deepened, which I doubt not can be effected, it would afford the best and most capacious harbor in the Pacific."³⁶ As international trade across the Pacific grew over the course of the nineteenth century, the strategic naval importance of Hawai'i and the Pearl Harbor base increased significantly.

Commercial and cultural ties with the United States also increased via both the New England Congregationalist missionaries that became influential in the Royal Government starting in 1820 and the many American whaling ships active in the North Pacific. By 1857, Navy ship visits to the Islands were so frequent that the *Pacific Commercial Advertiser* noted that Lt. William Reynolds had been appointed "U.S. Naval Storekeeper" in Honolulu.³⁷

Preferential access to the American sugar market became the *raison d'être* of an increasingly powerful sugar-growing lobby, resulting in the 1875 Reciprocity Treaty between the Kingdom of Hawai'i and the United States for commercial trade. These negotiations proposed that the United States might be induced to grant Hawai'i access to sugar markets in exchange for a facility at Pearl Harbor. In 1873, American General John M. Schofield visited Hawai'i and recommended that a U.S. Navy facility indeed be built at Pearl Harbor. An 1887 renewal of the reciprocity document included official recognition that the United States possessed sole rights to Pearl Harbor as a port. This treaty allowed the Kingdom's sugar and rice to enter into the United States tax-free "without" the cessation of Ke-Awalau-o-Pu'uloa, in which the American government had great interest for its own military.³⁸ The U.S. military denied access to resources including shoreline loko i'a and the freshwater pond of Makalapa Crater after being granted

³⁶ W. F. Dillingham, "Pearl Harbor." Typescript of speech read before the Social Services Association. Accessed 2013. Hawai'i State Archives.

³⁷ GlobalSecurity.org. "Military: Coaling Stations," Accessed May 23, 2008. <http://www.globalsecurity.org/military/facility/coaling-station.htm>.

³⁸ Ibid, 314.

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exclusive rights to the harbor. Therefore, the Reciprocity Treaty had the effect of further distancing the people from the land.³⁹

The annexation of the Hawaiian Islands in 1898 led to the establishment of U.S. Navy facilities at Honolulu Harbor. In 1899 Commander F. Merry assumed command of the Coal Depot at Honolulu and Naval Station Honolulu.⁴⁰ Congressional appropriations in 1901 supported the acquisition of lands for the development of Pearl Harbor Naval Station and the dredging of the entrance channel. Due to resistance by property owners, the U.S. exercised eminent domain to acquire the southeast coast of the present East Loch, Kūāhūa Island, and the southeast coast of Ford Island. On December 14, 1911, the first large vessel, U.S.S. *California*, entered Pearl Harbor and tied up off the Navy Yard. By 1921, all American naval operations had moved from Honolulu to Pearl Harbor.⁴¹

The base continued to expand through the Navy's use of U.S. Condemnation Civil Actions that acquired additional portions of the Ke-Awalau-o-Pu'uloa. Ammunition storage facilities on Kunana Island were enlarged by acquiring Loko Kunana and filling it in, creating Kunana Peninsula. All of Ford Island was taken for the development of Luke Field; however, aeronautical technology was expanding so quickly by the 1930s that a whole separate complex was undertaken southeast of Pearl Harbor and developed as Hickam Airfield and by 1939, the Navy sought title of Makalapa area.⁴²

Filling in of Makalapa Crater and the gorge

Makalapa Crater and the gorge that ran between the areas of "Big" Makalapa and Little Makalapa were heavily altered from 1939 to 1966. In 1939, a major contract was awarded to Pacific Naval Air Base Contractors for the construction of two new graving docks adjacent to the existing operational battleship dock. Dock No. 2 was a 1,000-foot battleship dock, while Dock No. 3 was 497 feet long and used for destroyers and submarines.⁴³ The dredge material from the construction of these two docks was most likely used as fill in Makalapa Crater sometime around 1939, increasing its elevation thirty feet.⁴⁴ Later, during the construction of Highway H- 1, the crater required further leveling to mitigate grade changes in the freeway design and the remove a smallpox cemetery. No archaeological surveys were conducted prior to the execution of these major projects.

³⁹ Sydney Lehua Iaukea, *The Queen And I: A Story of Dispossession and Reconnections in Hawai'i* (Berkeley and Los Angeles: University of California, 2012), 61.

⁴⁰ TEC Inc. – JV, *Naval Facilities Engineering Command (NAVFAC), Pacific, Pearl Harbor Naval Complex Draft Cultural Landscape Report Part 1*. (Honolulu: 2008), 2.3-1 and 2.

⁴¹ *Ibid*, 2.3-2.

⁴² Kleiger, *Nā Maka o Hālawā*, 94.

⁴³ United States, *Building Navy Bases in WWII* Vol. 2 (Washington D.C.: Government Printing Office, 1947), 121.

⁴⁴ *Ibid*, 121.

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Big Makalapa Naval Housing Area

Impetus for the development of the “Big” Makalapa Historic District can be traced to the wide-spread economic and political instability during the 1930s. The world had steadily been moving toward another major war. In 1931, the Japanese had invaded Manchuria and expanded into central China in 1937. By 1939, Nazi Germany and the Soviet Union had invaded Poland and Germany was also at war with France and Great Britain. This prompted American President Franklin D. Roosevelt to declare a limited national emergency in 1939, during which he ordered the relocation of the Pacific Fleet from California to Hawai‘i that was completed in April 1940.

Moving the U.S. fleet to Hawai‘i, however, required extensive infrastructure improvements. New roads, berths, hangars, fuel lines, offices, recreation facilities and housing were planned. Unfortunately, Pearl Harbor Naval Base was at that time far from Honolulu. To expand base housing, three tracts of land were acquired from the Queen Emma and Damon Estates: Makalapa; the triangle created by today’s Kamehameha Highway, Nimitz Highway and Plantation Drive; and the land makai of Kamehameha Highway and ‘Ewa of today’s Honolulu Airport Post Office.⁴⁵ The *Honolulu Star-Bulletin* reported that a Congressional subcommittee had recommended Navy housing construction, at least in part, because even “enlisted men with their families are now required to live in Honolulu in unsanitary, dilapidated and unhealthy surroundings.”⁴⁶ “Big” Makalapa Naval Housing Area was built to house Navy officers, but it was just a part of the military housing boom in Hawai‘i from 1938 through the early 1940s.

Originally intended to be only temporary, the fleet was moved to Hawai‘i to serve as a deterrent to Japanese expansion into the Dutch East Indies. The senior officer housing at Makalapa was thus necessary to house the officers who would be moving with their families to Hawai‘i with the transfer of the fleet. However, because most of the fleet’s senior officers were housed afloat, the housing at “Big” Makalapa was initially deemed a low priority. The Chief of Naval Operations announced in the summer of 1940 that the fleet would remain in Hawai‘i indefinitely, accelerating the construction of the “Big” Makalapa housing area.⁴⁷

Contractors Pacific Naval Air Bases (CPNAB) constructed both the Big and Little Makalapa housing area. CPNAB was a consortium of local and Mainland construction firms tasked with building Navy facilities in the Pacific during World War II. CPNAB’s contract for housing, along with other Navy work, was awarded on July 1, 1940 and originally called for the construction of five hundred housing units in Housing Area I (later called Hale Moku); however, the contract was soon amended to include

⁴⁵ United States Navy, Fourteenth Naval District. Cantonment for 1400 Civilians (Map), including Makalapa Housing Land Parcels Acquired 1939. National Archives II Microfilm Roll R---1094, Frame 435.

⁴⁶ “Navy Seeks Land for \$4,214,000 Housing Project,” *Honolulu Star-Bulletin*, October 31, 1939. p. 1.

⁴⁷ LDCR F. Verhofstadt, *History of 37 Makalapa* (typescript in binder located in quarters at 37 Makalapa Drive), 1990.

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more units at Housing Area II (within the Plantation Drive, Nimitz and Kamehameha Highways triangle) and Area III (near Main Street), the 'Aiea Receiving Barracks, as well as in Makalapa. Housing Area IV, in Moanalua, farthest from the base, was constructed first for 1,400 civilian workers prior to the completion of Housing Area III, which was located closer to base and included a town center.⁴⁸ Housing built by CPNAB under this contract housed over 20,000 residents all together.⁴⁹ No CPNAB residential buildings remain except for the Makalapa Housing (which originally included what is now called Little Makalapa).

There were national Navy standards developed in the pre-war period under the CPNAB contract and there were articles written in the professional magazines of the day. The USACERL publication titled: "World War II Temporary Military Buildings, A Brief History of the Architecture and Planning of Cantonments and Training Stations in the United States" by John Garner has some of those references. It is uncertain whether, C.W. Dickey, a prominent local architect among the CPNAB group, referred to these plans; however, an analysis of other wooden structures on the base built during this period proves that many of the details, including the window, door, and siding details were similar. Dickey, well known for his Mediterranean-inspired public concrete structures such as the Alexander & Baldwin building, designed more modest residential structures at Makalapa.

Initial Navy construction work in the "Big" Makalapa involved using material from harbor dredging to fill the former plantation reservoir occupying Makalapa Crater.⁵⁰ The ridge between Kamehameha Highway and the crater was then cleared of vegetation, and residential construction began. Some of the houses were completed and occupied before the December 7, 1941 attack, but others weren't finished until 1942 or 1943.⁵¹ The two main effects of the "blitz" (as CPNAB called the attack on Pearl Harbor) on housing construction related to labor and materials. From December 7, 1941 through March 31, 1942, Navy housing projects benefitted from the additional workforce comprised of the "influx of 501 Japanese aliens and Americans of Japanese ancestry barred from further employment in the Navy Yard ... [and from the] authorization of longer working hours."⁵² There was also temporary setback resulting from the "demoralizing effect on personnel of the unexpected bombing. ... [F]ear that the attack might be repeated kept the men in a state of nervous tension that temporarily affected progress—as did their

⁴⁸ Jeffery Dodge, Interview by Lorraine Minatoishi. May 23, 2014.

⁴⁹ Mason Architects, Inc. and Belt Collins, *Historic Context Study of Historic Military Family Housing in Hawaii* (prepared for Commander, Pacific Division Naval Facilities Engineering Command, Pearl Harbor, Hawaii) 2003, 5-97.

⁵⁰ Helber, Hasteret & Fee Planners, Inc. *Cultural Resources Assessment and Management Guidelines for CNRH Historic Housing Areas* (prepared for Commander, Navy Region Hawaii and Naval Facilities Engineering Command, Pacific) 2007, 7-8.

⁵¹ *Ibid*, 5-98.

⁵² Contractors Pacific Naval Air Bases (CPNAB), *Technical Report and Project History, Contracts NOy-3550 and NOy-4173: Pacific Naval Air Bases and Aviation Facilities, Dredging, Buildings, Accessories, Quay Walls, Berms, and Oil and Gas Storage at Naval Station, Pearl Harbor, Hawaii and Pacific Islands* (microfilm of typescript report from Pacific Division, Naval Facilities Engineering Command Library) n.d., A-923 and A-924.

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assignment to emergency work.”⁵³ While the additional workers and the longer hours were not permanent, the difficulties related to building materials—namely receiving timely shipments and obtaining materials in short supply—would plague all construction projects in Hawai‘i throughout the war. The material shortages did not greatly affect the progress of the Makalapa housing, since it had a relatively high priority. However, “exasperating delays were recorded in the receipt of ... roofing materials, hardware, bath tubs, sash, and doors.”⁵⁴ Despite the attack and the difficulties of maintaining supply chains to Hawai‘i, delays were minimal, largely due to the innovative, assembly-line procedures used in this and other CPNAB housing areas.

Admiral Husband E. Kimmel, the first resident of Facility Number 77 (Fac. No. 77) (37 Makalapa Drive), lived there from the time he assumed command of the U.S. Pacific Fleet in February 1941 until shortly after the Pearl Harbor attack on December 7, 1941. As Commander-in-Chief of the U.S. Pacific Fleet, Kimmel was held responsible for not being better prepared for the attack and was relieved of command on December 17, 1941. Admiral Chester W. Nimitz assumed Kimmel’s post, arriving in Hawai‘i on December 25, 1941 and taking command of the Pacific Fleet on December 31, 1941. The house at 37 Makalapa Drive (Fac. No. 77) became Nimitz’s official residence from April 3, 1942 until November 1945. Admiral Raymond A. Spruance, Nimitz’ chief of staff, shared the house with him in 1942 and 1943. When Spruance later became Commander-in-Chief of the U.S. Pacific Fleet, that house became his residence from November 1945 to February 1946.

The World War II expansion of Pearl Harbor Navy Yard, Hickam Airfield and military support facilities removed large areas of land from sugar cane production in Mānana, Waimalu, ‘Aiea, Hālawā, and Moanalua. The Honolulu Plantation Company never recovered from the loss of so many of its fields and closed in 1946. The “temporary” wartime use cane lands for military purposes were followed within a few years by new civilian land uses focusing on roads and buildings. The existing military use reflects the preponderance of military land uses of west of Honolulu. Collectively, these historical trends establish the state-level significance of the area under Criterion A.

