United Engineering Company Shipyard,
Office and Substation
(Building No. 12)
2900 Main Street
Alameda
Alameda County
California

HAER No. CA-295-H

HAER
CAL
1-ALAM,
4H-

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
San Francisco, California

HAER
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HISTORIC AMERICAN ENGINEERING RECORD

UNITED ENGINEERING COMPANY SHIPYARD, OFFICE AND SUBSTATION
(Building No. 12)

HAER No. CA-295-H

Location: 2900 Main Street
Alameda
Alameda County
California

U.S.G.S. 7.5 minute Oakland West, Calif. quadrangle.
Universal Transverse Mercator Coordinates: 10.562580.4184\2550

Present Owners:

074-0891-003	074-0905-001-04
City of Alameda	Alameda Gateway Ltd.
City Hall	2900 Main Street
Alameda, CA 94501	Alameda, CA 94501

Present Occupant: Offices unoccupied. Substation in back of first floor.

Present Use: Power Substation

Significance: The office and substation is a contributing structure in the United Engineering Company Shipyard historic district that has been determined eligible for the National Register of Historic Places. The United Engineering Company Shipyard, established in 1941 to build and repair ships for the U.S. Navy, is the last surviving of several large World War II shipyards in Alameda. United Engineering built 21 tugboats and repaired hundreds of ships during the war. The facility was one of the largest employers in Alameda and played an important economic and social role in the city. In addition to its role in the shipyard, this building was also part of a previous operation at this site — the West Alameda Yard of the Southern Pacific Company. The West Alameda Yard was developed in 1911 for the maintenance and repair of electric cars on the East Bay transit lines of Southern Pacific. As the inspection foreman's office for the rail yard, this building accommodated an essential administrative function.

PART I. HISTORICAL INFORMATION

A. Physical History

1. **Date of erection:** the Office and Substation was built in 1911.

2. **Architects and engineers:** the original designers of the building in 1911 are unknown. Because none of the early drawings of the building were signed, they appear to be in-house products of the Southern Pacific Company.

3. **Original and subsequent owners, occupants, and uses:** the office and substation was built while Southern Pacific owned the yards. United Engineering bought the property in 1941 just prior to U.S. involvement in World War II. In 1946, Matson Navigation purchased the yards, including the office and substation. Todd Shipyards leased the property in 1948 and bought it in 1959. Finally, the current owner, Alameda Gateway, bought the property in 1983.

   The office and substation was built to house offices and to accommodate the electrical equipment (such as breakers, meters, and switches) needed to provide power to buildings and equipment throughout the West Alameda Yard. When it was first built, it was the inspection foreman's office. On subsequent maps and plans of the property, it has been variously identified as an office, an oil house, and a switch house. On the 1948 Sanborn map, it was also labeled building no. 13. During the Todd Shipyard years, it was known as building no. 65. In 1995 the building was called Substation No. 1.[1]

4. **Builder, contractor, suppliers:** unknown

5. **Original plans and construction:** original plans have not been located.

   The building was constructed as a two-story reinforced concrete structure with a rectangular plan and a reinforced-concrete flat roof.

B. Historical Context

The office and substation was built in 1911 by Southern Pacific. After its initial use as the inspection foreman's office, the building housed offices, breakers, and switches, and there were three transformers (replaced in the 1940s) just east of the building. The transformers received electricity conducted from the Fruitvale Powerhouse via the power poles on Grand and Buena Vista streets and converted

1 "Insurance Recap and Allocation – All Properties." On file at Alameda Gateway Ltd., Alameda, CA, April, 1995.

it from alternating current to direct current. The breakers and the switches inside the building controlled and distributed power throughout the yards.

In 1941, United Engineering purchased the yards and converted the facilities to a shipyard. Shortly thereafter, the company secured contracts from the United States Navy to build tug boats for the war effort and later to repair larger ships. The property remained a shipyard until 1984 and since that time has accommodated a shipyard, other marine services, and industrial businesses. Although the office is now vacant, this building with its switch room has remained in the same use since the Southern Pacific period.

