U.S. NAVAL BASE, PEARL HARBOR, HABS No. HI-553
ENLISTED MEN'S BARRACKS
(U.S. Naval Base, Pearl Harbor, Public Works Center)
(Facility A3)
Marshall Road
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
Location: Marshall Road
Pearl Harbor Public Works Center
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. 610883. 2361428

Present Owner: United States Navy

Present Occupants: United States Navy

Present Use: Office and Storage

Significance: The former Enlisted Men's Barracks (Facility No. A3) is historically significant for its associations with the development of Pearl Harbor, and more specifically the Public Works Center at Moanalua. Constructed in 1944, it was part of the on-going expansion of the Public Works Center and the Naval Base, which was required to support the Navy's mission in the Pacific during World War II. It is also significant as one of the last remaining two-story temporary wood barracks buildings in the 14th Naval District.

Description: The former Enlisted Men's Barracks (Facility No. A3) is situated just below the crest of a small hill near the periphery of the Public Works Center. The two story, 36'-8" x 132' building features a rectangular floor plan which is capped by a lateral running, composition shingle, hip-gablet roof, with a metal ventilator running along its ridgeline. The roof's broad overhanging eaves are open and have exposed 2" x 6" rafter tails which are faced with metal gutters. Clad in asbestos cement shingle siding, the structure sits on a post and pier foundation which conforms to the slope of the lot.
and has an expanded metal mesh apron on its east side. The shingle siding was most likely applied to the original clapboard siding in the 1950s.

The building faces east with its north side facing towards, and set at an angle to, Marshall Road, a principal thoroughfare in the Public Works Center. It is set back from Marshall Road by a sloping lawn, and paved parking areas are located on the other three sides of the building. The building is set back approximately 20’ from the front paved parking area and modern gasoline station by a sloping lawn, which is held in place on its downhill side by an approximately 29” high retaining wall constructed of former concrete pilings faced with a skim coat of concrete. The rear parking lot abuts the building, and the lot on the south side is situated away from and approximately 7” above the base of the building, with a grassy slope and a set of concrete steps leading down from the parking lot to the building.

The building has served a variety of functions over the years and as a result its original interiors and fenestration have been modified. The unbalanced, asymmetric, east-facing façade has a shed roofed aquamedia, or skirt roof, running its length between the first and second stories, that wraps half way around both the north and south sides of the building. The aquamedia is clad in rolled asphalt roofing. The window and door openings are irregularly spaced with bands of windows characterizing the right side of the façade and a double door entry situated to the left of center. The two hinged doors are not historic and have narrow, vertical running, rectangular windows adjacent to and above their handles. A set of wood steps lead up to the entry from the parking lot below. The steps have 2” x 6” treads and risers and 4” x 4” posts with pyramidal caps. The railings have a 2” x 4” top rail and 2” x 2” balusters set 12” on center. Six steps lead up from the parking lot to a landing where the steps make a quarter turn to the right and ascend another eleven steps to the entrance.

To the left of the entry are four sets of windows on the first story. From left to right there are a pair of triple stacked awning windows, a set of three 1 x 1 double hung sash windows, a pair of triple stacked awning windows, and a set of three triple stacked awning windows. Above these windows, albeit not aligned with them, are three individual 1 x 1 double hung sash windows and a pair of jalousie windows, set in former double hung sash window frames. All the building’s double hung sash windows measure 32” x 54”, and have screens. There are no windows immediately above the
entry; however, immediately to its right on the second story is a pair of 1 x 1 double hung sash windows.

To the right of the entry, on the first story there originally was a bank of twenty-three 1 x 1 double hung sash windows. Most of these remain intact; however, the second, fifth, eighth, eleventh and fifteenth windows, from the left, have been replaced with plywood and outset window air conditioning units. The second story fenestration on the right side does not completely correlate with the lower story, as it features a bank of sixteen 1 x 1 double hung sash windows. The fourth, sixth, seventh and twelfth windows have been supplanted by either plywood, or outset, window air conditioning units, or both.