Criterion B

Adm. Chester Nimitz’ directed the U.S. Navy’s operations in the war from Facility 250 in the Makalapa office complex north of the “Big” Makalapa housing area. Facility 250 was named an individual National Historic Landmark in 1987 and has also been registered as Historic American Building Survey HI-392. Nimitz’ home played a crucial supporting role in his career as CINCPAC, as he and other senior

⁵³ Contractors Pacific Naval Air Bases (CPNAB), *Technical Report and Project History, Contracts NOy-3550 and NOy-4173*. The CPNAB report notes varying completion dates on different pages, and due to the complexity of contract change orders and the changing number of units to be built for the various housing projects, it is not possible to determine the exact completion date for Makalapa housing.

⁵⁴ *Ibid*, 1.

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war planning staff, including President Franklin D. Roosevelt, met there on an informal basis. It can be surmised that the house was the scene of candid, private discussions between individuals that led to understandings, and finally decisions, for conducting the war from 1941 to 1945.

“Big” Makalapa had been constructed as Flag Officer housing at the expanded Pearl Harbor Naval Base. Adm. Kimmel was living in the structure on December 7, but it’s the property’s association with Nimitz that imbues it with historic significance. The Secretary of the Navy informed Nimitz that he was to become the new Commander-in-Chief of the Pacific Fleet on December 16, 1941 at this location due to his extensive experience in the Far East and Pearl Harbor in logistics, ships, and submarines.

Nimitz was born on February 24, 1885 in Fredericksburg, Texas. Although his grandfather had been a sea captain, Nimitz was determined to be a soldier. He was accepted to the naval academy in Annapolis after being rejected by West Point and didn’t receive his high school diploma until after he had become a fleet admiral.⁵⁵

Nimitz served on the U.S.S. *Ohio* in the Far East after graduation. His first command was the gunboat U.S.S. *Panay*, which became famous in 1937 when it was sunk by Imperial Japanese air forces prior to the war. Interestingly, Nimitz was also the commander of the U.S.S. *Decatur* when the vessel ran aground, an error for which he was court martialed. While this offence would usually end a naval officer’s career, Nimitz survived it.

Nimitz next focused on the growing use of submarines in naval warfare, commanding a number of submarines from 1907 to 1912. In 1913, he was sent to Europe to study diesel engines. By 1920, he was assigned to oversee the construction of the Submarine Base at Pearl Harbor.⁵⁶ Nimitz also received valuable experience in 1918 at the Office of the Chief of Naval Operations, in 1919 as Executive Officer of the battleship U.S.S. *South Carolina*, and in 1923 as Chief of Staff of the Commander-in-Chief, U.S. Fleet. Other commands included Commander of Submarine Division 20 and duty at the Bureau of Navigation in Washington, D.C.

Upon Nimitz’s appointment as Commander-in-Chief at Pearl Harbor, President Roosevelt reportedly told the Secretary of the Navy: “Tell Nimitz to get the hell out to Pearl and stay there till the war is won.”⁵⁷ Nimitz arrived at Pearl Harbor on Christmas Day, 1941 and assumed command on December 31, simultaneously rising two ranks from Rear Admiral to Admiral. He proceeded to carry out President Roosevelt’s orders with the help of other senior officers, many of who also lived in the “Big” Makalapa housing area. Though his official residence was at Makalapa, he was not present at Pearl Harbor the

⁵⁵ Edwin T. Layton, (Rear Admiral, USN, Ret.), Pineau, Roger (Captain, USN, Ret.) & Costello, John. *“And I Was There”: Pearl Harbor and Midway—Breaking the Secrets* (New York: William Morrow and Company, 1985), 337.

⁵⁶ Frank A. Driskell and Dede W. Casad, *Chester W. Nimitz: Admiral of the Hills* (Austin: Eakin Press, 1983), 115.

⁵⁷ Verhofstadt.

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entire time as he traveled in the Pacific during the war and established a temporary headquarters in Guam in 1945.

Nimitz' string of victories started with the Battle of Midway in June 1942, which stopped the threat of a Japanese invasion of the Hawaiian Islands, and ended with the surrender of the Japanese in 1945. Nimitz was present aboard the U.S.S. *Missouri* on Sept. 2, 1945 to sign the surrender document. During this critical period, Nimitz' home and neighborhood were important places of relaxation.

Nimitz enjoyed walking, playing tennis and horseshoes and gardening.⁵⁸ His home was also where he "entertained guests and dignitaries, ranging from General MacArthur to Mrs. Roosevelt to the junior officers on his staff."⁵⁹ President Roosevelt also lunched at Nimitz' Makalapa home.⁶⁰

Many recognized Nimitz' achievements: the Navy men who loyally served him, the senior officers who promoted him to Fleet Admiral, the Navy's newly created highest rank, and the American citizens grateful for his leadership to victory in the Pacific. After World War II, Nimitz held one of the Navy's top positions, Chief of Naval Operations. He retired in 1947 and died in 1966 at his last home, Quarters One at Yerba Buena Island, California, a national hero.⁶¹ Numerous memorials have been named for Nimitz, including highways and roads such as Nimitz Road in Diego Garcia, Nimitz Highway on O'ahu, Nimitz Freeway in California; high schools, middle schools and elementary schools in Texas, Oklahoma, California and Hawai'i; a combined memorial and hotel at his birthplace in Fredericksburg; and the U.S.S. *Nimitz*, the flagship of the U.S. Navy's Nimitz Class nuclear-powered aircraft carriers.

Criterion C

The district is significant under Criterion C for planning for the neighborhood's organic design and integrated landscaping principles. It is significant for its architectural style of Modern Movement integrating vernacular concepts, which reflect Hawai'i's temperate climate. It is also significant for the modernization of building techniques and the standardization of building materials that would be replicated throughout the war as the advance of American forces required rapid development of support infrastructure.

Though the design and construction of the buildings are not individually significant, the buildings as a group are. "Big" Makalapa has a sense of historic cohesiveness through its design, setting, materials, workmanship and association. There is a high level of integrity within the district, where little has

⁵⁸ Driskell and Casad, 207.

⁵⁹ Potter, E.B. *Nimitz* (Annapolis: Naval Institute Press, 1967), 469.

⁶⁰ Mark Isaacs and Reginald Isaacs, "Garden City." *Grolier Multimedia Encyclopedia* (Grolier Online). Accessed February 11, 2013. <http://gme.grolier.com/article?assetid=0116160-0>.

⁶¹ Ibid.

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changed since the 1940s. The density, architecture, landscaping and roadways are largely intact. Despite being close to a heavily industrialized area of Pearl Harbor and sited among major transportation arteries, the district maintains a tranquil quality. Of the five housing areas built during the years of 1940-1945, "Big" Makalapa is the only one designed with organic placement of buildings.

The neighborhood embodies distinctive characteristics of both the military's community planning ideas and development methods in the early 1940s period while incorporating organic placement of buildings to create a park-like setting. The houses also have the distinctive characteristics of a type and period of construction, reflecting the ideas of their designer, C.W. Dickey, one of Hawai'i's most noted architects.

Neighborhood and Community Planning

Much of the thinking behind contemporary neighborhood and community planning traces its origins to Sir Ebenezer Howard in Great Britain. Howard had observed the growth of greater London, which consumed rural landscapes and housed the population in a sea of inhumane structures. In response, Ebenezer developed the "Garden City" approach to community planning, in which he sought to reduce the sense of alienation from nature by creating "satellite" areas buffered from the urban core by large areas of open space. Each new satellite city would have its own core and access the main core by rail. Howard promoted these ideas in his 1898 book *Tomorrow: A Peaceful Path to Social Reform*. (The 1902 edition was retitled *Garden Cities of Tomorrow*.) Raymond Unwin constructed British towns such as Letchworth according to Ebenezer's ideas beginning in 1903. In the late 1920s and 1930s several American towns and suburbs were also developed following these principles, including Forrest Hills Gardens designed by F. L. Olmstead, Jr., in 1909. With the arrival of automobiles, Clarence Perry refined Howard's approach by designing peripheral roadways that would prevent through-traffic in the center of communities and focusing on schools, playgrounds and amenities. This movement, as well as the "City Beautiful" movement that aimed to build uplifting public architecture, influenced military planning projects by the mid 1930s. These projects sought to combine the best of urban and rural living by providing housing near work, yet sited among spacious, beautiful and healthful surroundings. Certainly the "Big" Makalapa neighborhood, where most of the residents can walk to work through beautifully landscaped grounds while being treated to views of Pearl Harbor and the Ko'olau and Wai'anae ranges, aspired to this ideal.

The "Big" Makalapa neighborhood is one example of successful military community planning on O'ahu, but it's not the first. What distinguishes it from the other successes, such as Wheeler Army Air Base and Hickam Army Air Base, however, is the use of the sloping terrain. Most of the other military neighborhoods, both those earlier than and those contemporary with Makalapa, are built on relatively level ground. In those cases, a geometric layout was both sensible and traditional. Makalapa is the only Navy housing project in the region developed in the early 1940s on sloping ground. The curving streets were unique, as was the angled siting of many houses in the neighborhood. Topography encouraged this

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siting, but the placement of Fac. Nos. 91 and 92, whose front façades angle towards each other rather than facing Makalapa Drive, seems to chosen for purely esthetic reasons.

In addition to Makalapa's curving streets, the limited points of access also define the neighborhood. One characteristic common to all Navy housing projects in the vicinity of Pearl Harbor is their proximity to busy traffic arteries. The CPNAB report credited Mr. (later LCDR) Samuel R. Damon with designing the neighborhoods to make them safe for residents. The Damon family had formerly owned much of the property acquired by the Navy for housing in the late 1930s, as well as former owner of land acquired by the Army for Hickam Air Field in the mid-1930s; Samuel Damon was familiar with community planning and design. He worked "(without compensation), with the Public Works Design Division of the Fourteenth Naval District" to establish the layout design for the Navy housing areas.⁶² The contractor's report noted:

Paralleling the major traffic arteries with tract roads, although costly, was a requirement essential to the safety of residents of the various housing areas, and one that appears (in view of the abnormal accident records of traffic on Oahu's public highways) to have fully justified the expenditure involved.⁶³

The landscaping of Hickam, built just a few years earlier, might have inspired the plantings at "Big" Makalapa. The Navy planned the extensive landscaping from the start, and the contractors established nurseries to raise approximately one hundred varieties of plants.⁶⁴

The Navy integrated the site's auxiliary buildings (such as the mess halls) by imitating the forms and rooflines of the houses. Doing so allowed later conversion of these structures into additional housing. Preserving open space rather than constructing new buildings makai of the main housing areas has maintained the neighborhood's the low density. "Big" Makalapa's distance from the main base has protected it from shipyard activities, unlike Hospital Point or newer, higher density office or apartment buildings near Center Drive. Through periodic ICRMP updates, the Navy has documented changes within individual housing units.

Construction Method

The contract for the Navy housing and other naval base work was executed on July 1, 1940. Almost all of the Navy's construction projects in the Pacific during the late 1930s through the early part of World War II were handled by a consortium of firms known as Contractors Pacific Naval Air Bases (CPNAB). The housing project undertaken by CPNAB for the 14th Naval District originally encompassed the

⁶² CPNAB, *Technical Report and Project History, Contracts NOy-3550 and NOy-4173, A-935.*

⁶³ *Ibid*, A-935.

⁶⁴ *Ibid*, A-923.

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construction of 500 housing units in Housing Area I (later called Hale Moku). Housing Area I was the first to be completed in June 1941. The contract was modified to include recreation facilities and housing at Housing Areas II to IV in addition to unnumbered areas in Aiea and on the outer side of Makalapa crater (Housing Area V). The housing had a total capacity of over 20,000 inhabitants.

The locations for the new housing were the closest available sites not designated for military installations at Pearl Harbor Naval Base or Hickam Air Field. Housing Areas I to IV were located on well-drained land at an average elevation of thirty feet, adjacent to existing Navy lands on the east side of Pearl Harbor. Those sites were intended for enlisted and civilian housing. "Big" Makalapa housing area was chosen for officer's housing as it was the only elevated land near Pearl Harbor. The Aiea site, where Aloha Stadium is now located, was used for receiving barracks.

"Big" Makalapa housing area construction started before February 1941 and was completed mid-1942. The housing project was a design-build project, where the contractor selects an architect to execute the plans and a close collaboration between the contractor and architect is formed due to the necessity for speed and construction cost constraints. The planning for Housing Area V began at the end of 1940, and C.W. Dickey completed the drawings for the housing units between April 16, 1941 and September 22, 1941. Construction was probably concurrent with the drawing execution, as clearing and grading of land could have begun before the house building plans were complete.

