United States Department of the Interior
National Park Service

425

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name Hunters Point Commercial Drydock Historic District

other names/site number US Naval Shipyard, Hunters Point; San Francisco Naval Shipyard

2. Location

street & number East of intersection of Fisher Avenue and Robinson Drive ☐ not for publication

city or town San Francisco ☐ vicinity

state California code CA county San Francisco code 075 zip code 94124

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this X nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property X meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___ national X statewide ___ local

Donald R. Schregardus — May 14, 2012
Signature of certifying official — Date

DASN(E)
Title — State or Federal agency/bureau or Tribal Government

In my opinion, the property X meets ___ does not meet the National Register criteria.

[illegible] — 14 OCT 2011
Signature of commenting official — Date

State Historic Preservation Officer — California State Office of Historic Preservation
Title — State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I, hereby, certify that this property is:

✓ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:)

for Edson H. Beall — 7.25.12
Signature of the Keeper — Date of Action

Encl (1)

Hunters Point Commercial Drydock Historic District
Name of Property

San Francisco, California
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply)

- [ ] private
- [ ] public - Local
- [ ] public - State
- [X] public - Federal

Category of Property
(Check only **one** box)

- [ ] building(s)
- [X] district
- [ ] site
- [ ] structure
- [ ] object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
4	2	buildings
		district
		site
2		structure
		object
6	2	**Total**

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing)

N/A

Number of contributing resources previously listed in the National Register

N/A

6. Function or Use

Historic Functions
(Enter categories from instructions)

INDUSTRY
DEFENSE: Naval Facility

Current Functions
(Enter categories from instructions)

OTHER: Non-operational

7. Description

Architectural Classification
(Enter categories from instructions)

Neoclassical Revival

Materials
(Enter categories from instructions)

foundation: Concrete
walls: Brick, concrete
roof: Slate, Composite
other:

Narrative Description

Summary Paragraph

The former Hunters Point Naval Shipyard is located on the western shore of San Francisco Bay, near the southeastern corner of the City and County of San Francisco, approximately two miles east of US101 and 4.5 miles southeast of the San Francisco-Oakland Bay Bridge. The Hunters Point Commercial Drydock Historic District is sited at the easternmost point of the facility, within Parcels B and C of the Hunters Point Shipyard. The historic district is generally bounded by Lockwood Street to the west, and Spear and Fisher Avenues to the south and southwest, respectively. The historic district includes six contributing buildings and structures (Drydock 2, Drydock 3, Building 140, Building 204, Building 205, and Building 207) constructed between 1901 and 1939; two non-contributing buildings (Building 206 and 208) are present within the boundaries of the historic district. Remnants of capstans, crane tracks, and bollards are present; however, these appurtenances have been heavily altered and/or replaced and are not contributing elements to the historic district. Two concrete drydocks, sited parallel to one another, form the core of the historic district. Buildings 205, 204 and 207 are located between Drydocks 2 and 3, while Building 140 is located on the north side of Drydock 3. Generally, the buildings contributing to the historic district are of concrete or brick construction, with gable roofs and concrete foundations and are designed in Neoclassical Revival style. The exception is Building 207, which is utilitarian in design. Remnants of crane tracks, capstans, and bollards remain around the drydocks. Otherwise, few buildings or structures are extant in the immediate vicinity of the historic district.

Narrative Description

The historic district includes six contributing buildings and structures (Drydock 2, Drydock 3, Building 140, Building 204, Building 205, and Building 207) constructed between 1901 and 1939 (see table below for construction dates).

HUNTERS POINT COMMERCIAL DRYDOCK HISTORIC DISTRICT	
RESOURCE NAME	YEAR BUILT
Drydock 2	1901-1903
Drydock 3	1916-1918
Building 140	1916-1918
Building 204	1903-1904
Building 205	1901-1903
Building 207	ca. 1930-1939

Drydock 2, just south of Building 205, is a 750' long, 89' wide, and 28' 10" deep graving dock. This drydock is currently open to the bay, therefore only approximately 6' of the drydock chamber was visible between the water line and drydock coping. The basin is sheathed in concrete, smooth around the bow and at the entrance (stern) end. The top five of twelve altars (steps in the wall of a drydock) beneath the coping are currently visible. A series of fourteen service galleries line each side of the drydock just beneath the curb. Each gallery has a metal railing around the perimeter. Two sets of metal flush-mounted staircases on each wall descend into the water. A chain handrail consisting of posts with an eye at the top, and at mid-level support two chains, stretch around the drydock, with breaks at access points (**Photograph 5**). Original capstans, some electric, some hand-operated, were replaced by the Navy, and remnants of the replacements remain around the perimeter (**Photograph 6**). Original crane tracks have mostly been removed from the perimeter as well. The floating caisson, a replacement built by Pacific Coast Engineering Company of Alameda in 1952, remains afloat

at the bow end of the drydock. Eight valves flood the drydock through the caisson, and two valves flood the caisson to sink it in place. The caisson deck is enclosed by the same type of chain handrail around the perimeter of the drydock. Cleats and capstans are also present on deck level of the caisson.

Drydock 3, also filled with water to about 6' beneath the coping, is larger, measuring 1,005' long, 114' wide and 39' 10" deep (**Photograph 7**). It was constructed in 1916-1918. The basin is sheathed in concrete, smooth around the bow and at the entrance end. The top five of twelve altars beneath the coping are currently visible. A series of service galleries line each side of the drydock just beneath the curb (**Photograph 8**). Each gallery has a metal railing around the perimeter. Concrete staircases built into the chamber walls descend into the water. A chain handrail consisting of posts with an eye at the top, and at mid-level support two chains, and stretch around the drydock, with breaks at access points. Remnants of crane tracks are present around the drydock. Original electrically driven capstans were present and operational around the perimeter of the drydock until the Navy began replacing them in the 1940s.

Building 140 (Pump House No. 3) sits north of Drydock 3, midway between the east and west ends of the drydock. Constructed of brick laid in a running bond pattern, the building measures 88' by 48' and has an irregular footprint with a western squared end and an eastern end forming an apse (**Photograph 9**). Built in the Neoclassical Revival style, it has an eclectic mix of Colonial and Greek revival elements. This building sits on a concrete foundation. The slate-tile roof forms a gable over the most of the building except at the west end where it forms a partial conical roof above the apse. The north, west, and south sides consists of thirteen half-round brick arches separated by brick pilasters below a corbelled architrave (**Photograph 10**). Two sixteen-over-sixteen double-hung wood windows with thirty-light fixed transom above fill all of these arches, with the exception of one on the south side that once included large wood-panel double doors. Those doors have been removed and currently the opening is covered by plywood (**Photograph 11**). The main symmetrical façade (west side) is dominated by a pedimented gable end decorated with a boxed and modillioned cornice with plain frieze. Just below are three half-round brick arches set between brick pilasters. The gable end is clad with slate shingles and includes an arched louver vent flanked by fixed wood panels imitating a Palladian window. Two sixteen-over-sixteen double-hung wood windows set below a thirty-light wood fixed transom window are found within the outer arches. The original wood-paneled double doors have been removed and currently the opening is covered with plywood (**Photograph 12**). Copper rain gutters and downspouts attached to the exterior with ornamental brackets are found at six locations around the building; some are intact, others have only fragments of the spouts remaining. Light fixtures that once flanked either side of each entrance have been removed.

Building 140 was constructed in 1916-1918 as a pump house for Drydock 3, and it houses the motors and control panels that once operated the pumps deep in the pump pit. Presently the pump pit is inundated. In general, interior walls are clad in cement plaster with white subway tile on the lower portions of the walls. Flooring consists of white hexagonal tile with perimeter border of black tile that forms a Greek key pattern. The interior plan is generally divided into two main rooms: a circular room on the east end, and a square room with convex east wall. Additionally, two small anterooms on the south and north sides encompass the triangular spaces formed by the junction of the two main rooms. The eastern room is circular and formed by the curved portion of the apse end and a curved partition wall on the west side. Wood-paneled doors lead from this room into the anterooms. The focal point of the room is a central cast-iron column clad in subway tiles and cement plaster which extends downward to the base of the pump pit. Surrounding the center column are four large circular motors and two smaller circular motors, each powering a centrifugal pump beneath ground level. The back (west) wall has a cast iron panel with a series of motor controls and gauges measuring kilowatt hours (**Photograph 13**). The central column extends upward and is topped with a crown upon which the arm of a revolving crane is anchored. When operational, the revolving crane would rotate around the axis formed by the column. A box-shaped metal bus designed to be moved back and forth along the arm remains, and a large hook,

rigged with a pulley, hangs from the arm (**Photograph 14**). Just east of the entrance door are the remains of a rectangular circuit box. A complex truss system radiates from the central column in the apse end and supports a 4" cinder concrete roof, reinforced with welded metallic fabric and clad with slate shingles.

The anteroom on the north side of the building includes a staircase leading to the pump pit, and provides access above the crane in the east room and pulley track in the east room by metal ladders. It also houses the water closet (southwest corner) which has a single marble stall. A cast-iron panel, three sections high by five sections wide with remnants of meters, is affixed about 2' in front of the north wall. The anteroom on the south side is a mirror image of the north anteroom, but only includes a staircase leading to the pump pit. Unlike the north side room, this room has a drop ceiling that bisects the exterior window. Wood-paneled doors lead from either anteroom to the western end of the building. This large room has a convex east wall that contains the back side of the motor control panel in the east room. A wide band of crown molding located approximately 1' above the windows wraps the entire room, creating the illusion of low walls. The west wall is highlighted by the arched opening of the exterior louver, now filled with plywood. The central portion of this room consists of transformers, switchgear, and workbenches.

Building 204 (Gate and Pump House) is a small, single-story building with a rectangular footprint measuring 26' by 24'. Constructed in 1903-1904 of brick laid in a running bond pattern, this building is similar to Building 205. The roof, of composition shingles, has a boxed and modillioned cornice, and slate tiles clad the pedimented gable ends. Rain gutters are present on some segments of the eaves, but are missing on others. At each corner of the building is a brick pilaster and a corbelled architrave wraps around the building in line with the capital of the pilasters. The east side has one opening, a wood-paneled, double door with a ten-light arched transom above (**Photograph 15**). As originally designed, the north and south sides of this building were identical with two six-over-six arched double-hung wood windows on each side. However, one window on the south side was replaced at an early date with a wood-paneled door with upper glazing and a two-light arched transom. Remnants of the original brick window sill remain (**Photograph 16**). Fenestration on the west side includes six-over-six double-hung arched wood window as well as two wood-paneled doors, each with a four-light transom above (**Photograph 17**).

Some portion of all of the equipment present in a 1945 drawing of the general arrangement of the room remains within the interior of Building 204 (**Figure 18**). The interior is comprised of two rooms. The largest houses two centrifugal pumps that sit in the center of the room with two motors to the east. A pump set occupies the northeast corner and switch gears and switchboxes are mounted on the walls. A compensator is located in the corner nearest the pump set. A set of four hose connector valves installed at ground level on the north side of the building provided access to pumped salt water. A pulley system connected to the pumps is constructed of large timber posts and bolted to concrete piers. The second room is located at the southwest corner of the building and is only accessed from the exterior. Walls and floor are made of concrete and its simple wood roof trusses are left exposed. Interior window and door surrounds are simple, 4" wide wood trim.

Building 205 (Pump House No. 2) was constructed in 1901-1903 as a pump house for Drydocks 1 and 2. Visually and functionally, the building can be divided into three sections: an engine room (west section); boiler room (middle section); and compressor room, which was added on the east end of the building by 1930 (**Photograph 18**). The engine and boiler rooms, which comprise the original sections of the building, display an eclectic mix of Colonial and Greek Revival elements which are common to the Neoclassical Revival style. Generally, this brick building has an L-shaped plan and sits on a concrete foundation. The building is topped by a series of composition-shingle gable roofs of varying heights. Both the engine and compressor rooms roofs are supported by wood trusses; the boiler room has a steel truss system supported by steel I-beams anchored to the

interior brick walls. The building measures approximately 208' long and 61' at its widest point and is 56' in height. All brick is laid in a running bond pattern.

The western section best demonstrates the building's Greek Revival influences with its main symmetrical façade (west end), which is dominated by a pediment gable end decorated with a boxed and modillioned cornice with plain frieze located above three half-round brick arches set between brick pilasters. The gable end is clad with slate shingles and includes an arched louver vent which was originally flanked by fixed wood panels (only one panel remains) to mimic a Palladian window. Two twelve-over-twelve double-hung wood windows set below a nineteen-light wood fixed transom window are found within the outer arches. A metal roll-up door has replaced the original wood-panel double doors once found within the center arch. This side of the building has canted corners with elaborate crossed brackets (**Photograph 19**).

The north and south sides of this section, as well as the middle (boiler room) segment which is narrower in width, are decorated by brick arches of varying widths set singularly or in pairs with twelve-over-twelve and sixteen-over-sixteen windows placed singularly or in pairs below multi-light transom windows, all set between brick pilasters (**Photograph 20**). Three arches have been infilled (windows removed) with brick, and some pilasters were removed on the north side of the boiler room, likely during the 1940s when the Navy constructed the small concrete substation on the north side of the building (**Photograph 21**). Both sections have a corbelled-brick architrave below a boxed and modillioned cornice. A second main entrance is located on the north side, centered within the boiler room section. Only one side of the wood-panel double door remains below the thirty-light fixed transom window. Other secondary entrances include original arched, wood-panel doors located on the north, south, and west side of the western section. The east side of the boiler room is similar in design to the engine room section, with a pedimented gable clad with slate tile, an arched wood louver vent, boxed and modillioned cornice, brick arches and pilasters, and twenty-over-twenty double-hung wood windows with fixed transom. While the addition of the compressor room conceals most of the east side of the building, all architectural details and materials are still extant and intact.