The east façade was further modified by the construction of a boiler room in 1952 in conjunction with the conversion of the first floor of the building into a cafeteria. The boiler room stood to the right of the present entry. As a result of this addition, the building’s eave, as well as the aquamedia, were removed above the first story’s sixth and seventh windows in the bank of twenty-three windows. The boiler room’s concrete floor, measuring approximately 10’ x 12’, remains intact. The floor and its concrete paved 8’ x 10’ approach are on level with the front parking lot and the approach’s curved walls disrupt the flow of the front retaining wall. The boiler room’s 6” thick and 5” high reinforced concrete walls also remain in place; however, the boiler room’s equipment, roof, stack, and double doors are no longer extant.

The west side of the building also presents an unbalanced, asymmetrical composition, and again features an aquamedia, clad in rolled asphalt roofing, between the first and second stories. The aquamedia’s run across this elevation is interrupted at the right end where a single story, 10’ x 29’-8”, outset addition, dating from 1952, dominates the southwest corner of the building. Originally constructed to accommodate the refrigeration units for the cafeteria, this shed roofed addition has been partially enclosed with T-111, while its southern corner remains open. The shed roof has a shallow pitch and is clad in rolled asphalt roofing. At its eave line the shed roof is carried by a 6” x 12” beam, which, in turn, is supported by four 6” x 6” posts. The posts are reinforced by triangular wood blocks which serve as braces where the posts meet the beam. In the front wall of the enclosed portion of the addition there is a large rectangular ventilator which has five horizontal wood slats. On the second story above the addition, there are four pairs of 1 x 1 double hung sash windows. Three of the pairs are
spaced equidistant, while the northern most pair is separated from the others.

Immediately adjoining the refrigeration units’ addition to the left is an approximately 24’ long segment of the aquamedia’s shed roof, which has been extended and the space below enclosed with T-111. This was added sometime between 1952 and 1979 to serve as a foyer to the cafeteria. Its T-111 front face as well as a set of five jalousie windows and a door at its right corner, are the result of a remodeling sometime after 1979 as is a cement ramp with a pipe railing that accesses the door. There is also a door in the side wall of this enclosed space, which has a concrete step and landing leading to it. At the end of the landing a 4” x 4” post supports a 2” x 4” railing. Above this extension on the second story is a set of three 1 x 1 double hung sash windows.

To the left of the enclosed area is a bank of eight window frames. Most contain 1 x 1 double hung sash windows; however, the second from the left is boarded over and contains a window air conditioning unit, and the seventh from the left contains a single pane, fixed glass window. Adjoining this bank of windows on the left is a single modern, solid core door, with a bank of four double hung sash windows adjoining it on the left. The window frame nearest the door is boarded over. Adjoining this bank of four windows is a double doorway, which contains modern doors with glazed upper panels. A set of six double hung sash windows runs this entry to near the corner of the building. On the second story, starting above the the bank of six windows is a bank of twelve window frames, most of which contain 1 x 1 double hung sash windows. Again some are boarded over, these are the sixth, ninth, tenth and eleventh frames from the left. Beyond this bank of twelve, are two pairs of 1 x 1 double hung sash windows, which are above the bank of eight windows.

The windowless south side has centered doorways on both the first and second story. A straight run of nineteen wood steps, which follow the method of construction and materials of the front steps, leads up to the second floor entry. The first story entrance has modern double doors, with a concrete ramp leading up to its concrete landing from the west. The ramp and landing originally functioned as a loading dock for the kitchen when the building was a cafeteria. The second story entry has a single door in a double doorway frame. To adjust for the size, plywood sheets flank the door. The door has a glazed upper panel. Between the first and second stories, to the left of the doors is a rectangular ventilator with four horizontal wooden slats.
The north side of the building also has centered, single door entries on each story. The first story door is a modern solid core door, and the second story entry features a modern door with a glazed upper panel. The lower entry has three wood steps leading up to its landing, which has the second story entry’s landing directly above it, supported by two 6” x 6” posts, creating a portico effect. Directly to the right of the first story entry’s steps, and sharing its newel post, is a dogleg set of wood steps leading to the second story. Eleven steps lead up to a landing and then a second set of eleven steps ascend to the second story entry’s landing. The steps for both entries conform to the building’s other steps in their method of construction and use of materials, except 6” x 6” posts are utilized rather than 4” x 4”. On the first story, to the left of the entry is a pair of 1 x 1 double hung sash windows and at the corner a plywood, lean-to shed has been appended to the building. On the second story pairs of 1 x 1 double hung sash windows flank the entry.