The drawings for the larger four-bedroom units that housed the flag officers were completed toward the end of the process in September 1941. The list is as follows:

Type A	September 22, 1941
Type B	April 29, 1941
Type C	April 16, 1941
Type D	October 3, 1941
Type G	October 3, 1941

The housing areas built in this period continued the tradition of reflecting the rank distinctions that were prevalent in earlier Navy neighborhoods, although somewhat less conspicuously since there was so much standardized material and construction. Civilian housing typically had simpler, smaller designs in the least favorable locations. The top officers' quarters had the best locations and the houses were larger, slightly more elaborate and widely spaced. The junior officers' and married enlisted quarters were in the middle of this housing range.

The construction methods used for "Big" Makalapa Housing exemplify the high-speed construction techniques employed pre-war and mid-World War II. Though there were five housing areas built during

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the war using these techniques, this is the only neighborhood built for the Navy in existence today.

With a highly accelerated schedule, the contractors developed an almost assembly-line process for building the houses. After the land was cleared, often by burning cane fields, the roadways and building sites were graded. Underground utilities were installed next. Three crews then installed concrete foundations for the repetitive residences and barracks: one doing the hand excavation, one placing the prefabricated forms, and the third crew pouring the concrete from mixer trucks. Then, as stated by CPNAB in its summary of construction activities at the base:

Concrete foundations for the reduplicative residence and barracks were installed by three crews, one doing the hand excavation, one placing the prefabricated forms, and the other pouring the concrete from mixer trucks. Framed structures were almost invariably prefabricated; electrical, mechanical, and specialty crews completed the structures. All work was done on a quantity-production basis.⁶⁵

Framed structures were almost invariably “prefabricated” ; electrical, mechanical, and specialty crews completed the structures. The “prefabricated” units of walls, floors and roofs were built in a roofed, open structure “equipped with full-size assembly tables on which necessary horizontal and vertical modules of measurement were indicated, four-way locking devices installed, and saws of various types mounted.”⁶⁶ “The prefabricated units were typically one wall of a room, except in cases, such as the long wall of a living room, where a complete wall would be too hard to handle. In these cases, driving spikes joined the assemblies. The material choice was due to the shortage of bolts, considered a critical material.”⁶⁷ This type of “prefabrication” can be seen commonly in today’s construction in the form of tilt-up walls, 4’ x 8’ wall panels and prefabricated roof trusses. The bolted assemblies used during the war continued to be used post-war as “prefabricated” bolts and later as patented bolt designs. One of the early companies fabricating these materials, Simpson Connectors, is a large manufacturer of connector assemblies today.

The use of partially standardized components in this project illustrates the trend towards manufactured buildings, which culminated in the Navy’s use of thousands of Quonset huts during World War II. In addition to the corrugated metal that was the primary material used for Quonset huts, plywood was a standard material used for flooring. In the early twentieth century, the plywood industry focused on door panels as their main product.⁶⁸ Plywood was beginning to be used in the late 1930s, as in for example a 1939 Federal Housing Administration project in Fort Wayne, Indiana.⁶⁹ Plywood’s durability was

⁶⁵ Ibid, A-921.

⁶⁶ Ibid, A-923.

⁶⁷ APA—The Engineered Wood Association, “Milestones in the History of Plywood” web site of APA. Accessed February 11, 2013. http://www.apawood.org/level_b.cfm?content=svr_med_new_bkgd_plycen. 2013.

⁶⁸ APA—The Engineered Wood Association, “Milestones in the History of Plywood” web site of APA. Accessed February 11, 2013. http://www.apawood.org/level_b.cfm?content=svr_med_new_bkgd_plycen. 2013.

⁶⁹ Robert Jay, *The Architecture of Charles W. Dickey: Hawai'i and California* (Honolulu: University of Hawai'i Press, 1992), 102-103.

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proven during World War II. Makalapa serves as an early and successful demonstration of this new building material.

Although the attack on Pearl Harbor affected the materials used for construction, it did not affect the progress of the overall "Big" Makalapa housing project, which had a relatively high priority. Given the shortage of materials, some construction details were built with materials that could be most readily obtained rather than what the drawings indicated. Also, millwork was minimized in designs after 1942.

Design

The modern style gained popularity as a residential form in Hawai'i during the late 1930s as evidenced by an exhibition on modern architecture held at the Honolulu Academy of Arts in August 1937 and a special section of the February 12, 1938 *Honolulu Star-Bulletin* devoted to the topic in which Connie Conrad praised the "elusive quality of clean-cut lines and large plain surfaces," that were usually painted white, and the "free flow of line and mass, instilling restfulness and freedom which is essential to a semi tropical condition." Additionally, the section included Ray Morris's persuasive argument advocating Dickey's use of low-pitched hipped roofs with overhangs instead of the typical flat roof of the modern style due to Hawai'i's climate.

C.W. Dickey, Architect

C.W. Dickey was the grandson of William Patterson Alexander, one of the early missionaries to Hawai'i. Dickey was born in Alameda, California and raised on Maui from the age of two before attending high school in Oakland and later the Massachusetts Institute of Technology where he graduated with an architecture degree in 1894.

He practiced in Honolulu with Clinton Briggs Ripley from 1896 to 1900, on his own in 1900, and with Edgar Allan Poe Newcomb from 1901 to 1905. Dickey moved to Oakland in 1905 and practiced there for the next twenty years, occasionally visiting Hawai'i for commissions for his relatives on Maui.⁶¹ Dickey established a Honolulu office with Hart Wood in 1919 while maintaining his Oakland office for a few more years until relocating permanently to Honolulu in late 1924. His most notable designs date from the late 1920s and early 1930s, when he was instrumental in defining the Hawaiian regional style of architecture. Some of his most famous buildings are the Alexander & Baldwin building (1929), the Halekulani Hotel main building and several cottages (1931), several buildings at Kamehameha Schools-Kapālama campus (1930s), the Immigration Station administration building (1934), and several theaters, fire stations and residences. In the late 1930s, Dickey became involved in planning several low-cost urban housing projects including the 1939 Kamehameha Homes project, which was the "first low-cost, federally assisted housing project in Hawai'i."⁷⁰ When Dickey's firm was contracted ca. 1940 to design

⁷⁰ Robert Jay, *The Architecture of Charles W. Dickey: Hawai'i and California*, 178.

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housing for the rapidly growing Navy population around Pearl Harbor, he “saw architectural opportunities here that were far more sophisticated than those offered by the low-cost housing projects.”⁷¹ In the last years of his life, Dickey worked on other Navy projects in addition to the large Navy housing areas and assisted with civil defense planning in Honolulu.

Dickey had always been a versatile designer, not wedded to any one style, even though he is best known for his “Dickey-style” double-pitched hip roof. He was interested in a Hawaiian regional style, but he believed that a wide range of designs could achieve this, as evidenced by his statement:

*To be in harmony with the spirit of our people, our architecture should be simple, unpretentious and free from all effort or straining for effect. Any historic style may be modified or used, but after change to fit our conditions it loses its historic characteristics to such an extent that it might be better called Hawaiian.*⁷²

Dickey was even more specific about how to design for local conditions in a 1933 article:

*We have a very temperate climate with an average temperature of 70 to 80 [degrees Fahrenheit] and an average humidity of 40 to 50 [percent] but nevertheless one is uncomfortable unless the air is stirring. ... This demand for air calls for openness in design and cross ventilation. We have a God-given trade wind whose soft balmy caressing breezes blow from the northeast about nine or ten months of the year. For real comfort and happiness this wind must be permitted to enter freely and circulate throughout the house, which calls for large openings and comparatively small wall spaces. There are frequent showers accompanying the trade winds which must be shut out without the necessity of closing windows. This calls for porches, wide projecting eaves, hoods over windows or other devices which produce deep shadows and a general effect of coolness and shade. Then comes the lanai, a broad living porch which in most houses serves as the living room. In other words we almost live outdoors and our architecture and planting bring the outdoors indoors.*⁷³

CRITERION D (ARCHAEOLOGY)

Archaeological material is unlikely to be found since the area was utilized for commercial agriculture for forty years and the crater was filled with harbor spoil.

⁷¹ Robert Jay, *The Architecture of Charles W. Dickey: Hawai'i and California*, 178.

⁷² Ronald Lee Melichar, *C.W. Dickey's Immigration Station: A History of its Site, A Proposal for its Future* (M.A. Thesis for Columbia University, 1978), 37.

⁷³ *Ibid*, 30.

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Conclusion:

“Big Makalapa” Navy Housing Area is eligible for inclusion in the National Register on the state level under Criteria A (Events—the buildup to World War II at Pearl Harbor); B (People—Admiral Chester Nimitz, naval leader of the United States’ victory in the Pacific during the war); and C (Architecture—design and construction of neighborhoods and climate-appropriate residences).

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Makalapa Navy Housing Area Historic District

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Makalapa Navy Housing Area Historic District

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Makalapa Navy Housing Area Historic District

Name of Property

Honolulu, Hawai'i

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Previous documentation on file (NPS):

- preliminary determination of individual listings (36 CFR 67) has been
- requested previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by:
 - Historic American Buildings Survey #: HI-355, HI-355-A thru HI-355-P
 - Historic American Engineering Record #: _____
 - Historic American Landscape Survey #: _____

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other (Name of repository): NAVFAC Hawaii, Historic Architect, Jeff Dodge

Historic Resources Survey Number (if assigned): _____

Makalapa Navy Housing Area Historic District

Name of Property

Honolulu, Hawai'i

County and State

10. Geographical Data

Acreeage of Property 70.09 Acres

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates (decimal degrees)

Datum if other than WGS84: _____

(enter coordinates to 6 decimal places)

- | | | |
|----|-----------------|------------------|
| 1. | Latitude: _____ | Longitude: _____ |
| 2. | Latitude: _____ | Longitude: _____ |
| 3. | Latitude: _____ | Longitude: _____ |
| 4. | Latitude: _____ | Longitude: _____ |

Or
UTM References

Datum (indicated on USGS map):

NAD 1927 NAD 1983

- | | | |
|--------------------|------------------------|--------------------------|
| 1. Zone: <u>04</u> | Easting: <u>610170</u> | Northing: <u>2362567</u> |
| 2. Zone: <u>04</u> | Easting: <u>610420</u> | Northing: <u>2362643</u> |
| 3. Zone: <u>04</u> | Easting: <u>610383</u> | Northing: <u>2362644</u> |
| 4. Zone: <u>04</u> | Easting: <u>610450</u> | Northing: <u>2362627</u> |
| 5. Zone: <u>04</u> | Easting: <u>610722</u> | Northing: <u>2361880</u> |
| 6. Zone: <u>04</u> | Easting: <u>610699</u> | Northing: <u>2361733</u> |
| 7. Zone: <u>04</u> | Easting: <u>610494</u> | Northing: <u>2361590</u> |
| 8. Zone: <u>04</u> | Easting: <u>610376</u> | Northing: <u>2361592</u> |
| 9. Zone: _____ | Easting: _____ | Northing: _____ |
| 10. Zone: _____ | Easting: _____ | Northing: _____ |
| 11. Zone: _____ | Easting: _____ | Northing: _____ |
| 12. Zone: _____ | Easting: _____ | Northing: _____ |

Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Verbal Boundary Description (Describe the boundaries of the property.)

“Big” Makalapa Navy Housing Area Historic District includes all the property owned by the U.S. Government in 2014 as described by a portion of Tax Map Key 9-9-002: 004 as demarcated by the red lines shown on figure number 0002 and figure number 0009. The major boundaries are Kamehameha Highway, Radford Drive, the southern portion of Makalapa Drive, the H-1 freeway, the line where the Makalapa crater rim meets the crater floor, the northern portion of Hālawa Drive, and a line extended from it to Kamehameha Highway. A polygon enclosing the area has the UTM coordinates stated above.

Boundary Justification (Explain why the boundaries were selected.)

The “Big Makalapa” Navy Housing Area Historic District includes the lands historically associated with this residential neighborhood, which retain their historic integrity. Areas which no longer contain historic fabric have been excluded from the district.

