

U.S. NAVAL BASE, PEARL HARBOR, WOODWORKING SHOP  
(U.S. Naval Base, Pearl Harbor, Naval Shipyard, Facility No. 7)  
(Shipwright and Joiner Shop, Shop 63)  
Seventh Street near Avenue E  
Pearl Harbor  
Honolulu  
Hawaii

HABS HI-486

HI-486

HABS

HI-486

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, WOODWORKING SHOP (U.S. Naval Base, Pearl Harbor, Naval Shipyard) (Facility No. 7)

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**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: 04.607900.2361610.

**Significance:** Facility 7 is located within the Pearl Harbor National Historic Landmark. It was among the major shop buildings in the initial phase of construction at the Shipyard, which began in 1912. Prior to World War II it was called the Shipwright and Joiner Shop, Shop 63. Facility 7 is part of a still-extant group of buildings from that period, including Facilities 6(HABS HI-485), 12 (HABS HI-447, later joined with Facility 7), 14(HABS HI-463), and 15(HABS HI-464). Characteristic of a specific type and period of industrial building construction, Facility 7 is a prominent structure within the Pearl Harbor National Historic Landmark. Facility 7 has operated as the Shipyard's woodworking shop since its initial construction and is functionally important to the Shipyard's operations. This building remains a significant part of the architectural continuum at the Shipyard, which occurred until the end of World War II in 1945.

**Description:** Facility 7 was constructed as a steel-framed, two-story, gable-roof structure with a full-length ridge monitor. The original building is organized on a structural grid of fifteen, 20'-0" bays (length) by two, 25'-0" bays (width), measuring approximately 302' x 52' (30,000 square feet). The height of the building is approximately 52'. In 1919 Facility 12 was expanded on the south side and joined with Facility 7. Additions were constructed on the north side of Facility 7 in increments. The north additions consist of one-story, wood-framed, shed-roof structures measuring 20'-0" in width. In total, there are three, enclosed and nine, unenclosed 20'-0" bay additions. The facility is perpendicular to Seventh Street on its east end.

The foundation for Facility 7 is slab-on-grade concrete with concrete spread footings supporting the building's structural steel columns. The original inset wood-strip finish floor was removed, exposing the structural slab, or replaced with a concrete finish topping over the structural slab. The columns occur at each intersection of the structural grid on the first floor but the center columns are omitted on

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the second floor. The outer columns of the building are built up of back-to-back channel sections. The ground floor's central columns are similar but with the steel channels spaced apart and braced with cross-hatch metal strapping to form composite columns. The second floor has structural steel framing supporting a structural concrete slab overlaid with original wood strip flooring, which in some areas was covered with Masonite. Narrow sections of wood-framed mezzanine, which were added above the second floor, run along most of the south side and a small portion of the north side and are suspended by metal rods from the roof structure.

Later additions include electrical vaults inside and outside the northeast corner of the building. A freight elevator was added to the southwest corner of the building to service the second floor. In the northwest and southeast corners of the building are original metal stairs with pipe handrails.

The roof and ridge monitor are supported by clear-span, light-weight steel trusses. These are fabricated from stock angle sections in a variant of the Fink truss configuration for the main part of the roof. The trusses are augmented with additional members to frame the monitor. Metal-to-metal connections in the building's structural system are riveted.

The building presents a highly utilitarian appearance with design features common to the period. Its exterior wall mainly consists of industrial-type metal window units and corrugated metal panel siding. The main roof and monitor have corrugated metal roofing with eaves extending out 6'-0" and 3'-0" respectively. The window units below the main roof have multiple fixed lights surrounding multi-light pivot steel sash. The window units at the monitor have awning sash only, for heated air extraction, with no surrounding fixed lights.

The main window units on the north side of the building and originally on the south side occur in two rows of ganged pairs. They are separated laterally by siding at each structural column and vertically by a spandrel at the second floor. There is siding above the second floor windows terminating at a band of screened openings for ventilation just under the eaves. Window units at the monitor occur in ganged pairs along each side, laterally separated as those below the main roof. The four original double sliding doors on the north side all remain. These have wide wood stiles and rails, with lower panels of inset, diagonally-oriented, beveled tongue-and-groove wood boards and upper panels of multi-light window units.

