

CAMP H.M. SMITH AND NAVY PUBLIC WORKS CENTER
MANANA TITLE VII (CAPEHART) HOUSING
(Camp H.M. Smith and Navy Public Works Center, Manana Housing)
Intersection of Acacia Road and Birch Circle
Pearl City
Honolulu County
Hawaii

HABS No. HI-524

HABS
HI-524

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Park Service
Department of the Interior
San Francisco, California

HISTORIC AMERICAN BUILDINGS SURVEY

CAMP H.M. SMITH AND NAVY PUBLIC WORKS CENTER,
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Location: The Manana Housing area is located in Pearl City, north of the Pearl City Peninsula. It is situated within a joint Camp H.M. Smith Marine Corps and Navy Public Works Center installation north of Kamehameha Highway's intersection with Kuala Street, near the Pearl Highlands Shopping Center. The boundaries of the installation are marked by a chain-link fence topped with barbed wire. The neighborhood sits on a ridge of the Ko'olau Mountain Range, near the Waiawa Stream. The topography slopes gently downward from a high point roughly at its most northeastern boundary, to the southwest side of the neighborhood. The grade decreases further along Acacia Road. The land is graded to 103' elevation at the lowest point, and 158' at the highest point (Navy Plan File Drawing 819907, 1958).

The installation contains the Camp H.M. Smith recreational area which is located south of the housing area, east of Acacia Road. The facilities include a softball field, tennis, volleyball and basketball courts, a swimming pool and pavilion, a wide, open grassy field, a skateboarding park, and a Marine Corps Exchange store.

The area outside the installation is built up with a combination of residential, commercial, and transportation uses. There are several small-scale condominiums and apartments as well as two high rise towers to the south and east, as well as the Pearl Highlands Shopping Center. The Kamehameha Highway to the south is a busy transportation corridor in the area. To the west and northwest, are Waihona Street and the Waiawa Stream, which run roughly parallel through the Pearl City Industrial Park, and which are separated from the neighborhood by a cliff. To the southeast of the neighborhood are several storehouses that were built by the Navy during World War II as part of the Manana Navy Supply Depot Storage Area.

City and County of Honolulu, Hawaii

U.S.G.S. Waipahu, Hawaii Quadrangle 1998 (7.5 minute series)
Bounded by Universal Transverse Mercator Coordinates:

- | | |
|----------------------|----------------------|
| 1) 04.605740.2367180 | 2) 04.605410.2366880 |
| 3) 04.605370.2366660 | 4) 04.605460.2366700 |
| 5) 04.605600.2366540 | 6) 04.605820.2366740 |
| 7) 04.606020.2367020 | |

Present Owner: United States Marine Corps

Present Occupants: Multiple Occupants (Navy/Marine)

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Present Use: Military family housing for Field Grade Officers, Junior Officers, and Enlisted personnel

Significance: The housing area was constructed as a Capehart project in 1959 for Marine Corps and Navy personnel. It was one of many similar projects built in the post war period in Hawaii and throughout the nation under the Capehart Act, which was designed to alleviate a severe housing shortage faced by military personnel. The historic fabric of the neighborhood is largely intact.

PART I. HISTORICAL INFORMATION

A. HISTORICAL CONTEXT

1. Site History

Manana is the native Hawaiian word for the geographical area, or *ahupua'a*¹, on the island of O'ahu in which this neighborhood is located. The Manana *ahupua'a* extends from the tip of the Pearl City Peninsula in Pearl Harbor to the Ko'olau mountain range, and was traditionally divided into two sections; the peninsular portion (Manana nui) and the upper land portion (Manana iki). The housing area is located in what was known as Manana iki.

In 1848, the Manana *ahupua'a* was awarded to several *ali'i* (chiefs) and *konohiki* (headman of an *ahupua'a* land division under the chief) during the Great *Mahele*².

In 1890 sections of the [Pearl City] peninsula and nearby land, mostly in Manana, became the first planned subdivision outside of urban Honolulu. Development of this suburb was one of the many business enterprises, all inter-related, of Benjamin Franklin Dillingham. In the late 1880s and 1890s, he was involved in a 115,750-acre Land Colonization Scheme, intended to promote agricultural as well as real-estate development, supported by a railroad planned around most of O'ahu (Yoklavich, 2004).

Despite the development of the OR&L rail and suburb, the area (named "Pearl City" by 1892 in a contest held by Dillingham) remained relatively rural throughout the beginning of the 20th century. Hawaiian, Chinese, and Japanese farming families cultivated taro, rice, and water cress, and sugar cane and pineapple were grown on upland acreage leased out by Dillingham to commercial interests.

The onset of World War II, and Pearl City's proximity to the Pearl Harbor Naval Base, brought an influx of new residents from the mainland, as well as direct changes to the landscape due to Navy mobilization. The Navy acquired 129 acres of agricultural land within the Manana *ahupua'a* for a Naval Supply Depot storage area, commissioning the depot on August 1, 1944. It is assumed that the

¹ Type of native Hawaiian land division usually extending from the uplands to the sea.

² Hawaiian land division act of 1848, proposed by King Kamehameha III, which abolished the practice of *ahupua'a*.

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Manana housing area site was part of this acquisition. Portions of the land were built up with many storehouses and shops, while other sections remained undeveloped.

A 1944 map for the Waiawa Naval Aviation Supply Depot shows that the Manana housing area site was being used as a Navy "Construction Battalion Encampment" (U.S. Department of the Navy, Fourteenth Naval District, 1944) at that time. It is unclear how much development (if any) had occurred since no facilities are shown on the map. A detailed map of the site dated one year later shows significant development. By this time (June 30, 1945), the site was renamed the "Naval Supply Depot Housing & Contractors' Area", and was comprised of approximately two-hundred and eighty-two buildings or facilities, many which were Quonset huts. Their uses included quarters and latrines, recreation buildings, mess halls and galleys, various shops, administration buildings, maintenance buildings, a chapel, an open-air theater, a community center, two brigs, and many others (U.S. Department of the Navy, Fourteenth Naval District, 1945).

The name of the area was changed to "D.P.W. [Department of Public Works] Unassigned Area, Waiawa", according to a map dated June 30, 1948. The map shows that most of the Quonset facilities were still extant at this time; however, a note states, "all buildings on this station are unoccupied" (U.S. Department of the Navy, Fourteenth Naval District, 1948). According to an aerial photograph dated September 6, 1951 (Land Study Bureau, 1951), soon thereafter the area was returned to an earlier use as an agricultural field. As such, sometime between 1948 and September 6, 1951, all of the Quonset huts and other facilities on the site were demolished or moved, possibly in preparation for the new housing area.

Following the war, Pearl City had a post-war suburbanization period similar to that experienced by other cities throughout the United States, encouraged in part by new federal government housing policies which boosted home ownership for moderate-income families. These included Federal Housing Administration (FHA) and Veterans Administration (VA) loans.

In Pearl City, this period of post-war suburbanization lasted from the late 1940s to the 1960s. It was largely influenced by Dillingham's decision to phase out sugar cane leases and end passenger service on the OR&L rail in 1947, and his subsequent development of numerous subdivisions on the former sugar cane lands. Many new neighborhoods were built along Kamehameha Highway, mostly on the *mauka* (mountain) side of it. The new neighborhood housing brought an influx of people, typically young, middle class families of Japanese, Chinese, and Filipino ethnicity. Community services and amenities were also expanded, providing better schools, libraries, police services, and churches.

In the 1970s, the H-1 and H-2 Freeways were built, passing through Pearl City. This brought a second phase of post-war development to the area. Franchises, mainland branch stores, and large shopping centers were built. The rezoning of Pearl City in 1971 allowed for higher density housing such as townhouses and condominium complexes. Kamehameha highway was built up with strip malls, and various commercial enterprises including car dealerships and restaurants (Chinen, 1994). The area surrounding the Manana housing area is presently characterized by this same extensive commercial and residential development.

2. Neighborhood Construction History

In 1958, the Navy began work on the Manana housing area on the 65-acre portion of land formerly occupied by the Naval Supply Depot Housing & Contractors' Area. A newspaper article stated that the housing area site was "located in a cane field near the Pearl City Tavern" (*Honolulu Star-Bulletin*, June 20, 1958 page 1-B).