Makalapa Navy Housing Area Historic District

Name of Property

Honolulu, Hawai'i

County and State

11. Form Prepared By

name/title Lorraine Minatoishi, PhD, Architect

organization Minatoishi Architects, Inc.

street & number 1429 Makiki St., No. 2-211

city or town Honolulu state HI zip code 96814

e-mail lm@mahawaii.com

telephone (808) 942-7474

date June 11, 2014

name/title Ann Yoklavich, Architectural Historian and Angela Thompson, Historic Architect

organization Mason Architects, Inc.

street & number 119 Merchant Street, Suite 501

city or town Honolulu state HI zip code 96813

e-mail ay@masonarch.com & at@masonarch.com

telephone (808) 536-0556

date December 2, 2013

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

Makalapa Navy Housing Area Historic District

Name of Property

Honolulu, Hawai'i

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Index of Figures:

Name of Property: Makalapa Navy Housing Area Historic District
City or Vicinity: Honolulu
County: Honolulu
State: Hawai'i
Location of Digital Files: 1429 Makiki St., Honolulu, HI 96814

Figure #: File Name

Figure 1: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0001
Description: USGS map

Figure 2: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0002
Description: USGS map

Figure 3: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0003
Description: Loko Kunana, archeological trenching diagram

Figure 4: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0004
Description: Hālawa Government Survey map, 1865

Figure 5: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0005
Description: Pearl Harbor and Locks map, 1897

Figure 6: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0006
Description: Rail route, 19th century map

Figure 7: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0007
Description: Waipahu Quadrangle map, 1927

Figure 8: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0008
Description: Land acquired by Navy, 1939 map

Figure 9: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0009
Description: Map OA-N1-536, 1942 Housing Areas Map

Figure 10: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0010
Description: Map OA-N1-1672, 1948

Figure 11: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0011
Description: Map OA-N1-1642, 1948; Partial map showing housing types [A]

Figure 12: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0012
Description: Map OA-N1-1672, 1948; Partial map showing housing types [B]

Makalapa Navy Housing Area Historic District

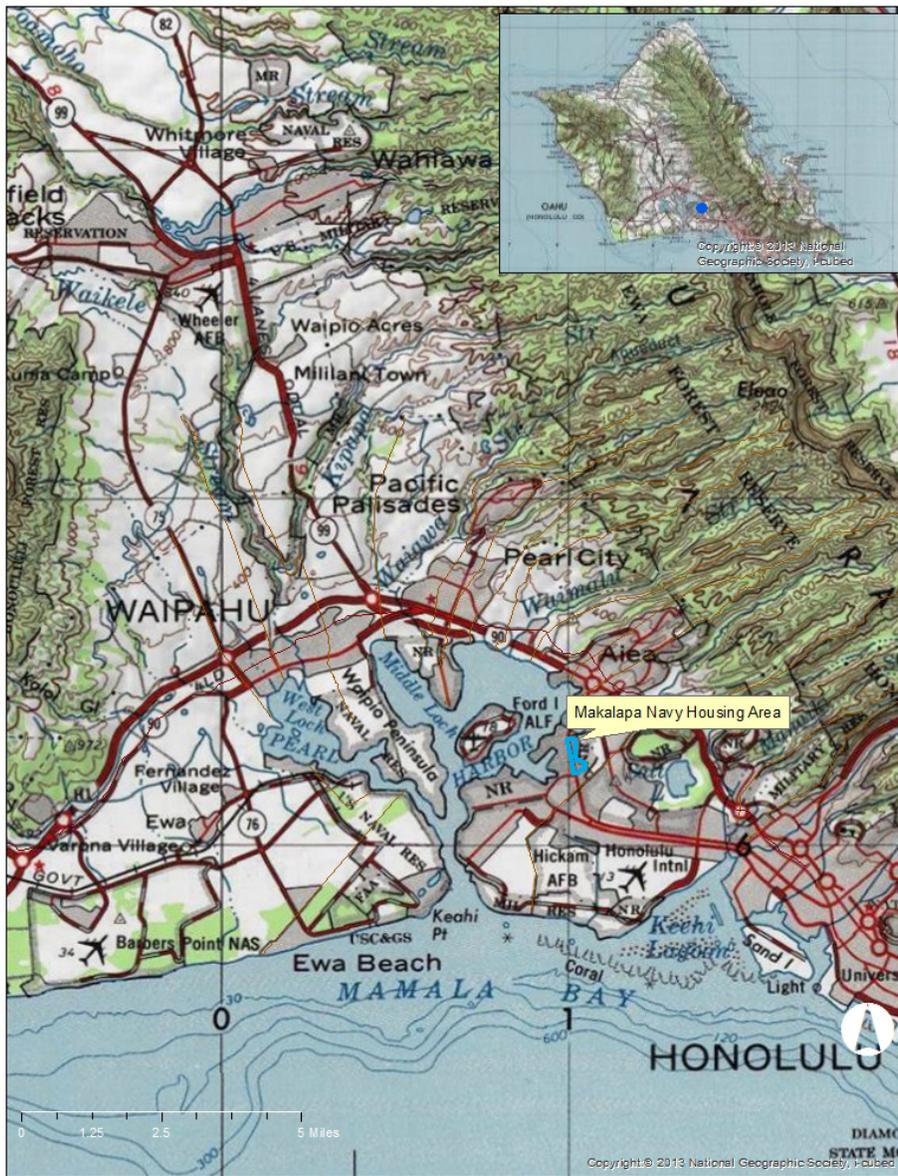
Honolulu, Hawai'i

Name of Property

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Name of Property: Makalapa Navy Housing Area Historic District
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Figure 1: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0001
USGS Map: Outlined to indicate the boundaries of "Big" Makalapa Navy Housing Area.



N. McMahon, MA Hawaii 2014

Makalapa Navy Housing Area Historic District

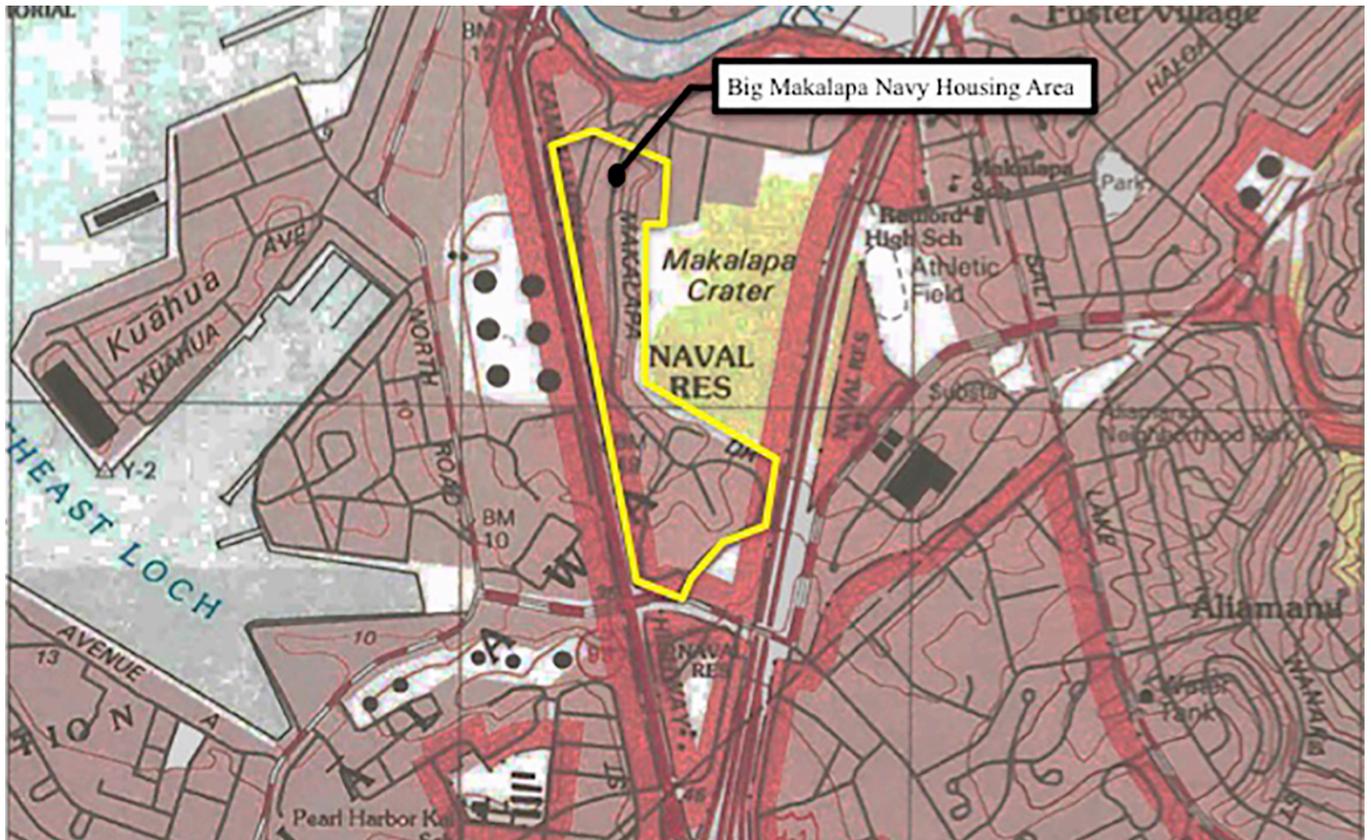
Honolulu, Hawai'i

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Figure 2: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0002
USGS Map: Outlined to indicate the boundaries of "Big" Makalapa Navy Housing Area.



Makalapa Navy Housing Area Historic District

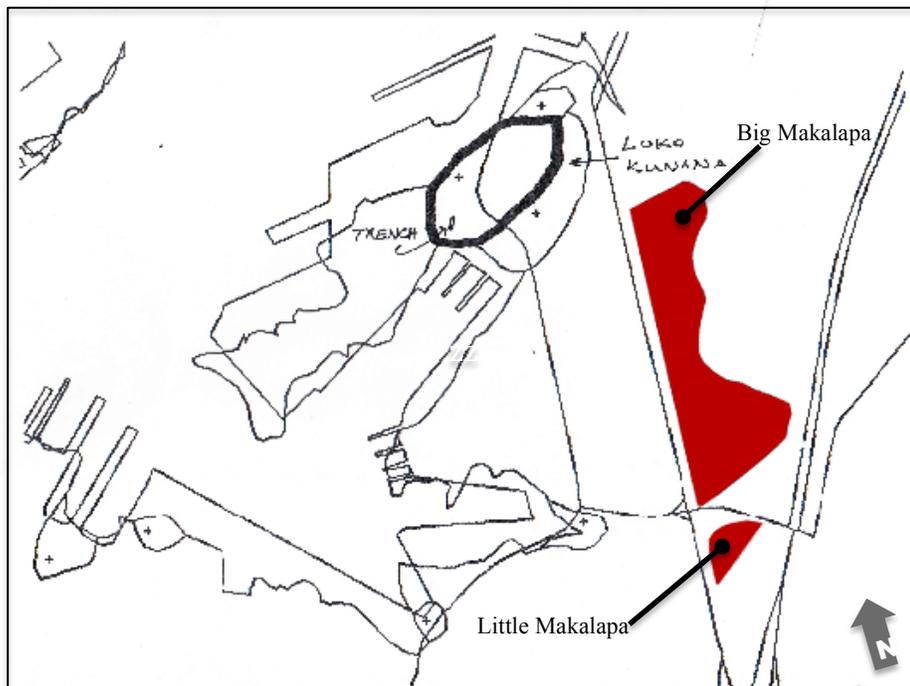
Name of Property

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Figure 3: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0003
Loko Kunana, archeological trenching diagram: Hand-drawn map showing the original natural shoreline and the wharfs lines created through infill by the military. The thick black line shows the outline of the fishpond called Loko Kunana, which spanned between the island Kunana and the original shoreline.



Makalapa Navy Housing Area Historic District

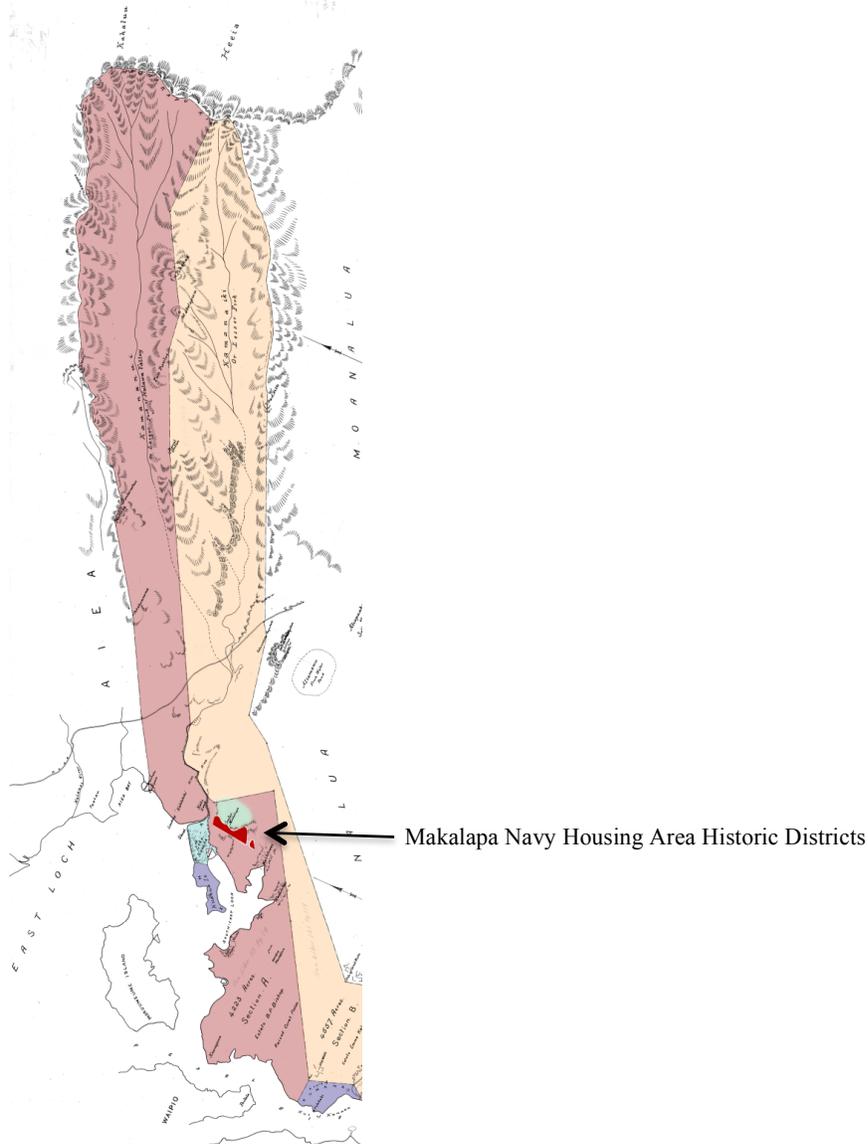
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Figure 4: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0004
Hālawa Government Survey map, 1865: Hand-drawn map of Hālawa ahupua'a which delineates the areas of the two main landowners. The yellow-colored side is lands owned by Queen Emma and the red-colored area is owned by the grandchildren of Pai'ea Kamehameha I.



