

U.S. NAVAL BASE, PEARL HARBOR,  
LAUNDRY BOILER HOUSE

HABS No. HI-551

(U.S. Naval Base, Pearl Harbor, Hospital Point)  
(Facility 326)  
Reuben James Street & Kanaloa Avenue  
Pearl Harbor  
Honolulu County  
Hawaii

PHOTOGRAPHS  
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

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

## HISTORIC AMERICAN BUILDINGS SURVEY

### U.S. NAVAL BASE, PEARL HARBOR, LAUNDRY BOILER HOUSE (U.S. Naval Base, Pearl Harbor, Hospital Point) (Building 326)

HABS No. HI-551

- Location:** Reuben James Street and Kanaloa Avenue  
Pearl Harbor Naval Base  
City and County of Honolulu, Hawai'i
- U.S.G.S. Pearl Harbor, HI Quadrangle 1999 (7.5 minute series)  
NAD83.
- Universal Transverse Mercator Coordinates: 4.607281.2361067
- Present Owner:** United States Navy
- Present Occupants:** United States Navy
- Present Use:** Office
- Significance:** The Laundry Boiler House is historically significant for its associations with the development of Pearl Harbor, and more specifically the U.S. Naval Hospital at Pearl Harbor. Initially constructed in 1921 to support the naval base's hospital, the building underwent a number of modifications in the years leading up to World War II, reflecting the general build up of the base's capabilities, and the expansion of the base hospital's capacity in anticipation of the forthcoming war.
- Description:** The Laundry Boiler House is a modest, single story, utilitarian, masonry building with a composition shingle, lateral running, gable roof. The rectangular shaped building sits on a concrete slab foundation with a canted sill and measures approximately 37'-3" x 100'. The roof features open, overhanging eaves with thirty-five exposed 2" x 6" rafter tails, set approximately 30" on center, on the front and rear elevations. Modern metal gutters run down these two sides. The eave's edge is approximately 9' from the ground. The building has plastered concrete tile walls, and is now windowless, with all its former window openings in-filled with concrete masonry unit (cmu) blocks.

The building faces northeast and features three doorways along its asymmetric façade. At its north end the wall is outset 3' for the final 15' to the corner. At one time a doorway was centered in the outset wall, but this 5' x 10' opening has been in-filled with cmu block, and a window air conditioning unit has been mounted in the infill. The three existing doorways at originally serviced various shops. The only one to remain intact is at the east end of the façade and features a double doorway comprised of two sliding metal doors, each measuring 5' x 10'. Their framing steel corner guards remain intact as well. The other two doorways originally measured 6' x 16', but most of their opening has been in-filled with cmu blocks and only one corner of the original opening contains a hinged single metal door. In addition to the doorways, the façade is broken up by readily apparent, 4' x 5'-4", in-filled window openings. Traversing the wall from east to north one window opening is between the first two doorways, two are between the second and third doorways, and three are between the third doorway and the shallow wing. In the latter part of the façade, an in-filled, 42" x 10' doorway stands between the second and third former window openings.

The rear, southwest wall of the building has had all its asymmetrically spaced openings in-filled, with the exception of one, non-historic, hinged metal door, which is set in a metal frame. Traversing the façade from west to south are a pair of 4' x 5'-4" former window openings, a 4' x 13'-4" former doorway, a 5'-4" x 11'-4" former opening which originally held four expanded metal screened panels, a 9' x 10' former double doorway, whose metal frame remains intact, a long, 5'-4" x 14'-8" former window level opening, a former 9' x 10' doorway, another long, 5'-4" x 10'-8", former window level opening, a 4' x 5'-4" former window opening, a 9' x 9' former double doorway, the modern metal door and a former 4' x 4' window opening.

At the two ends of the building the gable roof extends beyond the walls. These extensions have exposed tongue and groove sheathing and a pair of 4" x 6" purlins on either side of the ridgeline. In addition, on the northeast side of the roof a 2" x 6" runs parallel to and between the two purlins for the length of the building. The wall plates also extend beyond the end walls and are handled in a distinctive manner. The wall plates are comprised of two 4" x 6" timbers, laid on top of each other, the lower one laid vertically and the top one horizontally to form a T-shaped profile. A diagonal brace helps support the wall plate and forms a decorative figure 4 bracket at the corners of the end walls.

The northwest end wall is the most ornate side of the building, featuring a large diamond shaped ventilator with wood slats in its gable end. Also this gable end features a modern make-shift support of unknown function constructed of three 2" x 4". Two of the 2" x 4" span the gable end, connected to the last two sets of roof rafters, while the third board runs perpendicular to the other two connecting them at their mid-sections. At ground level this elevation has three bays. A single metal, hinged door is in the right end bay, framed by cmu in-fill, while the other two bays each have an in-filled 4' x 5'-4" window opening. The three bays of the southeast end wall are extremely modest with each bay having an in-filled window opening. The left side bay's opening measure 4' x 9', while the other two are 4' x 5'.

The interior of the building is completely modern, having been remodeled to accommodate the police's crime scene and drug laboratories, as well as a morgue.