The project was designed to supply quarters for both Navy and Marine Corps personnel. The development was conceived as part of a larger Capehart housing project comprised mainly of units at Iroquois Point, Naval Air Station Barbers Point (NASBP). Together the two projects would include 1,388 housing units; 1,140 at NASBP, and 248 at Manana. Original drawings indicate that of the 248 units built at Manana, 80 units were designated for U.S. Naval Ammunition Depot, Oahu, Waikale Branch (the east/Navy side of the neighborhood), and the other 168 units were designated for Camp H.M. Smith, Halawa Heights (the west/Marine Corps side of the neighborhood). There are only 79 units on the Navy side now, however. One unit of a duplex building (Facility 561 A) was damaged in a fire approximately 11 years ago, and subsequently demolished.

On June 19, 1958 ground breaking ceremonies for the Capehart project took place. It was estimated that construction of the units would be finished in 12 months, putting completion at June, 1959. The district public works officer for the 14th Naval District, Captain Fred C. Ray, said, "This is indeed a red-letter day for the Navy in Hawaii, insofar as approaching a solution to one of our most perplexing problems – that of providing adequate and sufficient military housing for our personnel" (*Honolulu Star-Bulletin*, June 20, 1958 page 1-B).

The value of the two Capehart projects at the time of the ground breaking was reported at \$22 million, with interim financing to be provided by three groups; Bishop National Bank, Manufacturer's Trust Company of New York, and the International Ladies Garment Workers Union (ILGWU) (*Honolulu Star-Bulletin*, June 20, 1958 page 1-B).

Historic aerial photographs indicate that the Manana housing area was completed in 1959. From 1959 to 2006, very few changes have occurred within the neighborhood to alter its original character. The only noteworthy, neighborhood-scale changes are that landscaping throughout the neighborhood has become mature, modern play equipment has been installed in the playgrounds, and one unit in a duplex was damaged by a fire and subsequently demolished (Facility 561A).

Various renovations occurred to residences themselves, over the years. Alteration drawings show that several phases of work occurred in the neighborhood in the 70s and 80s. In 1976, roof repairs were made to the Navy units. Two years later, alterations were made to bathrooms, kitchens and floors in the Marine units. Bathroom work included removing the lavatory vanity, toilet, tub, bath accessories and surrounding ceramic tile and replacing with new, and installing new sliding doors around the tub. The kitchens received new fluorescent light fixtures, new stainless steel sinks, and kitchen cabinets were

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modified. Floors and walls were repaired as required where cabinets were removed. In 1983, lanai doors and windows were replaced in the Navy units.

In 1980, exterior repairs were made to the Marine units, most notably the addition of horizontal vinyl siding over the existing vertical wood siding on select units, painting of other units and repairs to exterior siding. Other work included replacing screened vents under eaves with aluminum vents, new trash enclosures, repairing valley rafters, and modifying the carport skylights of select units. General re-roofing of the Marine quarters also occurred in 1980. According to housing personnel, in the late 1990s, the bottom half of the windows were in-filled in the Marine units, and A/C window units were also added at this time.

In 1992, the Navy sold 108 acres in the Manana area and 14 acres at Pearl City junction to the city of Honolulu for \$109 million. The funds were used to "relocate tenants on both properties and for construction of the Ford Island bridge, which was initially set at \$68.5 million" (*Honolulu Star-Bulletin*, November 29, 1996). The Manana housing area was not part of the sale.

The neighborhood was privatized in 2006, and is currently under management by Forest City Inc., a Washington, D.C. company. A plan to demolish the entire neighborhood and rebuild more units is underway, with a targeted demolition date for the Marine units in February 2007, and subsequent demolition of the Navy units sometime in either 2009 or 2010.

3. Navy and Marine Housing History on Oahu

In the late nineteenth century, Navy housing conditions nationwide were generally poor. Many sailors lived aboard ships from this time through World War II, and the Navy was slow to develop standardized housing.

In 1904, the first permanent Marine garrison on Oahu bunked in an empty coal shed at the Honolulu Naval Station, and from 1908 to 1913, they lived in a tent encampment, Camp Very. The earliest permanent Navy housing at Pearl Harbor was built by 1914, and included eight officer houses at Hale Alii, as well as a barracks, three houses, and a duplex for officers at the Marine area. Craftsman-style bungalows were erected on Hospital Point and Ford Island in the following decade for officers, while lower-level personnel continued to be housed in tents until the 1920s.

In 1920, twenty-four World War I buildings were relocated to the Pearl Harbor Submarine Base at Quarry Point from France for housing, and in 1923, a decommissioned submarine tender was converted to a barracks ship. Barracks were constructed for enlisted men at the Submarine Base in the late 1920s, and more were built for officers in the early 1930s. In the 1930s, the Navy built sixteen Craftsman-style bungalows on Ford Island for officers.

Installations outside the Pearl Harbor Naval Base required housing as well. Officer bungalows were built at Naval Magazine installations at West Loch and Lualualei valley, and at Radio Station (Lualualei) in the 1930s.

With the onset of World War II in the late 1930s and early 1940s, the Navy's personnel increased substantially, causing a housing shortage. Enlisted men and their families lived in unsanitary conditions in Honolulu, and commuted long

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distances to the Pearl Harbor navy yard. The Navy sought funding to ameliorate the problem and soon new neighborhoods were built at Navy installations in Wahiawa, Kaneohe, Barbers Point, and Pearl Harbor. Some of the new Pearl Harbor neighborhoods (Naval Housing Areas I and II) included four-plex and six-plex apartment buildings, while most others were comprised of single-family homes and duplexes. Despite the considerable amount of housing built the Navy still faced shortages, particularly for civilian workers.

In the later years of the war, temporary barracks or hutments were built for unaccompanied personnel. Building types included Quonset huts and other temporary structures, including tents, for barracks. This type of housing was erected at older installations such as Naval Ammunition Depots Lualualei and West Loch, Naval Air Station Barbers Point, and Marine Corps Air Station Ewa, and at newer installations such as Waipio Peninsula, and Iroquois Point Annex. After the war, when families sought to rejoin Navy personnel, these temporary housing types were no longer suitable.

In 1949, Naval Air Station Kaneohe Bay was decommissioned, and the Marine Corps obtained ownership in 1952. They retained the Navy's housing.

In the 1950s, housing shortages for the Navy continued. The Navy had an inventory of 6,292 housing units, which included approximately 1,700 Quonset huts, or other types of buildings that were believed to be substandard. Proposed Capehart housing projects that would provide an additional 2,792 units at Barber's Point, Camp H.M. Smith (Manana Housing Area), Kaneohe Marine Corps Air Station, Pearl Harbor, and other smaller areas, were still not sufficient to meet the Navy's requirements. Rear Admiral C.E. Olsen, the Fourteenth Naval District Commandant, said, "based on present planning, we'll still have a deficit of 6,400 units after completion of Capehart housing" (Honolulu Star-Bulletin, 1956).

4. Capehart Background

The term "Capehart" refers to housing built under the Capehart housing act of August 11, 1955. Officially designated as the "Title VIII – Armed Services Mortgage Insurance Act", the act is more commonly known by the name of the senator who introduced the bill, Homer Earl Capehart. The bill was designed to correct the failings of the Act's precursor, the Wherry Act of August 8, 1949. Both Acts were signed by Congress to alleviate a housing shortage for military families during the early Cold War era by providing rental housing.

The differences between the two Acts were that Capehart houses were built exclusively on government-owned land whereas Wherry houses were built on or near government land, and the residences were turned over to the government upon completion in Capehart projects (whereas Wherry projects were maintained and operated by private contractors or "sponsors"). The management of Capehart housing by the government as assigned military quarters was intended to eliminate the rent hikes, poor maintenance, and vacancies experienced in Wherry housing projects under private sponsors.

Capehart sponsors were invited to bid on a basic plan designed by an architecture and engineering firm contracted by the U.S. Army Corps of Engineers (USACE). The sponsor submitting the lowest acceptable bid would be

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selected. Sponsors could include "additive" items with their bid, provided that these items did not take the price per unit over a previously determined maximum (\$13,500). Additive items were non-essential amenities that would improve the quality of life in the units, such as carports, patios, lighting fixtures, air conditioning and washing machines. They could also include upgrades in finish materials such as ceramic tile versus synthetic tiles, hardwood flooring for synthetic flooring, plaster finish for plaster wall board, etc.