The compressor room (east section) is the second addition constructed on the east end of Building 205. It is modest in both size and architectural detail when compared to the original sections of this Neoclassical Revival building (**Photograph 22**). This addition is a one story, wood-frame building with brick siding, topped by a side gable roof with projecting eaves, exposed rafter tails, and a small monitor vent centered on its roof. Wood shingles decorate the gable end. Fenestration includes simple rectangular six-over-six double-hung wood windows with soldier arches and brick sills spaced evenly around the building, only interrupted by three entrances. The main entrance to this section has been infilled by wood and is found on the south side. The other two entrances are sited on the north side and include a wood-panel door with upper glazing and modern, exterior-mounted, sliding wood door.

When completed in 1903, Building 205 was positioned between existing Drydock 1 and the site of Drydock 2, completed later that year. The building was designed to house the equipment necessary to pump both drydocks. Although much of the equipment has been removed from the interior of Building 205, many components remain. The compressor room has the fewest remnants of equipment. Most prominent in that room is an empty steel mesh cage attached to a concrete floor. In the boiler room, one of the boilers, still vented to a chimney in the roof, remains in the center of the room. In the southeast corner is a small chamber constructed of wood paneled walls with open windows and roof, once used as an oil room (**Photograph 23**). A steel staircase leads to a platform on the south side of the room; another set of stairs ascends from the platform to another small rectangular platform high in the center of the room, just beneath the trusses. The concrete floor and cement-plaster walls have no decorative detailing. Empty metal boxes that once accommodated switchgear are affixed to the west wall, connecting a switchgear panel within the engine room.

The engine room housed centrifugal pumps in a pit beneath. The room is dominated by a set of three large motors with engine wheels, still wound with rope, in its center. The wheels are mounted with their axles approximately two feet above floor level (**Photographs 24, 25**). Complete visual inspection of the pump well was inhibited by flooding of the wheel pit. A metal staircase descends into the pit at the center motor. Interior walls of the engine room are clad in original vertical Oregon pine paneling. Window and door surrounds have a decorative wood molding that matches a cornice extending around the interior at mid-level (**Photograph 26**). Exposed wood trusses, rafters, and purlins are visible in the ceiling. An I-beam, mounted to breast timbers in the ceiling, supports a pulley system. The original wood flooring is covered by what appears to be linoleum. A small interior door in the southeast corner of the engine room leads to a very small room formed by the exterior.

Building 207 (Latrine), a brick building with a rectangular footprint, was constructed in the 1930s in a simple utilitarian style using basic building materials (**Photograph 27**). The corrugated-metal gable roof has narrow eaves with exposed rafter tails. Fenestration includes rectangular steel windows comprised of a four-light pivot sash surrounded by twelve fixed lights. Each window includes a brick soldier lintel and brick sill. Entrances, located throughout the building, consist of both wood and metal doors. The Navy converted this building into a latrine in 1941. Currently the interior space is divided into nine rooms, most of which are accessed only from exterior doors and many of which are inaccessible because of safety hazards. The central portion of the building is divided into two main rooms that consist of toilets (separated by metal stalls), urinals, and showers, many of which have been removed or damaged, stainless steel sink basins, and dressing areas. Walls of the shower room are tiled, and the dressing rooms are formed by lathe and plaster partition walls. Vertical I-beams throughout the building support lathe and plaster ceilings. Concrete floors throughout run seamlessly approximately eight inches up the walls, forming a base.

Overall, the Hunters Point Commercial Drydock Historic District retains a high level of integrity. All of the contributing buildings retain architectural character-defining characteristics such as massing, original fenestration along the façades, and architectural ornamentation, which define the buildings as significant examples of Neoclassical Revival-style buildings. Despite the Navy's construction of numerous other buildings in and around the historic district between the 1940s and 1960s, all but three of these later buildings (Buildings 206, 208, 231) have been demolished. Thus, the historic district retains its integrity of location, setting, feeling, and association.

The historic district also retains a high degree of integrity of design, materials, and workmanship. Nearly all of the alterations to the individual contributing elements of the historic district took place during the Navy's occupation and ownership of the site. This includes replacement of some windows with doors (and vice versa) on the south sides of Building 204 and Building 205, and on three sides of Building 207; removal of the chimney stack in Building 205; and replacement of slate roof tiles with composite shingles and removal of eyebrow dormers and skylights in Building 205. Additionally, the Navy added service galleries and new staircases to both drydocks, and replaced the original timber planked drydock floors with concrete. Even with these changes, overall the design, materials and workmanship of the historic district remains present and together the six contributing resources convey a sense of time and place for turn-of-the-century ship repair. Furthermore, designed in a Neoclassical Revival style popularized by Chicago's Columbian Exposition of 1893, Buildings 140, 204, and 205 communicate the feeling of an earlier period of industrial construction when attention to detailed ornamentation was considered an important aspect of utilitarian design.

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

- [X] A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B Property is associated with the lives of persons significant in our past.
- [X] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply)

Property is:

- [ ] A owned by a religious institution or used for religious purposes.
- [ ] B removed from its original location.
- [ ] C a birthplace or grave.
- [ ] D a cemetery.
- [ ] E a reconstructed building, object, or structure.
- [ ] F a commemorative property.
- [ ] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Commerce
Industry
Engineering
Architecture

Period of Significance
1901-1941

Significant Dates
1901-1904: Drydock 2, Buildings 204 & 205
1916-1918: Drydock 3 & Building 140
1930-1939: Building 207

Significant Person
(Complete only if Criterion B is marked above)

Cultural Affiliation

Architect/Builder
Holmes, Howard C.
San Francisco Dry Dock Company
San Francisco Bridge Company
Union Iron Works
City Street Improvement Company

Period of Significance (justification)
The Hunters Point Commercial Drydock Historic District's period of significance dates from 1901, when the first elements were constructed, through 1941, when the Navy took occupancy of the site and it ceased operation as a private shipyard.

Criteria Considerations (explanation, if necessary)
N/A

Statement of Significance Summary Paragraph

The Hunters Point Commercial Drydock Historic District is significant at the state level under Criterion A for its important association with the development of commercial shipping and ship repair in California and the San Francisco Bay area. The Drydock facility was the largest commercial repair facility of its kind in the bay area, and served as an important infrastructural element of California's shipping capacity. During the period of significance, the facility served both private and military vessels, providing critical repair and support services. Additionally, the historic district is eligible at the state level under Criterion C, as a significant example of maritime engineering, as the work of master engineer Howard C. Holmes, and as a significant example of Neoclassical Revival architecture used for industrial buildings. With the exception of the drydocks at Mare Island, Drydocks 2 and 3 are the only surviving examples of this property type in California, and among a very small number in the western United States. Contributing resources to the historic district include Buildings 140, 204, 205, and 207, and Drydocks 2 and 3.

Narrative Statement of Significance (provide at least **one** paragraph for each area of significance)

Under Criterion A the historic district is significant for its association with the development of commercial shipping and ship repair in California and the San Francisco Bay area. As the largest commercial drydocks[1] in the bay area, and the Pacific Coast at the time of construction, the historic district directly contributed to the economic development of California and the development of San Francisco as a major commercial port. When construction of Drydock 2 began in 1901, Hunters Point had already functioned as a commercial repair drydock for thirty-three years. In the first four decades of the twentieth century, the Hunters Point drydocks were not only the largest repair drydocks in California, but were among a very small number of repair drydocks in the San Francisco Bay area. As such, they played a critical role in supporting the economic development of the state, servicing and repairing vessels bound for both domestic and international locations. Such infrastructural capabilities were critical in the economic and transportation development of the state during the period. Additionally, while operating as a commercial drydock in the early twentieth century period, the historic district serviced both private and naval vessels. Under its contract with the Navy, the Hunters Point drydocks serviced the larger naval ships, like those of the "Great White Fleet," which Mare Island Navy Shipyard could not accommodate because their existing drydocks had become obsolete in size. Although the Navy also subsidized construction of Drydock 3 in 1916 by entering into a contract with site owners and committing to a minimum number of yearly drydockings at Hunters Point, the role of the Hunters Point shipyard in naval ship repair was secondary to that of Mare Island, the Navy's primary shipbuilding and repair facility on the west coast. Hunters Point continued to serve private vessels through the end of 1941, when the Navy began occupying the site.

This grouping of drydocks and buildings is also significant under Criterion C, as an important example of maritime engineering in the early twentieth century, as an example of the work of master engineer, Howard C. Holmes, and as a significant example of Neoclassical Revival architecture used for industrial buildings. For example, construction of Drydock 2 required filling a peninsula south of the drydock and construction of Drydock 3 involved removal of most of Drydock 1. Except Building 207, the historic district was constructed in two phases, 1901-03 and 1916-18, necessitating complex engineering to consolidate the systems. To meet these engineering challenges, San Francisco Dry Dock Company and later, Union Iron Works hired highly esteemed

[1] During the span of the Hunters Point facility's history, common usage of the term "drydock" transitioned from "dry dock" or "dry-dock" to "drydock." Historic usage has been preserved in this nomination in relation to company names and direct quotations.

civil engineer, Howard C. Holmes, to engineer the system. Holmes engineered all contributing elements of the historic district, with the exception of Building 207 which Bethlehem Shipbuilding constructed in the 1930s. Although Holmes' work included some national and foreign commissions, his major body of work was centered on the engineered environment in San Francisco and the greater bay area. The historic district is an example of an entire system engineered by this master. Equally important, the aesthetic treatment of the buildings is representative of significant design mandates of the period. The utilitarian buildings embody distinctive characteristics of the Neoclassical Revival style. Collectively, the buildings exhibit a sophisticated intermingling of utilitarian and high-style design types, with Neoclassical Revival detailing elevating the otherwise industrial design character. Important character-defining features include scale and massing, brick façades, fenestration and architectural ornamentation including boxed cornice with modillions, corbelling, wood-paneled doors, and multi-light double-hung wood windows with transom.

This collection of resources is eligible as a historic district because its significance rests on the group as a whole. Constructed over a period of 40 years, the four buildings and two drydocks were designed and constructed as a unified facility. The contributors lack individual distinction, and each on its own would not merit listing in the National Register. The collection achieves significance as a whole because of the inter-related function of the individual elements. Although many of the buildings have been modified to some degree, overall, each building and structure individually retain sufficient integrity to convey the district's importance during the period of significance.

Historic Context

Technological Innovation/Engineering Achievement in Drydock Construction

The expansion of the commercial drydock facility at Hunters Point in the early twentieth century coincided with publication of an influential text on dock construction by Brysson Cunningham, a London engineer and expert on the subject. Writing from a north Atlantic perspective, Cunningham never directly addressed drydocks on the American west coast, however, his analysis did include some American drydocks. His work provides a solid, comprehensive look at the practice of dock engineering and construction in that period, as well as the history of drydock construction preceding this period.[2]

Drydocks, or graving docks, primarily function to provide a dry space for repair and maintenance of ships without prohibitive cost and effort. Early ships, if small enough in size, could be dragged ashore on an area of sloping sand to expose the underside of the ship. When too large in size, access could be gained by intentionally beaching a ship. In this method, practiced by the ancient Egyptians and Phoenicians, seamen anchored ships near shore at high tide and then left the ships high and dry as the tide receded. Beaching had obvious limitations; work could only occur in cycles, and limited suitable locations existed for employing this method. The process evolved to include erection of clay walls, earth dams, and temporary fencing around the beached ship to keep the water at bay. In its most sophisticated form, a "gridiron" was developed consisting of parallel beams laid over a masonry foundation in a tidal basin where a ship could be moored at high tide, and rest upon the grid as the tide ebbed. Beaching, in its various forms, proved efficient and effective for light ships and was still a common practice at the beginning of the twentieth century.[3]

The principle behind a graving, or drydock was a natural outgrowth of the beaching practice. In a graving dock, instead of removing the vessel from the water, the water is removed from the vessel. In its

[2] Brysson Cunningham, *A Treatise on the Principles and Practice of Dock Engineering* (London: Charles Griffin & Co., 1904).
[3] Cunningham, *Dock Engineering*, 462-3.

earliest incarnation, a natural inlet would be dammed. Evidence is unclear about when the first artificially excavated graving docks were constructed. It may have been a drydock constructed at Portsmouth, England in 1495 at the direction of Henry VII. This early example had timber walls backed with stone. In the following centuries modifications and advances were made to accommodate the increasing size and changing shapes of ships. Where the drydock floors had been bare earth, later examples had gridiron floors, or homogenous brick or masonry floors secured to piles to stabilize the drydock.[4]

Graving docks in America have a much more recent history. In 1840 the *Merchant's Magazine and Commercial Review* noted that "want of proper accommodation for vessels requiring repair is much felt by the shipping frequenting the American ports." The magazine cited the technical difficulty of construction and added operational expenses in locations where the perpendicular rise of tide is small as the reason for the lack of graving docks in American ports. The Navy had constructed the only graving docks that existed in the United States by 1840. America had no commercial graving docks at that time. Exercising excellent workmanship, the Navy constructed the granite drydocks at their Boston and Norfolk shipyards using high quality materials. They constructed other stone drydocks at New York in 1846 and Mare Island in 1891. By 1906, all four were judged by the American Society of Civil Engineers "to be in practically as perfect a state of preservation as ever."[5]

In the second half of the nineteenth century a debate emerged in the United States over the merits of stone versus wood graving docks. After the Navy meticulously constructed the first graving docks in the United States out of stone, two large timber graving docks were constructed in Brooklyn. The trend in drydock construction swayed toward timber for a number of years because of the lower expense and greater availability of timber. It was unusual for the era that the original drydock at Hunters Point, Drydock 1, was constructed of stone (1868). In 1885, Leveson Francis Vernon-Harcourt, explained that American builders of drydocks chose timber not only because of the lower costs associated with it compared to stone, but that timber drydocks could be "rapidly constructed, are less injured by frost, and drier and are more accessible with their narrow altars and gently sloping sides." Congressional authorization for the Navy to construct four large drydocks, two of timber, in response to the Spanish-American War, highlighted the debate. The Secretary of the Navy recommended against constructing timber drydocks, and the incident sparked an informal discussion within the American Society of Civil Engineers (ASCE). The ASCE strongly favored stone construction of drydocks, as did Brysson Cunningham. Congress reversed their decision and proceeded with plans to build all of the new drydocks of stone or masonry. Six years later, in his treatise on dock construction, Cunningham offered a scathing critique of the American practice of constructing timber drydocks. In direct response to the arguments set forth by Vernon-Harcourt, he stated that the contention "that timber-work is injured less than masonry by the severity of North American winters, strikes one as being untenable and even absurd...." He ultimately concluded that timber is "much inferior to stone or concrete" and that the fact that timber construction costs less is its only advantage.[6]

In the late nineteenth century, the United States became self-conscious about the inferiority of not just their drydocks, but the nation's lack of substantive naval power. The *New York Times* reported in 1885 that a recent study had found that a single English shipyard had more docking facilities than all drydocks combined in

---

[4] Cunningham, *Dock Engineering*, 463; H.F. Cornick, *Dock and Harbour Engineering: Volume 1, The Design of Docks* (London: Charles Griffin & Co., 1958), 176.