**Historical Context:**

The Laundry Boiler House was constructed in 1921 to provide the Naval Hospital at Pearl Harbor with steam, which was employed in the operation of kitchen equipment, maintenance of a warm temperature in linen and blanket closets to keep bedding warm and dry, provision of hot water, and for use in sterilizers and as a disinfectant. The construction of a separate Boiler House for the hospital complex was in keeping with the standard practices of the day, following recommendations made by the eminent Canadian physician Donald James Mackintosh in his 1916 book, *Construction Equipment and Management of a General Hospital*, which were fully endorsed in architect Edward Fletcher Stevens' 1921 treatise, *The American Hospital in the Twentieth Century*. The separation of the boiler and disinfecting plant from the hospital, removed intruding operational noises from the presence of recovering patients. The construction of a separate laundry facility in 1938 further fulfilled this objective.

In addition, the building housed a repair shop, and in 1925 a carpenter shop and paint shop were added to the building. Later, in 1935, electrical and plumbing shops further expanded the building's size and function. The presence of these shop operations within the Boiler House also appears to be a common practice during this period, as may also be observed in the boiler house of the Veterans Administration Medical Center at Aspinwall, Pennsylvania (see HABS No. PA-5438-D).

Although originally planned to be part of the initial construction phase for Pearl Harbor's hospital complex, the boiler house was one of several buildings to have their construction delayed because of budget cuts. Thus the initial increment of Pearl Harbor's base hospital, which was completed in 1915 by the Spalding Construction Company of Portland, Oregon, only included a ward, operating building, two surgeons' quarters, a nurses' quarters, and two servant quarters. It had a capacity of 44 beds.

In 1921 the boiler house, administration building, subsistence building, and a second ward were finished. The original boiler house (see Figs. 4 and 9) was a 20' x 68'-7" building. Narrower than the current building, its gable roof was lower than the present iteration, but maintained the same slope. The walls on the last 14'-6" of the northeast end of the building were outset by 2'-6" on each side to form a hammer shape. This area contained two rooms one for disinfected materials and the other infected materials. The boiler room, with its oil burning furnace and boiler was adjacent to these two rooms. Adjacent to the boiler room on its southeast side was a repair shop with sliding doors on each exterior wall. A contingency was included to lengthen the building by adding a carpenter and paint shop to the repair shop end. Plans for this 40' long extension were drawn in July 1922, and the addition was completed by 1926 (see Fig. 7).

By 1926 the District Medical Officer recommended the hospital be expanded to 680 beds, at a time when Queens Hospital, Honolulu's primary infirmary, contained only 300 beds. The hospital complex was further expanded in the late 1930s, with a laundry building (Facility No. 370) completed in 1938, and five new ward buildings being erected between October 1937 and January 1941, providing the hospital with a 900 bed capacity on the eve of World War II. These additions to the hospital complex resulted in the expansion of the boiler house in 1935 (See Figs. 5, 6, and 10) and 1938 (see Figs. 6 and 11). The former placed an 18' wide and 76' long addition on the southwest side of the building. This addition expanded the carpenter and paint shops' spaces and added two new shops, one for electrical the other for plumbing, in the 18' wide addition adjoining the repair shop. The 22'-10" long plumbing shop was not enclosed and essentially was accommodated in a covered lanai.

The 1938 addition expanded the boiler room and disinfecting room so that the entire southwest wall of the building conformed to the width of the 1935 addition. A new 80 horse power boiler manufactured by the Erie City Iron Works was installed to augment

the two existing boilers. The new boiler was fired by an oil burning furnace produced by the Ray Oil Burner Company.

Following the December 7, 1941 attack on Pearl Harbor, the base hospital treated many of the wounded. Throughout the war the Naval Hospital at Pearl Harbor remained in operation, despite the opening of a new Naval Hospital in November 1942 at Aiea, where Camp Smith is currently located. As early as 1942, proposals were made to convert the Pearl Harbor hospital with its 900 beds into housing facilities; however, instead the hospital's capacity was nearly doubled through the construction of temporary wooden ward buildings. However, in 1944 as the need to house construction battalion personnel on base became more acute, the hospital was reduced to a 1,000 bed capacity, with several ward buildings converted to barracks. Following the war all naval hospital activities were consolidated at the Aiea Heights hospital.

With the conclusion of World War II Building 326 was placed under the responsibility of the Naval Shipyard and continued to function as a Boiler House & Shop [14<sup>th</sup> Naval District U.S. Naval Base, Pearl Harbor, T.H. *Naval Shipyard, Marine Res. Submarine Base & Naval Supply Depot Building List*, Accompanying 14 N.D. Drawing No. 1-N1-239 - Showing Conditions as of June 30, 1946. National Archives- Pacific Region (San Francisco)]. During the Korean War, the Naval Shipyard and its various facilities primarily functioned as they had during World War II, and by July of 1953, following the end of hostilities in Korea, the shipyard had "tallied nearly 3,000 ship repairs, overhauls, and other yard visits." [*Fit to Fight: Pearl Harbor Shipyard 1908-2008*, page 45]

A January 1957 diagram from the 14<sup>th</sup> Naval District, *Existing Proposed Land Use Plan*, identifies the location area of Building 326 as open and covered storage for "Munitions, Fuel, Water." The building was later used for electronics storage and in circa 1983 the facility was converted to office and laboratory use by the base police, who used the building for its drug and crime scene investigation functions. It retains that function to the present.