Once a bid and any additive items were accepted by the government, the sponsor formed a corporation to execute the project, and the mortgage was issued to the corporation. As they were completed, units would be transferred to the government (along with a portion of the mortgage responsibility), to be assigned and maintained as military quarters. Military personnel forfeited their monthly housing allowance (which was transferred to amortize the mortgage), and in cases where civilian personnel occupied units, they paid a monthly rental fee which also went towards the mortgage.

B. PHYSICAL HISTORY

1. Date of erection: 1959
2. Architect

Hugh Gibbs, AIA, Architect and Engineering Service Corp., under the District Public Works Office, Department of the Navy, Bureau of Yards & Docks. Hugh Gibbs was a California-based architect. One of his earliest known projects was the 1947 renovation of the 1924 Art Theater in Long Beach. He designed a new marquee (extant), and installed a new glass block wall and poster boxes. Gibbs later formed Hugh Gibbs & Donald Gibbs Architects, some of whose notable commissions included the 1967 Galaxy Condominium in Long Beach, the 1977 offices of the Relta Steamship Company, Long Beach, a 1983 office building at 4040 Paramount Drive, Lakewood CA, and offices for the Water Replenishment District of Southern California. In 1988 Hugh Gibbs & Donald Gibbs Architects, in collaboration with Welton Becket Associates, Los Angeles, built the U.S. Naval Hospital at Balboa Park in San Diego. The company also designed a 250 seat music recital hall and a dance center for California State University at Long Beach.

Renovations to the Manana Housing area were handled by other architects.

3. Builder, contractor, suppliers

Two major contractors were hired for the job, Murray-Sanders Associates of Santa Ana, California, and the George A. Fuller and Company of New York. A 1958 newspaper article stated that most materials for construction would be coming from the mainland (continental United States), although cement aggregate would be purchased locally.

4. Original plans and construction

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The housing units were all constructed at the same time, using the same architecture firm. Ten major design types were developed, all one-story (either single-family or duplex) designs built of wood, single-wall construction. See individual HABS reports for each of the ten major design types: HABS HI-524-A (Type 1), HABS HI-524-B (Type 2), HABS HI-524-C (Type 3), HABS HI-524-D (Type 4), HABS HI-524-E (Type 5), HABS HI-524-F (Type 6), HABS HI-524-G (Type 7), HABS HI-524-J (Types 8 and 11), HABS HI-524-H (Type 9), HABS HI-524-I (Type 10).

Some types were reproduced with the same plan, but with different roof forms, and others were reproduced as mirror images. Also, one duplex type (Type 4) consists of two completely different unit styles (A & B), and one of the single-family plans is reproduced in two sizes (Types 8 and 11).

The table below shows the original and current type name and designated rank, whether it is a single-family or duplex, and how many bedrooms it has.

Historic Plan Type and Corresponding Rank	Current Plan Type	Single Family/Duplex	Number of Bedrooms
Plan 1 – Enlisted Personnel	Type 5 – CGO, SNCO	Duplex	2
Plan 2 – Enlisted Personnel	Type 6 – CGO, SNCO	Duplex	3
Plan 3 – Enlisted Personnel	Type 7 – CGO, SNCO	Duplex	3
Plan 4 – Enlisted Personnel	Type 9 (A&B) – CGO, SNCO	Duplex (Style A & B are different designs)	3
Plan 5 - Enlisted Personnel	Type 11 - CGO, SNCO	Duplex	4
Plan 6 – LT., LT. J.G., ENS., or W.O.	Type 12 – FGO, CGO	Single Family	2
Plan 7 – CDR., LT. CDR., LT., LT. JG., ENS., or W.O.	Type 13 – FGO, CGO	Single Family	3
Plan 8 - LT., LT. J.G., ENS., or W.O.	Type 14 – FGO, CGO	Single Family	3
Plan 9 - CDR., LT. CDR., LT., LT. JG., ENS., or W.O.	Type 15 – FGO, CGO	Single Family	3
Plan 10 - LT., LT. J.G., ENS., or W.O.	Type 17 – FGO, CGO	Single Family	4
Plan 11* – LT., LT. J.G., ENS., or W.O. *Larger version of Plan 8	Not known	Single Family	3

PART II. ARCHITECTURAL INFORMATION

A. GENERAL STATEMENT

1. Architectural character: The designs employed in this neighborhood are typical of post-war Wherry and Capehart residences in their basic utilitarian forms and limited decoration. They do not adhere strongly to any well known style (they come closest to falling into either the Contemporary style or the Ranch Style), but they do reflect a common building form erected in the post war period, which was characterized by basic designs lacking in architectural details, and built with inexpensive materials. Locally, this form became prevalent in "tract" homes and subdivision developments in Honolulu throughout the 1960s and 1970s.

A few design features of these residences take advantage of the Hawaiian climate, although the residences do not have a tropical appearance. Each plan type originally included a screened *lanai* (terrace) adjacent to the shared living/dining room, which provided an outdoor living area (they were all later enclosed and modified into dining rooms). The residences also all had outdoor terraces which expanded the amount of outdoor living space. The use of carports, versus garages, was also appropriate to the temperate environment.

2. Condition of fabric: Good

B. COMMON ELEMENTS IN ALL RESIDENTIAL TYPES

Overall, the residences are basic and lack decorative elements, as is typical of most post war military neighborhoods. The unit types vary significantly with respect to plan and design although building materials and construction methods are shared. Many also exhibit common interior features such as the large sliding doors, lattice-type panels at entry, and kitchen cabinet styles. Carport designs also vary, according to the unit type, but in general are a prominent feature of each design in that they are centrally located (for duplexes) and are often incorporated into the entry area of each home. One of the few purely decorative (yet basic) features noticed is found in some of the CMU garbage enclosures, which exhibit a decorative relief pattern in the concrete block.

Roofs are primarily low-sloped gable or gable-on-hip, however there are many design variations within these two major forms. Depending upon their design, roofs are typically covered with either asphalt shingles or rolled asphalt. One type has added standing seam panels over the carport area. The roofs typically have exposed, overhanging eaves with fascia boards, and copper flashing. Wood louvered vents are common features found on most of the designs, as well. Vinyl and aluminum gutters are also prevalent.

Walls are tongue-and-groove boards. Some are covered with vinyl, and in a few cases, with painted textured plywood with vertical scoring. The units in the Navy side of the neighborhood have their original vertical 1x8 redwood tongue-and-groove walls, and all but ten of the units in the Marine side of the neighborhood have horizontal vinyl siding, which was added at an unknown date. There is a range of colors used for all of the exteriors; pale blue, tan (and other neutrals), and pale green.

C. SITE

1. General Comments

The neighborhood is comprised of wide, gently curving streets, including one main route (Birch Circle) which largely defines its perimeter. There is an off-shoot from Birch Circle that has a cul-de-sac (Elm Circle), two semi-circular "C" shaped drives which connect to Birch Circle (Elm Drive and Date Drive), and a drive running east-west which bisects the neighborhood roughly in two (Cedar Drive). The wide streets accommodate dual-direction traffic and parking on both sides. Acacia Road provides the only entry into the neighborhood, and forms a "T" where it meets Birch Circle. There is a Marine guard posted at the entry, and a guard shack.

The neighborhood's two sections have a total of 247 units. There are 79 Navy units on the smaller east side of the neighborhood, and 168 Marine units on the west side. There is no fence or street that delineates the division between the two sections, just a pedestrian corridor with community spaces and playgrounds that runs through the interior of the blocks in this location. A mock orange hedge is also planted along the corridor, on both sides of Cedar Drive.

There are five separate community playgrounds or "tot lots" with modern brightly colored playground equipment in the neighborhood. Three of the neighborhood's five playgrounds are aligned in a row in the interior of three separate blocks. One of the playgrounds is on the northern part of the Birch Circle perimeter, one is on Cedar Drive, and another is on the southern part of the Birch Circle perimeter. A concrete walking path connects these playgrounds through each block. To accommodate the change in topography through the blocks are sets of concrete stairs with pipe metal handrails. All three playgrounds are surrounded by green chain link fence enclosures, and have benches. Two have drinking fountains.