[5] Freeman Hunt, ed., *Merchants' Magazine and Commercial Review II* (New York: Freeman Hunt, 1840), 314; American Society of Civil Engineers, *Proceedings of the American Society of Civil Engineers* XXXII (New York: ASCE, 1906), 36-38.

[6] American Society of Civil Engineers, Proceedings, 36-38; Leveson Francis Vernon-Harcourt, Harbours and Docks: Their Physical Features, History, Construction Equipment, and Maintenance with Statistics as to their Commercial Development I (Oxford: Clarendon Press, 1885) 459; Cunningham, *Dock Engineering*, 477.

the United States. In 1890 historian Alfred T. Mahan published his influential, *The Influence of Sea Power Upon History,* in which he argued that a crucial factor in the British Empire's power was their strong navy. He called for the United States to increase the size and power of its navy to be prepared for conflict and to keep peace through providing a deterrent. When the Spanish-American War began in 1898, Congress became acutely aware of the country's naval deficiencies and quickly began building ships and drydocks. After this, another period of concentrated drydock construction occurred during World War II.

Early Commercial Drydocking History of Hunters Point

Not long after the Gold Rush caused rapid settlement of the San Francisco Bay, commercial interests identified Hunters Point as an ideal location for construction of a drydock because of its convenient location and geography. The peninsula itself was composed of green serpentine, a rock that is easily excavated, yet impervious to water. Additionally, the deep water approaches to the site made it readily accessible to large vessels. Recognizing these conditions, early developers organized themselves as the California Dry Dock Company in 1867. Partners in the venture included Lloyd Tevis, William Ralston, and Isaac Friedlander, key figures in California's economy at the time and all at least peripherally involved in shipping. Friedlander, for example, controlled much of the state's overseas wheat trade. Owning their own repair drydock allowed the partners to eliminate some of their business costs. The availability of a drydock also made the San Francisco Bay a more appealing trading port.[7]

California Dry Dock Company hired Alexis Von Schmidt, an influential nineteenth-century engineer, to design Drydock 1 for Hunters Point. The resulting structure was cut into the serpentine and lined with large timbers. It measured 462' long, 97' wide at the top, and 56' at the base. Massive blocks of granite quarried at Rocklin, northwest of Sacramento, formed the entrance of the drydock. Although construction activities for Drydock 3 obliterated Drydock 1 in 1916, drawings indicate that at least some of the granite from Drydock 1 remains at the site beneath extant piers (**Figure 1**). Newspapers announced that the "vast proportions" of this Drydock 1 would allow it to service any vessel currently afloat. Shipbuilders in the last quarter of the nineteenth century continually increased the size of vessels, so Drydock 1did not maintain its competitive edge for long. It did, however, remain operational until 1916.[8]

Construction of Drydock 2, Buildings 204, 205

The San Francisco Dry Dock Company, successor of California Dry Dock Company, owned and operated the original Drydock 1 at Hunters Point at the turn of the twentieth century. Since construction of that original drydock at Hunters Point in 1868, ships had increased in size. In order to accommodate the larger commercial ships, San Francisco Dry Dock Company decided to construct a new, larger drydock at its site. The company offered well-established engineer Howard C. Holmes a position as chief engineer to design the new drydock, which he accepted, resigning his post as chief engineer of the California State Board of Harbor Commissioners.

Once Holmes had prepared plans and specifications for the new drydock, San Francisco Dry Dock Company opened construction bids late in October 1900 and awarded the contract to the City Street Improvement Company. Work began on January 9, 1901 and on February 1, 1903, the first vessel drydocked.

---

[7] JRP Historical Consulting Services, *Historic Context and Inventory and Evaluation of Buildings and Structures, Hunters Point Shipyard, San Francisco*, September 1997.

[8] "The San Francisco Dry Dock," *Alta California*, August 19, 1867, 1; Navy Department, Naval Dry Docks, Hunters Point, *Tunnel Between Dry Docks No 2 and No 3,* Drawing No. 113928, 194[?], BRAC PMO West Caretaker Site Office, Yerba Buena Island.

The new drydock, Drydock 2, was significantly larger than the old drydock at 750' long compared to 462'. While not the largest drydock in the world, its dimensions and engineering put it in the same class with the largest, most modern drydocks. The new drydock was not intended to replace Drydock 1, but to expand the Hunters Point facility. The Holmes plan called for the new drydock to be situated south of existing Drydock 1, with the axes of the two drydocks at about a 14 degree angle (**Figure 2**). The composition of the peninsula, green serpentine, provided an ideal location for excavating another drydock. Construction crews used excavated material to fill the embankment adjacent to the south side of the new drydock. Holmes specified that the rock be excavated close to the actual contours of the drydock chamber so that only a thin layer of concrete would be required to finish the drydock. Concrete lined all parts of the drydock chamber except the sides of the approach, seat for the caisson, and the apron arch, all cut of granite masonry.[9] Sixteen altars, eleven at the top, five on the bottom, lined the sides of the basin from 100' from the gate to 150' from the head of the chamber. Construction crews poured concrete flush with timbers bolted to the stone basin to form the drydock floor. Cedar bilge blocks had eye bolts to accommodate ropes connected to pulley blocks on the side walls. Belaying and locating pins were set into the concrete on the curb and the first step. Crews installed three hand operated capstans on the north side of the drydock, and four steam powered capstans on the south side. A chain handrail, with cast iron posts each with two eyes to accommodate chains, was installed along the curb (**Figure 3**).[10]

Excavation work for Drydock 2 resulted in the demolition of the original pumphouse for Drydock 1. Holmes' plans called for a new steam generating power plant (Building 205) to serve both the old and new drydocks (**Figures 2, 5**). The building housed boilers and engines and was constructed of brick, in two sections, one 40' x 90' and the other 50' x 60'. In profile the form of the building suggested a steam locomotive, with the chimney contributing to the effect; the form also resembles early train stations with attached trainsheds (**Figure 4**). Neoclassical Revival in style, the arched windows and doorways, pilasters, cornices, eyebrow dormers, and Palladian-style louvered vent in the pediment echoed the stylistic elements popularized for industrial design at the Columbian Exposition in 1893. Equally formal, the interior of the engine room had walls, floors, and ceiling of naturally finished Oregon pine. More utilitarian in appearance than the engine room, the boiler room, designed to house seven Babcock & Wilcox water-tube boilers, had plastered walls and a concrete floor. A row of coal bunkers lined the front of the boiler room. "Endless rope" connected three Corliss engines, 350 horse power each, to centrifugal pumps below in the pump pit.[11] The pump pit beneath the engine room was 37' deep with concrete walls, and a concrete floor and I-beams to support the pumps. 38" discharge pipes and 26" suction pipes connected each of the three centrifugal pumps, respectively, to the bay and the drydock chambers. The discharge tunnel extended east to the bay from the pump pit. As planned, the building only consisted of two sections; however, a third section has been present since at least 1916. Photographs dated in the mid-1910s through the early 1920s show an addition at the east end of the building with a shed roof and wood paneled exterior walls (**Figure 6**). By 1930 this addition had been removed and the current brick-clad, gable-roof addition was present. The addition served as the compressor house for the steam generating plant.[12]

---

[9] The caisson seat is the place at the entrance of the drydock where the caisson is secured in place.

[10] Howard C. Holmes, *Plan Showing Location of Old and New Dry Docks at Hunters Point San Francisco Cal, Property of San Francisco Dry Dock Co*, 1903, Water Resources Center Archives, Berkeley, Charles Derleth Papers, Box 18, Folder 96; "Four Wharves to Cost Nearly Half a Million," *San Francisco Call*, October 11, 1900, 12; "Ready to Begin the Construction of a Drydock of Gigantic Size," *San Francisco Call*, November 18, 1900, 23.

[11] Endless-rope systems used wheels or drums to give motion to the rope, William Kent, A.M., M.E., *The Mechanical Engineer's Pocket-Book: A Reference Book of Rules, Tables, Data, and Formulae, for the use of Engineers, Mechanics, and Students* (New York: John Wiley & Sons, 1895), 914.

[12] Carl W. Condit, *American Building Art: The Nineteenth Century* (New York: Oxford, 1960), 197-200; *Journal of the American Society of Naval Engineers* XII (Washington, D.C.: R. Beresford, 1900), 1033-1037; Holmes, *Plan Showing Location of Old and New*

Holmes' 1903 drawing placed Building 204, referred to as the "Gate House," in the same location as an existing building associated with Drydock 1, likely also a gatehouse. A photograph dated 1903, after construction of Building 205, shows the old building, a small wood-paneled, gable-roof structure (**Figure 3**). Building 204 also appears in another photograph dated 1904 (**Figure 7**). Holmes' 1900 and 1903 drawings show a U-shaped tunnel underneath the Gate House, on either side of the Drydock 1 caisson. Upon opening a valve in the tunnel, water flooded the drydock, allowing the caisson to float out without capsizing. When Holmes designed plans for Drydock 2, he designed a new building, complementary to Building 205, to house the machinery that operated the tunnel.[13]

Drydock 2 required construction of a new floating steel caisson, or gate. Holmes also designed the new caisson, built by Union Iron Works. Rather than requiring a separate tunnel for flooding the drydock around the caisson, this caisson's design included thirteen, 30' valves that allowed water to flood the drydock through the caisson. Union Iron Works ceremoniously launched the gate on August 23, 1902 with Holmes and other engineers present. Union Iron Works had previously produced a smaller version of this caisson for the Navy shipyard at Mare Island. At the time of the launching, two other replicas of the Hunters Point caisson were under construction, commissioned by the Russian government. This caisson remained in operation until the Navy replaced it in 1952.[14]

At the end of January 1903, just a few days after completion of the drydock, the first vessel docked at Drydock 2 at Hunters Point. The battleship *Ohio* was successfully docked in the presence of an audience of engineers, W.F. Babcock, president of the drydock company, the other directors, and about 100 "friends" interested in the operation. As the water level receded in the drydock, workers scraped and cleaned marine undergrowth off the bottom of the vessel; the drydock was completely drained in two hours. The *San Francisco Call* reported after the successful docking, that the drydock was a "monument to mechanical skill of which any engineer might well be proud." It was also noted that although the *Ohio* was a large vessel at 388' in length, it looked small in the 750' long drydock, one of the largest in the world at the time.[15]

Union Iron Works and Bethlehem Steel/Shipbuilding & Turn of the Twentieth Century Shipbuilding and Repair

After San Francisco Dry Dock sold the Hunters Point facility to Bethlehem Steel in 1908 (**Figure 8**), the drydocks operated under the Union Iron Works name until 1917, when owners changed it to Bethlehem Shipbuilding Ltd., Union Plant, Hunters Point. Union Iron Works had a long history in San Francisco and much

---

Dry Docks at Hunters Point, 1903; "Hunters Point Dry Docks as Seen From Army Airplane," *San Francisco Examiner*, May 6, 1923, sec. K, pg. 3; *Photograph*, 1930, RG 181, Records of Naval District and Shore Establishments, 12th Naval District, SF Naval Shipyard – Hunters Point, Historical Shipyard Photographic Collection, 1904-74, 9NS-S 181-95-010, Box 3, Folder Hunters Point Naval Shipyard Aerial Photograph Binder [1930-1969]; *Bethlehem Shipbuilding – Hunters Point Dry Dock Construction, December 10, 1916,* Photograph, San Francisco Public Library, Historic Photograph Collection, Folder: S.F. Districts – Hunters Point, Photo Nos. AAB-8917, AAB-8918; "The New 750-Ft. Dry-Dock of the San Francisco Dry-Dock Co., at Hunter's Point, Cal.,"; *Engineering News* (October 1900), 276-278.

[13] Holmes, *Plan, Hunters Point*, 1903; *Photograph*, 1903, Box: 11, Folder: Hunters Point Naval Shipyard, Drydocks, Photographs, Multiple Dates, RG 181, NARA (San Bruno); USS *Ohio in dry dock at Hunter's Point, San Francisco, Calif., 19 July 1904*, Photo no. NH 60224, available at www.history.navy.mil/, accessed on July 21, 2009.

[14] "Will Launch Caisson," *San Francisco Call,* August 23, 1902, 10; "Mammoth Gate Floats on Bay," *San Francisco Call*, August 24, 1902, 26; "Launch of Water Gate for Dry Dock," *San Francisco Chronicle*, August 24, 1902, 12; "The New 750-Ft. Dry-Dock at Hunter's Point, Cal.," *Engineering News* (October 1900), 277; William Laxton, *The Civil Engineers and Architects Journal* XVII (London: 1854): 260; *Drydock No. 2, General*, Department of the Navy, Bureau of Yards & Docks, San Francisco, P.W. Drawing No. 16020-154, April 7, 1954.