**Sources:**

The Pacific Division Naval Facilities Engineering Command at Pearl Harbor contains a number of original drawings relating to the boiler house and several of the building episodes associated with its development. The following provided information used in the preparation of this report.

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<b>Date</b>	<b>Title</b>	<b>Architect</b>	<b>Sheet Number</b>
May 31, 1919	Repair Shop, Boiler, and Disinfecting Room	Bureau of Docks and Yards	97523
July 22, 1922	Extension to Boiler House for Paint and Carpenter Shops	C.D. H.	L-56
July 26, 1935	Building No. 326, Repairs and Modifications	P. J. Searles	L-N4-112
June 24, 1937	Boiler House, New Extension	P.J. Searles	L-N4-123

In addition, pertinent documents relating to the development of the Naval Hospital at Pearl Harbor contained in the General Correspondence File, 1936-1944, at the National Archives and Records Administration in San Bruno, California were consulted.

**BIBLIOGRAPHY**

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Johnston, W. S., "Progress in Boiler House Design," *Combustion*, June 1921, pages 234+.

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Palumbo, Lorraine and Ann Yoklavich, "U.S. Naval Base, Pearl Harbor, Naval Housing Area, Hospital Point," HABS No. HI-356, April 2000.

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Ross, Nelson C., "Electrical Wiring and Equipment for Hospitals," *Architectural Forum*, December 1922, pages 297-300.

Stevens, Edward Fletcher, *The American Hospital in the Twentieth Century*, New York: Architectural Record Co., 1921.

U. S. Navy, Bureau of Yards and Docks, *Building the Navy's Bases in World War II, History of the Bureau of Yards and Docks and the Civil Engineer Corps, 1940-1946, vol. I and II*, Washington D. C.: U.S. Government Printing Office, 1947.

**Project Information:** The Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility (PHNSY&IMF) propose to demolish Facility No. 326. In accordance with 36 CFR Part 800, implementing regulations of Section 106, National Historic Preservation Act, Commander Navy Region (COMNAVREG) Hawaii has consulted with the Hawaii State Historic Preservation Officer (SHPO) and other parties, and has agreed to document the building in accordance with HABS standards prior to undertaking the proposed demolition. This photo documentation and recordation fulfills that agreement.

This report was prepared under a Historic Preservation Services contract (N62742-06-D-1869) awarded to Wil Chee-Planning, Inc., the prime contractor, and Fung Associates, Inc., the sub contractor, by the U.S. Navy, Pacific Division, Naval Facilities Engineering Command. This project is being supervised by Jeffrey Dodge, Historical Architect, NAVFAC Hawaii. The photographic documentation was undertaken by David Franzen, photographer. Don Hibbard, Geoffrey Mower, and Mayu Ohama, Architectural Historians at Fung Associates, Inc., prepared the written documentation.

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Date of Report: February, 2010

Fig.1 Current Shipyard Map  
(GDM Location Map, Department of the Navy NAVFAC Hawaii, July 1998)