The remaining two tot lots are located in the Marine Corps section of the neighborhood; one is situated within the block bounded by Cedar Drive to the north and Birch Circle to the south, at the westernmost end of this block. The other playground is found behind the sole residence on the south side of Elm Circle. Both of these playgrounds have associated picnic areas.

The vegetation of the neighborhood is diverse, and largely tropical in nature. There are mature monkeypod, palm (Royal Palm as well as Samoan Palm), plumeria, mango, ficus, avocado, kamani (Alexandrian Laurel), umbrella, wili wili (Tiger's claw) and norfolk pine trees scattered throughout. Some are in front of the houses, while others are at their rears. Most of the streets are somewhat unshaded, however along Cedar Drive there are several mature monkeypod trees which form a shaded canopy over the street. A crescent-shaped grassy median in the bend of Birch Circle also contains a mature monkeypod tree which forms a canopy over the street below.

Informal landscape plantings are also scattered throughout the neighborhood. These include hibiscus, banana, bougainvillea, aloe, ti, croton, small palms, and

bird of paradise, among others. Irrigation is provided by a surface system made of pvc pipe.

Because of the gently sloping terrain, rear yards have different grade conditions; some have retaining walls to accommodate the change in grade, others are steeply sloped, others are relatively flat. Many rear yards are delineated by chain-link fences. Six wood-framed fence sections are found at different locations in the neighborhood, as shown on original drawings. Many of the rear yard areas retain their original pipe metal "T" shaped clotheslines. Some front yards are slightly sloping and have concrete steps.

Front yard setbacks are uniform so that homes are set in even rows along the streets. Most units are oriented parallel to the street, however some units located at street corners are oriented at a 45 degree angle to the streets, directly facing the corner itself. There are different variations in driveway designs for duplexes, depending upon the plan type. Some driveways run parallel into separate carports, while others share a single drive that splits into two prongs. Walkways also have various configurations depending on type. Some walkways lead from the driveway to the front entry while others lead to the front entry from the sidewalk.

Concrete sidewalks are found on one side of each street. Between the sidewalk and the street is a planting strip with grass. There are concrete curbs throughout, and wide storm drains set into some of the curbs.

The houses do not have mailboxes. Instead, each home has a built-in metal mail slot at the front entry way, either in one of the living room walls, or inset into the front door. There are various types of garbage enclosures; some at front, sides, or back. Some are built of concrete masonry units, others are of narrow vertical fencing called "grape stake" on original drawings. Other historic decorative features noted in the neighborhood include wood trellises against front the front façades of the Type Plan 11 residences.

2. Historic Landscape Design

Original landscape plans show that various species of shrubs, trees, palms, ferns, vines, groundcover, and perennials were selected for yard, foundation and decorative use. There was a common theme in the arrangement of species for each of the eleven plan types. Ground cover of various types was planted around the perimeter of each foundation, typically with akulikuli (*mesembryanthemum rosea*) near the entrances, and other types of ground cover along other sides. A range of perennials were also planted near the front entrance areas. A single areca palm as an accent near the front walk, driveways, or in some cases, terrace areas was another common feature. Paired plantings of various species were often placed at select building corners, and other, smaller plantings were scattered around the yard located quite close to the building, walkway, driveway, or terrace.

Original planting lists show plant species. Some of the eleven tree types specified included true kamani (*calophyllum inophyllum*), false kamani (*terminalis catappa*), Chinese banyan, monkeypod, and variety orientals (*erythrina*

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variegata). Four different palm species were used; coconut palm, royal palm, toddy of wine palm (*caryota urens*), and areca palm (*areca lutescens*). Twenty shrub species were employed, including four types/colors of hibiscus, Chinese banana, mock orange, strawberry guava, croton, Chinese privet, dwarf bronze heliconia, heavenly bamboo, umbrella plant, and others. Decorative plantings included sword fern and tree fern, red passion flower vines, four different types of ground cover, and five perennials (three which were various types of lilies). Most of these species are still prominent features of the landscape.

PART III. SOURCES OF INFORMATION

A. Original Architectural Drawings: Original drawings and any drawings completed up to the present for building renovations by the U.S. Department of the Navy are located at the Naval Facilities Pacific Capital Improvement Plan File Library, Pearl Harbor, Hawaii.

B. Bibliography (books/reports/articles)

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Kawena Pukui, Mary, and Elbert, Samuel H. *Hawaiian Dictionary; Hawaiian-English, English-Hawaiian*. University of Hawaii Press, Honolulu, 1986.

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U.S. Army Corps of Engineers (USACE). *Preliminary Draft Integrated Cultural Resources Management Plan (ICRMP) Marine Corps Base Hawaii, December 2002*. Prepared for Commanding Officer Marine Corps Base Hawaii.

Yoklavich, Ann. *Historic American Building Survey, U.S. Naval Base, Pearl Harbor, Pearl City Peninsula, HABS No. HI-393*. October, 2004.

C. Bibliography (maps and photographs)

National Archives II, College Park Maryland. Historic Photographs of Manana Capehart Housing (USN No. 1039348 and USN No. 1046443, Record Group 428-GXA).

U.S. Geological Survey (USGS). *Waipahu Quadrangle (portion) 1927-1928*. Original scale 1:20,000. On file, Hawai'i State Department of Accounting and General Services Survey Division, Honolulu.

U.S. Department of the Navy. *Aerial photograph VJ-28703, Subject: Pearl City Junction-looking north. Area shows personnel camp, storage area with Manana Naval Supply Depot, Storage and Barracks area in background*. Available at the National Archives II, College Park, MD. Order Number: 80-G-277138.

U.S. Department of the Navy, Fourteenth Naval District. Map OA-N1-1023, Naval Aviation Supply Depot, showing conditions on June 30, 1944.

_____. Map OA-N1-1393, Naval Supply Depot Housing & Contractors' Area, showing conditions on June 30, 1945.

_____. Map OA-N1-1671, Map of D.P.W. Unassigned Area, Waiawa, Oahu, T.H. showing conditions on June 30, 1948. Map available at National Archives II, Record Group #71.

D. Likely Sources Not Yet Investigated

Research for this report was undertaken at the Hawaii State Library, Hawaii State Archives, and the National Archives and Records Administration (NARA) in College Park, MD. The Naval Facilities Pacific Capital Improvement Plan File Library, Pearl Harbor, Hawaii was also consulted. It is possible that additional information on the subjects covered in this report could also be researched at the Bishop Museum, in Honolulu, Hawaii, the Arizona Memorial Library, Pearl Harbor, and the University of Hawaii's Hamilton Library, in Honolulu, Hawaii.

PART IV. PROJECT INFORMATION

This report was prepared in accordance with the *Programmatic Agreement among the United States of America, Department of the Navy, the Hawaii State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation, for the Hawaii Public-Private Venture (PPV) Phase III*, dated September 2006. In keeping with the requirements of the

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Programmatic Agreement, this report was undertaken to document the neighborhood prior to the demolition of the residences and subsequent redevelopment of the neighborhood. The Marine Corps units will be demolished in February of 2007 and the Navy units have an estimated demolition date of 2009/2010. The photographic documentation was undertaken by David Franzen, photographer. Polly Cosson, Architectural Historian at Mason Architects, Inc., wrote the written documentation and conducted field work (November 2006 – December 2006) and research for this report.

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List of Navy Residential Buildings by Type, with Facility Numbers and Addresses and Summary by Type.