Map Source: State of Hawai'i Maps Division
Colored layered by Nancy McMahan, MA Hawaii 2014

Makalapa Navy Housing Area Historic District

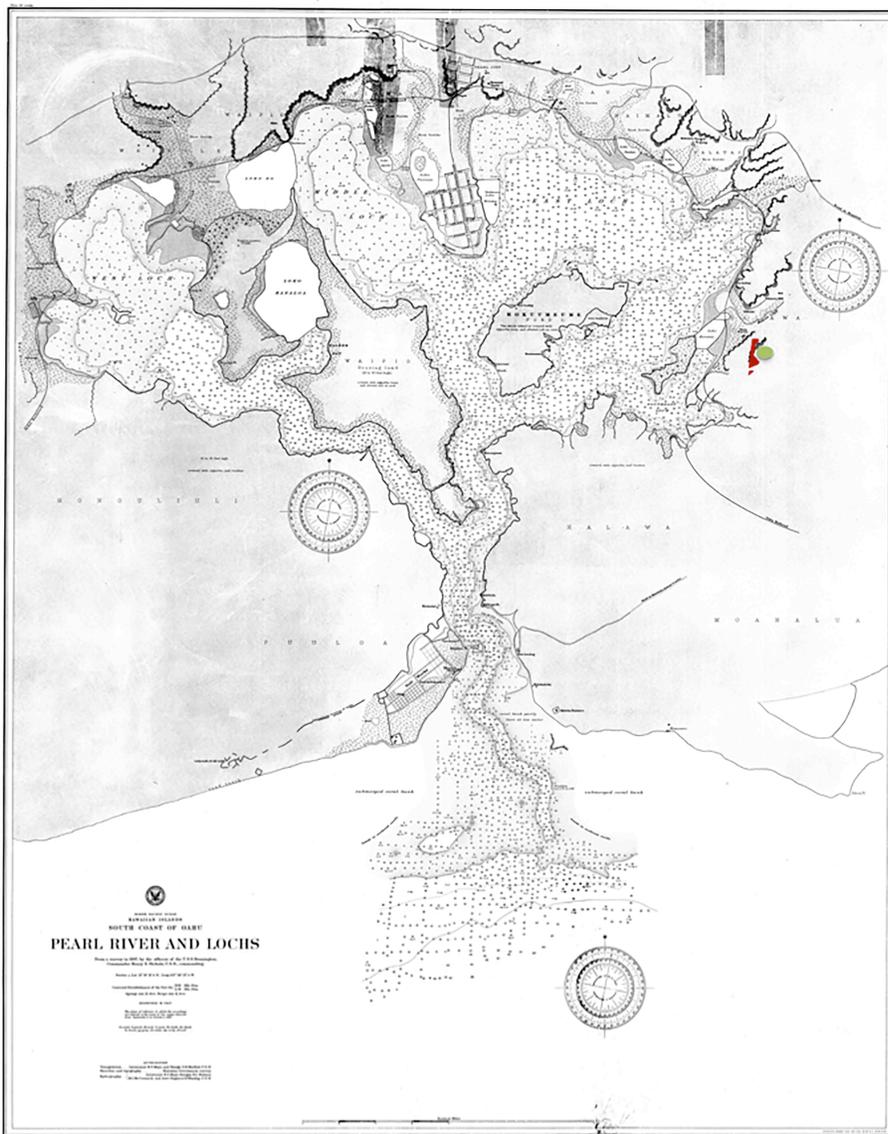
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Figure 5: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0005
Pearl Harbor River and Locks, 1897: This map included soundings of the ocean base, in order to measure the depth for ship maneuverings within the harbor.



Map Source: Hawai'i State Maps Division

Makalapa Navy Housing Area Historic District

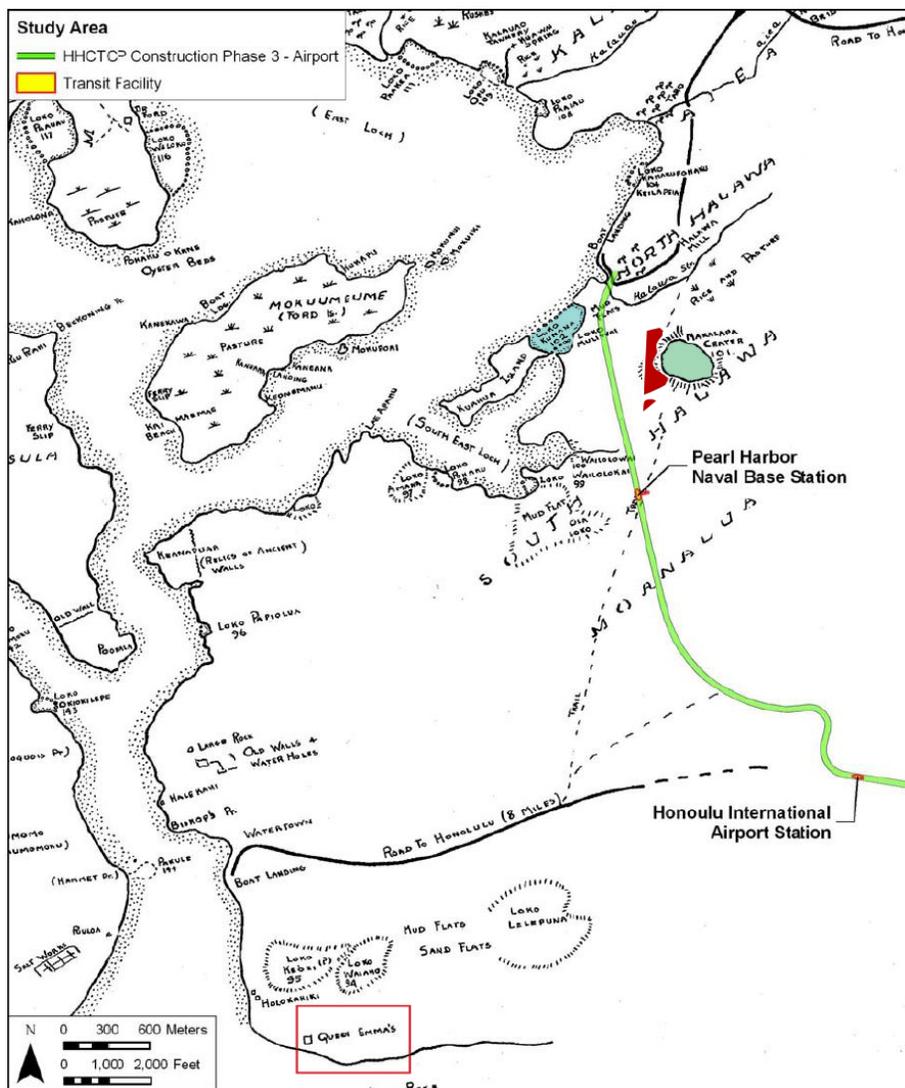
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Figure 6: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0006
 Rail route, 19th century map: 1800s hand-drawn map of the Hālawā/Pu'uloa area colored to show the location of the fresh-water pond within Makalapa crater and Loko Kunana fishpond nearby along the shoreline. An overlay showing the present-day proposed construction of the Honolulu Authority Rapid Transit Rail is shown in green.



■ Makalapa Districts

Map Source: HHCTP

Makalapa Navy Housing Area Historic District

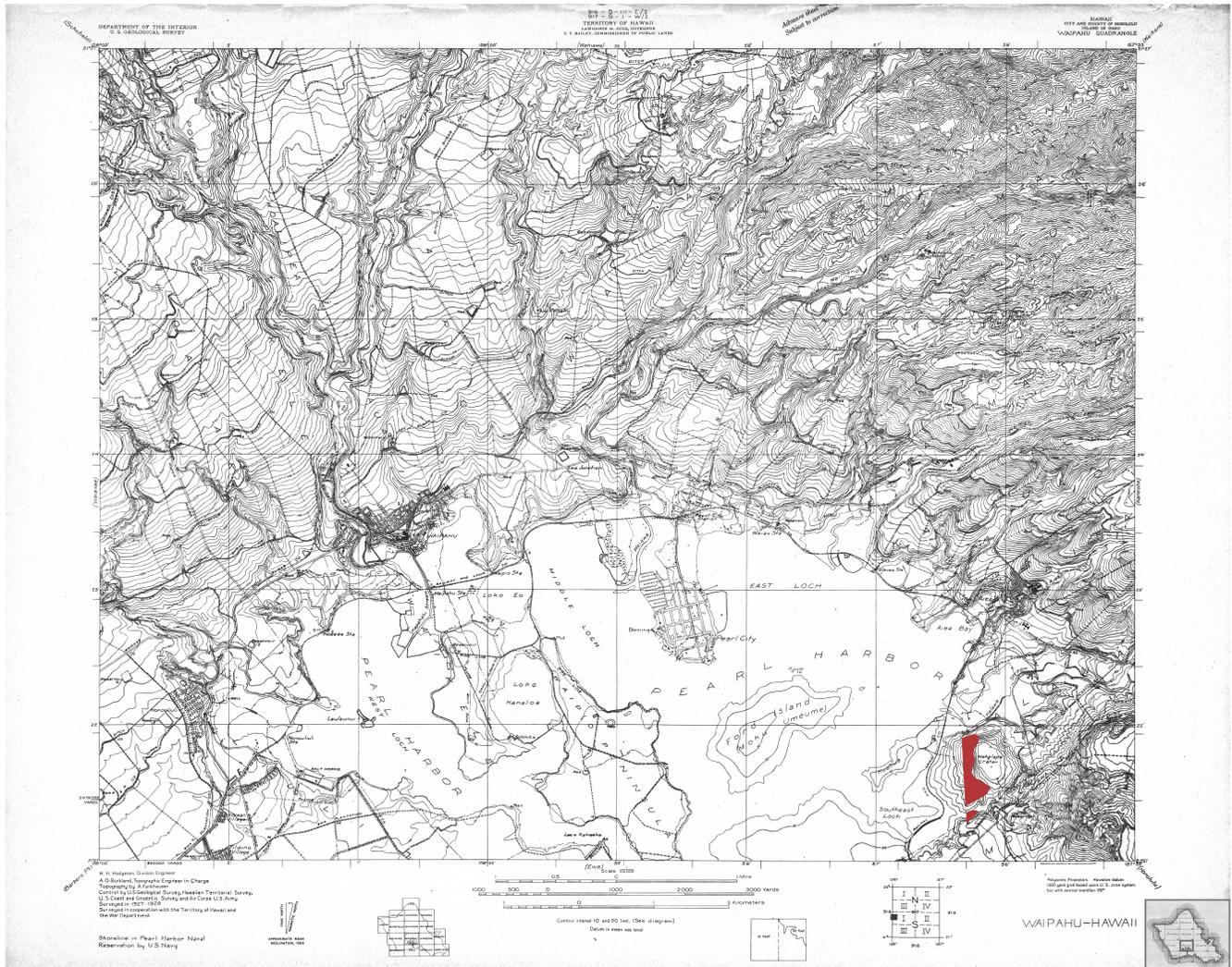
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Figure 7: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0007
Waipahu Quadrangle Map, 1927: USGS Map, Waipahu Hawai'i area.



