

U.S. NAVAL BASE, PEARL HARBOR, LUMBER STOREHOUSE  
(U.S. Naval Base, Pearl Harbor, Naval Shipyard, Facility No. 15)  
Seventh Street near Avenue E  
Pearl Harbor  
Honolulu County  
Hawaii

HABS HI-464

HI-464

HABS

HI-464

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY  
PACIFIC GREAT BASIN SUPPORT OFFICE

National Park Service  
U.S. Department of the Interior  
1111 Jackson Street  
Oakland, CA 94607

## HISTORIC AMERICAN BUILDINGS SURVEY

### U.S. NAVAL BASE, PEARL HARBOR, LUMBER STOREHOUSE (U.S. Naval Base, Pearl Harbor, Naval Shipyard) (Facility No. 15)

HABS  
HI-464  
(page 1)  
HABS No. HI-464

**Location:**

Seventh Street near Avenue E  
Pearl Harbor Naval Base  
City and County of Honolulu, Hawaii

This building falls within the UTM coordinates of the Pearl Harbor Naval Shipyard as defined in the location section of the overview report, HABS No. HI-483. This building's UTM coordinates are: 04.607960.2361570.

**Significance:**

Facility 15 is located within the Pearl Harbor National Historic Landmark. It is significant as being among the major industrial buildings built in the initial phase of construction at the Shipyard that began in 1912. It is part of a still-extant group of buildings from that period that includes Facility 6, 7, 12 and 14. Facility 15 is a prominent structure characteristic of a distinctive type and period of industrial building construction. It also is functionally important to the Shipyard's operations. The building is largely intact despite a major later addition and is a significant part of the architectural continuum at the Shipyard.

**Description:**

Facility 15 was constructed as a steel-framed, one-story, gable-roof structure with a mezzanine running the full length of the south side of the building. A shed-roof addition was constructed along the full length of the north side. The original building is organized on a structural grid of ten 20'-0" bays long, by one 71'-6" bay wide, with an overall size of about 202' x 74' (18,500 square feet). The mezzanine is one 17'-7" bay wide. The addition to the building expanded it by one, 30'-6" bay, increasing the total width of the building to about 104' and the total area to 24,500 square feet. The approximate overall height of the building is 36'. Facility 15 faces and is oriented perpendicular to Seventh Street on its west end.

The foundation of Facility 15 is an array of stepped concrete spread footings which support the building's structural steel columns. At Seventh Street, there is a section of low concrete with an integrated loading dock near the center of the building. To the right of this loading dock is a below-grade slab that remains from the former rail access from Seventh Street to a dry kiln just inside the west wall of Facility 15. The columns occur at each intersection of the structural grid. There are another five intermediate columns arrayed across each end of the original building and one intermediate column at each end of the addition. The columns supporting the inside edge of the mezzanine at the end walls are structurally independent of those supporting the end walls themselves.

**U.S. NAVAL BASE, PEARL HARBOR, LUMBER STOREHOUSE**  
**(U.S. Naval Base, Pearl Harbor, Naval Shipyard)**  
**(Facility No. 15)**  
**HABS No. HI-464 (Page 2)**

In the original structure, the main floor surface was asphaltic concrete, which largely remains. The mezzanine deck is the original structural concrete. The floor surface of the addition is a concrete slab with only slight thickening at its edges rather than the typical continuous footing. The end walls were originally constructed with metal lath and cement plaster inside and out supported only off the steel framing, i.e., as a curtain wall. The weather surface of end walls of the building has been replaced with corrugated metal panels but the walls of the addition remain as constructed with cement plaster.

The building has walls only on its ends. A system of bracing extends from about 15' above grade to the underside of the roof on the building's long sides and is similar in appearance to a Warren truss. This provides lateral stability for the structure on its longitudinal axis and support for a system of tall, suspended wood gates, the only enclosure of the building's long sides. Knee braces between the columns and lower chord of roof trusses provides lateral stability on the transverse axis.

The roof is supported by clear-span, lightweight steel trusses. These are fabricated from angle sections in a variant of the Fink configuration for the main part of the roof and an asymmetrical, inverted variant of a pitched Howe configuration for the roof over the later shed roof addition. The roofing of the original gable roof outboard of the north column line was removed when the addition was constructed. The pitch of the gable roof is 6 and 12 and the pitch of the shed roof is 3-½ and 12. The trusses are joined by overlaid metal purlins. The eaves for both the original structure and the addition extend significantly out from their respective outer column lines and are supported by horizontal braces at each column. Metal-to-metal connections are riveted. The roofing surface of the original building remains corrugated asbestos, and of the addition, corrugated metal.