Fac. No.	Address	Historic Type
550	550A&B Birch Circle	1A
572	572A&B Birch Circle	1A
628	628A&B Cedar Drive	1A
551	551A&B Birch Circle	2A
552	552A&B Birch Circle	2A
557	557A&B Birch Circle	2B
558	558A&B Birch Circle	2B
562	562A&B Birch Circle	2A
566	566A&B Birch Circle	2A
622	622A&B Cedar Drive	2B
625	625A&B Cedar Drive	2A
547	547A&B Birch Circle	3A
556	556A&B Birch Circle	3A
560	560A&B Birch Circle	3B
561	561 Birch Circle	3B
570	570A&B Birch Circle	3A
621	621A&B Cedar Drive	3A
626	626A&B Cedar Drive	3B
627	627A&B Cedar Drive	3A
549	549A&B Birch Circle	4AR
554	554A&B Birch Circle	4AR
555	555A&B Birch Circle	4AR
563	563A&B Birch Circle	4AR
568	568A&B Birch Circle	4AR
620	620A&B Cedar Drive	4A
623	623A&B Cedar Drive	4AR
624	624A&B Cedar Drive	4AR
553	553A&B Birch Circle	5A
559	559A&B Birch Circle	5A
564	564A&B Birch Circle	5A
574	574A&B Birch Circle	5A
619	619A&B Cedar Drive	5A
807	807 Date Drive	6A
810	810 Date Drive	6AR
800	800 Date Drive	7BR
803	803 Date Drive	7BR
804	804 Date Drive	7AR
809	809 Date Drive	7AR
545	545 Birch Circle	9B

Fac. No.	Address	Historic Type
548	548 Birch Circle	9B
802	802 Date Drive	9A
805	805 Date Drive	9B
814	814 Date Drive	9AR
801	801 Date Drive	10A
812	812 Date Drive	10A
816	816 Date Drive	10AR
806	806 Date Drive	11A*
808	808 Date Drive	11AR*

* Same design type as Type 8, but with larger dimensions overall. As such, Type 11s are covered under the Type 8 individual report.

Historic Type	Bldg Count	Unit Count
1	3	6
2	8	16
3	8	15**
4	8	16
5	5	10
6	2	2
7	4	4
8	0	0
9	5	5
10	3	3
11	2	2
Total units	48	79

**One unit demolished after a fire.

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List of Marine Corps Residential Buildings by Type, with Facility Numbers and Addresses and Summary by Type.

Fac. No.	Address	Historic Type
501	501A&B Acacia Road	1A
504	504A&B Birch Circle	1A
524	524A&B Birch Circle	1A
533	533A&B Birch Circle	1A
543	543A&B Birch Circle	1A
614	614A&B Birch Circle	1A
503	503A&B Acacia Road	2A
507	507A&B Birch Circle	2B
510	510A&B Birch Circle	2B
513	513A&B Birch Circle	2A
517	517A&B Birch Circle	2B
518	518A&B Birch Circle	2A
521	521A&B Birch Circle	2A
527	527A&B Birch Circle	2B
537	537A&B Birch Circle	2A
565	565A&B Birch Circle	2A
569	569A&B Birch Circle	2A
576	576A&B Birch Circle	2B
602	602A&B Cedar Drive	2B
608	608A&B Cedar Drive	2A
609	609A&B Cedar Drive	2B
618	618A&B Cedar Drive	2A
502	502A&B Acacia Road	3A
505	505A&B Birch Circle	3B
506	506A&B Birch Circle	3A
511	511A&B Birch Circle	3B
512	512A&B Birch Circle	3B
515	515A&B Birch Circle	3A
522	522A&B Birch Circle	3A
523	523A&B Birch Circle	3B
531	531A&B Birch Circle	3A
541	541A&B Birch Circle	3B
601	601A&B Cedar Drive	3B
604	604A&B Cedar Drive	3A
605	605A&B Cedar Drive	3A
612	612A&B Cedar Drive	3B
613	613A&B Cedar Drive	3A
617	617A&B Cedar Drive	3B
500	500A&B Acacia Road	4AR
508	508A&B Birch Circle	4A
509	509A&B Birch Circle	4A
516	516A&B Birch Circle	4A

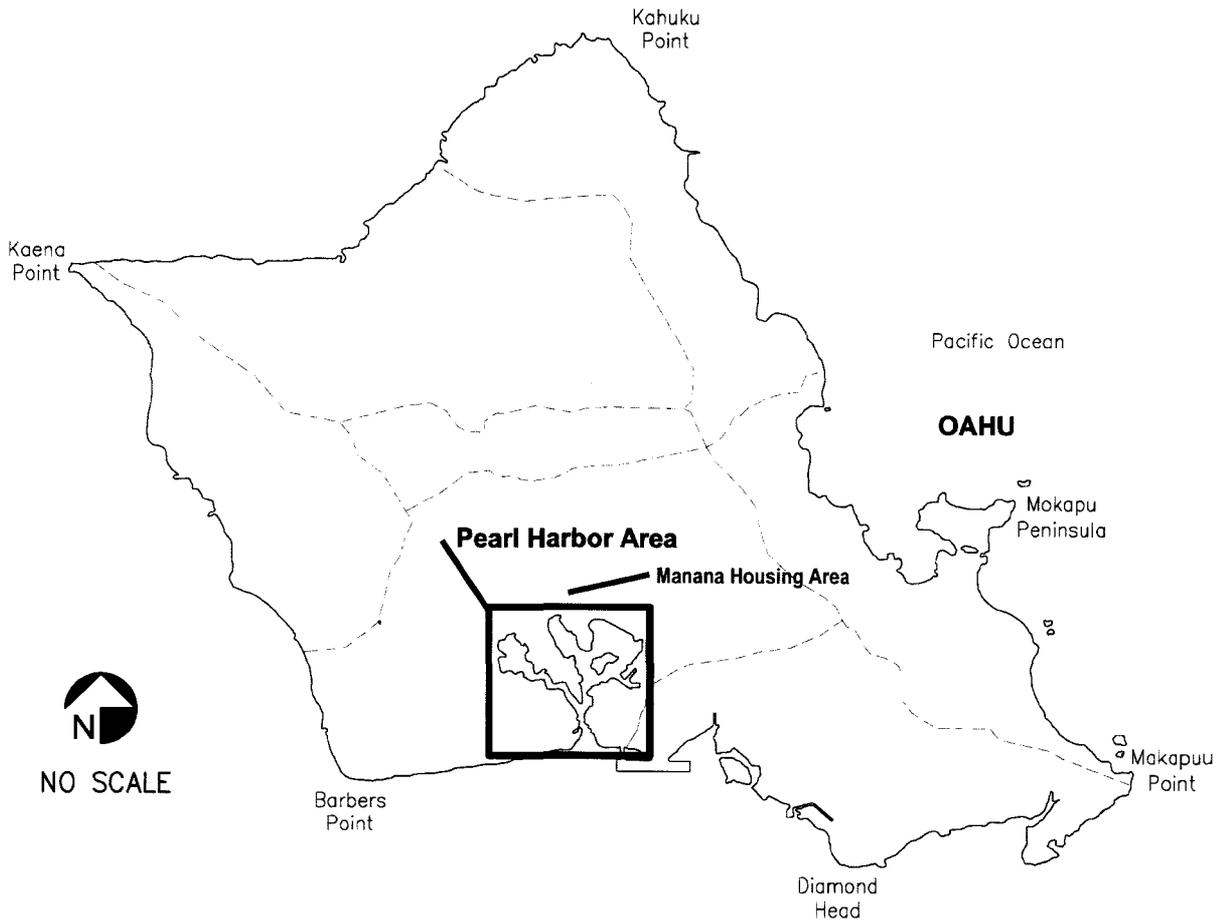
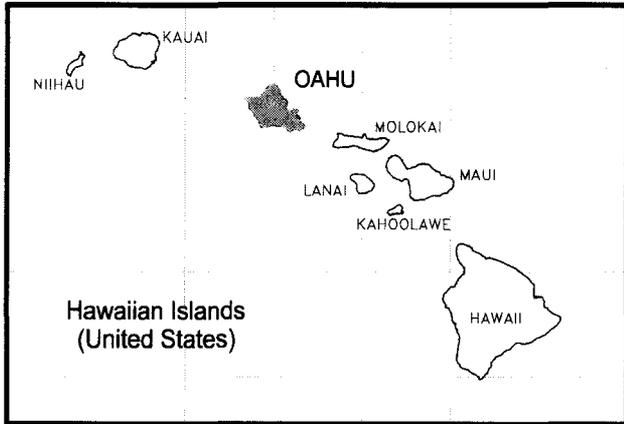
Fac. No.	Address	Historic Type
520	520A&B Birch Circle	4AR
525	525A&B Birch Circle	4AR
526	526A&B Birch Circle	4A
535	535A&B Birch Circle	4AR
567	567A&B Birch Circle	4AR
578	578A&B Birch Circle	4A
600	600A&B Cedar Drive	4A
606	606A&B Cedar Drive	4A
607	607A&B Cedar Drive	4AR
611	611A&B Cedar Drive	4A
616	616A&B Cedar Drive	4A
700	700A&B Elm Drive	4A
514	514A&B Birch Circle	5A
519	519A&B Birch Circle	5A
528	528A&B Birch Circle	5A
529	529A&B Birch Circle	5A
539	539A&B Birch Circle	5A
571	571A&B Birch Circle	5A
603	603A&B Cedar Drive	5A
610	610A&B Cedar Drive	5A
615	615A&B Cedar Drive	5A
718	718 Elm Drive	6A
721	721 Elm Drive	6AR
724	724 Elm Drive	6A
750	750 Elm Circle	6A
534	534 Birch Circle	7AR
542	542 Birch Circle	7B
701	701 Elm Drive	7B
704	704 Elm Drive	7A
705	705 Elm Drive	7B
712	712 Elm Drive	7B
713	713 Elm Drive	7AR
717	717 Elm Drive	7A
722	722 Elm Drive	7A
726	726 Elm Drive	7BR
732	732 Elm Drive	7A
752	752 Elm Circle	7B
532	532 Birch Circle	8B
538	538 Birch Circle	8A
544	544 Birch Circle	8BR
706	706 Elm Drive	8B