Fig.2 Enlarged Area Map

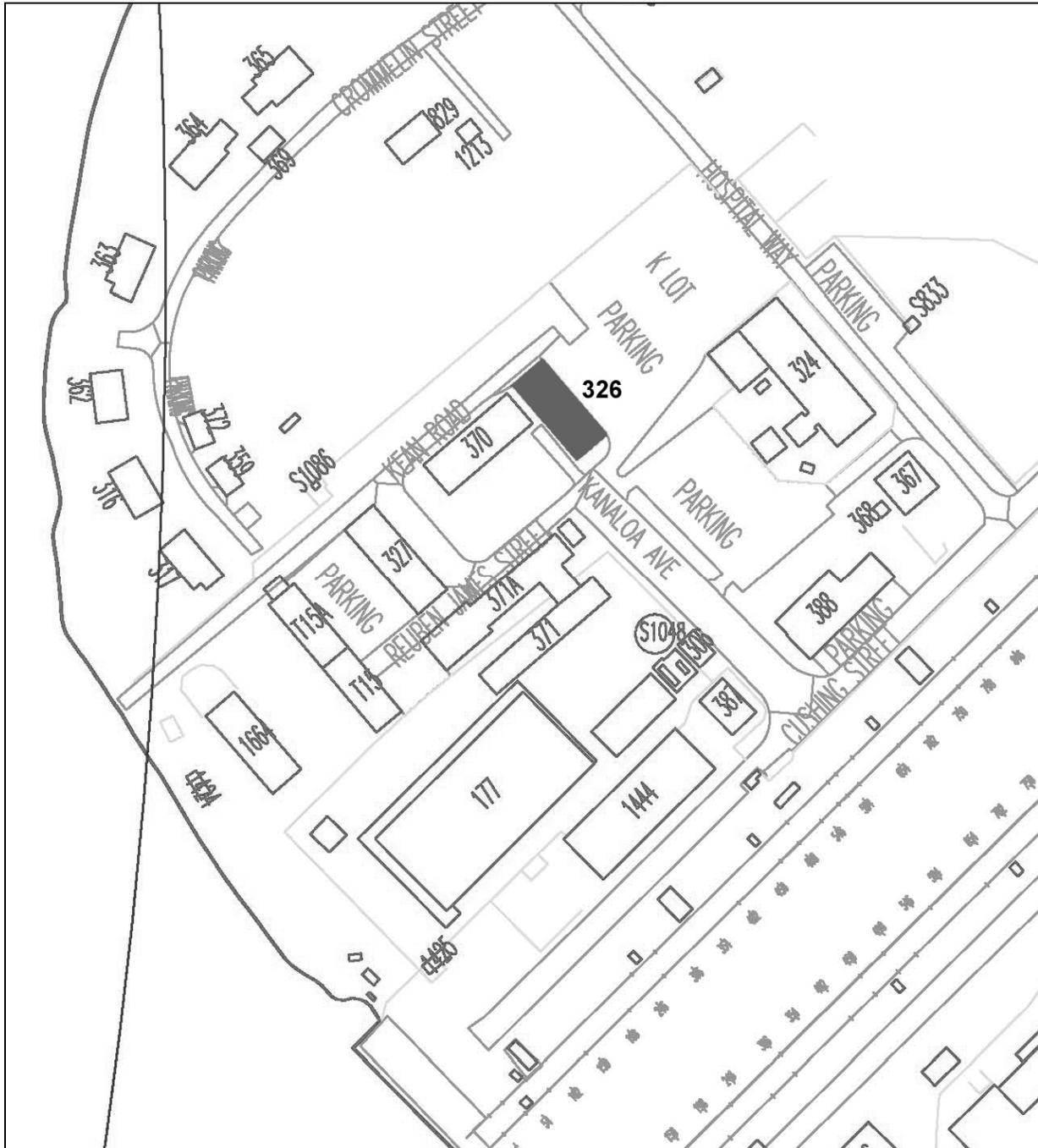
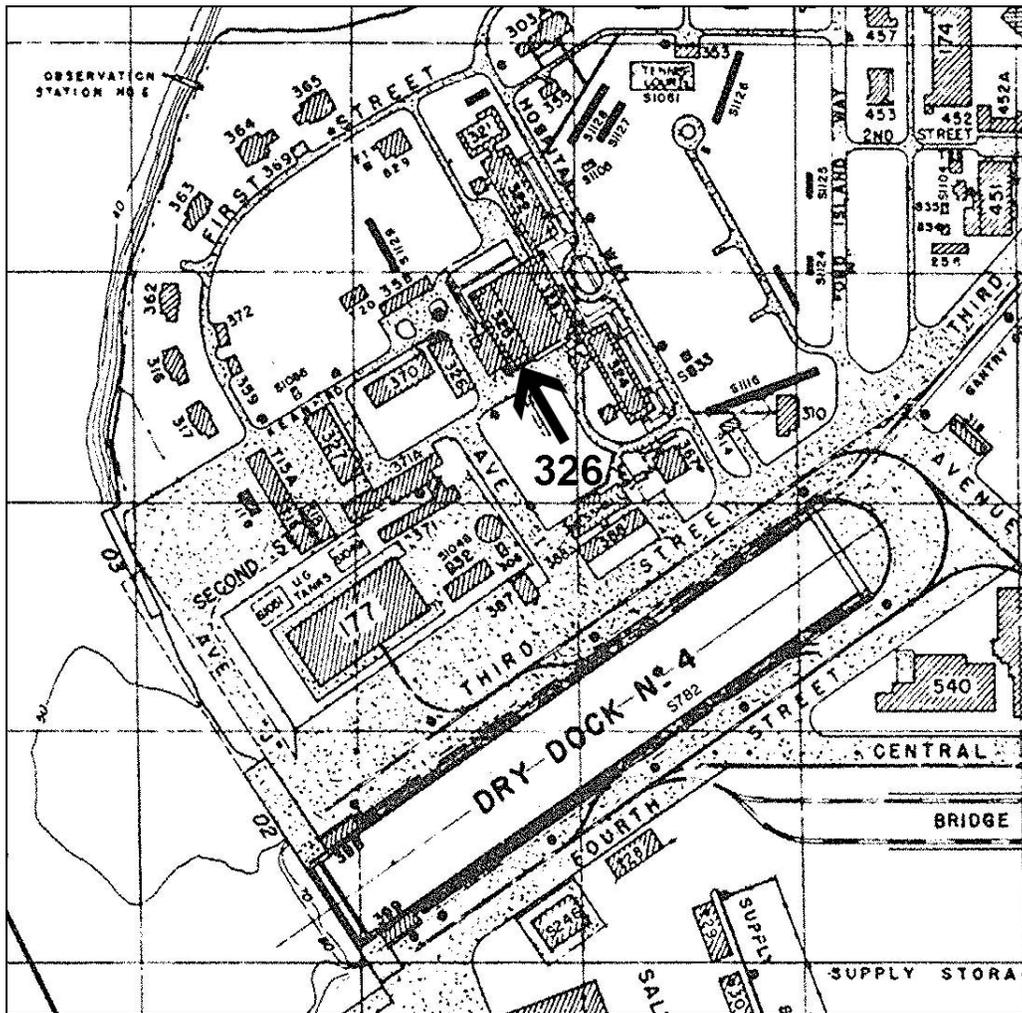