The building presents a utilitarian appearance even more simple than most of the other early buildings at Pearl Harbor. The only windows when the original building was constructed were metal fixed-sash units high in the gables and below the mezzanine on each end of the building. At the gable, the windows were pairs of ganged units to either side of a narrow vertical band of wall area adjacent to the central column. Under the mezzanine, the windows were single units of similar type and located to either side of the penultimate end wall column. The high gable windows were replaced with translucent corrugated siding and the east end lower windows removed, apparently when the metal corrugated siding replaced the original plaster weather surface on the end walls of the original building. The lower windows on the west end were removed to provide rail access from Seventh Street to a dry kiln planned barely after the building first was constructed.

The doors in the end walls and along the full length of the long sides are sliding gates fabricated of spaced, vertically-oriented boards

**U.S. NAVAL BASE, PEARL HARBOR, LUMBER STOREHOUSE**  
**(U.S. Naval Base, Pearl Harbor, Naval Shipyard)**  
**(Facility No. 15)**  
**HABS No. HI-464 (Page 3)**

(generically known as paling) extending to a height of about 10' on a taller, diagonally-braced wood frame. The gates on the sides hang from tracks on either side of the outer column lines at a point well up from the bottom of the longitudinal trusses. These gates alternate between the inside and outside tracks. The gates at the ends of the building hang from similar tracks inside the column line. The opening at each end is located just to the south of the central end-wall column, and the gate slides past the column to the north.

Facility 15 appears to have been constructed in accord with the limited extant original design drawings, and the 1940 addition, in accord with its detailed drawings.

**Historical Context:**

Construction on Facility 15 as the Shipyard lumber storehouse was nearly complete by July 1915 but additional work on it continued into early 1916 before occupancy. It is likely that the building was funded under the Appropriation Act of August 22, 1912, which included a line item of \$25,000 for a "Metal and lumber storehouse." The building has continued generally in its original use since completion, with materials and lumber stored there. The original drawings produced by the Bureau of Yards and Docks, Department of the Navy date from January 5, 1914. (The drawings for the nearby Facility 14 share this date, and the structure closely resembles Facility 15 in its roof form.) The decision to run tracks through Facility 15 tying into the Shipyard's rail network may not have been made until the structure was near completion. This is based on the June 1915 drawings for installation of tracks 2' lower than the finish floor elevation. Drawings for the dry kiln are dated August 1915 and February 1916, the latter also being when drawings for the building's minimal lighting system were completed. A "fire protection system" consisting of a water pipe and three hose racks mounted on mezzanine columns apparently was not added until four years later.

The only major change to Facility 15 was the addition of the bay along the building's north side. This change was in contemplation of the expected war with Japan in the Pacific at a time when so much other design and construction was going on at Pearl Harbor under an emergency contract. Drawings for this extension are dated September 27, 1940 and the work was substantially completed by April 1941. The depression for the tracks through the building was filled and capped with a concrete slab early in 1942, based on drawings for that work. The only other known alteration to the building was the replacement of the plaster end-walls and window units of the original portion of the building with corrugated metal siding and translucent corrugated panels. It is unknown when this change was implemented.

For an overview of the Naval Shipyard see HABS No. HI-483.

**U.S. NAVAL BASE, PEARL HARBOR, LUMBER STOREHOUSE**  
**(U.S. Naval Base, Pearl Harbor, Naval Shipyard)**  
**(Facility No. 15)**  
**HABS No. HI-464 (Page 4)**

**Sources:**

Original and subsequent drawings reviewed for this building are on digitally scanned images or microfilm at Pacific Division, Naval Facilities Engineering Command (NAVFAC EFD Pacific) Plan Files. Historic photos of these buildings are located at the National Archives II, Still Photo Section, RG 71 CA.

**Contractors Pacific Naval Air Bases**

n.d. *Technical Report and Project History, Contracts NOy-3550 and NOy 4173:* On microfilm at Pacific Division Naval Facilities Engineering Command Library.