[15] "Big Battleship Ohio Seems Lost in New Hunters Point Drydock," *San Francisco Call*, January 30, 1903, 12; "New Dry Dock Opens with Big Battleship as Guest," *San Francisco Chronicle*, January 30, 1903, 9.

has been written about the history of the company. The Donahue brothers, who failed to find riches in the gold mines, returned to San Francisco in 1849 to set up a blacksmith shop. The company, after changing hands and names numerous times, eventually became part of the largest shipbuilding operation in the country, Bethlehem Shipbuilding. [16]

After years of operating as an iron and brass foundry, the firm shifted its focus to shipbuilding as a result of the owner, Irving M. Scott, taking a trans-Pacific voyage in 1880, visiting shipyards along the way. Because mining, which had provided much of the demand for iron and brass, was in decline, Scott saw an opportunity to move the business into steel shipbuilding, an industry in its infancy on the Pacific coast. To accomplish a conversion to a shipbuilding operation, Scott and his partners purchased 32 acres in the Portrero[17] District, about 2 ½ miles away from their previous site at First & Mission streets. At this time, they also reverted to the name Union Iron Works, after having operated for the previous five years under the name Prescott, Scott and Company. Although distant from Eastern markets, the company proceeded with confidence. Their years of manufacturing experience allowed them to quickly start vertically integrating their shipbuilding operation. Local craftsmen designed and produced much of the machinery and facilities. Unique to their operation was a hydraulic drydock, built in 1885. In 1885 the plant produced the *Arago*, the first steel vessel constructed on the west coast. Until 1902, they continued to build vessels, several of which played prominent roles in the Navy, particularly during the Spanish-American war.[18]

Union Iron Works' move into shipbuilding was part of an intense boom in shipbuilding in the United States at the close of the nineteenth century. An article in *Engineering Magazine* in July, 1900 claimed that industry experts estimated the growth of shipbuilding in the country had experienced an unprecedented increase between 1898 and 1900. In 1890, when Mahan critiqued the state of the Navy, it had been many years since the country's shipbuilding had been competitive with the shipbuilders of other nations. In the era of wooden ships, the United States had been competitive because of ample supplies of timber. When technological advances in shipbuilding allowed iron and then steel to be used, Great Britain dominated the industry because of their supply of the material. When the United States increased its shipbuilding facilities and output at the end of the nineteenth century, it was as a revival.[19]

In 1900 an enumeration of all shipbuilding plants of any scale, manufacturing ships of any type, counted 325 shipyards, 250 located on the Pacific and Atlantic coasts, and 75 inland. Waldon Fawcett, writing in *Engineering Magazine,* divided the shipyards into four classes; shipyards building the largest and heaviest mercantile and naval tonnage, specialty shipyards, those devoted primarily to mercantile craft, and smaller plants producing smaller vessels. The writer considered only three US shipyards to fall into the first category, the Newport News Shipbuilding & Drydock Company of Newport News, Virginia, the William Cramp & Son Ship and Engine-Building Co. of Philadelphia, Pennsylvania, and the Union Iron Works (Portrero plant) of San Francisco.

---

[16] "History of Bethlehem's San Francisco Yard, 1849-1949," *Pacific Marine Review* (October 1949), 27; "The First 100 Years," *Fortnight* 7, no. 7 (September 30, 1949), 20; "History of the San Francisco Yard, Bethlehem Steel Company, Shipbuilding Division," *The Argonaut*, August 29, 1947, 10; Hugo P. Frear, "History of Bethlehem's San Francisco Yard: Formerly the Union Iron Works," *Historical Transactions, 1893-1943* (New York: Society of Naval Architects and Marine Engineers, 1945), 238; Ens. Clifford H. Hollander USN (Ret.), "Bethlehem's San Francisco Yard," *Shipmate 41*, no. 6 (July-August 1978), 17; J. Richards, "The Union Iron Works," *Machinery* 6, no. 1 (September 1899), 1; Bethlehem Shipbuilding Corporation, LTD, *Bethlehem Ship Repair Facilities*, (Bethlehem: Bethlehem Shipbuilding Corp, 1924), 96-118; Works Progress Administration, Writer's Program, Northern California, *San Francisco: The Bay and Its Cities* (New York: Hastings House, 1940), 176-278.

[17] "Portrero" is the historical spelling. Common usage today is "Potrero."

[18] Ibid.

[19] Waldon Fawcett, "The Ship-Building Yards of the United States," *Engineering Magazine* (July 1900), 493-510.

Union Iron Works was the largest shipbuilding plant on the Pacific Coast at the turn of the century. According to Fawcett, it embodied "the best and most progressive ideas," including a hydraulic lifting dock and hydraulic bending machine allowing the plant to produce turret rings for ships in a single piece.[20] After two decades of success in the shipbuilding industry, Union Iron Works was sold to the United States Shipbuilding Company in 1902. This company failed within a short period and Union Iron Works was sold back to a reorganization committee who brokered a sale of the company to Charles Schwab on behalf of Bethlehem Steel Corporation in 1905. The acquisition of Union Iron Works' Portrero shipyard marked the beginning of Bethlehem Steel's transition into shipbuilding. The earthquake of April, 1906 seriously damaged the hydraulic-lift drydock at the Portrero plant. Because Bethlehem and Schwab wanted Union Iron Works to remain the premier shipbuilding operation on the west coast, they quickly sought a solution to the lost drydock. On November 11, 1908 Schwab, on behalf of Bethlehem Steel, purchased the drydocks at Hunters Point from San Francisco Dry Dock Company and Hunters Point became part of the Union Iron Works plant. At this time, Schwab also began negotiating a deal with the Navy for care of their warships at the facility.

At the time of the sale, the *San Francisco Call* claimed that Drydock 2 "is considered the finest in the world," noting that the facility had been able to handle 12 battleships with ease when the "Great White Fleet" was on the Pacific coast in 1907. Plans for the new drydock called for it to be 1,050' long and able to accommodate two battleships at the same time. The *Call* claimed that the addition of this drydock to the facility would make Hunters Point "the best equipped port in both hemispheres for repairing vessels." While this may have been an exaggeration given the competition among dockyards in this era, the defining characteristics of the drydock – deep water access, the chamber excavated in impervious green serpentine, and its size/capacity – made it a plausible ambition.[21]

The presence of shipbuilders like Union Iron Works, Risdon Iron Works, and Fulton Engineering and Shipbuilding in San Francisco Bay made the bay the most prominent, productive shipbuilding locale on the Pacific Coast. The availability of the drydocking facilities at Hunters Point was crucial to the port's productivity, allowing both commercial and naval ships to remain in the port for maintenance, overhaul, and repair. The *San Francisco Call* reported in December, 1901 that long gone were the days when all ships passing through the Golden Gate were built abroad. The customs house in San Francisco only counted 12 ships constructed outside of California for the calendar year 1900. The boom in San Francisco's shipbuilding at the end of the nineteenth and early twentieth century coincided with a prosperous trend along the Pacific Coast in this period, and with the national interest in increasing naval power.[22]

Construction of Drydock 3 and Building 140

When Charles Schwab brokered the purchase of Hunters Point for Union Iron Works, Bethlehem Steel had grand initial plans for the site. They planned to move the shipbuilding plant at Portrero to Hunters Point, construct a large new drydock, and serve ships of the Navy's fleet. The combination of Union's established shipbuilding operation and San Francisco Dry Dock's repair facilities would create a shipbuilding giant on the Pacific Coast. By 1909 Schwab's initial plans had become more modest. Rather than consolidate the two Union Iron Works sites in the bay, he decided to operate Portrero and Hunters Point as two separate and distinct facilities, one for shipbuilding, and one for repair. The new corporation would be known as Union Iron Works Drydock Company with the stated purpose to "construct and operate drydocks, floating docks, wharves,

[20] Fawcett, "The Ship-Building Yards of the United States," 494.
[21] "Hunters Point Drydock Merged with Union Iron Works," *San Francisco Call,* November 12, 1908, 1-2.
[22] "Growth of Shipbuilding in Industry in California," *San Francisco Call*, December 15, 1901, 53.

warehouses, piers, factories and vessels." This name remained until 1917 when it was changed to Bethlehem Shipbuilding Co., Ltd (**Table 1**).[23]

CHRONOLOGICAL LISTING OF OWNERSHIP OF HUNTERS POINT DRYDOCKS, 1867 – PRESENT.		
DATES OF OWNERSHIP	**OWNER**	**OPERATING NAME**
1897 - 1901	California Dry Dock Company; San Francisco Dry Dock Company; South San Francisco Dry Dock Company	Hunters Point Dry Dock
1901 – 1908	South San Francisco Dry Dock Company (known as San Francisco Dry Dock Company)	Hunters Point Dry Docks
1908 – 1917	Bethlehem Steel	Union Iron Works, Hunters Point
1917 – 1939	Bethlehem Shipbuilding	Bethlehem Shipbuilding, LTD., Union Plant, Hunters Point
1939 – Present	U.S. Navy	Naval Shipyard Hunters Point; San Francisco Naval Shipyard; Hunters Point Naval Shipyard

San Francisco Dry Dock Company started planning for construction of a third drydock prior to selling the site to Charles Schwab. In February, 1907, *The San Francisco Call* reported that the Navy was encouraging the San Francisco Drydock Company to construct the largest drydock in the world, capable of accommodating two battleships at once. Not until surveyors went to work at the site did information leak to the public about the proposed drydock and the Navy's role in the project. In July, 1907 the *San Francisco Chronicle* published a drawing showing the proposed drydock located north of original Drydock 1. Howard C. Holmes designed the plans for the new drydock and pump house. Although he would not reveal details of his plans, he did state the dimensions of the proposed drydock and supplied a table comparing it to other drydocks around the world. The proposed dimensions of Drydock 3 exceeded the world's largest drydock at Glasgow by 170' in length and 10' in depth. Sale of the site and negotiations with the Navy, however, delayed commencement of actual construction of the new drydock until 1916. Schwab could not justify the expenditure based on the commercial drydocking market alone; he needed a military subsidy to bring the project to fruition.[24]

In the early twentieth century the Navy sought to expand their facilities on the Pacific Coast. The only drydocks the Navy owned on the west coast were at Mare Island Naval Shipyard in Vallejo, California and Puget Sound Naval Shipyard in Bremerton, Washington. When the "Great White Fleet" arrived in San Francisco in 1907-1908 on their circumnavigation of the globe, the drydocks at Mare Island were too small and outdated to accommodate the vessels. Instead the Navy sent the fleet to Hunters Point for servicing. An act of Congress, approved June 30, 1914, authorized the Secretary of the Navy to enter into a contract with Union Iron Works for the use of the present drydocks and construction of a new one. Union Iron Works submitted a tentative draft for construction to the Committee on Naval Affairs in 1915. The tentative contract called for Union Iron Works to finance, construct and maintain for six years the new drydock in exchange for the Navy using the drydocks for its fleet. Once the Navy accepted this contract, Bethlehem began construction of

[23] "Schwab Drydock is Incorporated," *San Francisco Call*, February 2, 1909, 5; "Deed Filed for Hunter's Point," *San Francisco Chronicle*, November 16, 1909, 3.

[24] "San Francisco to have the Largest Dry Dock in the World," *San Francisco Chronicle*, July 14, 1907, 3; "Largest Drydock in World to be Built Here," *San Francisco Call*, February 8, 1907, 16.

Drydock 3. Viewed by the Navy as a temporary solution, Congress appointed a commission in 1916 led by Rear Admiral J.M. Helm, to study shore facilities on the Pacific Coast as sites for a new Navy shipyard. The Helm Commission determined that another shipyard was needed in the San Francisco Bay area. They closely studied Alameda, Yerba Buena Island, Richmond, and Hunters Point. The City of San Francisco submitted a proposal to the Navy promoting Hunters Point as the region's best option for a Navy shipyard. The Navy expressed concerns about the height of the promontory on Hunters Point and the need for fill around the point. Ultimately, the commission recommended building a shipyard in Alameda, but did not act upon it.[25]

When the Navy entered into contract with Union Iron Works in 1915 for construction of a new drydock at Hunters Point, plans still called for Drydock 3 to be constructed north of the two existing drydocks. Plans submitted by Holmes to South San Francisco Dock Company in 1915 showed the new drydock in that location as well. Hugo P. Frear also submitted plans and specifications for a new drydock north of Drydock 1. In 1916 Holmes submitted specifications for the new drydock for Union Iron Works that called for the obliteration of Drydock 1 and construction of a new drydock in its place, parallel to Drydock 2 (**Figures 9, 10**). The new drydock would have its own electrically powered pumphouse, rather than sharing a pumphouse like Drydocks 1 and 2. Ultimately, Union Iron Works chose to execute this plan and obliterate Drydock 1 to construct Drydock 3.[26]

The specifications Holmes submitted in March 1916 outlined and divided into six separate parts the construction plans of the drydock, and the associated pumping plant, electric equipment, approaches, wharves, caisson, and other appurtenances. Union Iron Works awarded each part as a separate contract. They awarded the first and largest part which included excavation, concrete work, the power and transformer building, pump pit, and discharge and suction tunnels to San Francisco Bridge Company in May 1916. Charles Schwab remained involved in the process, calling John A. McGregor, president of Union Iron Works, east in May of 1916 for a conference on construction of the drydock. The papers had reported in February that Holmes had also travelled east on a matter related to the drydock, probably for a meeting with Schwab.[27]

The distinguishing aspect of the new drydock was its great size, which would make it the largest drydock on the Pacific Coast and among the largest in the world. Holmes' specifications called for the drydock to be 1,020' in length, 110' wide at the bottom, and 153' wide at the coping. The interior sides of the drydock had twelve altars at the top and five at the bottom. An open gutter on each side of the drydock drained water at a uniform grade to the discharge tunnel. The entire interior of the drydock, excluding the floor, was plastered with Gunite, composed of one part cement to three parts sharp beach sand. The subfloor of the drydock was constructed of Oregon pine timbers with concrete fill flush with the top of the timbers. Covering the entire subfloor to the edge of the gutters, planks of yellow fir were fastened to the floor sills. Bilge timbers and keelsons were anchored into the stone before constructing the floor. Bilge blocks and keel blocks, both of laurel, were placed on both sides of the drydock. Eye bolts opposite the bilge blocks, in the lower altar, would allow hauling ropes to pull bilge blocks away from keelsons. Belaying pins, fastened to the second altar from

---

[25] Bonnie L. Bamburg, *Historical Overview of Hunters Point Annex Treasure Island Naval Base and Descriptions of Properties that Appear Eligible for Listing in the National Register of Historic Places*, Submitted to Western Division, Naval Facilities, Engineering Division, 1988, 11-14.