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Fac. No.	Address	Historic Type
708	708 Elm Drive	8AR
711	711 Elm Drive	8AR
714	714 Elm Drive	8BR
723	723 Elm Drive	8BR
728	728 Elm Drive	8A
753	753 Elm Circle	8AR
530	530 Birch Circle	9B
536	536 Birch Circle	9AR
546	546 Birch Circle	9AR
703	703 Elm Drive	9AR
709	709 Elm Drive	9BR
710	710 Elm Drive	9AR
716	716 Elm Drive	9B
719	719 Elm Drive	9A
730	730 Elm Drive	9B
751	751 Elm Circle	9BR
540	540 Birch Circle	10AR
702	702 Elm Drive	10AR
707	707 Elm Drive	10A
715	715 Elm Drive	10AR
720	720 Elm Drive	10A
754	754 Elm Circle	10A

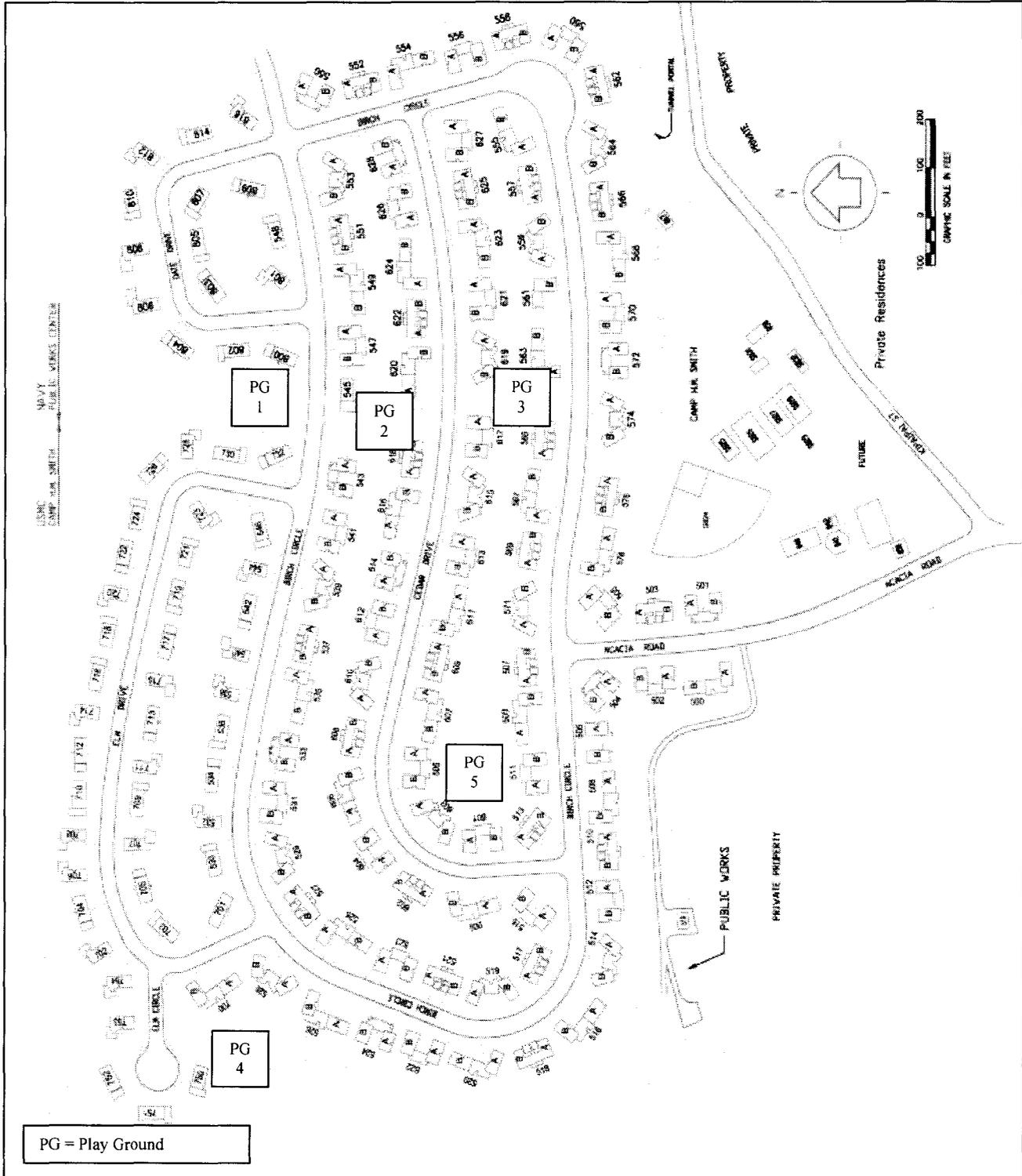
Marine Summary by Type		
Historic Type	Building Count	Unit Count
1	6	12
2	16	32
3	16	32
4	16	32
5	9	18
6	4	4
7	12	12
8	10	10
9	10	10
10	6	6
11	0	0
Total units	105	168

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Neighborhood Map, Manana Housing Area



Title VIII (Capehart) Housing Project Title Sheet (Drawing number and date not legible)

TITLE VIII (CAPEHART) HOUSING PROJECT

NAVY PROJECT NOS. A-SHMT(N) - 16, 21 & 22

CAMP H. M. SMITH, HALAWA HEIGHTS
 U.S. NAVAL AMMUNITION DEPOT, OAHU, WAIKELE BRANCH
 MANANA, OAHU, T. H.

NOTICE:
 ALL DIMENSIONS SHOWN HEREIN
 AS ADDITIVES ARE INCLUDED IN THE
 PROJECTS ALL DEDUCTIVE DIMENSIONS
 ITEMS HAD NOT INCLUDED.