PART II. ARCHITECTURAL INFORMATION

A. General Statement

1. **Architectural character:** the office and substation is generally utilitarian in appearance. However, the flat roof, stucco-covered walls, and coursing along the cornice give the building an orderly and finished appearance.

2. **Condition of fabric:** the office and substation appears to be in good condition and, aside from the altered window and door, has been little altered.

B. Description of Exterior

1. **Overall dimensions:** the office and substation is a small two-story building with a rectangular-shaped plan. The building measures 30 feet across the north and south sides and 18 feet across the east the west ends. The building has a total area of 1080 square feet.

2. **Foundation:** the building sits on a reinforced concrete foundation.

3. **Walls:** the walls are reinforced concrete covered on the exterior with cement stucco.

4. **Structural system, framing:** reinforced concrete columns and beams are the main structural members. On the east elevation rebar is visible where the surface concrete has worn away.

5. **Stairs:** the only access to the second floor is by an exterior staircase on the south side of the building. The staircase has cement treads and risers and is supported by a steel beam. A pipe hand railing runs along the outside edge of the stair.

6. **Openings:**

   a. **Doorways and doors:** the building has three doorways—two on the first floor and one on the second floor. The entrance to the office on the ground floor is located on the west end. Patching in the stucco indicates that the doorway has been recently altered. The door is a modern, metal, hollow core door with a fanlight. The eastern room on the first floor, which houses breakers, switches, and meters, is accessible only from a door on the south facade. The door is made of wood that has been covered with sheet metal. The third doorway is located on the south facade of the second floor. This opening has a single, wooden, paneled door covered with plywood.

   b. **Windows:** except for one new window on the north side, all windows are the original six-over-six, divided-light panes with wooden frames. The openings have concrete sills. The front (west) end has a symmetrical fenestration pattern. On the first floor there is a door balanced with a single window. Above, on the second floor, there is a double window in the center. There is only one window on the south side. It is located east of the door on the second floor. The fenestration pattern of the east end has been altered; the window on the first floor has been filled. Above, there is a single window in the center of the second floor. On the north side there are two windows on each floor, and the openings are roughly symmetrical. The westernmost opening on the second floor has a triple window that appears to have been recently installed. The outer sections are casements, and the center is fixed.

7. **Roof:**

   a. **Shape, covering:** the building has a flat roof. The covering is not visible.

   b. **Cornice, eaves:** two projecting courses run around the cornice.

   c. **Dormers, cupolas, towers, vents:** nothing visible.

C. **Description of Interior**

1. **First floor plan:** the first floor is composed of two rooms separated by a hallway. The front room is accessible from the door on the west end. The room is not currently used, but appears to have been an office. Behind this room is a storage space. Currently the storage space opens only into the front

room but the rear wall is made of drywall indicating a later modification. The rear room is accessible only from a door on the south side. The room houses switches and breakers.

2. **Second floor plan:** the second floor is composed of two roughly equal sized rooms previously used as offices. The only access to the second floor is through an exterior doorway on the south side.

3. **Flooring:** the floors are reinforced concrete covered with cement. The breaker room and hallway have exposed cement, the first floor office is covered with linoleum, and the second floor has carpet.

4. **Wall and ceiling finish:** most of the interior walls are composed of painted reinforced concrete beams, columns, and infill. The only exception is the drywall that divides the breaker room from the central storage space on the first floor. Around each window, the walls project in what looks like a wide attached column. The ceilings also have projecting beams. Although the treatment of the two floors is similar, the details are slightly different. The front room on the first floor has a wooden chair rail attached to the concrete walls. The projecting wall corners are chamfered and the recessed corners are coved. The walls of the second floor rooms have rounded or coved corners.

5. **Openings:**

    a. **Doorways and doors:** neither of the interior doorways has a door. The openings are surrounded by simple wood trim.

    b. **Windows:** the openings surrounded by simple wood trim.