**Pearl Harbor Naval Shipyard**

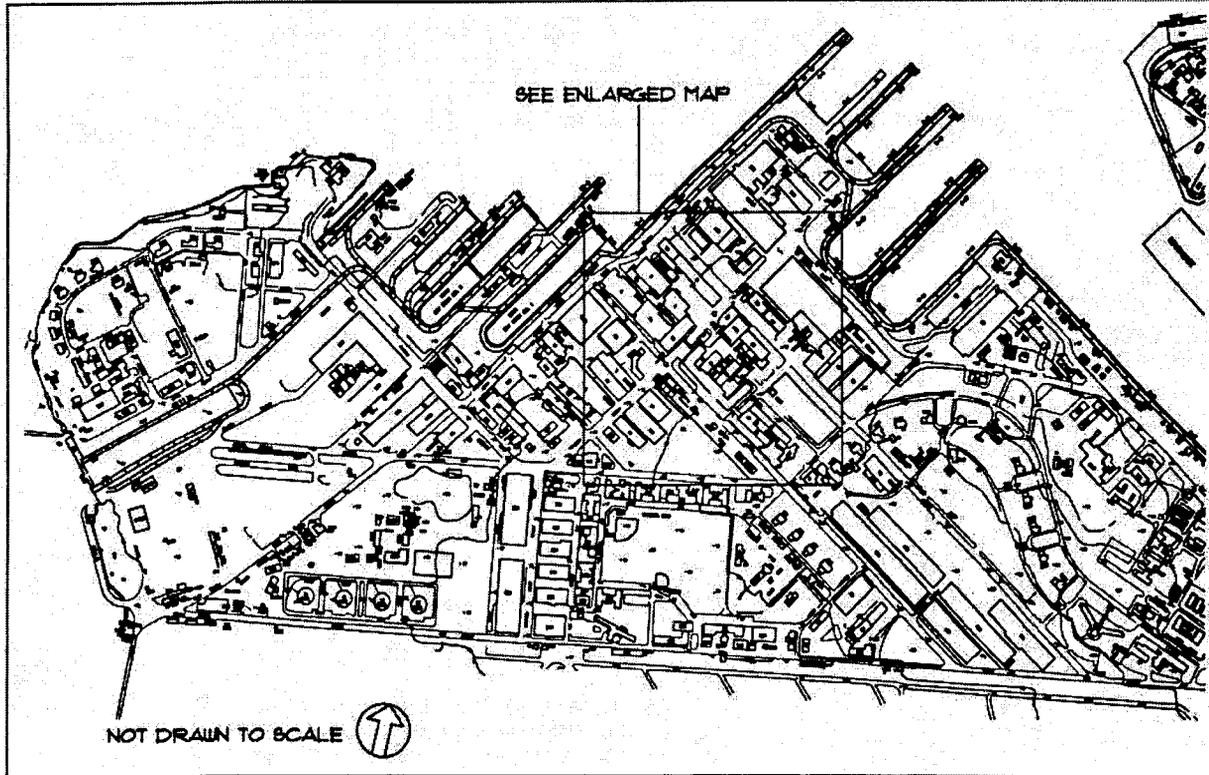
n.d. *75<sup>th</sup> Diamond Jubilee Anniversary:* A brief history of Pearl Harbor in its relation to the U.S. Navy. Brochure provided by Jeffrey Dodge, Pacific Division Naval Facilities Engineering Command.

**Project Information:**

Photo documentation and recordation of this facility by the Navy has been done in anticipation of future alterations or potential demolition of the structure. Photo documentation of historic facilities by the Navy assists in expediting planned undertakings by having the documentation prepared prior to taking actions. Also, photo documentation assists the Navy in gaining more information about its historic facilities to assist in making proactive management decisions. This project is being supervised by Jeffrey Dodge A.I.A., Historic Preservation Specialist at the Pacific Division, Naval Facilities Engineering Command (NAVFAC EFD Pacific). The photographic documentation was undertaken by David Franzen, photographer. Douglas P. Luna, AIA/Architect, consultant to Mason Architects, Inc. prepared the written documentation. The field work and research was conducted for this report between July 2001 and December 2001.