S I G N A T U R E L S

NO.	DATE	REVISION	BY	CHKD.
1				
2				
3				
4				

ARCHITECT & ENGINEER
 CONSULTING ARCHITECTS
 STATION 1
 1000 KALANIAN'OLUHANA DRIVE
 HONOLULU, HAWAII
 U.S. NAVAL AMMUNITION DEPOT
 WAIKELE BRANCH
 OAHU, HAWAII

CONTRACTING OFFICE
 U.S. NAVAL AMMUNITION DEPOT
 WAIKELE BRANCH
 OAHU, HAWAII

MORTGAGE BUILDER
 BY _____

CONTRACTOR
 BY _____

MORTGAGE
 BY _____

BONDING COMPANY
 BY _____

MORTGAGE INSURER
 U.S. NAVAL AMMUNITION DEPOT
 WAIKELE BRANCH
 OAHU, HAWAII
 BY _____

DATE _____

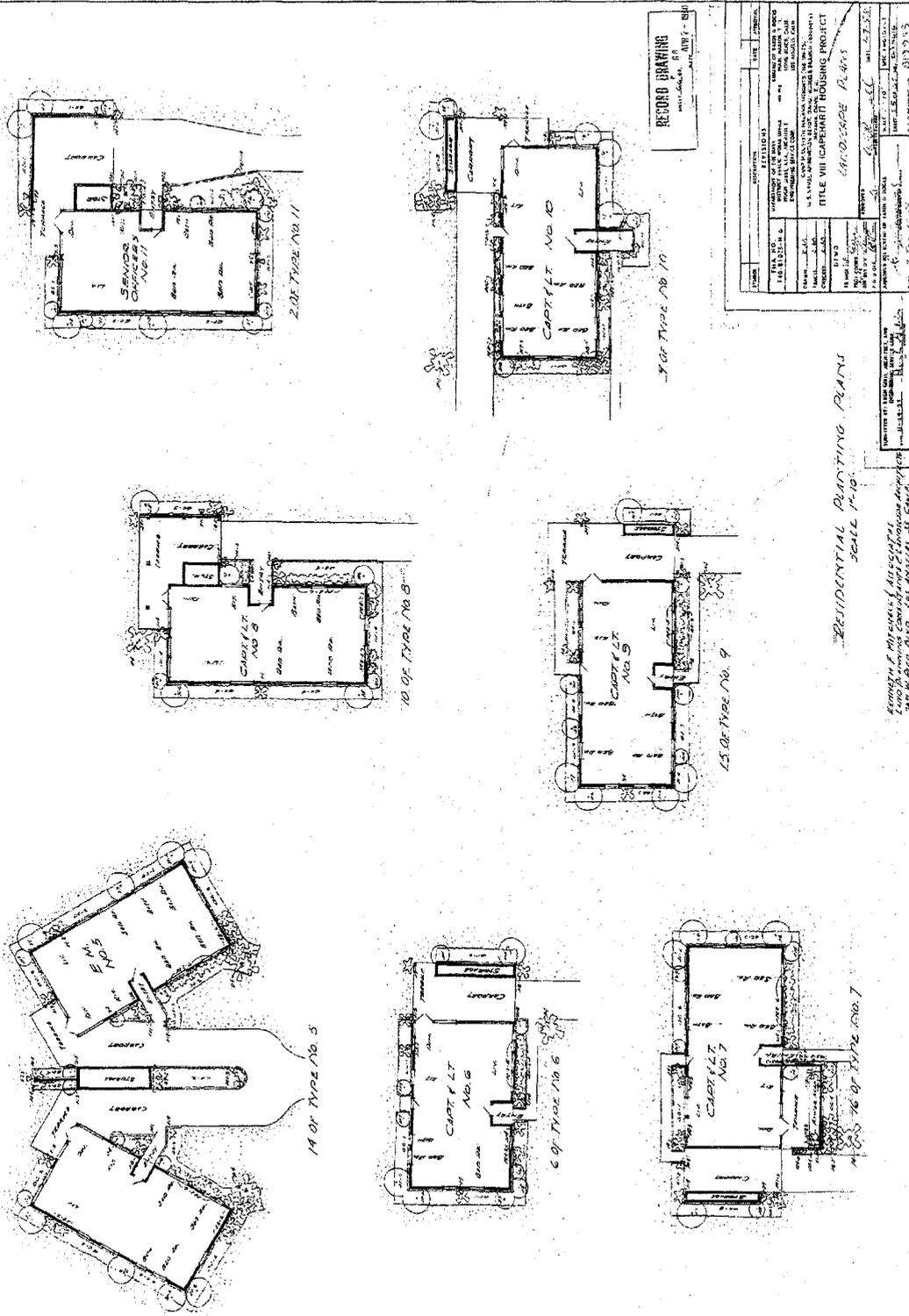
RECORDS SECTION
 U.S. NAVAL AMMUNITION DEPOT
 WAIKELE BRANCH
 OAHU, HAWAII

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U.S. NAVAL AMMUNITION DEPOT
 WAIKELE BRANCH
 OAHU, HAWAII

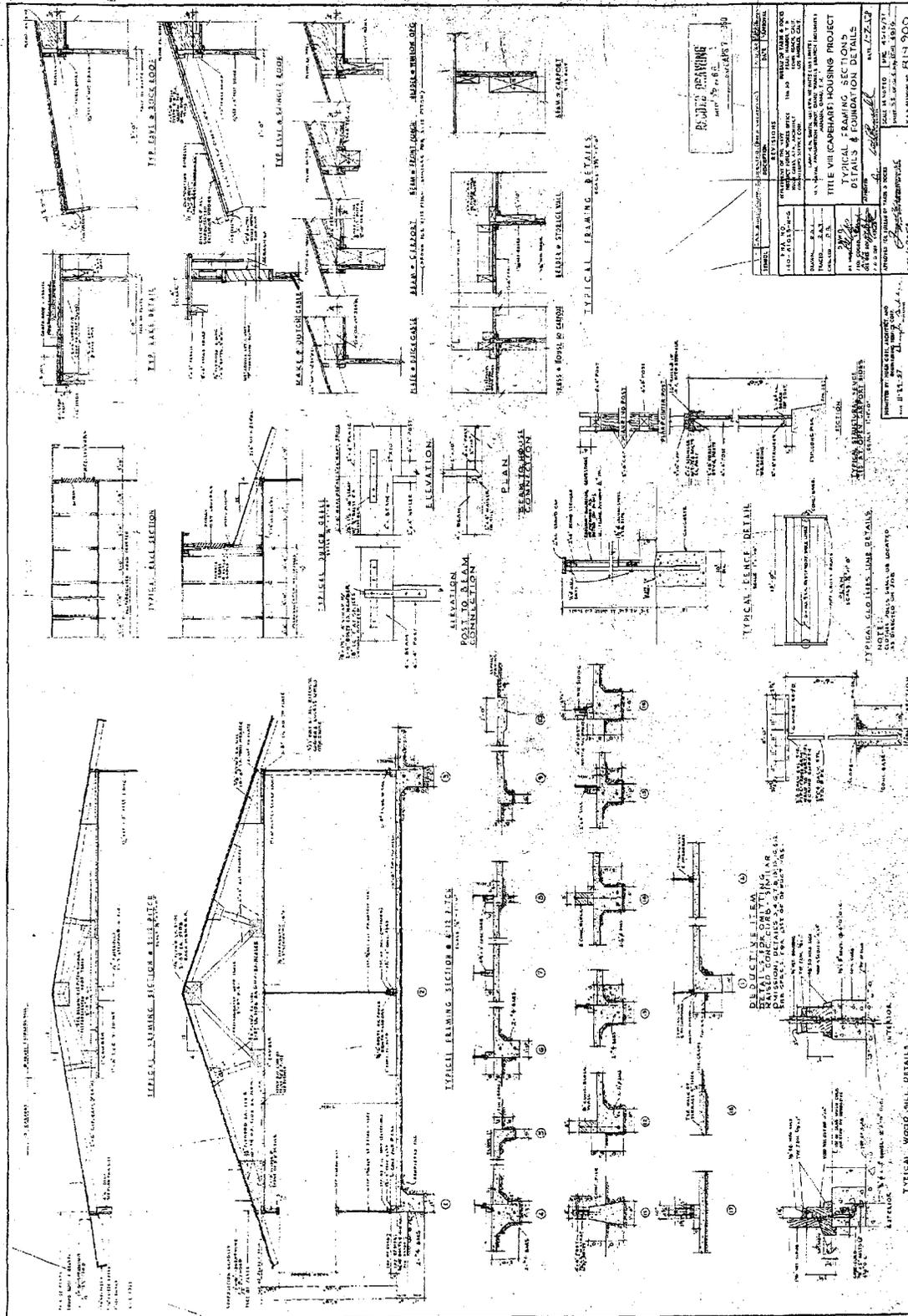
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Neighborhood Landscape Plan (Drawing No. 819933, dated January 7, 1958)