6. **Hardware:** most hardware appears to be replacements of the original and of standard manufactured design.

7. **Mechanical equipment:**

    a. **Heating, air conditioning, ventilation:** there are no heating or air conditioning systems, and ventilation is passive through windows.

    b. **Lighting:** the building was wired for electricity at the time of its construction, and was built to house switches and breakers. The breaker room has original light fixtures. The rest of the building has recently been rewired. There are new galvanized steel conduits, outlets, and switch boxes on the walls. The building has modern incandescent light fixtures.

c. **Plumbing:** the office and substation does not have plumbing.

d. **Electrical equipment:** as the substation for the railyard and later the shipyard, the building housed a large amount of electrical equipment. In the rear room on the first floor, there is a bank of 17 breakers. The switches are labeled with the areas of the shipyard they control, for example, "boat dock," plane lift," and "electric shop." On the east side of the building there is a chain link cage surrounding an electrical box mounted on the wall and three transformers. The transformers are labeled with their maker, "Allis-Chalmers," and their purchaser, "United States Navy Property Contract No. 76 Item No. 62T." This latter label indicates that the transformers were purchased during United Engineering's contracts with the Navy during World War II.

D. Site

1. **General setting and orientation:** the office and substation is located east of the Inspection and Repair Shops building and north of the electrical services and switching station. The building is surrounded on the east, west, and south sides with asphalt. Unlike the other buildings at the shipyards, the office and substation has a small yard with a tree on the north side of the building.

PART III. SOURCES OF INFORMATION

A. Original Architectural Drawings, Maps and Plans

"Insurance Recap and Allocation – All Properties." On file at Alameda Gateway Ltd., Alameda, CA, April, 1995.

Alameda Gateway. *Existing Site Plan.* 30 January 1984.

Earl, Austin Willmott, Consulting Engineer. *Electrical Services & Switching Station, Station Building.* San Francisco, CA: United Engineering Co. Ltd., Alameda Shipyard, Ship Repair Facilities, 20 January 1945.

Edward K. Hussey Engineering Corporation. Survey No. 4050, plan. Prepared for United Engineering Company Ltd. 24 January 1942.

Kennedy, Clyde C., Engineering Office of. "Area Plan and Interceptor Profile: Improvements to Sewer System for Properties Occupied by Todd Shipyards Corp., Alameda, Calif." Prepared for Matson – United Properties, Inc. 9 August 1951.

Sanborn Map Company. *Insurance Maps of Alameda, California*, p. 93. New York: 1948.

Southern Pacific Company. Pacific Lines. West Alameda: Retire Trackage and Facilities, plan. 7 July 1941.

Southern Pacific Company. West Alameda Station Plan. April 1925; revised January 1928.

United Engineering Company Ltd. *Alameda Shipyard, San Francisco Area*, Sketch No. 48. 10 February 1944.

United Engineering Company Ltd. *Alameda Shipyard: Map Showing Existing Facilities and Those Under Construction.* 22 October 1942.

United Engineering Company Ltd. *Map of Alameda Shipyard Showing Existing and Proposed Additional Facilities.* Plan no. UEC-A-1-7. 14 June 1943.

B. Early Views

Technical Services Group, Alameda. Photograph Collection of Southern Pacific - United Engineering Company - Todd Shipyard Site. Various photographers including Clyde H. Sunderland (1945); Ralpb Bird Pboto (1942); Pacific Resources, Inc., Aerial Photograpbic Division (1970); Moulin Studios (n.d.); Todd Shipyards Corporation Engineering Department (1960); Pacific Aerial Surveys (1979); Jack Mittal (ca. 1968-1970), and [Southern Pacific Company] (1911.).