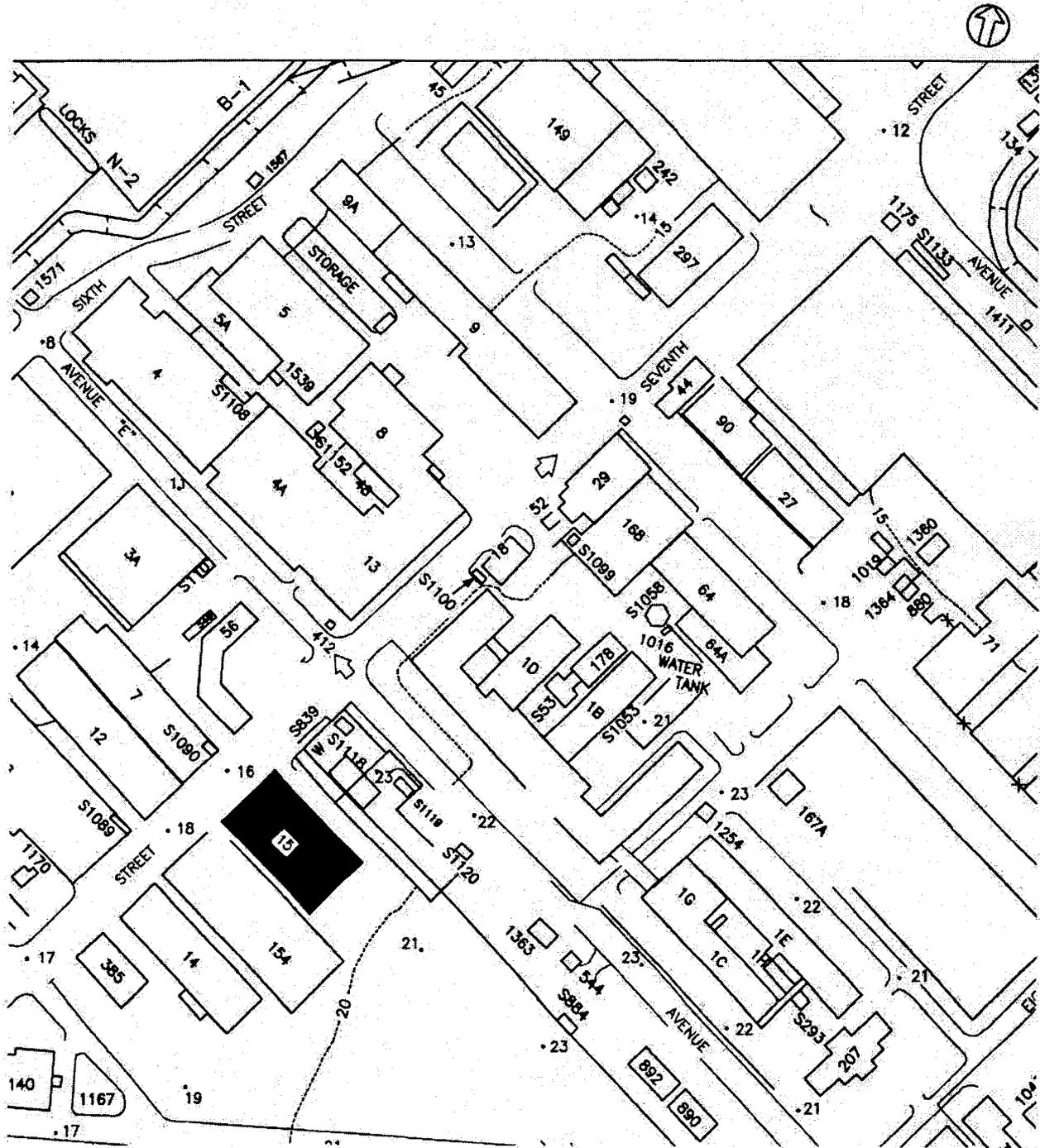
U.S. NAVAL BASE, PEARL HARBOR, LUMBER STOREHOUSE  
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)  
(Facility No. 15)  
HABS No. HI-464 (Page 5)