The originally open area between Facility 7 and 12 eventually was fully enclosed from the roof down, effectively merging the two buildings. The original windows and doors and most of the siding on the south side of Facility 7 were removed. A full-length enclosed mezzanine was added between the two buildings.

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Window units on the ends of the building are similar to those on the north side and also oriented vertically. There are four ganged pairs of windows at the second floor of each end elevation. The two middle pairs are separated only by a narrow, central mullion and the outer pairs are centered between the middle units and each end of the wall. Windows at the ground floor on the west end are ganged unit pairs aligned with the outer pairs above. There are also non-original hinged double doors aligned with the right, middle window pair above. The windows at the ground floor on the east end elevation are ganged unit pairs pushed to each end of the wall. Double sliding doors are between the building's central axis and the right window units, and a smaller single sliding door is adjacent to the left window units. These doors are of generally similar construction as those on the north side.

Remnants of train tracks that once served Facility 7 and others are extant. There is a prominent continuous suspended duct on the first floor and a large blower just inside the main door on the east end of the building to convey sawdust and similar by-products of woodworking operations across Seventh Street to Facility 154, originally for burning and now for collection and disposal. The lighting fixtures at the second floor appear to date from not later than the World War II era. They are a common pendant-mount, single-bulb type with dual-pitch conical shades having a green enamel finish outside and white inside.

At the enclosed three bays added on the north side corrugated metal siding panels run below the sill line on the north and west walls and, now, the full height of the east wall. The original ganged wood-frame window units along the length of the north wall are extant. These units each have a fixed sash above double-hung sash. The fixed sash and the upper of the double-hung sash are multi-light while the lower of the double-hung sash is single-light and taller than the upper. The three original hinged wood single doors had stile-and-rail construction, multi-light glazing above the lock rail and three horizontally-oriented recessed panels below. Of these doors, one has survived. Above the door openings on the north side are multi-light transoms similar to the upper sash of the adjacent double-hung windows. At each end of the addition there originally was one double-hung window unit similar to those on the long wall but without the fixed sash above. As well, on the east end there was a door, and on the west end a short pass-through door or window. Except for the double-hung window on the west end, these have been removed or covered. The original windows below the fixed sash now all have expanded metal screening installed over them, from the outside, largely obscuring their character.

The interior walls and ceiling of the enclosed north addition are sheathed with the original tongue-and-groove boards. The eaves outside are narrow. The original long extension of the rafters and

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closely-spaced vertically oriented slats running between them to shade the windows has been removed.

The unenclosed north-side addition is a simple post-and-beam wood structure. It has knee-braces to the header beam at each post and the base of each post is augmented with waist-high framing boards bolted on all four sides. Under the joints of the header beams at the top of each post is a short framing plate with raked ends.

Facility 7 appears to have been constructed substantially in accord with the limited extant original design drawings other than at the east end as noted below. As constructed, the north-side, enclosed addition's window muntin pattern, door panel pattern and one door location vary from the design drawings, but it otherwise appears in accord with the drawings. No drawings were located for the unenclosed north-side addition. The joining of Facility 12 to Facility 7 compromised the design integrity and character of the two buildings.

**Historical Context:**

The original and by far dominant part of Facility 7 was not constructed until 1916. The building functions as the Shipyard woodworking shop and has continued in that use since then. Its basic outline is shown in a drawing dated March 1912 along with those of the other early buildings at the Shipyard.

The original design drawings for Facility 7 date from November 1911. The second floor plan and details are shown in a drawing dated in March 1914. From a drawing dated a year later, the originally-planned window and door locations at the east end of the ground floor were changed to the present locations to provide for railroad access to the building's interior before the building was completed. This accounts for the ground floor openings at that end being irregular and not aligned with the window openings above. The double doors at the west end of the building are not shown in the drawing. Those there now clearly are not original but they do depict the appearance and characteristic of the building's original period of construction.