C. Likely Sources Not Yet Investigated

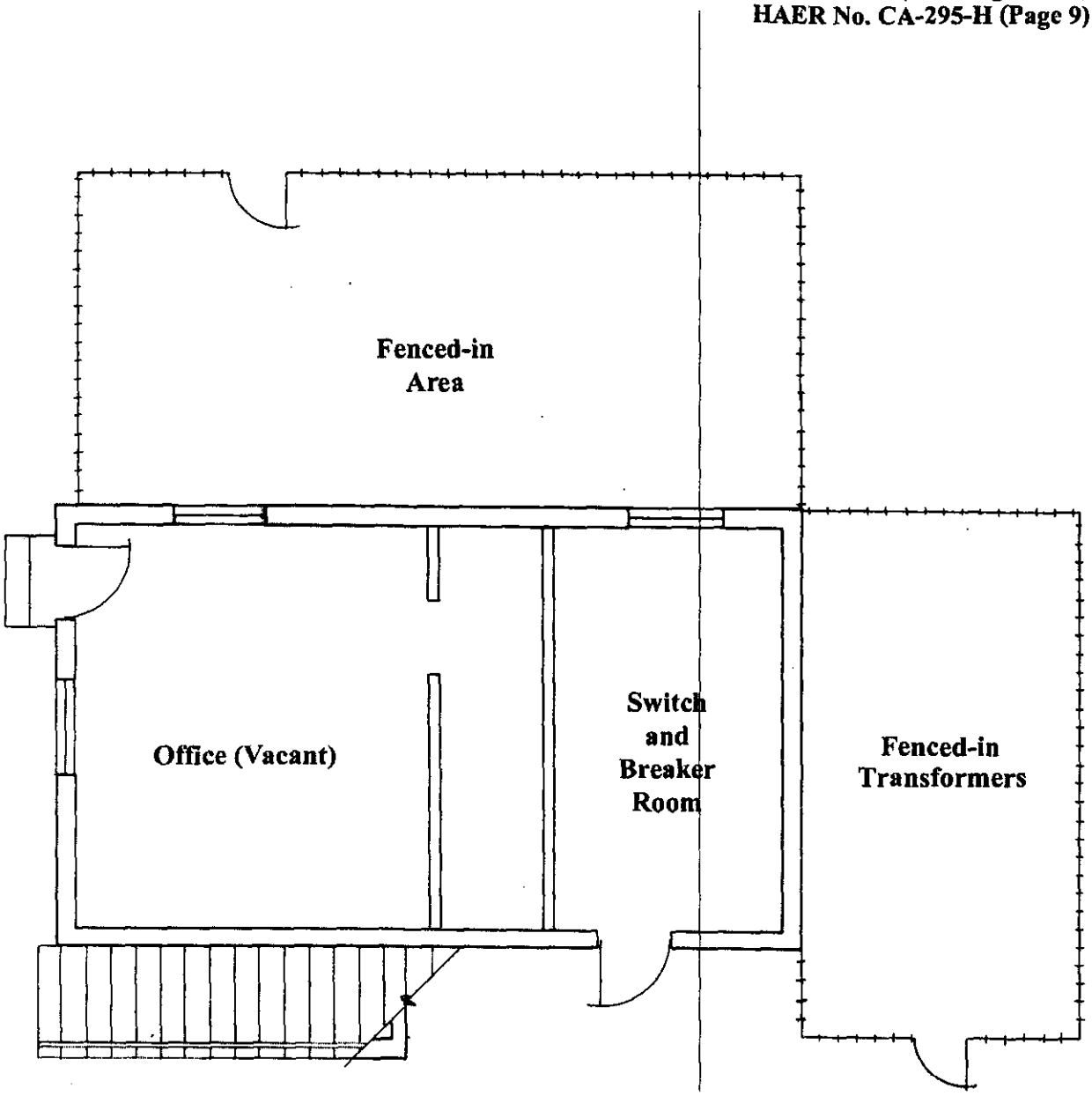
Additional photographs in the collection of the Technical Services Group document the early years of the facility as a rail yard. Some of these photographs have been misplaced, but may turn up for future research.. In addition, photographs and other records about the West Alameda Yard of Southern Pacific may become available at the Western Railway Museum in Suisun City when a new building for their archives is completed.