Shipyard Map



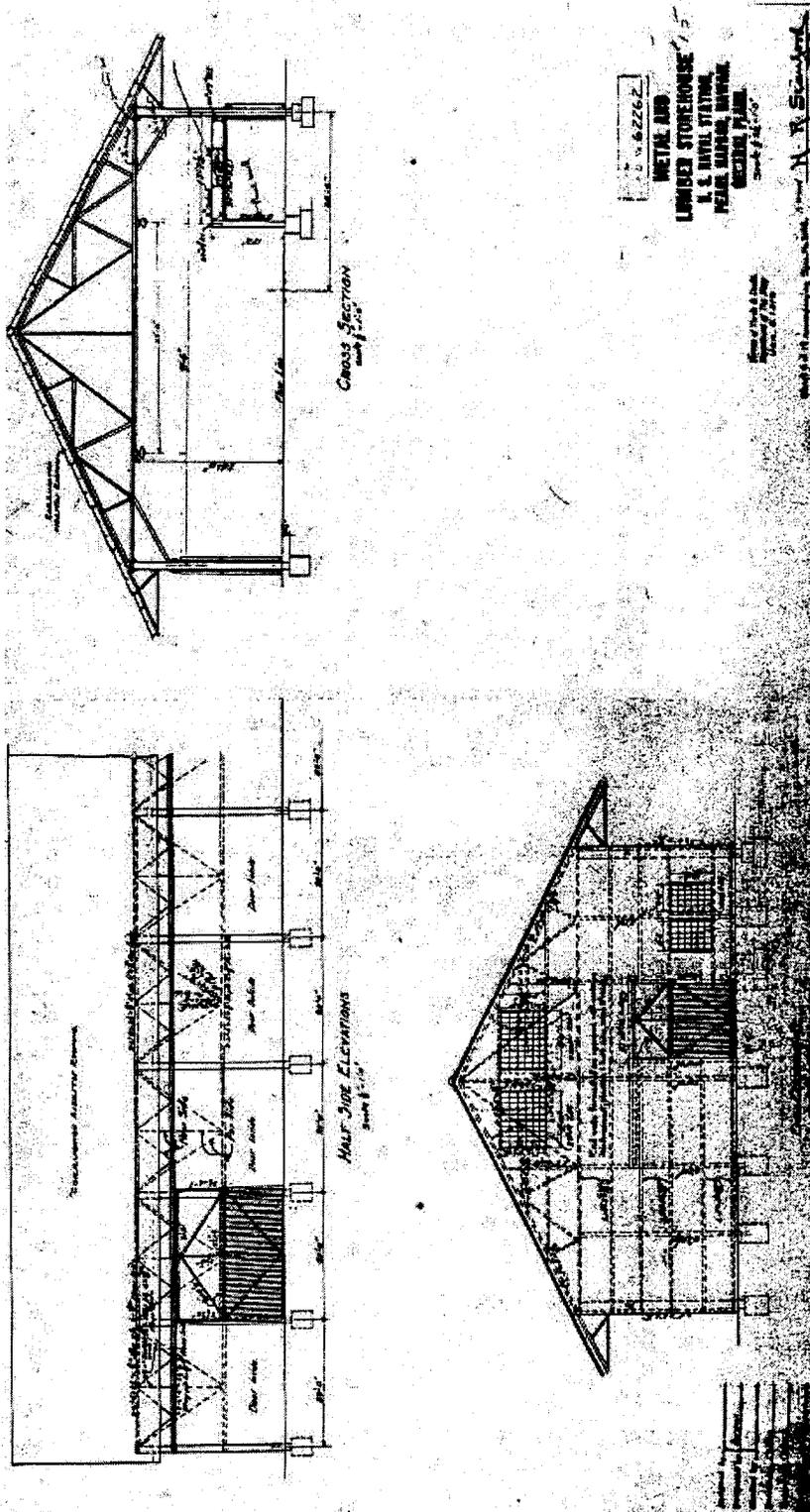
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(U.S. Naval Base, Pearl Harbor, Naval Shipyard)  
(Facility No. 15)  
HABS No. HI-464 (Page 6)

Enlarged Area Map (reduced, not to scale)