Fig.3 Partial 1951 Shipyard Area Map  
(Map of Pearl Harbor Naval Shipyard, Shipyard Annex Bishop Point, Shipyard Annex Waipio Peninsula, Pearl Harbor, Oahu T.H., 14h Naval District, Showing Condition of 30 June, 1951)

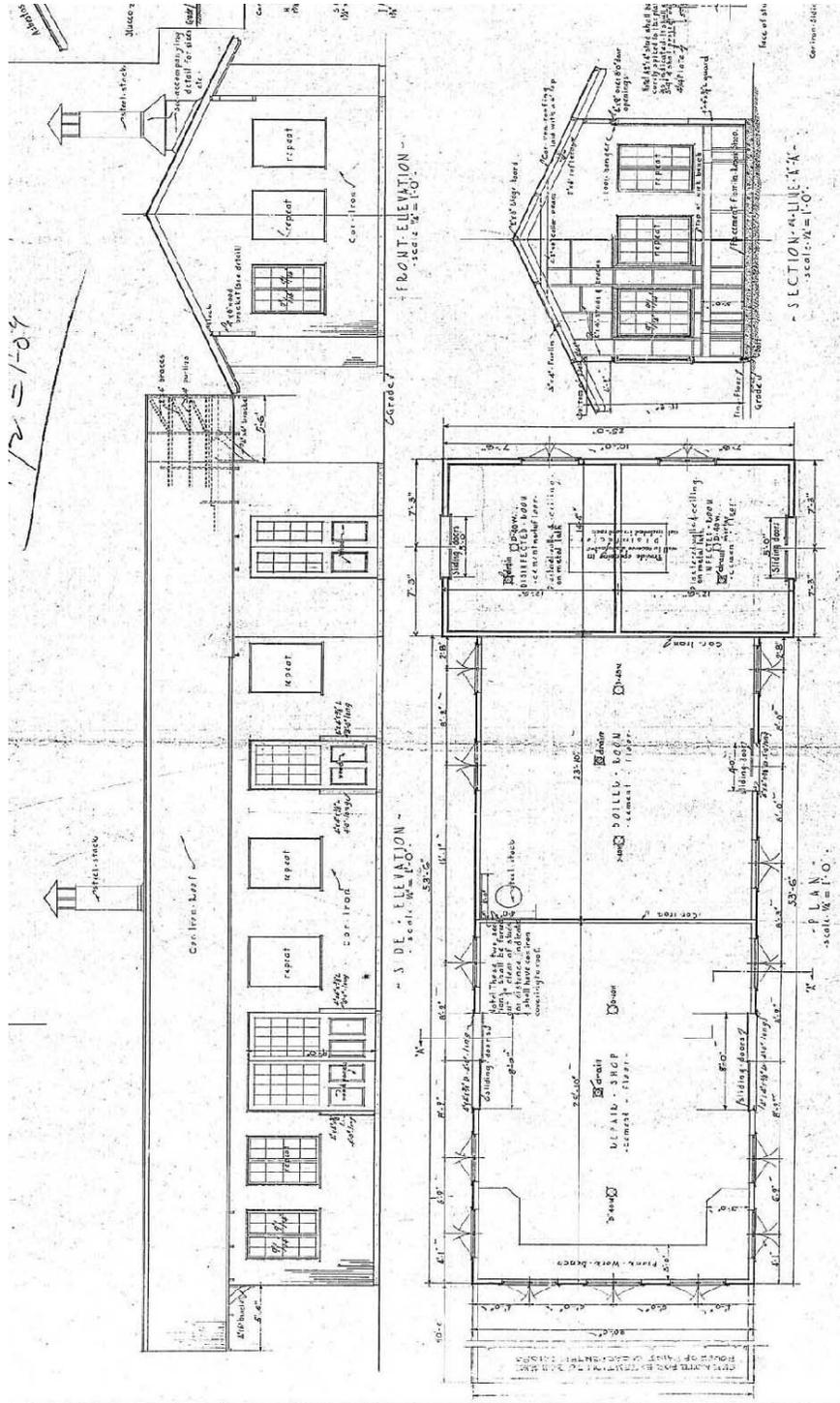