The interior of the former barracks building has undergone extensive modifications over the years. In the middle of the first floor is a room currently devoted to storage, which extends the width of the building and was once part of the cafeteria’s seating area. It remains open with two rows of structural columns running laterally across the room. The columns are 7” square, with rounded corners and have been encased on two sides by 2’ x 7” boards. These support exposed beams and have triangular blocks, similar to those on the rear addition, serving as brackets. These columns appear to be located where the original columns once stood; however, the 1951 plans for the remodeling of the building call for the retention of original 6”, rather than 7”, columns. In the kitchen area, an office constructed as part of the 1952 remodeling remains intact with its quarry tile floors with a 5” high, tile baseboard and thin plywood walls with v-joints. The second floor has been converted to modern office use with cubicles and open floor plan.

The building retains much of its original Douglas fir structural members. The first floor’s 2” x 8” joists remain in place, supported by 6” x 12” beams, which in turn are supported by cross braced 6” x 6” posts. The posts sit on 10” x 10” or 11” x 12” concrete footings. When the building was remodeled into a cafeteria in 1952 additional beams, posts and footings were added to reinforce the load capacity of the building. The second floor’s framing remains intact, and the space above the first floor’s dropped ceiling reveals the building’s original 7” shiplap siding to remain intact. The siding is attached to 2” x 6” studs set 36” on center. The studs support a wall plate comprised of two 2” x 6” boards laid flat. Above the studs 6” x 6” posts support a 6” x 12” beam. In turn, this beam supports
the 2” x 8” floor joists, which are placed 18” on center. Every other joist is tied into the posts with 2” x 6” diagonal braces.

**Historical Context:**

The Enlisted Men’s Barracks (Facility No. A3) was constructed in 1944, to house Navy Construction Battalion personnel.

Prior to and immediately following the United States’ entry into World War II, private construction companies were contracted to undertake Navy construction projects in Hawaii. However, as a result of a tightening labor market, by the spring of 1943 it was necessary to send Seabees to Hawaii to expedite new construction. Initially these construction battalions undertook new projects, but gradually over the course of the war, they supplanted the private contractors. To accommodate the Seabees a 120-acre camp was established at Moanalua to house 25,000 Seabees, with the camp divided into twenty areas, each sufficiently large to meet the needs of a battalion. Each area included six two-story frame buildings, a 1200-man mess hall, a 1200-man galley, eight SSAR 20 Quonset huts for offices and dispensary, and one SSAR 40 Quonset hut used as a ship’s service store (*Building the Navy’s Bases in World War II*, pages 149-150). Facility No. 3A was constructed during a later phase of this build out and was one of the six two-story temporary wood buildings provided to each construction battalion complex.

The building is a composite of standard Army and Navy barracks’ designs and materials. It incorporates a number of elements typically found in two-story, World War II temporary wood barracks buildings, as well as introduces an original roof structure. Its long rectangular shape and balloon frame construction were typically used by both the Army and Navy in their temporary wooden barracks buildings throughout World War II. The building’s clapboard siding, although commonly used in the early 1940s, began to be phased out in 1943 with the introduction of the Army’s Series 800 barracks buildings and the Navy’s B-2 barracks, which used cement asbestos shingle siding or gypsum board, as the United States’ lumber supply dwindled. As such, the late use of clapboard siding on the building is noteworthy, as is the presence of its aquamedia. The aquamedia was introduced in the U.S. Army’s Series 700 Buildings, which were built between 1937 and 1940, but was dropped in the Army’s Series 800 Buildings (1941-1942) as it did not sufficiently shield against blowing rain and was susceptible to leaking where the stud rafters were framed into the wall. This element was not used in any of the Navy’s standard barracks plans, and apparently was incorporated in Building A3 as
a device to shield the interior from the sun, as well as the rain. The banks of 1 x 1 double hung sash windows, also appears to have been introduced as a warm climate consideration for enhanced ventilation, as throughout the war Army barracks utilized individual, multi-pane double hung sash windows spaced equidistant along the facade. However, the Navy’s B-2 barracks with their modern, flat-roofed design did include this sleek modern-design feature.