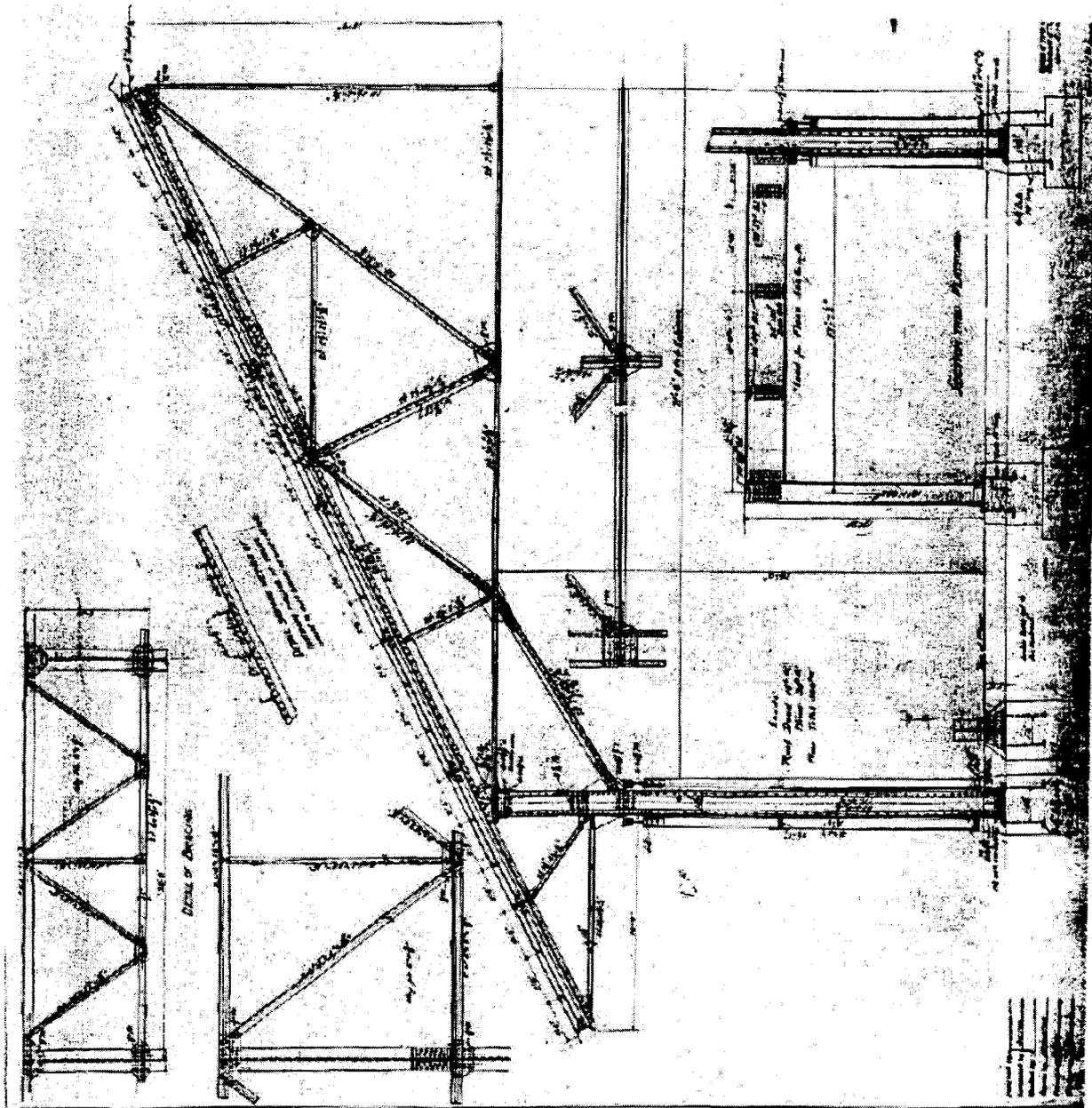
U.S. NAVAL BASE, PEARL HARBOR, LUMBER STOREHOUSE  
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)  
(Facility No. 15)  
HABS No. HI-464 (Page 7)

Original Elevation and Cross Section (Drawing No. 62262, dated 1/5/1914) (reduced, not to scale)