Expansion of Facility 12 to join with Facility 7 began in 1919 and is described in a separate HABS report on Facility 12, No. HI-447. The date of the Public Works Office's design drawing for a two-bay, enclosed north-side addition is indeterminable but a project photograph of the structure dates from July 1938. A third bay was added at the west end and the unenclosed bays to the east at unknown dates. From the appearance of the construction this work probably was done just before or during World War II. Drawings for the still-extant duct and blower refuse exhaust date from August, 1941.

As described in a damage assessment report on the December 7 attack, "Minor damages by concussion, bomb fragments and machine gun bullets were caused to roofs, windows, window frames . . ." of Facility 7 and others nearby.

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The base's railroad network, that extended into the interiors of most significant large buildings at the Shipyard from its inception, was finally abandoned only well after World War II. The original wood finish floor overlaid on the first floor's concrete slab was removed at an unknown date.

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

**Sources:**

Original and subsequent drawings reviewed for this building are on microfilm at NAVFACPAC Plan Files. Historic photos of these buildings are located at the National Archives II, Still Photo Section, RG 71 CA.

Public Works Officer, U. S. Navy Yard, Pearl Harbor, T. H.

1941 Report of Air Raid by Japanese on December 7, 1941 dated 15 December 1941.

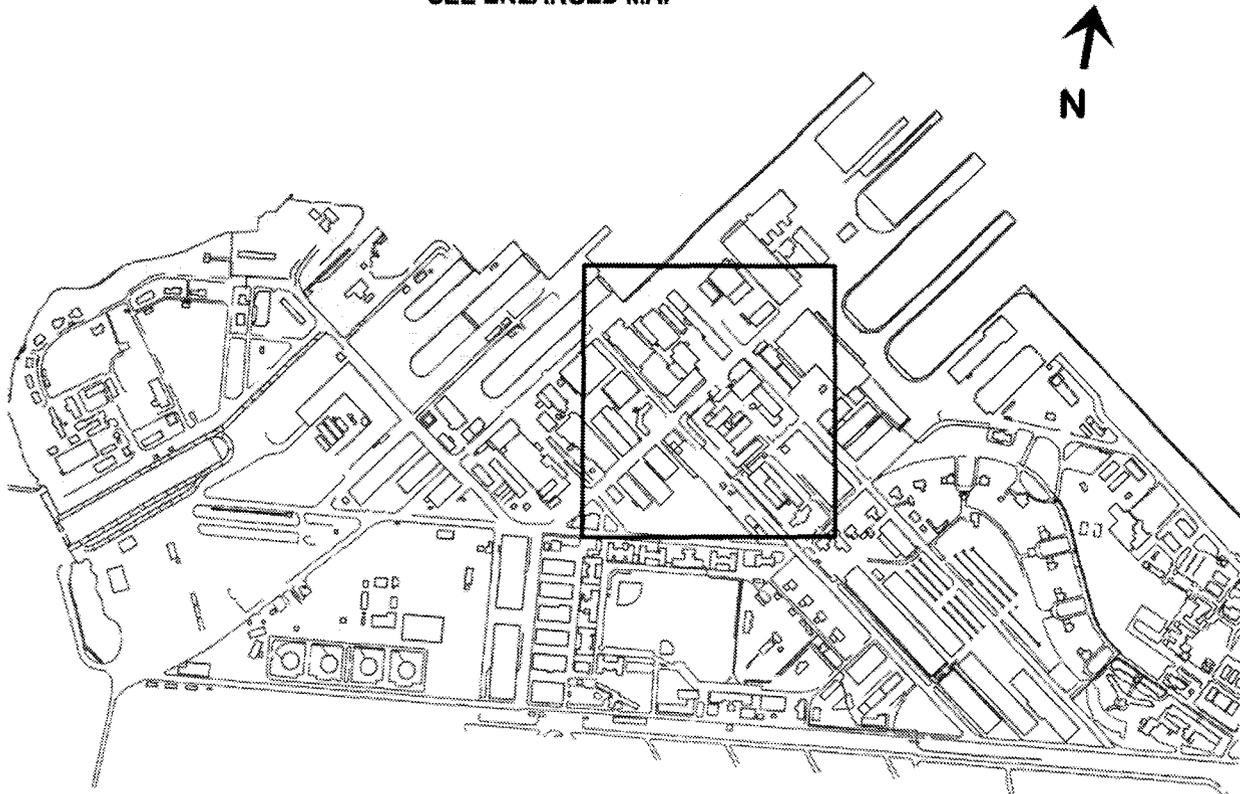
**Project Information:**

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., Historical Architect NAVFAC Hawaii. 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.