Drawing from elements found in both the Army and Navy’s standardized temporary wooden building plans, the designer of Facility No. 3A developed a building which addressed Hawaii’s climatic needs, while at the same time employed standardized forms and materials that were available on island. In addition, the designer incorporated a hip-gablet roof in the building, further differentiating it from its mainland counterparts with either their higher pitched gable roofs, as found in the Army 700 and 800 series buildings, or the flat roofs of the Navy’s B-2 barracks buildings. As such, Facility No. A3 stands as a very distinctive temporary wood building and is one of the last of the World War II era temporary wood buildings to be found in the Fourteenth Naval District.

Following the war, and the substantial downsizing of the Navy’s personnel, Facility A3, along with Facility Nos. A4 through A8, was utilized as a storehouse and shop within the Department of Public Works’ Maintenance Area in Moanalua. Within this area were a welding shop, plumbing and sheet metal shop and paint shop.

In 1952, the first floor of Building A3 was converted into a cafeteria, while the second floor was used as a safety sections office. (2002 ICRMP Database, Department of Navy. NVFAC Hawaii). The north side of the first floor contained the cafeteria space, while the south side held the galley and scullery, as well as an office, dry and cold storage rooms, and men’s and women’s restrooms. The conversion included laying a 3” slab of concrete over the original plywood and T&G wood flooring, which in turn, required upgrading the original concrete pier and footing foundation to support 3, 000 lbs. per square foot. Other alterations included the replacement of damaged areas of interior canec walls and ceiling in the cafeteria area, windows that matched the existing double-hung windows, and wood stairs accessing the cafeteria, as well as the addition of a loading platform at the south end and three reefer spaces at the south end of the west elevation. A boiler room was added at the east elevation that featured a gable roof with overhanging eaves, concrete walls and corrugated, chemical asbestos roofing material and siding.
The conversion of the former barracks into a cafeteria was designed by Albert Sturgis, an architect employed by the Public Works Center. Sturgis was born in 1908, and graduated from Georgia Tech with a degree in architecture. He came to Hawaii in 1939 as a civilian employee working for the 14th Naval District at Pearl Harbor. He worked as an architect for the Navy for twenty two years, retiring in 1961. Following his retirement he worked for Island Lumber Company until 1964, and then went to work for Quality Pacific, which was owned and operated by Ted Valdez. While with these companies he designed private single family homes, condominium apartments, and model houses for tract developments. In addition to his architectural skills he was well versed in eighteenth century American decorative arts, and served on Mayor Neal Blaisdell’s Task Force for Historic Preservation.

In 1956, the second floor of Building A3 was renovated into classrooms, small office spaces, a small library, and restrooms. The renovation process included the replacement of the original roof structure, except for the rafters, by Belgian roof trusses, which allowed for the removal of the second floor columns. At this time a fire suppressant sprinkler system was installed at the first, second and attic floor ceilings, the second floor’s acoustical tile ceiling and asphalt tile flooring was constructed, new stairs and a landing at the north elevation were added, and the interior egg-crate, hanging light fixtures were set in place. The classrooms included three small spaces at the east end, two larger central spaces, and a large space at the west end across from three office areas and the library.

By 1954, the public works activities had expanded beyond its initial responsibilities to support Pearl Harbor's naval yard and sub base, and the consolidation of public works personnel into a single entity created the Navy Public Works Center, Pearl Harbor (“PWC Celebrates Golden Age”), and in July of 1955, the Public Work Center was identified as “one of the six major activities operating under the 14th Naval District.” (Honolulu Advertiser, May 19, 1955). Throughout the remainder of the Cold War, as well as the Korean and Vietnam Wars, the PWC continued to support the Navy’s mission of keeping operational forces at Pearl Harbor ready for service, while showing their expertise in the completion of tasks that included building demolition, heavy equipment maintenance and engineering and contracting services. The PWC underwent additional reorganizations and consolidations and eventually extended their area of responsibility to include all Oahu-based commands (“PWC Celebrates Golden Age,”).
In 1979, the first floor cafeteria was renovated once again, and various PWC detail plans indicate the updating of ventilation, plumbing and electrical systems, the addition of quarry tile flooring and the enclosure of screened openings and the reconfiguration of door openings on the west elevation. The plans also indicate that wall air conditioning units were added prior to 1978 and the first floor interior floor plan had remained relatively unaltered.

In 2005, the Public Works Center, Pearl Harbor was officially disestablished and grouped within the newly created Naval Facilities Engineering Command (NAVFAC) Hawaii (“PWC Pearl Disestablishes”).