 Makalapa District

Makalapa Navy Housing Area Historic District

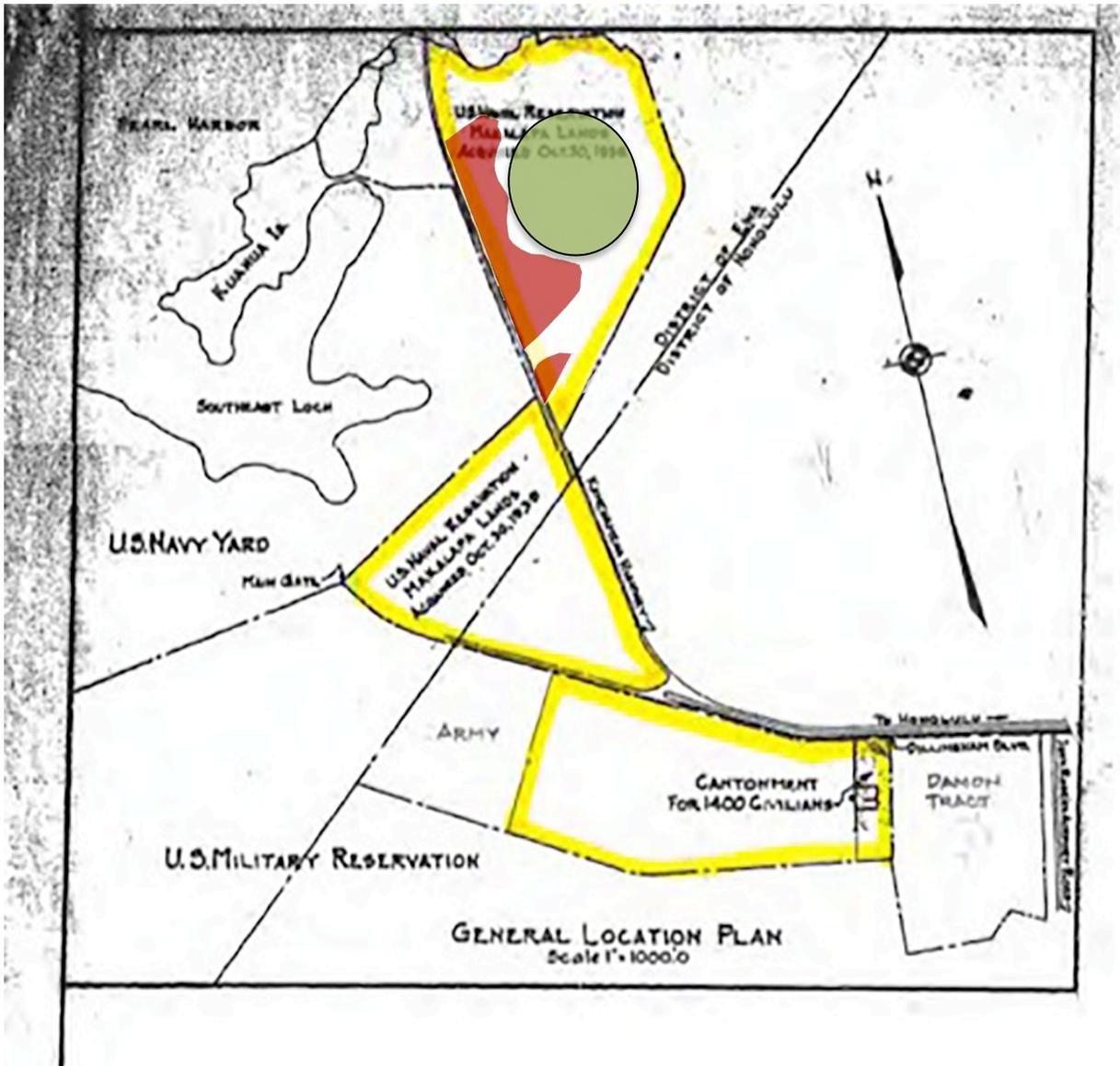
Name of Property

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Name of Property: Big Makalapa Navy Housing Area Historic District
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Figure 8: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0008
Land acquired by Navy, 1939 map: showing the areas around Pu'uloa that were condemned by the U.S. Government to be used for military purposes and the build-up of World War II.



- Makalapa Districts
- Makalapa Crater

Makalapa Navy Housing Area Historic District

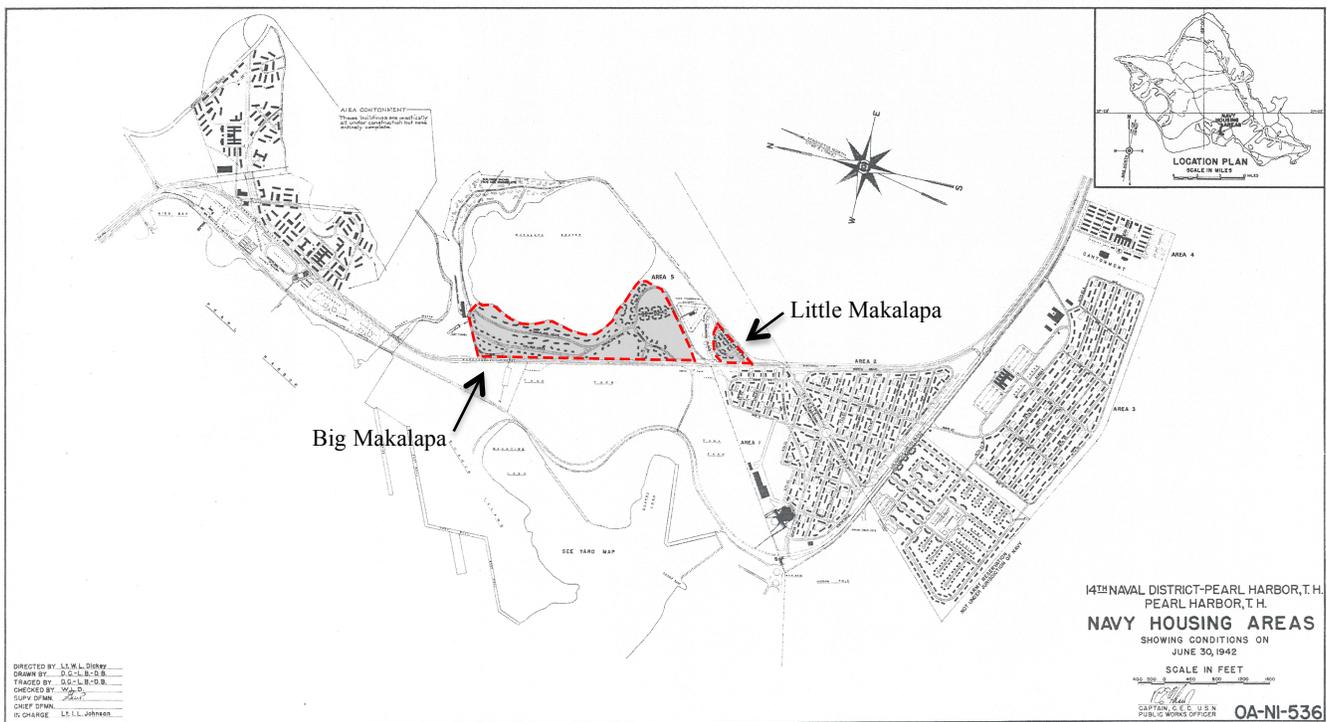
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Figure 9: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0009
Map OA-NI-536, 1942 Housing Areas Map: showing the five housing districts commissioned by the Navy Department during the years 1939-1942.



Map Source: NAVFAC, courteous of Jeffery Dodge.

Makalapa Navy Housing Area Historic District

Name of Property

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Name of Property:

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Honolulu

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Honolulu

State:

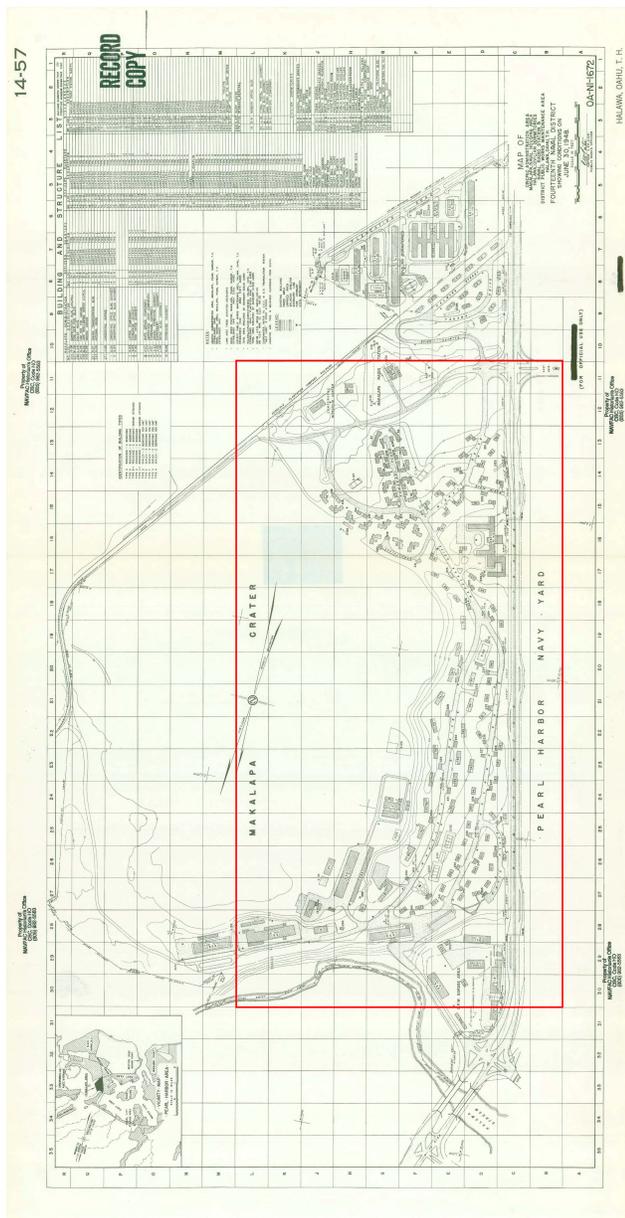
Hawai'i

Location of Digital Files:

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Figure 10: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0010

Map OA-N1-1672, 1948: indicating all of the buildings built in this area, including the residential areas and the CinCPacFlt administration area.



Map Source: NAVFAC, courteous of Jeffery Dodge

Makalapa Navy Housing Area Historic District

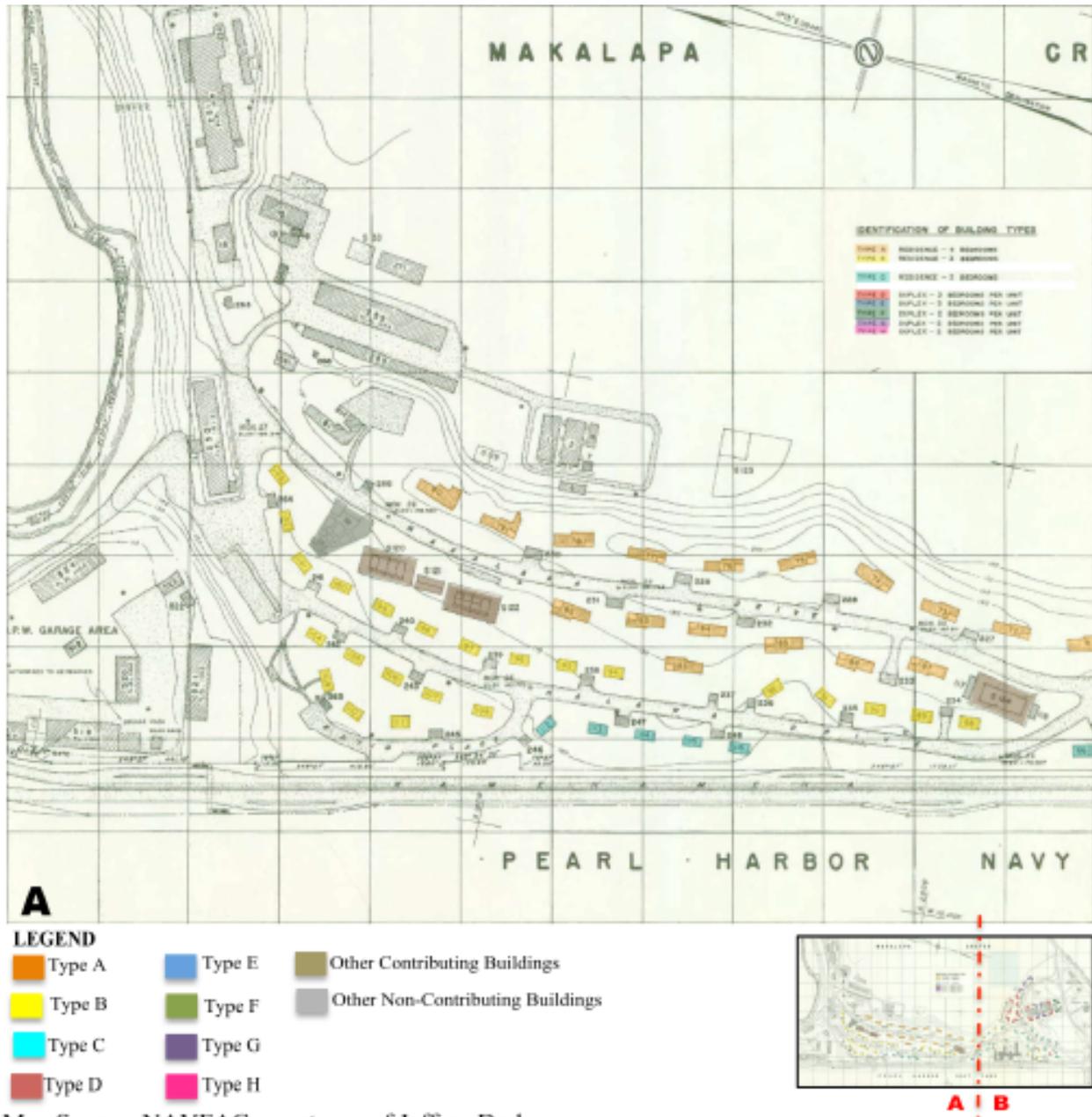
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Figure 11: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0011
 Map OA-N1-1672, 1948:Partial Map showing housing types [A].