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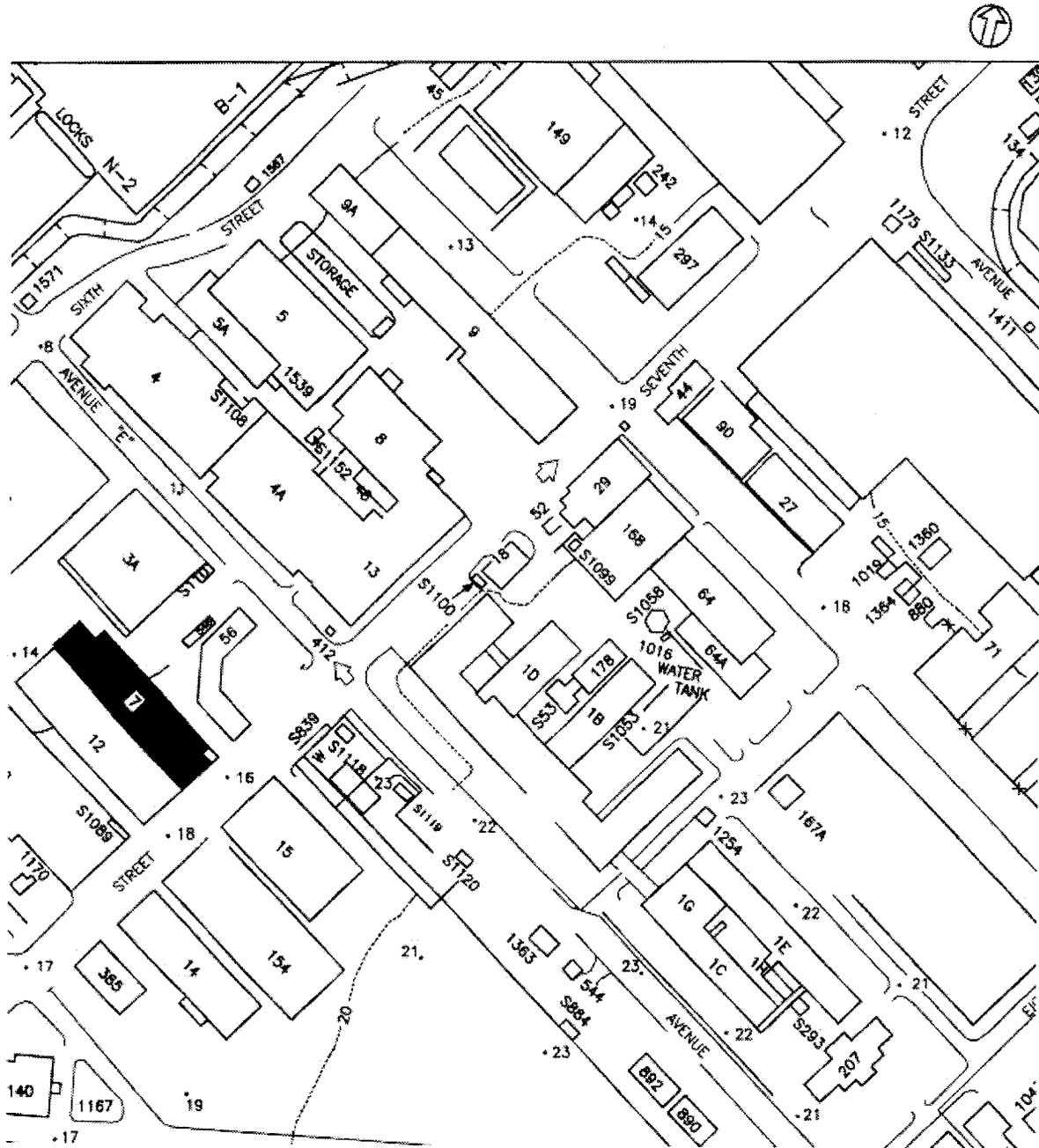
**Shipyard Map**