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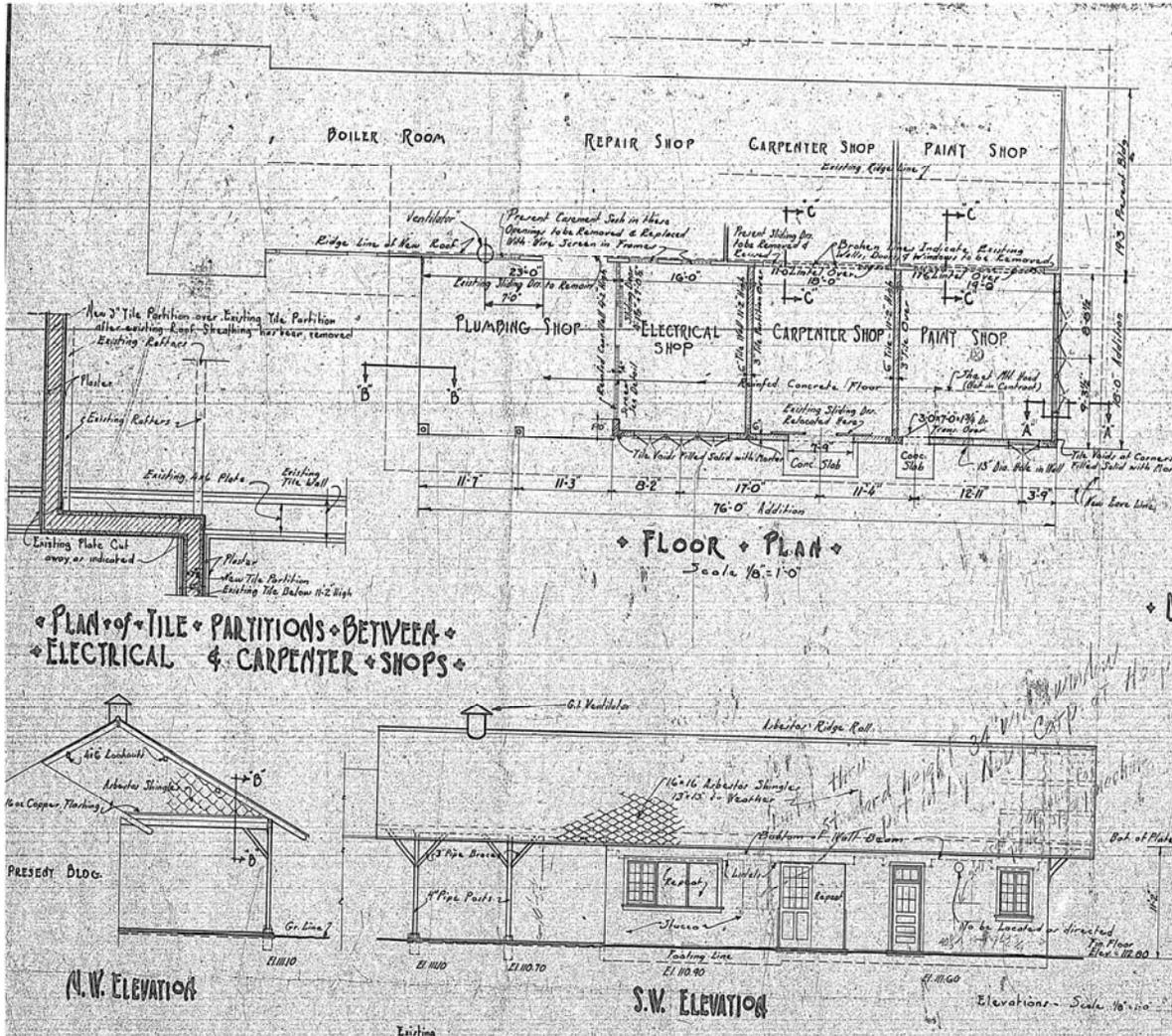
**Fig.5 Floor Plan and Exterior Elevation (Not to scale)**

(Department of the Navy District, U.S. Naval Hospital Region, Pearl Harbor Repair Shop Boiler and Disinfecting Rxxx, Plans-Elevations-Sections, Drawing No. 82009, Approved May 31, 1919)