The presence of asbestos cement shingles on the building, although not part of the original design, is also of historical interest. In 1900, an Austrian asbestos insulation manufacturer, Ludwig Hatschek, patented a new shingle, formed by combining short asbestos fiber and Portland cement under heat and pressure. His patent expanded on pressed concrete roofing tiles in use in Germany since the 1840s. Hatschek’s new shingle was marketed as an economical and lightweight substitute for expensive slate shingle and clay roofing. In 1907, Hatschek received a U.S. patent, and a number of American companies were licensed under that patent to manufacture cement asbestos shingles. The industry received a boost during World War II, when the Army specified cement asbestos shingles as siding in its Series 800 Buildings. In addition, the shingles were exempted from the wartime limit of $200 allowable for all private home repairs. Congress made this 1943 exemption so that the increased use of short fibers in shingles would help fund the manufacture of long fiber asbestos, which the military used to insulate ship’s boilers, pipes and turbines.

Following World War II cement asbestos shingles continued to be used in construction. However, because of health and safety concerns, the EPA issued warnings regarding the use of asbestos as early as 1973. The resulting public fear effectively ended this product’s production, and in 1989 the EPA placed a ban on the use of asbestos in all new products. There are no companies in the United States that still produce shingles containing asbestos.

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.
<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Architect/Desgnr</th>
<th>Drawing Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 7, 1951</td>
<td>Alterations for Cafeteria, Architectural</td>
<td>Sturgis</td>
<td>OA-N4-5594</td>
</tr>
<tr>
<td>Sept. 24, 1951</td>
<td>Alterations for Cafeteria, First Floor Framing</td>
<td></td>
<td>OA-N4-5595</td>
</tr>
<tr>
<td>Sept. 24, 1951</td>
<td>Alterations for Cafeteria, Boiler Room Details</td>
<td></td>
<td>OA-N4-5596</td>
</tr>
<tr>
<td>Sept. 13, 1956</td>
<td>Proposed Renovation of Bldg A3</td>
<td>Sparks</td>
<td>751017</td>
</tr>
<tr>
<td>Jan 26, 1979</td>
<td>Renovate Cafeteria, Floor Plan, Elevations, Sections</td>
<td>Bacani</td>
<td>7020402</td>
</tr>
</tbody>
</table>

**BIBLIOGRAPHY**


Honolulu Advertiser, “New Naval Station Will Combine Four Activities,” May 19, 1955.

ICRMP Database, Department of Navy. NVFAC Hawaii, 2002.


Internet Citations


Project Information: The Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility (PHNSY&IMF) propose to demolish Facility Nos. 487 and 488. 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.

Prepared by: Don Hibbard and Mayu Ohama, Architectural Historians
Fung Associates, Inc.
1833 Kalakaua Avenue, Suite 1008
Honolulu, HI 96815

Date of Report: April, 2010
Fig. 1: Current Public Works Map
(GDM Location Map, Department of the Navy NAVFAC Hawaii, July 1998)
Fig. 2: Enlarged Area Map
Fig. 3: Partial 1957 Area Map
(Pearl Harbor Region Master Shore Station Development Plan, CINPAC COMPLEX, 1957)
Fig. 4: Alterations for Cafeteria, floor plan, September 7, 1951

(District Public Works Office, 14th Naval District, Pearl Harbor Oahu, T.H., Moanalua, Oahu, T.H., Headquarters Shops Division Buildings A-3, Alteration for Cafeteria Architectural, Approved on September 7, 1951)
Fig. 5: Proposed Renovation of Bldg A3, floor plan, September 13, 1956
(Department of Navy Bureau of Yards and Docks, District Public Works Office, 14th Naval District, Pearl Harbor T.H.,
Public Works Center Pearl Harbor T.H., Proposed Renovation of BLDG No. A3, Drawing No. 751017, Approved
September 15, 1956)
Fig. 6: Proposed Renovation of Bldg A3, Truss Detail, September 13, 1956

(Department of Navy Bureau of Yards and Docks, District Public Works Office, 14th Naval District, Pearl Harbor T.H., Public Works Center Pearl Harbor T.H., Proposed Renovation of BLDG No. A3, Drawing No. 751017, Approved September 15, 1956)