**SEE ENLARGED MAP**



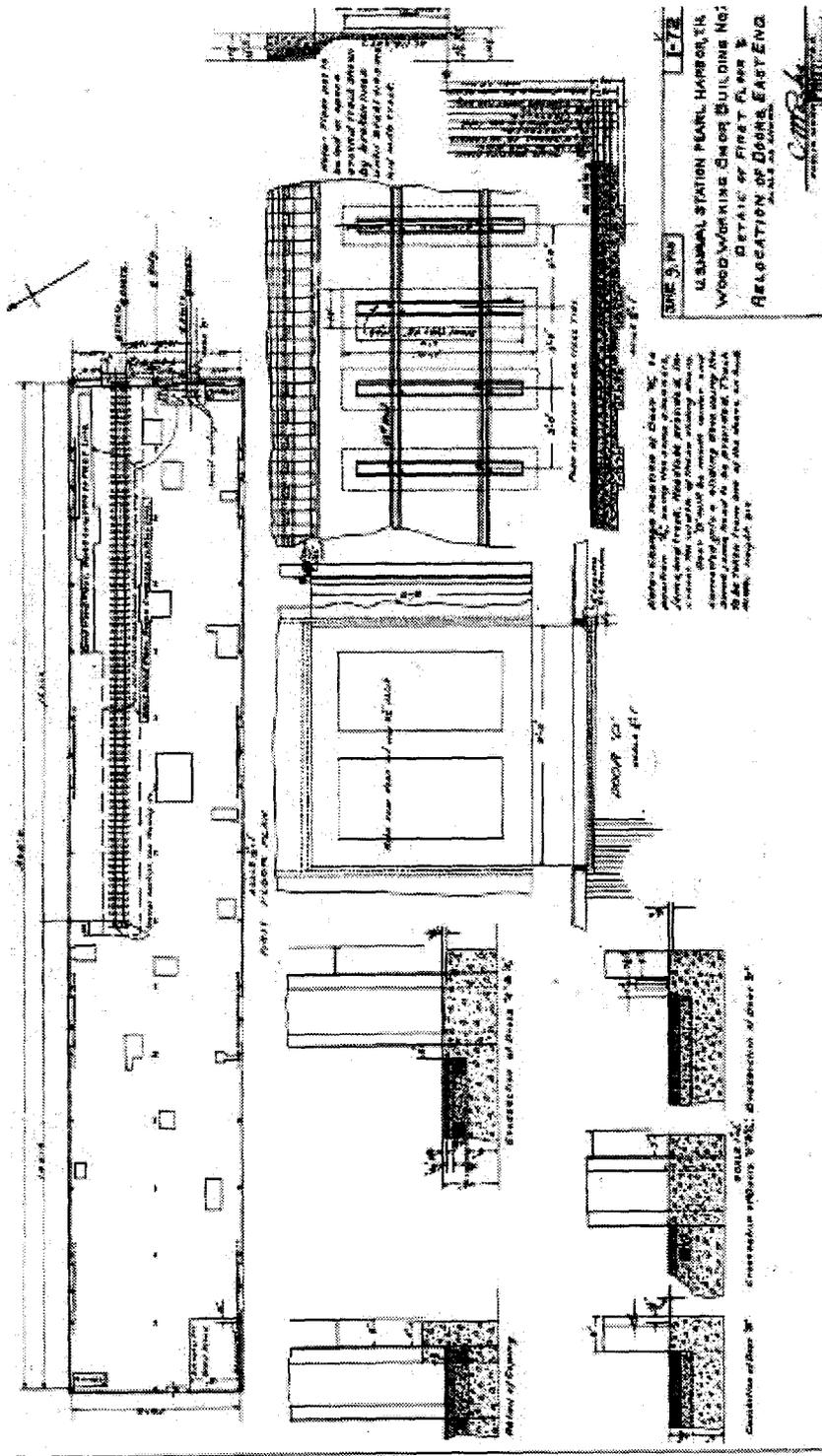
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Enlarged Area Map (reduced, not to scale)