Map Source: NAVFAC, courteous of Jeffery Dodge

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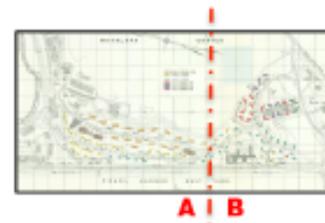
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Figure 12: HI_Honolulu_MakalapaNavyHousingAreaHistoricDistrict_Fig0012
 Map OA-N1-1672, 1948:Partial map showing housing types [B].



- LEGEND**
- | | | |
|--------|--------|----------------------------------|
| Type A | Type E | Other Contributing Buildings |
| Type B | Type F | Other Non-Contributing Buildings |
| Type C | Type G | |
| Type D | Type H | |

Map Source: NAVFAC, courteous of Jeffery Dodge



Makalapa Navy Housing Area Historic District

Name of Property

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Photograph Log Page:

Historic Photos

Name of Property: Big Makalapa Navy Housing Area Historic District
City or Vicinity: Honolulu
County: Honolulu
State: Hawai'i

Photo #: File Name

Description

Photo 1: HI_Honolulu_MakalapaNavyHousingArea_H0001	Attack on Pearl Harbor as seen from Makalapa
Photo 2: HI_Honolulu_MakalapaNavyHousingArea_H0002	Makalapa Gate Intersection
Photo 3: HI_Honolulu_MakalapaNavyHousingArea_H0003	1940 NARA photo, Makalapa Crater
Photo 4: HI_Honolulu_MakalapaNavyHousingArea_H0004	1941 NARA photo, water in Makalapa Crater
Photo 5: HI_Honolulu_MakalapaNavyHousingArea_H0005	Aerial photo of Naval housing building
Photo 6: HI_Honolulu_MakalapaNavyHousingArea_H0006	1944 front of Type A housing
Photo 7: HI_Honolulu_MakalapaNavyHousingArea_H0007	Admiral Chester W. Nimitz

Makalapa Navy Housing Area Historic District

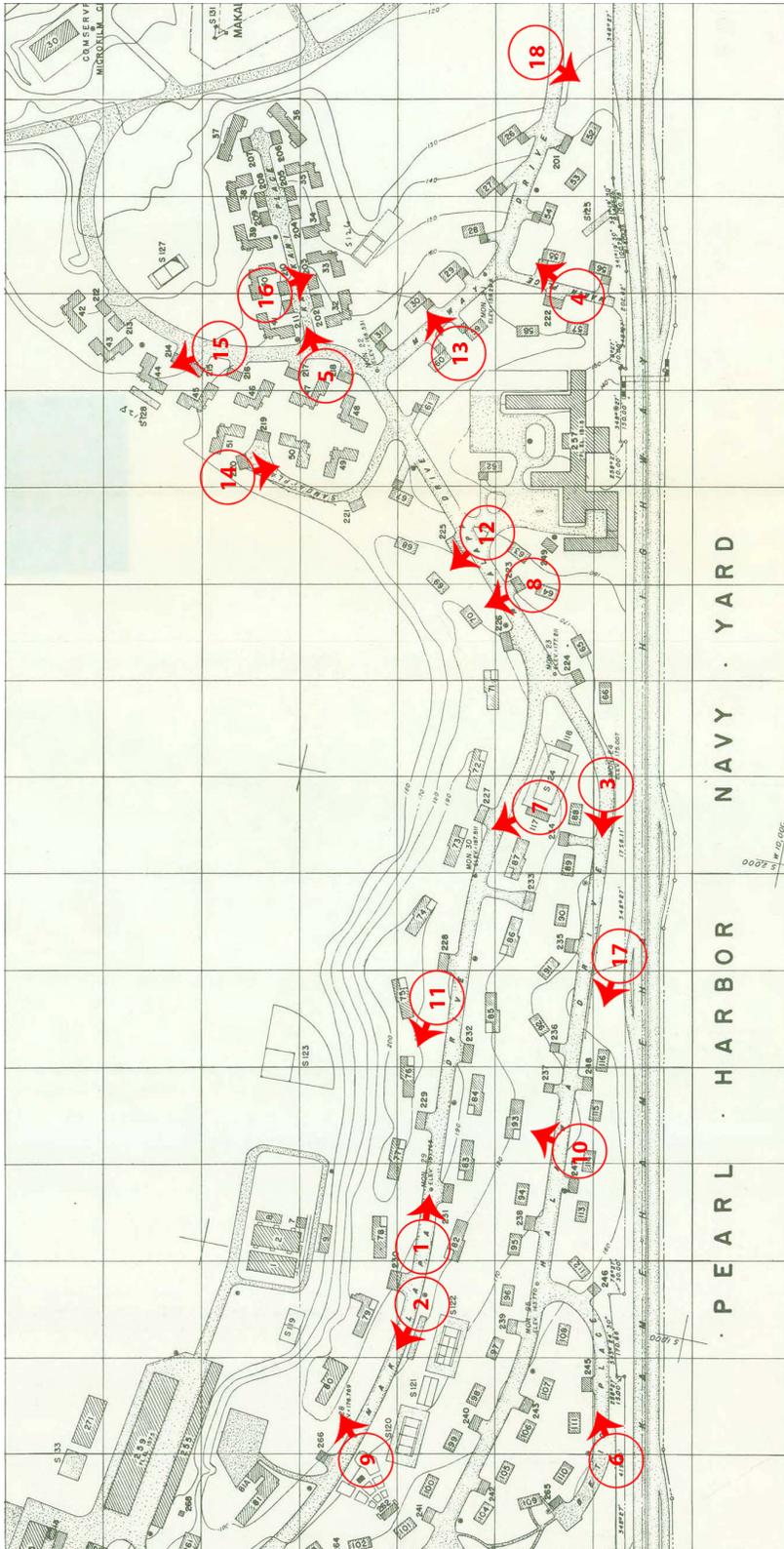
Honolulu, Hawai'i

Name of Property

County and State

Existing Photos

Photo Key



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property: Big Makalapa Navy Housing Area Historic District
City or Vicinity: Honolulu
County: Honolulu
State: Hawai'i
Location of Digital Files: 1429 Makiki St., HI 96814

Photo #: File Name

Description

Photo 1: HI_Honolulu_MakalapaNavyHousingArea_0001	Makalapa Street, facing southeast
Photo 2: HI_Honolulu_MakalapaNavyHousingArea_0002	Makalapa Drive, facing northwest
Photo 3: HI_Honolulu_MakalapaNavyHousingArea_0003	Hālawa Drive, facing north-northeast
Photo 4: HI_Honolulu_MakalapaNavyHousingArea_0004	Intersection Makin Pl & Midway Dr, facing east-southeast
Photo 5: HI_Honolulu_MakalapaNavyHousingArea_0005	Kamakani Drive, facing south- southeast
Photo 6: HI_Honolulu_MakalapaNavyHousingArea_0006	Betio Street, facing east
Photo 7: HI_Honolulu_MakalapaNavyHousingArea_0007	Makalapa Drive, facing northeast
Photo 8: HI_Honolulu_MakalapaNavyHousingArea_0008	Makalapa Drive, facing northeast
Photo 9: HI_Honolulu_MakalapaNavyHousingArea_0009	Makalapa Drive, facing east
Photo 10: HI_Honolulu_MakalapaNavyHousingArea_0010	Hālawa Drive, facing northeast
Photo 11: HI_Honolulu_MakalapaNavyHousingArea_0011	View of type C unit, facing north
Photo 12: HI_Honolulu_MakalapaNavyHousingArea_0012	View of type J unit, facing northeast
Photo 13: HI_Honolulu_MakalapaNavyHousingArea_0013	View of type J unit, facing southeast
Photo 14: HI_Honolulu_MakalapaNavyHousingArea_0014	View of type M unit, facing southwest
Photo 15: HI_Honolulu_MakalapaNavyHousingArea_0015	View of type N unit, facing northeast
Photo 16: HI_Honolulu_MakalapaNavyHousingArea_0016	View of two-car carport, facing southwest

Makalapa Navy Housing Area Historic District

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Photo 17: HI_Honolulu_MakalapaNavyHousingArea_0017

View of air raid structure, facing
north

Photo 18: HI_Honolulu_MakalapaNavyHousingArea_0018

View of facility S-331, facing
southwest

Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

Husband E. Kimmel

Date Photographed:

December 7, 1941

Photo 1: HI_Honolulu_MakalapaNavyHousingArea_H0001

Attack on Pearl Harbor as seen from Makalapa, December 7, 1941



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

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State:

Hawai'i

Photographer:

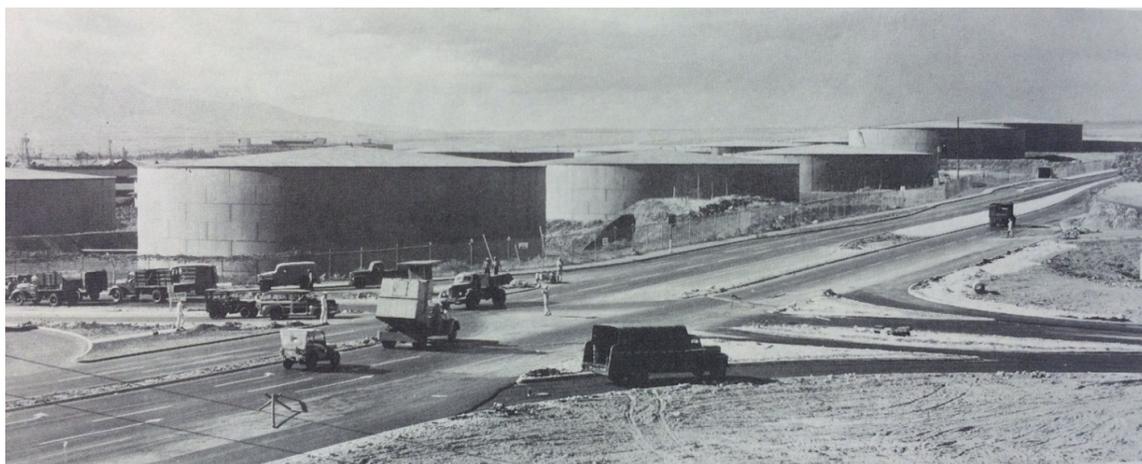
Unknown

Date Photographed:

circa 1944

Photo 2: HI_Honolulu_MakalapaNavyHousingArea_0002

Makalapa Gate Intersection under construction. Fuel tanks along Kamehameha Highway in view. East Entry Gate to Pearl Harbor at left of photo.