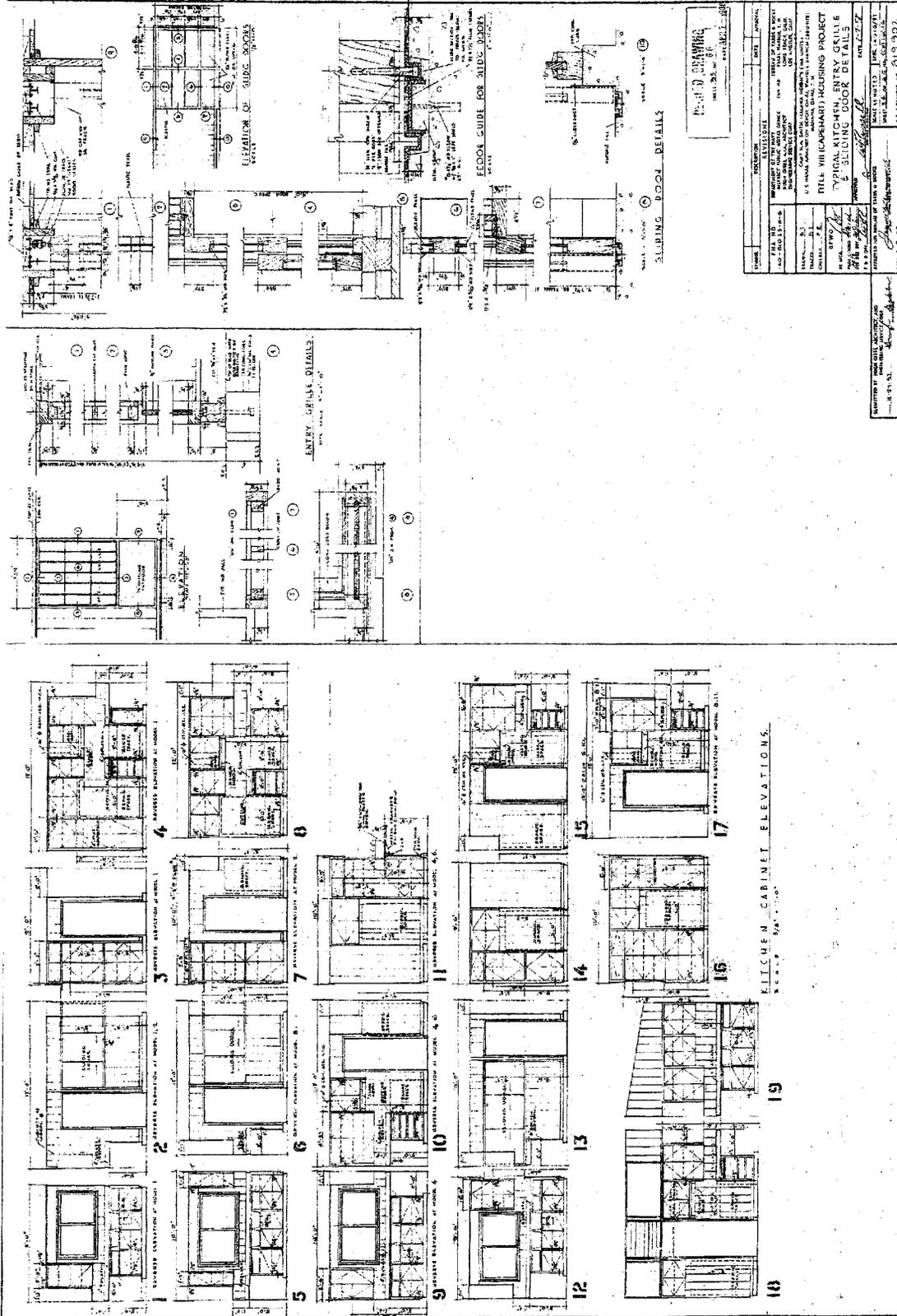
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Typical Framing Sections, Details, & Foundation Details (Drawing No. 819900, dated January 7, 1958)



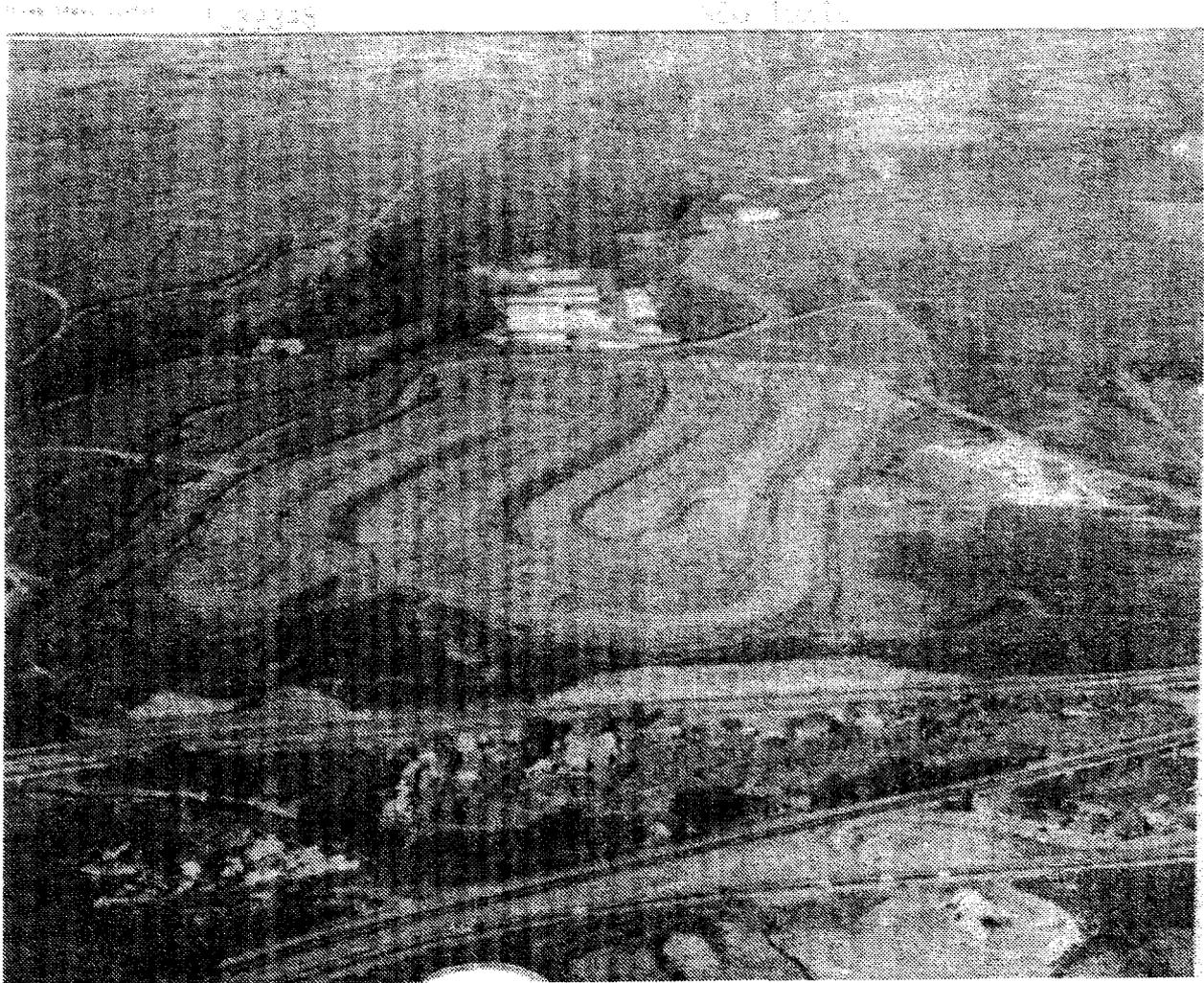
CAMP H.M. SMITH AND NAVY PUBLIC WORKS CENTER,
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Typical Kitchen, Entry Grille & Sliding Door Details (Drawing No. 819902, dated January 7, 1958)



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National Archives II photograph of Manana Capehart Housing, showing graded site prior to construction on October 30, 1958 (USN No. 1039348, Record Group 428-GXA).



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National Archives II photograph of Manana Capehart Housing on September 9, 1959 (USN
No. 1046443, Record Group 428-GXA).