PART IV. PROJECT INFORMATION

This report was prepared for the U.S. Army Corps of Engineers and the Port of Oakland in accordance with a Memorandum of Agreement (MOA) between the U.S. Army Corps of Engineers, San Francisco District and the California State Historic Preservation Officer concerning the former United Engineering Company shipyard. The Port of Oakland and the City of Alameda were concurring parties to the MOA. The MOA was created because of a proposal by the U.S. Army Corp of Engineers in partnership with the Port of Oakland to sponsor the Oakland Harbor Navigation Improvements Project. This project "would deepen Oakland Harbor channels and berth areas from –42 feet mean lower low water (MLLW) to –50 feet MLLW, with 2 feet overdredge allowance" and widen some portions of the channels. These actions, which would constitute an Undertaking under Section 106, would result in the demolition of several buildings and structures at the former United Engineering Company Shipyard. Because the shipyard had been determined eligible for the National Register of Historic Places, the Undertaking would have an adverse effect on the property. Under tbe MOA, the following HAER documentation has been prepared: a written historic and descriptive report on the shipyard as a whole, seventeen separate reports on individual buildings and structures in the shipyard, including this report, and photographic documentation.

This building will not be demolished by the federal undertaking.

This report was prepared by Jody Stock, architectural designer, and Michael R. Corbett, architectural historian. Corbett was a subcontractor to Basin Research Associates of San Leandro. Basin Research was under contract to g. borchard & associates.

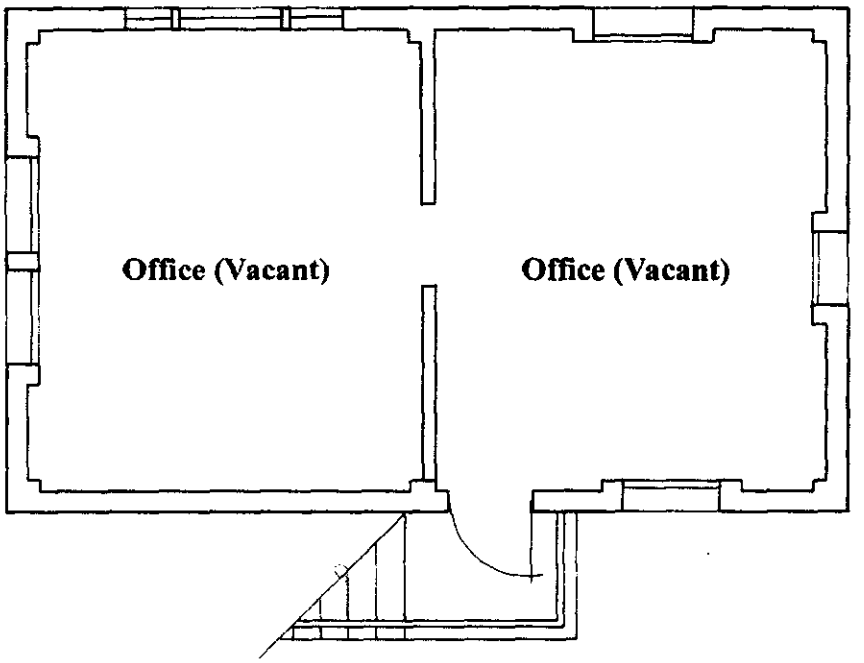


BUILDING NO. 12: OFFICE AND SUBSTATION
First Floor

NORTH

0 2 4 8 12 feet

Measured by Stephen Hardy and Jody Stock
1/8/01 and 2/28/01
Drawing prepared by Jody R. Stock
2/11/01



BUILDING NO. 12: OFFICE AND SUBSTATION
Second Floor

Measured by Stephen Hardy and Jody Stock
1/8/01
Drawing prepared by Jody R. Stock
2/11/01