[26] Congress, House, Hearings before Committee on Naval Affairs, *Estimates Submitted by the Secretary of the Navy,* 1915; Howard C. Holmes, *Report of Proposed Improvement of Land of South San Francisco Dock Company, 1915,* James D. Phelan Papers, Series 9, Carton 33, Folder 7, Bancroft Library; Howard C. Holmes, *Specifications for a Concrete Graving Dock for the Union Iron Works, Hunters Point, San Francisco,* 1916, M.M. O'Shaughnessy Papers, Subseries 1.3, Carton 10, Folder 22, Bancroft Library; "New Dry Dock for San Francisco," *Journal of the Society of Naval Engineers* XXVII (1915), 235-240.

[27] Holmes, *Specifications,* 1-2; "Dry Dock is to be Built by S.F. Firm," *San Francisco Chronicle,* May 2, 1916, 1; "Work is Begun on Monster Dry Dock at Hunter's Point," *San Francisco Chronicle,* February 20, 1916, 29.

the top, accommodated coiled rope. Specifications called for ten induction motor-driven electric capstans with cast iron barrels, however later drawings indicate that nine were installed. Electrically powered capstans eliminated manpower necessary to pull rope lines in hand operated capstans. Stairways built into the body of the drydock, each with a brass hand rail, provided access to the trough. Ten electric capstans supplied the winching power for lines securing vessels in place in the drydock. Holmes designed the drydock with a rudder pit, a necessary feature at the time, but rare a few decades later in drydock construction because changes in rudder design made such pits obsolete. A chain handrail, identical to the one installed at Drydock 2, was installed along the curb. Standard gauge crane tracks laid along the perimeter on the posterior side of the capstans, connected into the crane tracks servicing Drydock 2.[28]

Although Holmes specified that the pumping plant (present-day Building 140) designed to drain Drydock 3, should aesthetically and architecturally complement the existing pumping plant (Building 205), the new plant had fundamental technological differences from the old. Constructed within less than twenty years of one another, the two pumping plants reflect technological advances made in the early twentieth century. While the older pumping plant had engines operated by steam boilers and a compressor, the new pumping plant was entirely electric.

A reinforced concrete tunnel of 12' inside diameter, extending north from the drydock to directly beneath the pump pit, connected Drydock 3 to the pumping plant. Six squirrel cage, induction type motors placed in a circular room powered six centrifugal pumps in a circular pump pit below (**Figure 11**). Four main 54" diameter pumps, operated by 750 horse power motors, and two smaller, 15" diameter discharge pumps operated by two smaller motors, were designed to drain the drydock in two hours and fifteen minutes. Each pump, manufactured by Byron-Jackson Iron Works of San Francisco, was mounted on a rotating shaft operated by the motors above. 54" diameter suction pipes beneath the main pumps, 2' above the floor of the intake pipe, drew water in and the cast iron impellers caused the water to exit the pump through 48" diameter discharge cast iron pipes. The two smaller pumps each had 15" diameter suction pipes extending to the bottom of the intake channel, and also connected to sump pumps in the pump room floor. The two discharge pipes from the smaller pumps merged near the center of the pump pit and water was discharged through a 20" diameter discharge pipe. Each of the five discharge pipes had check valves to prevent backflow. The main discharge pipes had connections with both high pressure salt water and Spring Valley Water mains for the purpose of priming drainage pumps.[29] Specifications indicate the sumps were connected "with tunnel," likely the 20" discharge pipe associated with the smaller pumps. An estimate for replacement of the sump pumps, prepared in 1959, refers to the two 15" pumps as sump drainage pumps and indicates that they needed replacement, along with four suction line gage valves from Drydock 3 pump well after forty-two years of continuous use. New pumps, gate valves, and necessary piping would be installed to replace the old system that had become significantly corroded.[30]

---

[28] *Photograph,* 1903, Box: 11, Folder: Hunters Point Naval Shipyard, Drydocks. Photographs. Multiple Dates, RG 181, NARA (San Bruno); Howard C. Holmes, *Concrete Graving Dock for Union Iron Works Drydock Co., Foundation for Capstans and Outer Rail of Gantry Crane,* February 1916, Hunters Point Naval Shipyard (Building 383); Holmes, *Specifications*, 5-12.

[29] Spring Valley Water Company was a private water company that supplied water to San Francisco.

[30] Holmes, *Specifications*, 14-19; Howard C. Holmes, *Concrete Graving Dock for Union Iron Works Drydock Co., General Plan of Pump and Transformer House,* February 1916, Hunters Point Naval Shipyard (Building 383); *Estimate for Special Allotment, Dry Dock 3, Replacement of Sump Drainage Pumps,* January 27, 1959, Ships and Facilities, Navy, Hunters Point Naval Shipyard (Building 383); Byron Jackson Iron Works, Inc., *48" Vertical Pumps, Foundation Plan*, August 11, 1916, Hunters Point Naval Shipyard (Building 383); Byron Jackson Iron Works, Inc., *15" Vertical Pumps, Foundation Plan*, September 16, 1916, Hunters Point Naval Shipyard (Building 383).

Construction of the new drydock relieved Building 205 of pumping two drydocks; however, Holmes engineered the new system so that Building 205 retained the ability to pump both drydocks in the event of emergency or mechanical failure in Building 140. A tunnel installed from the pump pit under Building 205 connected the pit to the new drydock. Eliminating Drydock 1 caused Building 204 to lose its function as a gate house. The tunnel extending from the bay under the building was cut off and the section exiting the gatehouse toward the drydock was extended to intersect with the tunnel connecting the two drydocks. Holmes' specifications transformed Building 204 into a salt water pump house, equipped with one high pressure salt water pump to accommodate washing down and testing purposes.[31]

Holmes designed the pump and transformer building for Drydock 3, Building 140, to complement the existing power house for Drydock 2 in design, materials, and ornamentation. Specifications stated "all brick cornices, belt courses, arches and other ornamental brick work ... must be laid up in the most neat and substantial manner and must follow the detail of the present power house." Holmes repeatedly made clear in the specifications that the work associated with the building was to be of superior quality and workmanship.[32]

In addition to quality and workmanship, the specifications also called for very sturdy construction of the new building. Exterior walls were veneered with the best Sacramento stock brick laid in red mortar over one-foot-thick, likely reinforced concrete, walls. Although specifications do not state if the concrete was reinforced, the building period, the fact that construction occurred post-1906 earthquake, and that the walls supported a concrete roof, indicate that the walls are reinforced. A complex truss system, radiating from the central column in the apse end supported a 4" cinder concrete roof, reinforced with welded metallic fabric, and clad with slate shingles specified at 12" x 24", California Brilliant Black Roofing Slate; all flashings were copper. Slate shingles of the same size, but green in color, clad the pediment in the gabled end. All openings for exterior doors and windows were the same size and shape. Doors made of the "best kiln dried redwood stock panel" hung in both interior and exterior doorways. Windows, double-hung with sugar pine sashes operated by Queen overhead pulleys and transom sashes above, designed to match the windows in the existing power house, were placed at even intervals around the building. Crystal Sheet Glass, free of all flaws, was glazed at the building site after framing the sashes. Architectural ornamentation and hardware, also designed to match the existing building, included mouldings, cornices, and gutters (**Figure 12**).[33]

Interior walls of the new building were plastered with cement gunite and troweled to a smooth surface. The circular room housing the motors on the east end of the building was separated from the transformer room with a reinforced concrete partition wall topped with a concrete crown molding. The track for a travelling crane ran along the top of the partition wall. Flooring in the transformer room was constructed of concrete, 6" thick. Throughout the building, floors were covered with 1" hexagonal white ceramic tile with a 6" black border of hexagonal tiles. Plans included a lavatory on the north side of the transformer house, just outside the motor room with one toilet, and one wash basin connected to the discharge tunnel with iron stove pipe sewer.[34]

Construction of Building 207

Bethlehem Shipbuilding constructed Building 207 as a tool and paint shop sometime between 1930 and 1941. Construction materials and design strongly resemble the east addition of Building 205. Both have low pitched, corrugated metal, gabled roofs, simple brick construction without ornamentation, and rectangular

[31] Holmes, *Specifications*, 10, 33.
[32] Holmes, *Specifications*, 20.
[33] Holmes, *Specifications*, 19-22.
[34] Holmes, *Specifications*, 19-22.

window and door openings. The Navy converted the building to a latrine and wash house in 1942. Navy plans show the building partitioned into various rooms, each with its own entrance door. The largest room was located in the center of the building and served enlisted men. A shower room and two dressing rooms in the center of the room were surrounded by toilet stalls; urinals lined the east and west sides of the room, wash basins the north and south sides. The northwest corner of the building had a room with toilet stalls, urinals, and wash basins to serve shipyard workmen. A boiler room in the southwest corner of the building had one exterior door. An enlisted men's laundry room with one exterior door was between the boiler room and the large central room. The east end of the building was divided into four small rooms designated for warrant officers, officers, C.P.O.'s and Captains. Each of these rooms had its own exterior entrance, three on the east end of the building, one on the north side (**Figure 14**). In the Navy's conversion of this building they added new exterior doors, and changed existing doors to windows in some cases. Three skylights were also added to the ridge of the roof during this renovation. During World War II, a request was submitted to the Public Works Officer at Mare Island for authorization of funds to alter the building to accommodate the shipyard's women workers. At the time of field inspection, plywood partition walls were present in the east end of the central room that may have been the requested accommodation.[35]

Engineer, Howard C. Holmes, and His Body of Work

As noted earlier, San Francisco Dry Dock Company hired Howard C. Holmes to serve as chief engineer of the company. Holmes planned the expansion of their Hunters Point facility. Construction began in January, 1901 of a new drydock (Drydock 2), a pump house (Building 205) to serve both the old drydock and the new, and a small gate house (Building 204).

Howard C. Holmes was in the middle of a distinguished career when San Francisco Dry Dock Company hired him as their chief engineer. He held that position until his death in 1921; however, he did not give up his private engineering consulting practice in San Francisco. Throughout his career, he was associated with street railway construction, port and terminal work, and became an internationally recognized authority on drydock construction.

Not quite a San Francisco native, Holmes was born in Massachusetts in 1854 and then relocated with his family to the San Francisco Bay area five years later. He attended public school and started his career surveying in his late teens. At nineteen years of age, he executed the contour survey for the development of Lake Chabot, designed to supply water to Oakland. At 21, he passed an examination for appointment as a US deputy surveyor and shortly after became assistant engineer of the State Board of Harbor Commissioners. He resigned that position to build the Alameda mole and depot, a ferry/railroad interchange, for the South Pacific Coast Railway Company in 1884. The buildings associated with the terminal burned in 1902 and were rebuilt the same year.[36]

---

[35] *Memorandum, Commander Millon to Commander Lewis, November 13, 1942*, Folder: A1-4 Public Works, Box 1, Hunters Point General Correspondence, RG 181, NARA (San Bruno); Barrett & Hilp Contractors, *Latrine & Wash House Floor Plan, Etc., January 31, 1942*, Hunters Point Naval Shipyard (Building 383), Public Works Drawing Nos. 10512-65, 10512-66; *U. S. Naval Drydocks Hunters Point, Layout of Yard June 30, 1940, History Plate II*, found in Edwin G. Schmidt, *History of the Development and Operation of a Naval Repair Yard at Hunters Point During World War II*, n.d.