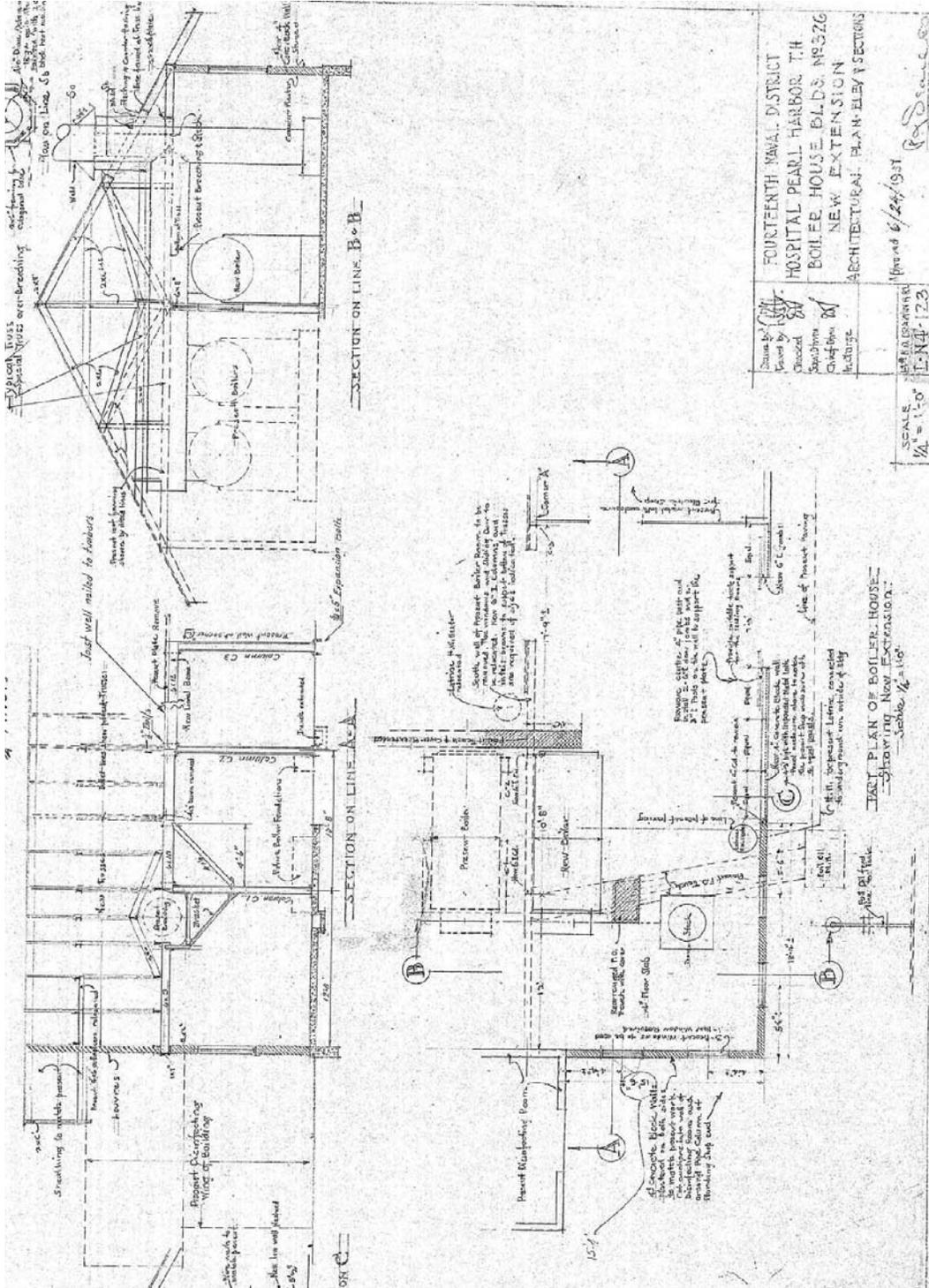
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Fig.6 Floor Plan and Exterior Elevation (Not to scale)  
 (14<sup>th</sup> Naval District Naval District, Hospital-Pearl Harbor- Oahu, T.H., Building No. 326 Repairs and Modifications  
 Record Drawing, Drawing No. 121132, Approved July 26, 1935)



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Fig.7 New Extension Floor Plan and Exterior Elevation (Not to scale)  
(14<sup>th</sup> Naval District Naval District, Hospital Pearl Harbor T.H., Boiler House BLDG 326 New Extension, Architectural Plan – Elev & Sections, Drawing No. L-N4-123, Approved June 24, 1937)



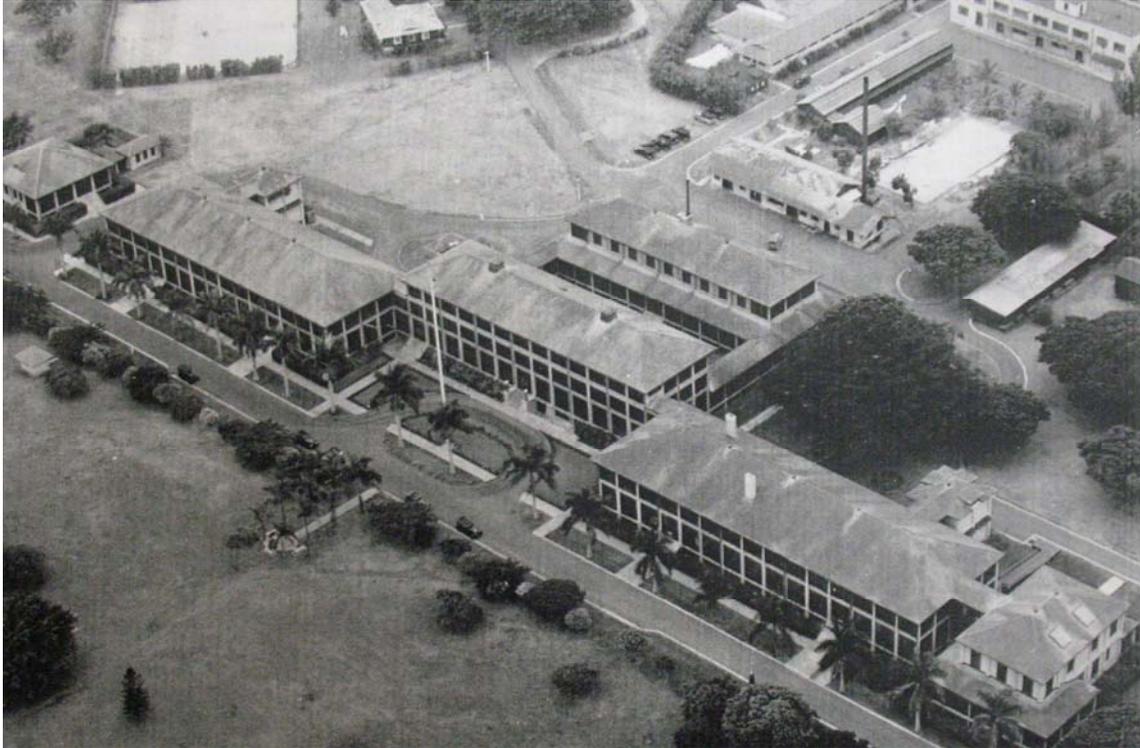
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Fig.8 Hospital Point, 1952 Aerial Photograph, extension of Boiler House (in center with tall stack) for Carpenter and Paint Shops in progress  
(National Archives, RG 71 CA/ Box 163, folder "Hospitals, Main Group.")