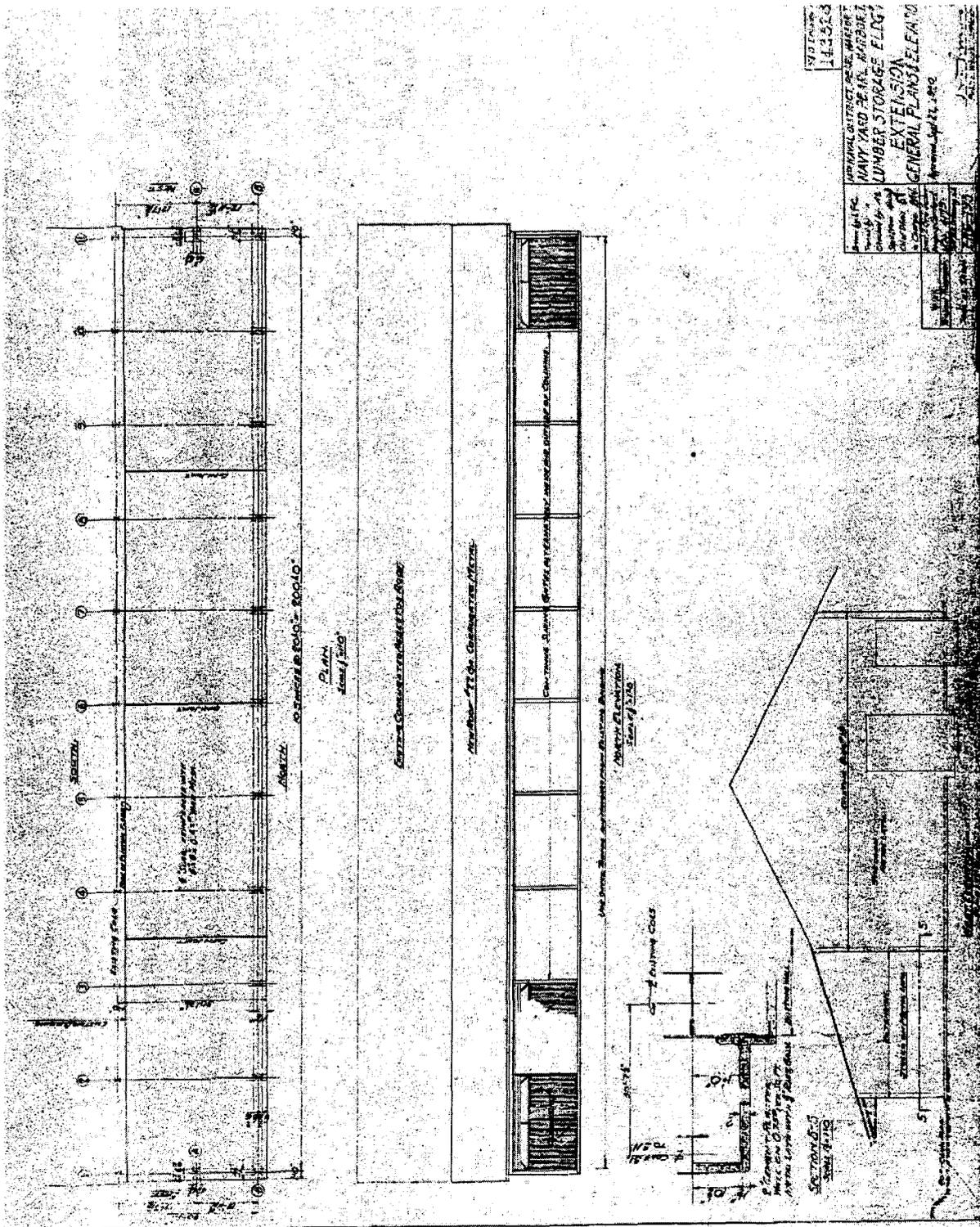
U.S. NAVAL BASE, PEARL HARBOR, LUMBER STOREHOUSE  
(U.S. Naval Base, Pearl Harbor, Naval Shipyard)  
(Facility No. 15)  
HABS No. HI-464 (Page 8)

Original Cross Section, Platform Section and Details (Drawing No. 62263, dated 1/5/1914)  
(reduced, not to scale)



**U.S. NAVAL BASE, PEARL HARBOR, LUMBER STOREHOUSE**  
 (U.S. Naval Base, Pearl Harbor, Naval Shipyard)  
 (Facility No. 15)  
 HABS No. HI-464 (Page 9)

**Lumber Storage Facility No. 15 Extension – General Plans and Elevations**  
 (Drawing No. 143828, dated 9/27/1940) (reduced, not to scale)



DRAWING NO. 143828  
 U.S. NAVAL DISTRICT OFFICE, HONOLULU  
 NAVY YARD, PEARL HARBOR, HAWAII  
 LUMBER STORAGE FACILITY  
 EXTENSION  
 GENERAL PLANS & ELEVATIONS  
 Approved: Sept 27, 1940  
 J. W. ...  
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**U.S. NAVAL BASE, PEARL HARBOR, LUMBER STOREHOUSE**  
 (U.S. Naval Base, Pearl Harbor, Naval Shipyard)  
 (Facility No. 15)  
 HABS No. HI-464 (Page 10)

**Lumber Storage Facility No. 15 Extension – Typical Cross Section**  
 (Drawing No. 143827, dated 9/27/1940) (reduced, not to scale)