[36] George W. Hilton, *American Narrow Gauge Railroads*, (Stanford: Stanford UP, 1990), 336-337; John P. Young, *Journalism in California: Pacific Coast and Exposition Biographies* (San Francisco: Chronicle Publishing, 1915) 277; *Golden Jubilee: Souvenir of the 50th Anniversary of the Discovery of Gold in California*, (San Francisco: The Stanley-Taylor Co., 1900?), 33; "In Memoriam, Howard Carleton Holmes", in *San Francisco Bay Marine Piling Survey, Second Annual Progress Report, January 15, 1922*, accessed online July 20, 2009 at www.archive.org/stream/sanfranciscobaym00sanfrich/sanfranciscobaym00sanfrich_djvu.txt; Benjamin

Beginning in the late 1880s Holmes focused on street railway construction. In 1888 he designed the Ferries and Cliff House Railroad, a complex system of two cable car lines (Powell Street line, and Park and Cliff House line) operating out of one powerhouse along a complex system of conduits and drives. In 1892 he worked on the incorporation of the Clay-Sacramento route into the line. According to the American Society of Mechanical Engineers (ASME), the Ferries and Cliff House Railway "was one of the most complicated cable-car systems to run from a single station." Because of this engineering feat, the Ferries and Cliff House Railroad Powerhouse received the first Historic Mechanical Engineering Landmark designation from ASME in 1973. ASME named Holmes as the engineer responsible for the system.[37] The reputation Holmes gained for his work on complex systems earned him railway commissions in other cities. In the late 1880s and 1890s he designed cable railways in Portland, Spokane, and Seattle and electric railways in Stockton, and Sacramento. Returning to his work in San Francisco, he designed an extension of the Union Street Cable Railroad from Fillmore to the Presidio.[38]

By 1892, the State Board of Harbor Commissioners of California appointed Holmes to a four year term as chief engineer where he served until his resignation in 1901. When reappointed in 1896, the *San Francisco Chronicle* reported that "his ability as an engineer is universally recognized." During his tenure as chief engineer, he built the water terminals for all of the railroads running into San Francisco, except the Southern Pacific lines. Southern Pacific did, however, use freight and passenger hoists invented by Holmes at their terminals. Serving as chief engineer, he and chief architect Edward Swain designed the Union ferry terminal (Ferry Building) which opened in 1898 and after rehabilitation in the early 2000s remains an iconic and important San Francisco landmark. During this time he also invented a method of building cylindrical concrete and wooden piles for wharves, designed to resist the teredos and limnoria that bored through wood structures in the bay. His invention led to a dispute with the Harbor Commission over patent rights and royalties. Despite the fact that the court did not grant him royalties, the method appears to be a significant innovation in designing wharf supports for the bay. His original design was improved upon in 1908 and others followed later with their own patents for wharf support designs.[39]

Holmes resigned from the Harbor Commission in 1901 to serve as chief engineer for the San Francisco Dry Dock Company, where he designed Drydocks 2 and 3 and their associated buildings (Buildings 205, 204, and 140), and focus on his private engineering consulting firm in San Francisco. His work on Drydock 2 was widely recognized as superb and in 1904 the Boston Harbor and Land Board commissioned him to report on the respective merits of graving and floating docks. The Canadian government commissioned him to design their drydock in Victoria.[40]

Shannon Allen, ed., *California from 1769 – 1909: An Illustrated History Issued in Commemoration of the Portola Festival* (San Francisco, 1910); *The National Cyclopaedia of American Biography,* Supplement 1, (New York: James T. White & Co., 1910), 194.

[37] American Society of Mechanical Engineers, *Historic Mechanical Landmark #1, Ferries & Cliffhouse Cable Railway Power House (1887)*, accessed online on July 21, 2009at www.asme.org/Communities/History/Landmarks/Ferries_Cliffhouse_Cable.cfm; Cable Car Museum, Cable Car Heritage, *The Ferries & Cliff House Railway – 1888*, accessed online on July 21, 2009 at www.cablecarmuseum.org/co-ferries-cliffhouse.html.

[38] Young, *Journalism in California,* 277; *Golden Jubilee,* 33; Allen, ed., *California from 1769-1909.*

[39] Board of the State Harbor Commissioners, *Biennial Report,* San Francisco, July 1, 1898; *San Francisco Chronicle,* August 28, 1896; San Francisco Bay Marine Piling Committee, *In Memoriam, The San Francisco Bay Marine Piling Survey, Second Annual Progress Report* (San Francisco: San Francisco Bay Marine Piling Committee, January 15, 1922), 10-11; Thomas S. Williams, "Concrete Wharf Supports in San Francisco Harbor," *Professional Memoirs* 9, no. 46 (July-August 1917), 393-398; "State Must Pay Holmes Royalty," *San Francisco Chronicle,* April 13, 1902, sec. A, pg. 24; "Holmes Loses His Patent Suit," *San Francisco Chronicle,* March 3, 1903, 9.

[40] "Chief Engineer Howard Holmes Soon to Resign," *San Francisco Call,* May 20, 1900, 23; "Chief Engineer Holmes Resigns His Position," *San Francisco Chronicle,* February 21, 1901, 12; SF Bay Marine Piling Committee, *In Memoriam,* 1922.

Holmes also served as chief engineer of the San Francisco, Oakland & San Jose Railroad Company which formed in 1903 in direct competition with commuter service offered by Southern Pacific. Like the South Pacific Coast Railway Company, the new route, quickly dubbed the "Key System" or the "Key Route," used both trains and ferries to move commuters around the bay. Holmes designed all of the marine structural work for the system's terminal mole, the Oakland Mole. The mole extended three miles into San Francisco Bay from Oakland and served as a ferry/railroad exchange. His railroad work also included a large part of the Oakland, Alameda, and Piedmont Railroad. In 1915 he engineered the yacht harbor and the freight and passenger terminals for the Panama-Pacific Exposition in San Francisco.[41]

During his career as a civil engineer in San Francisco the scope of Holmes' work encompassed many aspects of the city's built environment, including ferry terminals, wharves, harbors, railroad lines, and drydocks. His work was often noted for its innovation and complexity and his consultation was sought, particularly on drydock construction, by engineers around the country. Holmes died in 1921. In their memorium, the San Francisco Bay Marine Piling Committee stated that "no other engineer in this region had probably a wider or more intimate acquaintance with every detail of the complex history of port and waterfront development in this region than had Mr. Holmes." Hunters Point Commercial Drydock Historic District is an important example of a system designed by this engineer.[42]

Developmental history/additional historic context information (if appropriate)

Hunters Point during World War II

In the late 1930s, the Navy again took interest in acquiring Hunters Point in response to war in Europe and the Pacific. A congressional act in 1939 allowed Bethlehem Shipbuilding to sell Hunters Point to the Navy. The legislation called for Hunters Point to be run as an annex of the Mare Island Naval Shipyard in Vallejo, requiring the commanding officer at Hunters Point to consult the commanding officer at Mare Island on decisions involving facilities, personnel policies, and budget. The Navy immediately leased the property back to Bethlehem with a provision that the Navy could cancel the lease in the event of an emergency. During the lease to Bethlehem, the Navy prepared plans for the site and began the first phases of construction. There were few structures present on Hunters Point at this time other than the drydocks and their associated buildings (**Figure 15**). The Navy cancelled the lease in October 1941 and took possession on December 18, 1941, less than two weeks after the attack on Pearl Harbor. From this point forward, mobilization for World War II occurred rapidly at Hunters Point, now named US Naval Drydocks, Hunters Point. Between December 18 and 30, the Navy transferred 108 mechanics and helpers from Mare Island Naval Shipyard to Hunters Point. Between December 18, 1941 and September 2, 1945, 661 ships drydocked at Hunters Point. While certainly a contributor to the war effort, Pearl Harbor and Mare Island served as the main ship repair yards during the war. The Pearl Harbor Naval Base serviced 7,000 ships during the war, and Mare Island 1,227. Having operated as a commercial drydock before the war, in 1941 Hunters Point was not prepared for the volume of repairs and maintenance jobs the military needed during wartime.[43]

Although operating successfully since 1903 and 1918, the drydocks and pumping houses needed modernizing and rehabilitation to accommodate the Navy's wartime needs. This work began in earnest in early 1942 with construction of new buildings, and particular attention to repair of the drydocks themselves. At the

[41] Young, *Journalism in California,* 277; "Famous S.F. Engineer Ends Useful Career," *Mountain Democrat*, November 5, 1921, 6.
[42] SF Bay Marine Piling Committee, *In Memoriam,* 1922.
[43] JRP, *Historic Context, Hunters Point,* 15-16; Bamburg, 38; "San Francisco Naval Shipyard in Permanent Status," *Pacific Marine Review* (June 1947): 63-65, 120.

time of acquisition, Building 205 was still a steam generating plant, supplying power to the pumps and the large brick chimney was still present (**Figure 16**). Sometime in early 1942, the Navy removed the chimney and by January 1943 two new steel stacks were added to the ridge of the center section of the building (**Figure 17**). The plans for the new chimney system also called for re-roofing the building by resetting existing slate if practicable, or laying asbestos shingles; during field inspection performed in May 2009 heavily deteriorating shingles, not composed of slate, were present. Plans for the new roof did not retain the original eyebrow dormers or skylights. The Navy also revamped the power generating and pumping systems associated with Drydock 2. As Hunters Point expanded during World War II, so did its demand for power. In December 1942 two reconditioned boilers were placed in operation in the boiler room. By August 1943 the Bureau of Yards and Docks was advised that these steam generators were deteriorating rapidly and would not last longer than fifteen months. An electric drive system was installed to replace them. The Navy built an electrical substation on the north side of Building 205 sometime between 1942 and 1943 to house the transformer necessary to convert the building to electric power. The actual conversion to electricity occurred sometime between 1946 and 1950. Centrifugal pumps, which had deteriorated over time also had to be replaced with identical pumps made by the Navy's shops. The new system still used endless rope to transmit power to the pumps but the original rope, used since 1903, was replaced. The Navy also made utilitarian alterations to the west end, or engine room, after the production officer at the site requested women's lockers be added to a loft floor, and a tool room to the first floor. [44]

The Navy continued to use Building 204 as a salt water pump house for the purpose of fire control. The arrangement of the equipment on both the interior and exterior of the building in 1945 has remained virtually unchanged; however the Navy continued to repair or update this building's equipment throughout its operation of the site (**Figure 18**).[45]

The Navy also made alterations and renovations to the drydocks. Between 1942 and 1943 they added a series of concrete service galleries just below the rim of both drydocks, followed by a series of new cleats (**Figure 19**). Two new capstans were installed around Drydock 2, and the capstan from the bow end of Drydock 3 was relocated to Drydock 2 in 1943; a new capstan was installed at the bow end of Drydock 3 to replace the one relocated. One of the more significant alterations to the drydocks came in 1952 when the Navy replaced the entire original wood plank drydock floors with reinforced concrete. They altered the stairways on both drydocks, installing steel mesh staircases in Drydock 2 and adding staircases into the chamber walls of Drydock 3. Service lines supplying salt water, compressed air, and chemicals were added to the full length of the drydocks on both sides, near the bottom. [46]

---

[44] *Drydock No. 2, General*, April 7, 1954; Austin Willmott Earl, Consulting Engineer, *Boiler House Reconstruction Details*, March 14, 1942, P.W. Drawing Nos. 10534-61, 10534-62; *W.M. Johnson to Bureau of Yards and Docks*, October 20, 1943, Folder: N23 Generating Plants, Box: 27, Hunters Point Naval Shipyard General Correspondence, RG 181, National Archives and Records Administration (San Bruno); *Memorandum, Production Officer to Public Works Officer*, September 30, 1943, Folder: N23 Generating Plants, Box 27, Hunters Point General Correspondence, RG 181, NARA (San Bruno).

[45] *Salt Water Pump House, Bldg. No. 204, New Pump & Piping, April 7, 1945,* Naval Drydocks, Hunters Point, P.W. Drawing No. 16013-49; *Salt Water Pump House – Bldg. 204, General Arrangement, June 15, 1945*, US Naval Drydocks, Hunters Point, P.W. Drawing No. 16008-2; *Weekly Report of Public Works Projects, November 14, 1945, November 19, 1945, August 20, 1946,* Folder: A1-4 Public Works, Box 1, Hunters Point General Correspondence, RG 181, NARA (San Bruno); *Weekly Report of Public Works Project, October 3, 1947,* Folder: A1-4 Public Works, vol. II, Box 1, Hunters Point General Correspondence, RG 181, NARA (San Bruno).

[46] *Photograph*, May 13, 1942. RG 181, Records of Naval District and Shore Establishments, 12th Naval District, SF Naval Shipyard – Hunters Point, Historical Shipyard Photographic Collection, 1904-74, 9NS-S 181-95-010, Box 1, Folder Hunters Point Aerial Views Folder, 2 of 7; *Photograph*, November 12, 1941, Box 2, Hunters Point Aerial Views Folder, 4 of 7, RG 181, NARA (San Bruno);

Although Drydocks 2 and 3 shared many of the same improvements, each drydock also had unique repairs and improvements. The Navy scheduled a replacement deck for the caisson of Drydock 2 during August 1946, and then replaced the caisson entirely in 1952. An inspection report submitted after inspection of all drydocks at Hunters Point in June 1945 noted the presence of serious cracks in the sidewalls of Drydock 3. Plans for repair of these cracks and fissures were made in 1946. The report also noted that while the mechanical installations in Drydock 3 were old and in somewhat poor condition, it functioned properly. In 1951-1952 all of the motors driving the pumps in Building 140 required rewinding because of deteriorated insulation. By 1968, the eight remaining original capstans still functioned when an inspection report concluded that they needed major overhauling. The report cited lack of replacement parts because of age, and increased demand on the capstans because of the much larger size of contemporary ships compared to the ships the capstans had been designed to accommodate as reasons to replace the original capstans. The inspection report advised replacement of the four most important capstans.[47]

The Navy renamed Hunters Point facility the Naval Shipyard Hunters Point and placed it under its own commander by the end of 1945, making it an autonomous command within the San Francisco Naval Base. Immediately following the end of World War II, the shipyard, like most naval shipyards, took part in Operation Magic Carpet, aiding in return from overseas of US service personnel. In November 1945 the Navy re-designated the shipyard a separate component of the San Francisco Naval Base and a month later renamed it the San Francisco Naval Shipyard. The facility continued to serve as a docking area for Navy ships for repair, overhaul, maintenance and conversion in the years after the war. Other functions were transferred to the facility, including Ship Salvage Base, 12th Naval District and the Radiological Defense Laboratory (predecessor of the US Naval Radiological Defense Laboratory), set up along the southern waterfront. Beginning in the early 1950s the shipyard began to focus on submarine repair. It was in this capacity that the shipyard provided support to the fleet during the Korean and Vietnam conflicts.[48]

In April 1965, San Francisco Naval Shipyard command merged with Mare Island Naval Shipyard. Renamed the San Francisco Bay Naval Shipyard, it became the largest shipyard complex in the world, employing over 20,200 civilian employees and over 9,400 military personnel. This configuration ended in 1970 when both shipyards returned to autonomous operations. In 1974, the Navy deactivated the shipyard and leased the facility to private industry; however, the Navy continued to station several of its ships at Hunters Point. In 1986, the facility was transferred to Naval Station Treasure Island before Mare Island Naval Shipyard assumed full command in 1987. In 1991, the Base Realignment and Closure (BRAC) Commission identified Hunters Point for closure. Over the next decade, the Navy and City and County of San Francisco negotiated terms for the lease and subsequent transfer of the facility. In 2005, the Navy transferred to the city portions of the former shipyard facility not including Parcels B and C containing the historic district.[49]

Location & Details of Cleats at D.D. #2 (M.I.5) & D.D. #3 (M.I.6), April 9, 1943, Naval Drydocks Hunters Point, Calif., P.W. Drawing No. 16020-7; *Location Plan for New Capstans at Drydocks 2 & 3,* Naval Dry Docks, Hunters Point, Calif., BRAC PMOW Caretaker Site Office, Treasure Island, P.W. Drawing No. 16020-5.