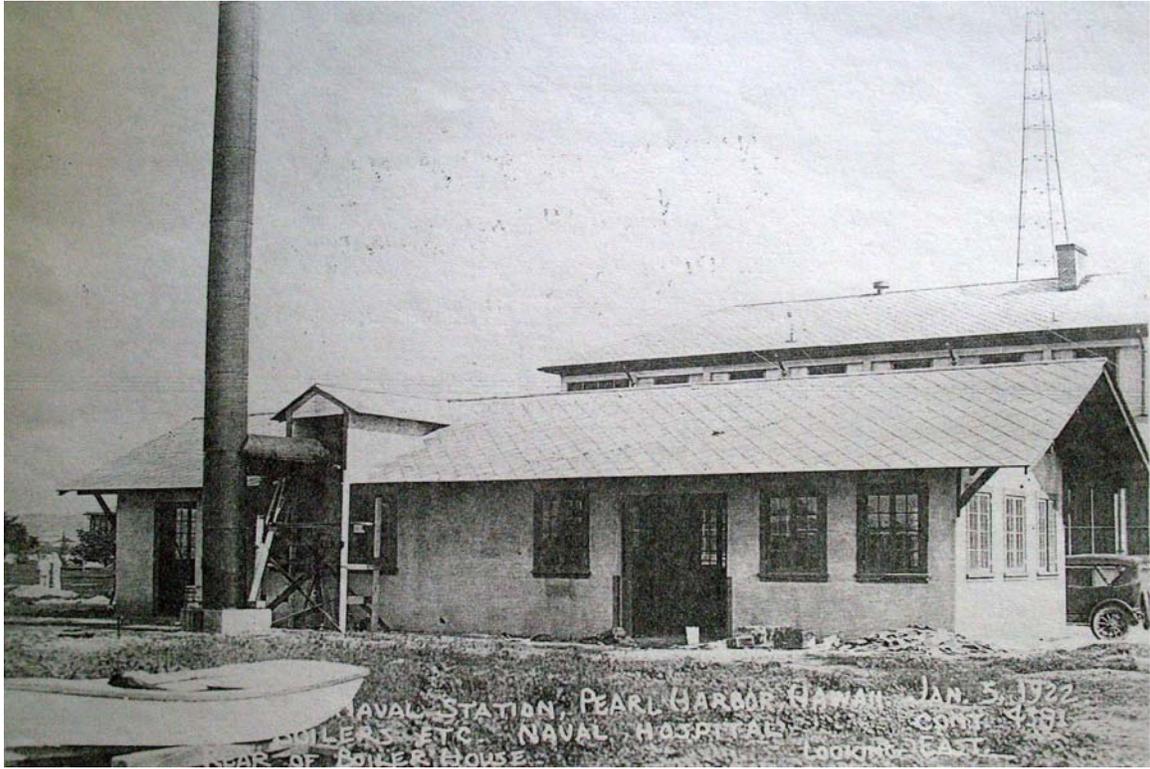
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Fig.9 Hospital Point, Aerial Photograph taken October 1937, showing Boiler House (in top right-center with tall stack) with 1935 addition to Southwest Side.  
(National Archives, RG 71 CA/ Box 163, folder "Hospitals, Main Group.")



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Fig.10 Original Boiler House, January 5, 1922.  
(National Archives, RG 71CA/Box 163, folder "Boiler Houses, Misc.")



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Fig.11 Boiler House, November 2, 1935 upon completion of addition to Southwest Side.  
(National Archives, RG 71CA/Box 163, folder "Boiler Houses, Misc.")



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Fig.12 Boiler House, July 6, 1938, Following Expansion of Boiler Room.  
(National Archives, RG 71CA/Box 163, folder "Boiler Houses, Misc.")