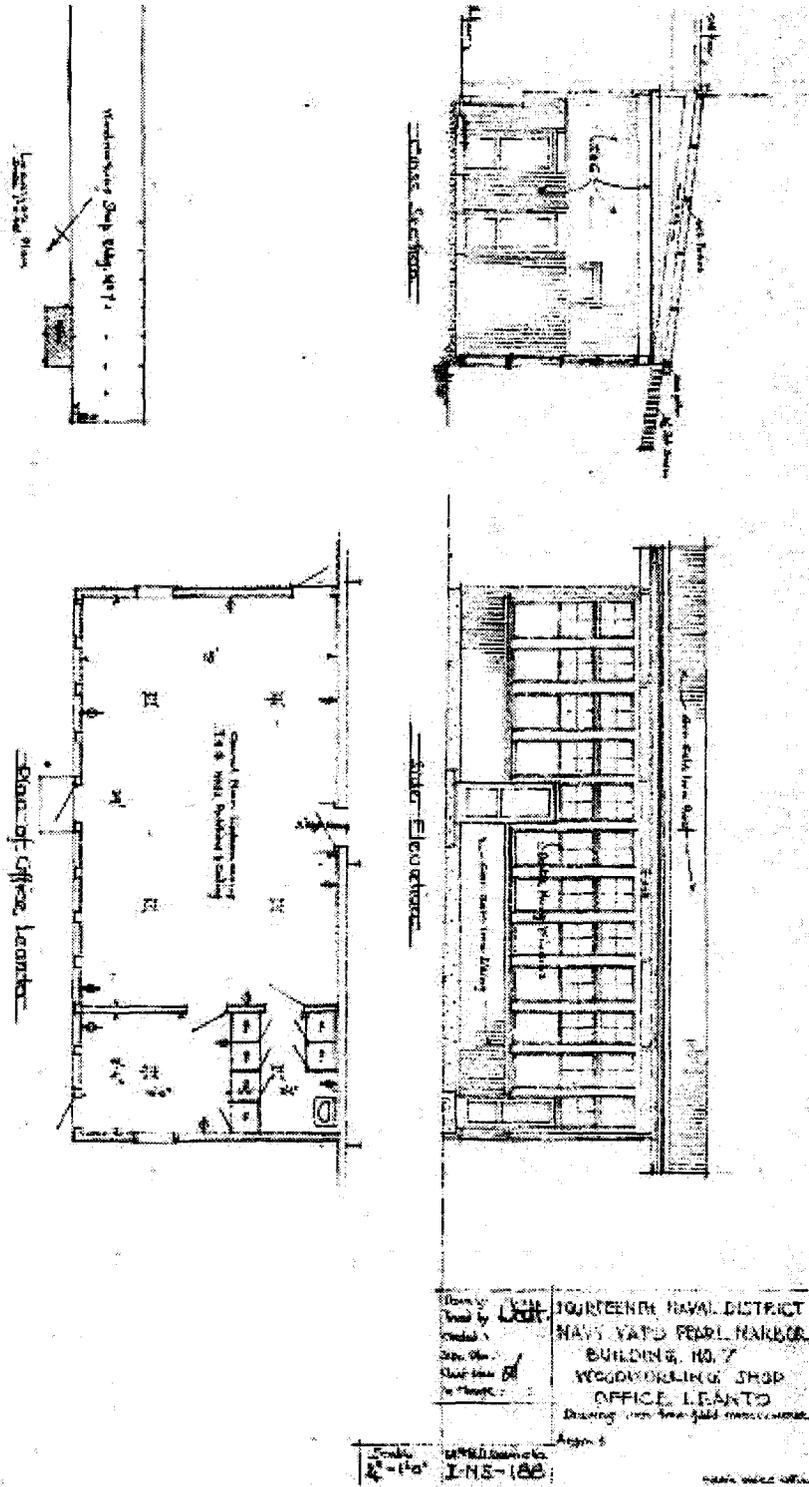
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**Detail of First Floor and Relocation of Doors, East End (Drawing No. I-72, dated 6/9/1915)  
 (reduced, not to scale)**