[47] *Drydock No. 2, General*, April 7, 1954; *Drydock No. 3, General*, Department of the Navy, Bureau of Yards & Docks, San Francisco, P.W. Drawing No. 16020-155, April 7, 1954; L. O'Keefe, Inspector's Report, *Replacing Obsolete Capstans, Drydock 3*, July 15, 1968, Hunters Point Naval Shipyard (Building 383); BuDocks letter to Commanding Officer Naval Drydocks, Hunters Point, *Dry Dock Inspection Quarterly Report, Dry Dock No. 3*, June 12, 1945, Folder: N23 Generating Plants, Box 27, Hunters Point General Correspondence, RG 181, NARA (San Bruno); T.L. Davey to Commander, San Francisco Naval Yard, July 17, 1946, Folder: N23 Generating Plants, Box 27, Hunters Point General Correspondence, RG 181, NARA (San Bruno).

[48] Steven R. Black, Mare Island Naval Shipyard, Historic American Engineering Record for Hunters Point Naval Shipyard, Drydock No. 4, HAER No. CA-181-A, (April 1994) 11-12; Bamburg, 44-45.

[49] JRP, 27-28; Black, 11-12; "San Francisco Naval Shipyard," *Pacific Marine Review*, 63-65, 120.

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form)

Published Sources

Allen, Benjamin Shannon, ed. *California from 1769-1909: An Illustrated History Issued in Commemoration of the Portola Festival.* San Francisco: 1910.

American Society of Civil Engineers. *Proceedings of the American Society of Civil Engineers,* XXXII. New York: ASCE, 1906.

Bethlehem Shipbuilding Corporation, Ltd. *Bethlehem Ship Repair Facilities*. Bethlehem, Pennsylvania: Bethlehem Shipbuilding Corp., 1924.

Board of the State Harbor Commissioners. *Biennial Report*. San Francisco: 1898.

Condit, Carl W. *American Building Art: The Nineteenth Century*. New York: Oxford, 1960.

Congress. House. Hearings before Committee on Naval Affairs. *Estimates Submitted by the Secretary of the Navy.* 1915.

Cornick, Henry F. *Dock and Harbour Engineering: The Design of Docks, v. 1.* London: Charles Griffin & Co., 1958.

Cunningham, Brysson. *A Treatise of the Principles and Practice of Dock Engineering.* London: Charles Griffin & Co., 1904.

Fawcett, Waldon. "The Ship-Building Yards of the United States." *Engineering Magazine* (July 1900).

"The First 100 Years." *Fortnight* 7, no. 7 (September 30, 1949).

Frear, Hugo P. "History of Bethlehem's San Francisco Yard: Formerly the Union Iron Works." In *Historical Transactions, 1893-1943*. New York: Society of Naval Architects and Marine Engineers, 1945.

Golden Jubilee: Souvenir of the 50th Anniversary of the Discovery of Gold in California. San Francisco: The Stanley-Taylor Co., 1900?.

Hilton, George W. *American Narrow Gauge Railroads*. Stanford: Stanford UP, 1990.

"History of Bethlehem's San Francisco Yard, 1849-1949." *Pacific Marine Review* (October 1949).

Hollander, Ens. Clifford H. USN (Ret.). "Bethlehem's San Francisco Yard." *Shipmate* 41, no.6 (July-August 1978).

Hunt, Freeman, ed. *Merchants' Magazine and Commercial Review II.* New York: Freeman Hunt, 1840.

Journal of the American Society of Naval Engineers, XII. Washington D.C.: R. Beresford, 1900.

Laxton, William. *The Civil Engineers and Architects Journal,* XVII. London: 1854.

The National Cyclopaedia of American Biography Supplement 1. New York: James T. White & Co., 1910.

"The New 750-Ft. Dry-Dock of the San Francisco Dry-Dock Co., at Hunters Point, Cal." *Engineering News* (October 1900).

"New Dry Dock for San Francisco." *Journal of the Society of Naval Engineers,* XXVII (1915).

Richards, J. "The Union Iron Works." *Machinery* 6, No. 1 (September 1899).

"San Francisco Naval Shipyard in Permanent Status." *Pacific Marine Review,* (June 1947).

"US Naval Drydocks, Hunters Point." *Pacific Marine Review,* (October 1945).

Vernon-Harcourt, Leveson Francis. *Harbours and Docks: Their Physical Features, History, Construction Equipment, and Maintenance with Statistics as to their Commercial Development 1.* Oxford: Claredon Press, 1885.

Williams, Thomas S. "Concrete Wharf Supports in San Francisco Harbor" in *Professional Memoirs* 9, No. 46 (July-August 1917).

Works Progress Administration, Writer's Program, Northern California. *San Francisco: The Bay and Its Cities.* New York: Hastings House, 1940.

Young, John P. *Journalism in California: Pacific Coast and Exposition Biographies.* San Francisco: Chronicle Publishing, 1915.

Unpublished Sources

Bamburg, Bonnie L. *Historical Overview of Hunters Point Annex Treasure Island Naval Base and Descriptions of Properties that Appear Eligible for Listing in the National Register of Historic Places.* Submitted to Western Division, Naval Facilities, Engineering Division. 1988.

JRP Historical Consulting Services. *Historic Context and Inventory and Evaluation of Buildings and Structures, Hunters Point Shipyard, San Francisco.* September 1997.

Schmidt, Edwin G. "History of the Development and Operation of a Naval Repair Yard at Hunters Point During World War II." Unpublished, n.d.

Archival Sources

Primary sources from the following locations and collections are cited in footnotes throughout the nomination.

National Archives and Record Administration – Pacific Region (San Francisco):
Record Group 181. Records of Naval Districts and Shore Establishments. Hunters Point General Correspondence.

Bancroft Library:
James D. Phelan Papers, Series 9, Carton 33, Folder 7.

M.M O'Shaughnessy Papers, Subseries 1.3, Carton 10, Folder 22.

Water Resources Center Archives:
Charles Derleth Papers, Box 18, Folder 96.

Naval Sources

Primary sources from the following locations are cited in footnotes throughout the nomination.

Hunters Point Naval Shipyard, Building 383.

Base Realignment and Closure Program Management Office West, Caretaker Site Office, Yerba Buena Island.

Naval History and Heritage Command.

Newspapers

Primary sources from the following newspapers are cited in footnotes throughout the nomination.

Alta California

The Argonaut

Mountain Democrat

New York Times

The San Francisco Call

San Francisco Chronicle

San Francisco Examiner

Maps and Drawings

Barrett & Hilp Contractors. *Latrine & Wash House Floor Plan, Etc.* January 31, 1942. Public Works Drawings Nos. 10512-65, 10512-66 Hunters Point Naval Shipyard, Building 383.

Bryon Jackson Iron Works, Inc. *15" Vertical Pumps, Foundation Plan.* September 16, 1916. Hunters Point Naval Shipyard Building 383.

_____. *48" Vertical Pumps, Foundation Plan.* August 11, 1916. Hunters Point Naval Shipyard, Building 383.

Drydock No. 2, General. April 7, 1954. Department of the Navy, Bureau of Yards & Docks, San Francisco, P.W. Drawing No. 16020-154. BRAC PMO Caretaker Site Office, Treasure Island.

Drydock No. 3, General. April 7, 1954. Department of the Navy, Bureau of Yards & Docks, San Francisco, P.W. Drawing No. 16020-155. BRAC PMO Caretaker Site Office, Treasure Island.

Earl, Austin Willmott, Consulting Engineer. *Boiler House Reconstruction Details.* March 14, 1942. P.W. Drawing Nos. 10534-61, 10534-62. BRAC PMO Caretaker Site Office, Treasure Island.

Holmes, Howard C. *Concrete Graving Dock for Union Iron Works Drydock Co., Foundation for Capstans and Outer Rail of Gantry Crane.* February 1916. Hunters Point Naval Shipyard, Building 383.

_____. *Concrete Graving Dock for Union Iron Works Drydock Co., General Plan of Pump and Transformer House.* February 1916. Hunters Point Naval Shipyard, Building 383.

_____. *Plan Showing Location of Old and New Dry Docks at Hunters Point San Francisco, Property of San Francisco Dry Dock, Co.* 1903. Water Resources Center Archives, Berkeley, California.

Location Plan for New Capstans at Drydocks 2 & 3, Naval Dry Docks, Hunters Point, Calif., P.W. Drawing No. 16020-5. BRAC PMO Caretaker Site Office, Treasure Island.

Locations & Details of Cleats at D.D. #2 (M.I.5) & D.D. (M.I.6), April 9, 1943, Naval Drydocks Hunters Point, Calif., P.W. Drawing No. 16020-7. BRAC PMO Caretaker Site Office, Treasure Island.

Salt Water Pump House, Bldg. No. 204, New Pump & Piping, April 7, 1945, Naval Drydocks, Hunters Point, P.W. Drawing No. 16013-49. BRAC PMO Caretaker Site Office, Treasure Island.

Salt Water Pump House – Bldg. 204, General Arrangement, June 15, 1945, US Naval Drydocks, Hunters Point, P.W. Drawing No. 16008-2. BRAC PMO Caretaker Site Office, Treasure Island.

U.S. Naval Drydocks Hunters Point, Layout of Yard June 30, 1940, History Plate II. Found in Edwin G. Schmidt's *History of the Development and Operation of a Naval Repair Yard at Hunters Point During World War II,* n.d.

Electronic Sources

American Society of Mechanical Engineers. *Historic Mechanical Landmark #1, Ferries & Cliffhouse Cable Railway Power House (1887).*

Available at www.asme.org/Communities/History/Landmarks/Ferries_Cliffhouse_Cable.cfm.

Cable Car Museum. Cable Car Heritage. *The Ferries & Cliff House Railway – 1888.* Available at www.cablecarmuseum.org/co-ferries-cliffhouse.html.

San Francisco Bay Marine Piling Committee of the American Wood-Preservers' Association. *San Francisco Bay Marine Piling Survey: Second Annual Progress Report, January 15, 1922.* San Francisco: San Francisco Bay Marine Piling Committee, January 15, 1922. Available at www.archive.org/stream/sanfranciscobaym00sanfrich/sanfranciscobaym00sanfrich_djvu.txt.

USS Ohio at dry dock at Hunter's Point, San Francisco, Calif., 19 July 1904. Photo no. NH 60224. Available at www.history.navy.mil/photos/sh-usn/usnsh-o/bb12.htm.

Previous documentation on file (NPS):

___ preliminary determination of individual listing (36 CFR 67 has been Requested)
___ previously listed in the National Register
___ previously determined eligible by the National Register
___ designated a National Historic Landmark
___ recorded by Historic American Buildings Survey #_____
___ recorded by Historic American Engineering Record #_____

Primary location of additional data:

___ State Historic Preservation Office
___ Other State agency
X Federal agency
___ Local government
___ University
___ Other

Name of repository: Hunters Point Naval Shipyard, Building 383, San Francisco, California; BRAC PMO Caretaker Site Office, Building 1, Treasure Island, San Francsico, Calfiornia; National Archives and Records Administration, Pacific Region, San Bruno, California.

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreage of Property 18.980 acres (approximate)

UTM References

	Zone	Easting	Northing
1	10	556619	4175830
2	10	556752	4175691
3	10	556374	4175590
4	10	556264	4175669
5	10	556267	4175669

Verbal Boundary Description

From beginning at the intersection of Lockwood Avenue and Van Keuren Avenue, following along a northwesterly line on the west side of Lockwood Avenue 420', thence along a northeastly line 240', thence along a west-northwesterly line 1,060' passing along the northern edge of Building 140 to the San Francisco Bay, thence along a southwesterly direction 402' to the edge of the pier between Drydock 2 and 3, thence along the edge of said pier in a south-southeast direction 287', thence along a west-southwest line 1320' to place of beginning. While Buildings 206 and 208 are located within the historic district boundaries, they are considered non-contributing elements to the historic district. See sketch map in Additional Documentation (Page 15).

Boundary Justification

The boundaries were drawn according to historical associations. The historic district boundary includes the extant six buildings and structures that are historically associated with the pre-World War II shipyard initially constructed by San Francisco Dry Dock Company and later owned and operated by Union Iron Works.

11. Form Prepared By

name/title Heather Norby and Toni Webb
organization JRP Historical Consulting, LLC date August 2009; August 2011
street & number 2850 Spafford Street telephone 530.757.2521
city or town Davis state CA zip code 95618
e-mail

Additional Documentation

USGS map; see Continuation Sheets for index of figures, figures, sketch map, photographic index maps, and photograph log.