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

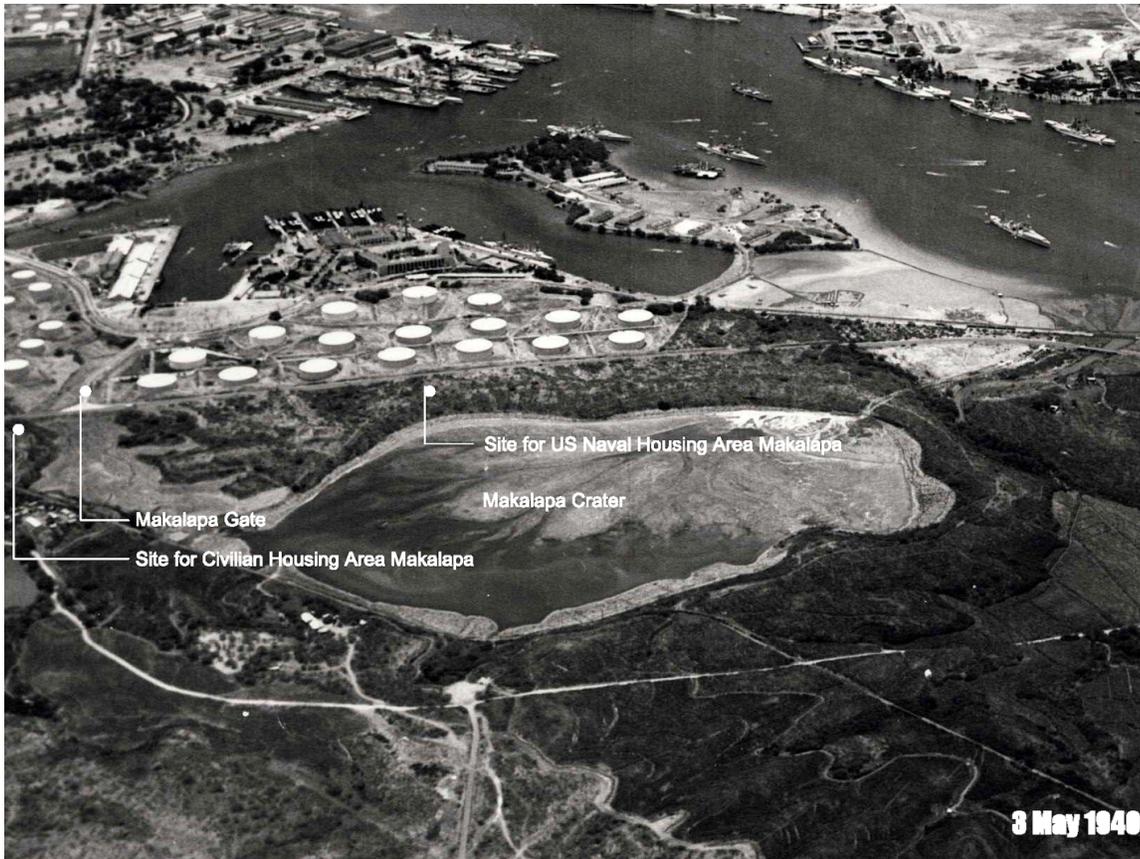
Unknown

Date Photographed:

May 3, 1940

Photo 3: HI_Honolulu_MakalapaNavyHousingArea_0003

1940 NARA photo, Makalapa Crater. Infill sludge within crater in view.



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

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Big Makalapa Navy Housing Area Historic District

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Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

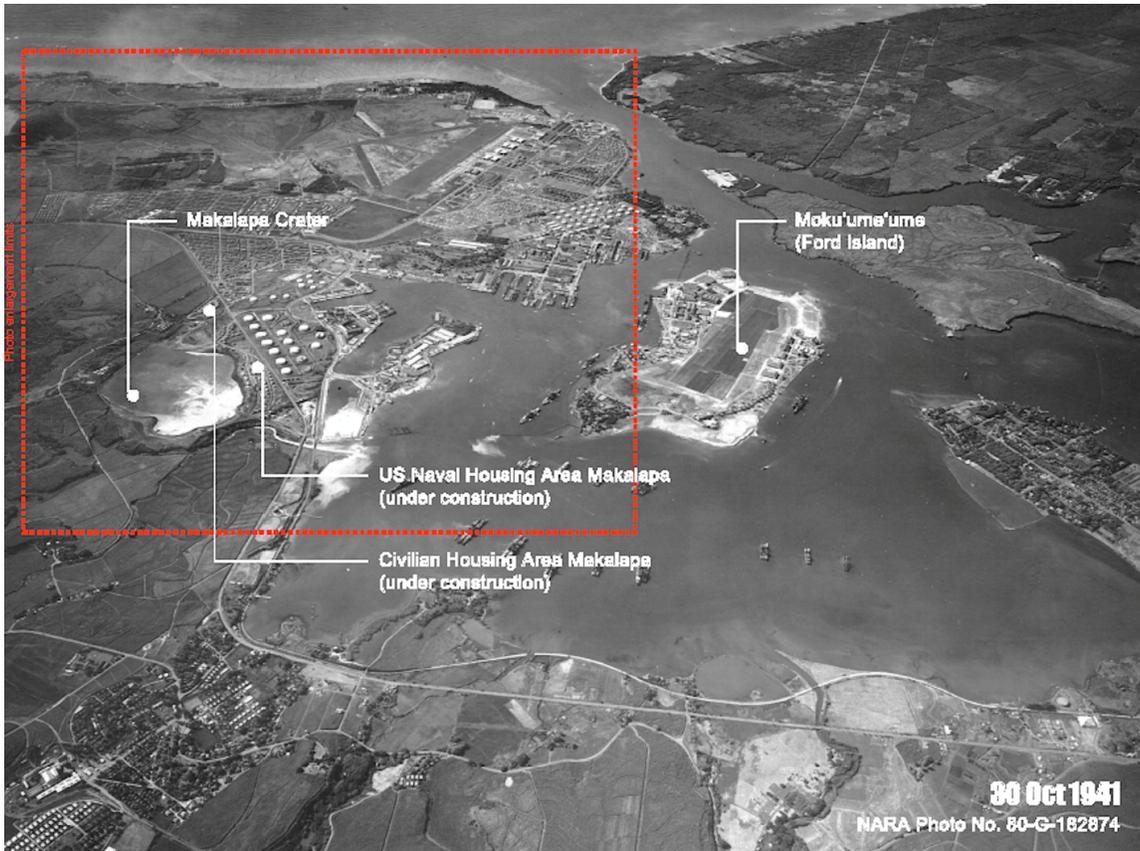
Unknown

Date Photographed:

October 30, 1941

Photo 4: HI_Honolulu_MakalapaNavalHousingArea_H0004

1941 NARA photo, water in Makalapa Crater. Infill sludge within crater in view.



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

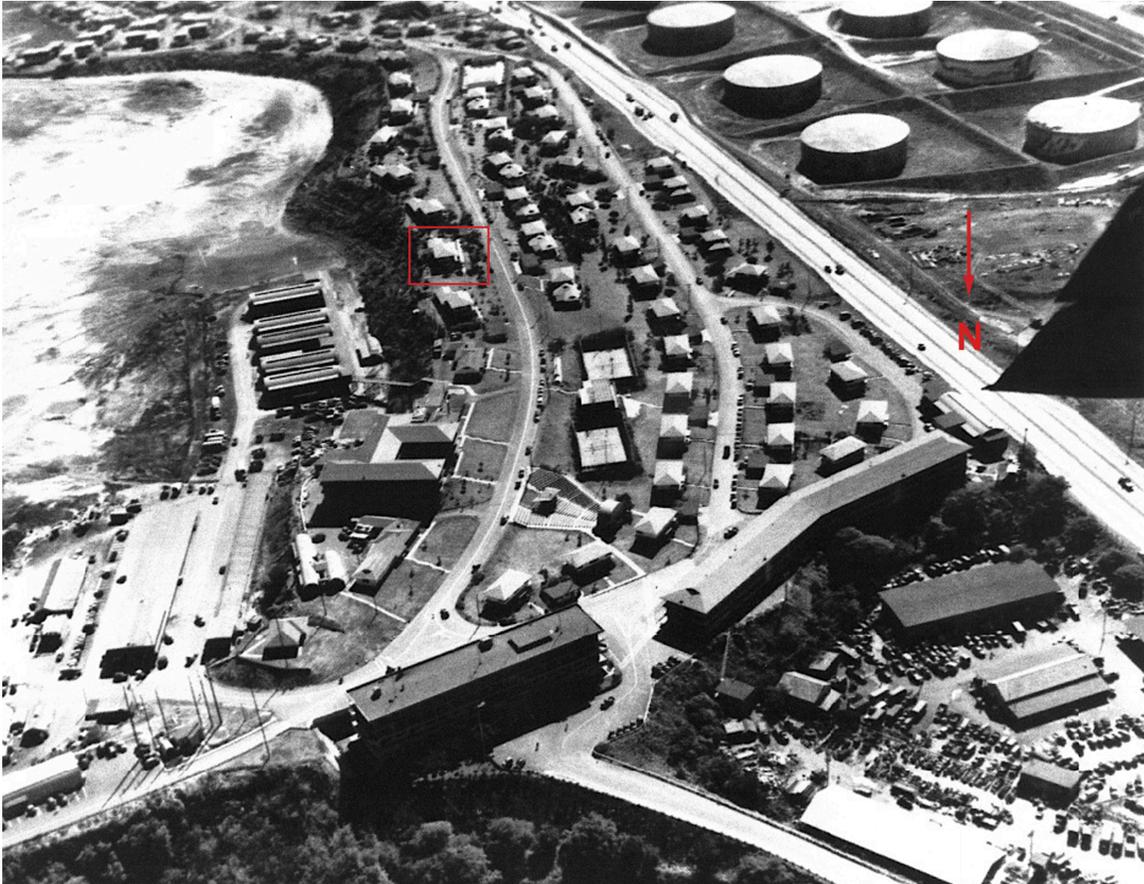
Unknown

Date Photographed:

Unknown

Photo 5: HI_Honolulu_MakalapaNavyHousingArea_H0005

Aerial photo of Naval housing building



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

Unknown

Date Photographed:

1944

Photo 6: HI_Honolulu_MakalapaNavyHousingArea_H0006
1944 front elevation of typical Type A housing



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

Unknown

Date Photographed:

Unknown

Photo 7: HI_Honolulu_MakalapaNavyHousingArea_H0007

Admiral Chester W. Nimitz



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

David Franzen

Date Photographed:

June 2000

Photo 1: HI_Honolulu_MakalapaNavyHousingArea_0001

Neighborhood view down Makalapa Street, with the entry awning of Facility 77 on the left. View facing southeast.



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

David Franzen

Date Photographed:

June 2000

Photo 2: HI_Honolulu_MakalapaNavyHousingArea_0002

Neighborhood view down Makalapa Drive, with park at left and type N Duplexes in the distance. View facing northwest.



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

David Franzen

Date Photographed:

June 2000

Photo 3: HI_Honolulu_MakalapaNavyHousingArea_0003

Neighborhood view of down Hālawā Drive from pool parking lot, with facilities 88 and 89 on right. View facing north-northeast.



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

David Franzen

Date Photographed:

June 2000

Photo 4: HI_Honolulu_MakalapaNavyHousingArea_0004

Neighborhood view of Makin Place and Midway Drive intersection, with Facility 55 on right and Facility 29 on left. View facing south-southeast.



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

David Franzen

Date Photographed:

June 2000

Photo 5: HI_Honolulu_MakalapaNavyHousingArea_0005

Neighborhood view down Kamakani Drive from Makalapa Drive. View facing southeast.



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

David Franzen

Date Photographed:

June 2000

Photo 6: HI_Honolulu_MakalapaNavyHousingArea_0006

View of Houses along Betio Street, with the rear of Facility 106 on left and Facility 111 in center. View facing east.



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property: Big Makalapa Navy Housing Area Historic District
City or Vicinity: Honolulu
County: Honolulu
State: Hawai'i
Photographer: David Franzen
Date Photographed: June 2002

Photo 7: HI_Honolulu_MakalapaNavyHousingArea_0007
View towards Facility 77



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

David Franzen

Date Photographed:

June 2002

Photo 8: HI_Honolulu_MakalapaNavyHousingArea_0008

View towards Facility 69



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

David Franzen

Date Photographed:

June 2002

Photo 9: HI_Honolulu_MakalapaNavyHousingArea_0009

View towards Facility 30.



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

David Franzen

Date Photographed:

June 2002

Photo 10: HI_Honolulu_MakalapaNavyHousingArea_0010

View towards Facility 50.



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

Ann Yoklavich

Date Photographed:

August 2013

Photo 11: HI_Honolulu_MakalapaNavyHousingArea_0011

View of type C unit, facing north



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

Ann Yoklavich

Date Photographed:

August 2013

Photo 12: HI_Honolulu_MakalapaNavyHousingArea_0012

View of type J unit, facing northeast



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

Ann Yoklavich

Date Photographed:

August 2013

Photo 13: HI_Honolulu_MakalapaNavyHousingArea_0013

View of type J unit, facing southeast



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

Ann Yoklavich

Date Photographed:

August 2013

Photo 14: HI_Honolulu_MakalapaNavyHousingArea_0014

View of type M unit, facing southwest



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

Ann Yoklavich

Date Photographed:

August 2013

Photo 15: HI_Honolulu_MakalapaNavyHousingArea_0015

View of type N unit, facing northeast



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

Ann Yoklavich

Date Photographed:

August 2013

Photo 16: HI_Honolulu_MakalapaNavyHousingArea_0016

View of two-car carport, facing southwest



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

Ann Yoklavich

Date Photographed:

August 2013

Photo 17: HI_Honolulu_MakalapaNavyHousingArea_0017

View of air raid structure, facing north



Makalapa Navy Housing Area Historic District

Honolulu, Hawai'i

Name of Property

County and State

Name of Property:

Big Makalapa Navy Housing Area Historic District

City or Vicinity:

Honolulu

County:

Honolulu

State:

Hawai'i

Photographer:

Ann Yoklavich

Date Photographed:

August 2013

Photo 18: HI_Honolulu_MakalapaNavyHousingArea_0018
View of facility S-331, telephone exchange, facing southwest



Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.