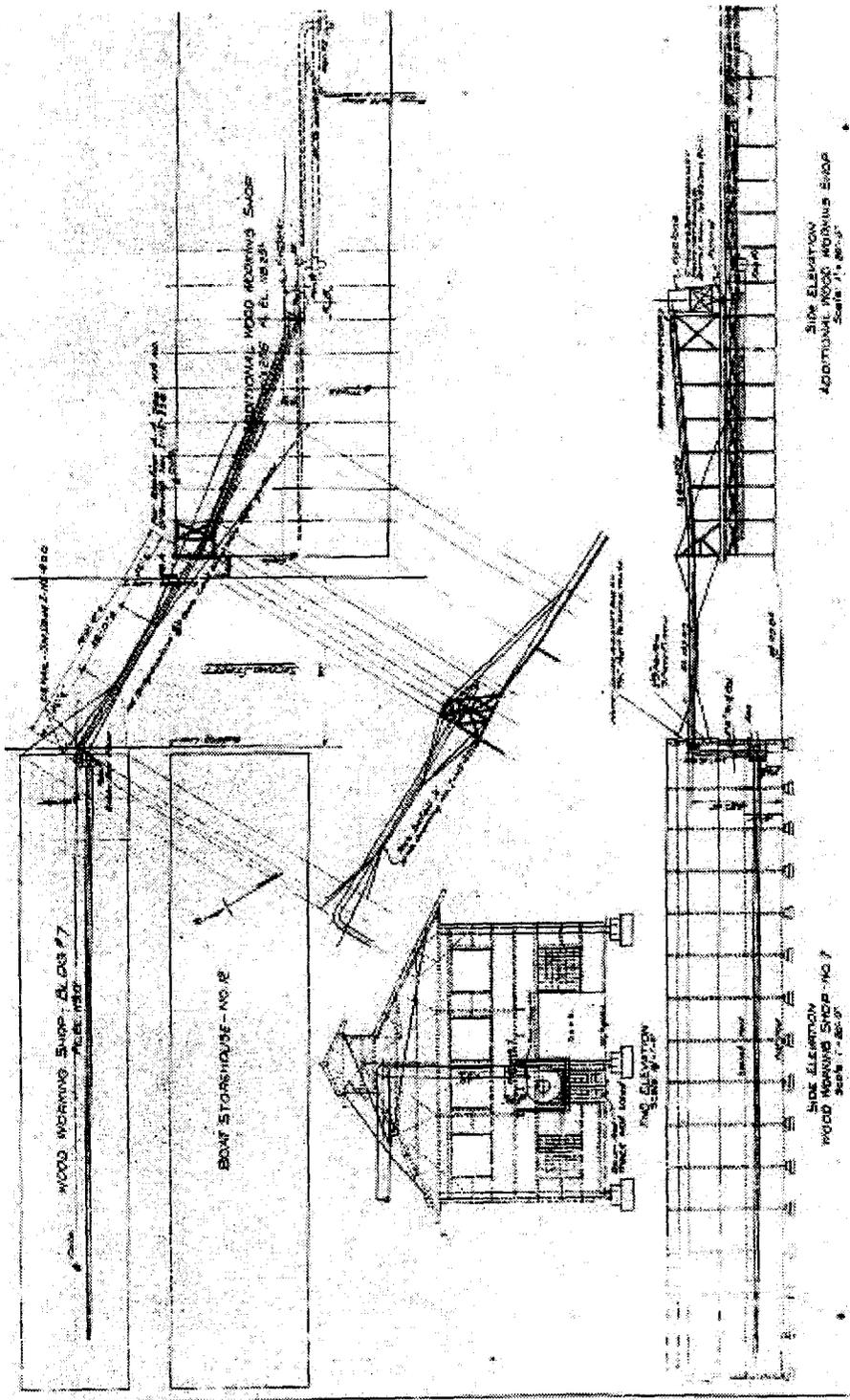
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**Office Lean-To Location Plan, Floor Plan, Elevation, and Cross Section  
 (Drawing No. I-N05-188, date unknown) (reduced, not to scale)**



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Refuse Exhaust System Connection from Facility 7 to Facility 154  
(Drawing No. I-N05-396, dated 8/5/1941) (reduced, not to scale)



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Painting Floor Plan, Elevations and Sections (Drawing No. 7021819, dated 4/3/1980)  
(reduced, not to scale)