Photographs:

Property Owner:

name Base Realignment and Closure, Program Management Office West, ATTN: Mr. An Bui
street & number 1455 Frazee Road, Suite 900 telephone
city or town San Diego state CA zip code 92108-4310

Index of Figures

Name of Property:	Hunters Point Commercial Drydock Historic District, Hunters Point Naval Shipyard
City or Vicinity:	San Francisco
County:	San Francisco
State:	California

Figure #1:	Tunnel between drydocks 2 and 3. Also shows location of extant granite from entrance to Drydock 1.
Name of Engineer:	Austin Willmott Earl
Date of Drawing:	Circa 1943
Location of Original Image:	Base Realignment and Closure Program Management Office West, Caretaker Site Office, Yerba Buena Island. Public Works Drawing 113928

Figure #2:	General plan of old and new dock and appurtenances, showing location of extant Drydock 1, and proposed Drydock 2 and Building 205.
Name of Engineer:	Howard C. Holmes
Date of Drawing:	October 1900
Location of Original Image:	Appeared in "Engineering News," October 1900

Figure #3:	Dock engineer, Howard C. Holmes standing next to an electric capstan with recently completed Building 205 in the background, Drydock 1 (left) and Drydock 2 (right). The old gate house for Drydock 1 is still present at left of Building 205.
Name of Photographer:	Unknown
Date of Photograph:	1903
Location of Original Image:	National Archives and Records Administration, Pacific Region

Figure #4:	Plan showing location of old and new drydocks at Hunters Point and Buildings 204, 205. Building 205 pumped both Drydocks 1 and 2. Water from both drydocks was piped to the pump pit where centrifugal pumps propelled the water into the discharge tunnel where it was returned to the bay.
Name of Engineer:	Howard C. Holmes
Date of Drawing:	1903
Location of Original Image:	Water Resources Center Archives, University of California

Figure #5: Plan showing location of old and new drydocks at Hunters Point and Buildings 204, 205. Cross section of Drydocks 1 (left) and 2 (right) through suction tunnel.
Name of Engineer: Howard C. Holmes
Date of Drawing: 1903
Location of Original Image: Water Resources Center Archives, University of California

Figure #6: Drydock 2 and Building 205. Note shed-roof structure present on the east end of Building 205.
Name of Photographer: Unknown
Date of Photograph: December 10, 1916
Location of Original Image: San Francisco Public Library, Historic Photograph Collection, Department of Public Works Collection: Hunters Point Dry Docks, #3863

Figure #7: USS *Ohio* in Drydock 2. Building 205 at left, gabled end of Building 204 visible left of Building 205.
Name of Photographer: Unknown
Date of Photograph: July 10, 1904
Location of Original Image: Naval History and Heritage Command

Figure #8: Ships docked in Drydock 1 (left) and 2 (right). Buildings 204, 205.
Name of Photographer: Unknown
Date of Photograph: 1908
Location of Original Image: National Archives and Records Administration, Pacific Region

Figure #9: Construction of Drydock 3 showing Building 205.
Name of Photographer: Unknown
Date of Photograph: Circa 1916
Location of Original Image: San Francisco Maritime Museum Library

Figure #10: Construction of Drydock 3 showing Building 205.
Name of Photographer: Unknown
Date of Photograph: Circa 1916
Location of Original Image: San Francisco Maritime Museum Library

Figure #11:	Drawing titled, "Concrete graving dock, Union Iron Works graving dock." Shows exterior detailing of Building 140 and interior arrangement of machinery.
Name of Engineer:	Howard C. Holmes
Date of Drawing:	Circa 1916
Location of Original Image:	Hunters Point Naval Shipyard, Building 383, Public Works Drawing 16020-X
Figure #12:	Southeast end Building 140 and chamber wall Drydock 3. View of arched windows and door openings, pilasters, corbelling, cornice apse end Building 140. View of altars and stairs in drydock chamber.
Name of Photographer:	Unknown
Date of Photograph:	Circa 1928
Location of Original Image:	San Francisco Maritime Museum Library
Figure #13:	Passenger vessel *President Coolidge* (foreground) drydocked in Drydock 3 and showing Building 140 (left), Buildings 204 and 205 (right), vessel drydocked in Drydock 2 (far right).
Name of Photographer:	Unknown
Date of Photograph:	April 5, 1932
Location of Original Image:	San Francisco Maritime Museum Library
Figure #14:	Floor Plan, Building 207, Latrine.
Name of Architect:	Barret & Hilp Contractors
Date of Drawing:	January 31, 1942
Location of Original Image:	Base Realignment and Closure Program Management Office West, Caretaker Site Office, Yerba Buena Island. Public Works Drawing 113485
Figure #15:	Aeriel view, Hunters Point.
Name of Photographer:	Unknown
Date of Photograph:	Circa 1930
Location of Original Image:	National Archives and Records Administration, Pacific Region
Figure #16:	Aerial view of Hunters Point Commercial Drydock Historic District six months prior to the Navy physically occupying the site; new construction left of Drydock 2 was being conducted by the Navy.
Name of Photographer:	Unknown
Date of Photograph:	June 5, 1941

Location of Original Image:	National Archives and Records Administration, Pacific Region
Figure #17:	Aerial view of Hunters Point Commercial Drydock Historic District six months after the Navy's occupation of the site; chimney on Building 205 has been removed.
Name of Photographer:	Unknown
Date of Photograph:	May 13, 1942
Location of Original Image:	National Archives and Records Administration, Pacific Region

Figure #18:	General Arrangement of equipment in Building 204.
Name of Engineer:	Public Works Department, Hunters Point Naval Shipyard
Date of Drawing:	1945
Location of Original Image:	Base Realignment and Closure Program Management Office West, Caretaker Site Office, Yerba Buena Island. Public Works Drawing 112669

Figure #19:	Location of service galleries and cleats, Drydocks 2 and 3.
Name of Engineer:	Public Works Department, Nayv Yard, Mare Island, California
Date of Drawing:	April 9, 1943
Location of Original Image:	Base Realignment and Closure Program Management Office West, Caretaker Site Office, Yerba Buena Island. Public Works Drawing 114689

Figures

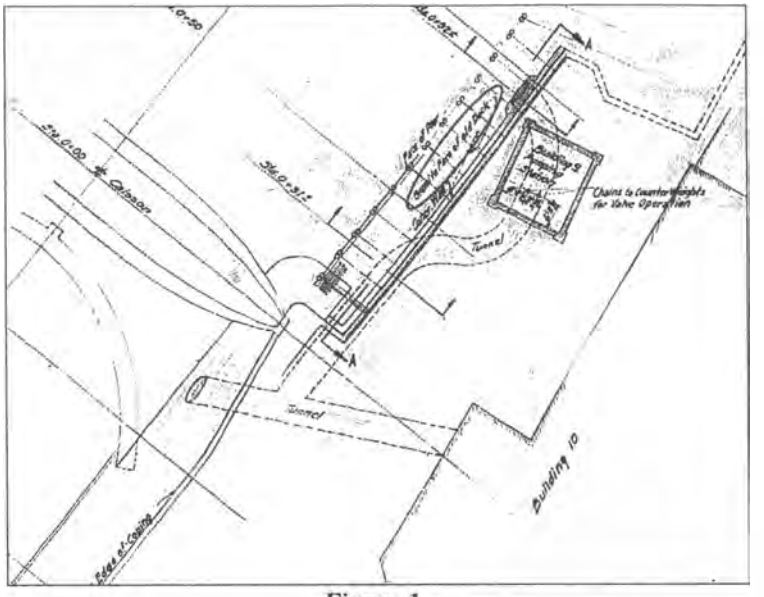


Figure 1

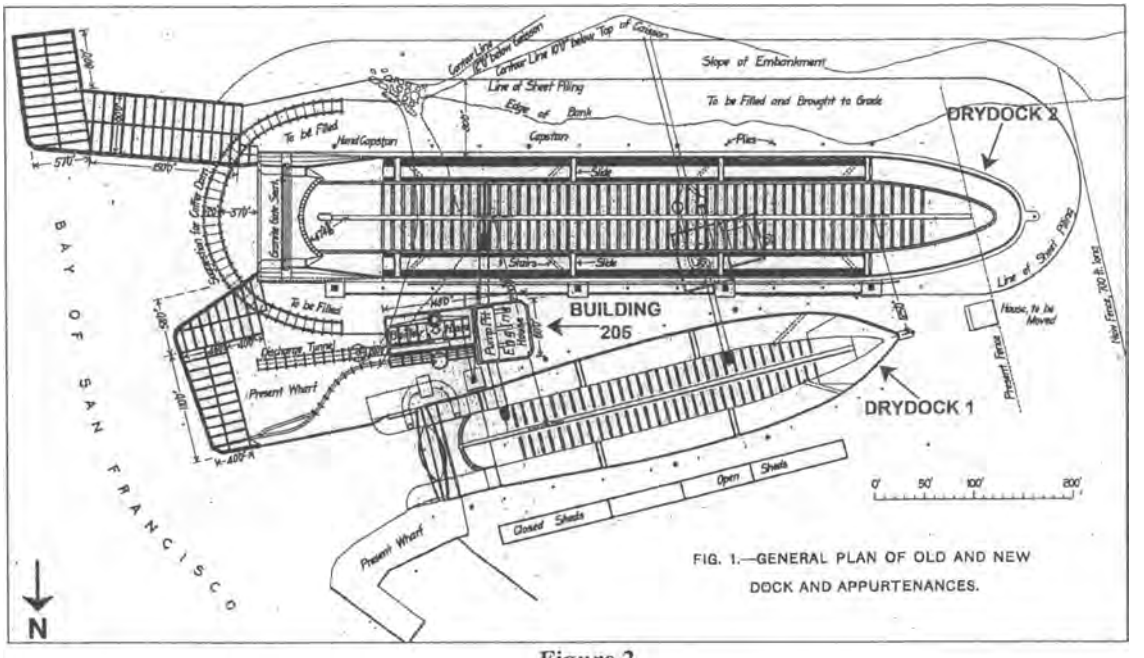


Figure 2

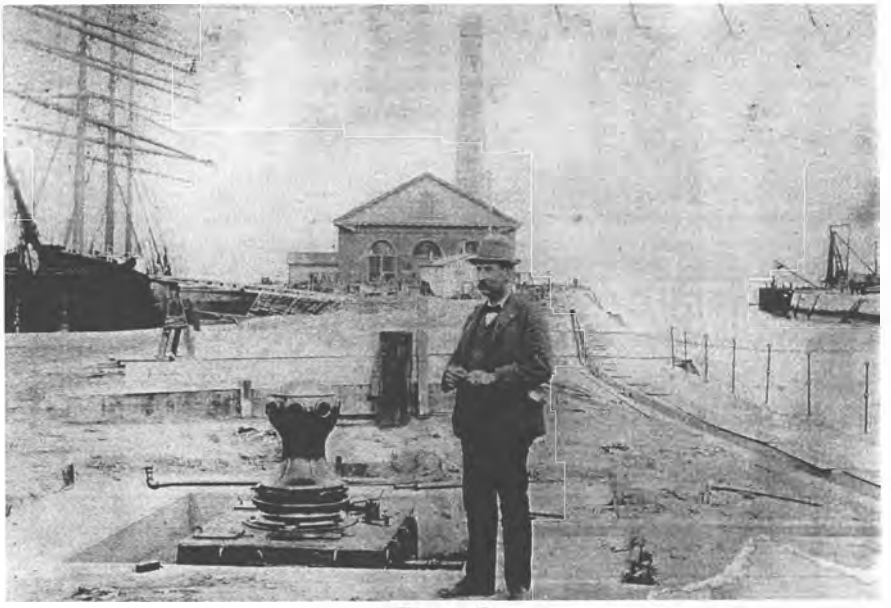


Figure 3

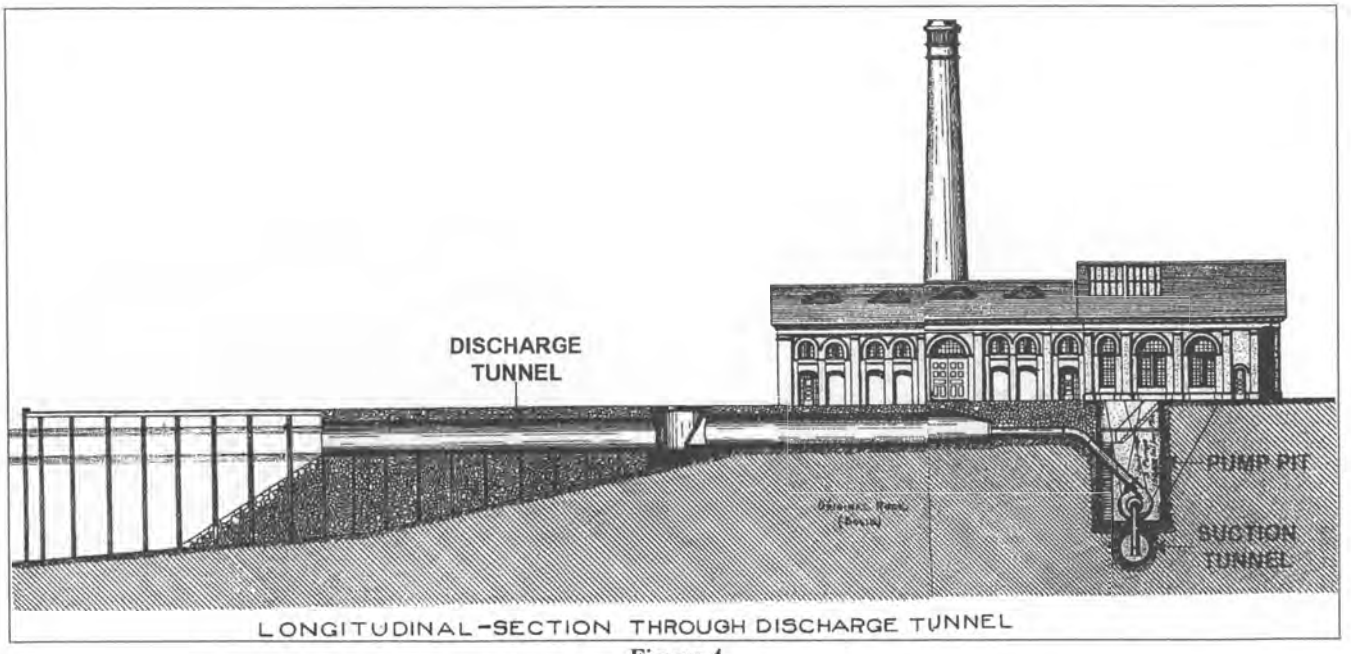


Figure 4

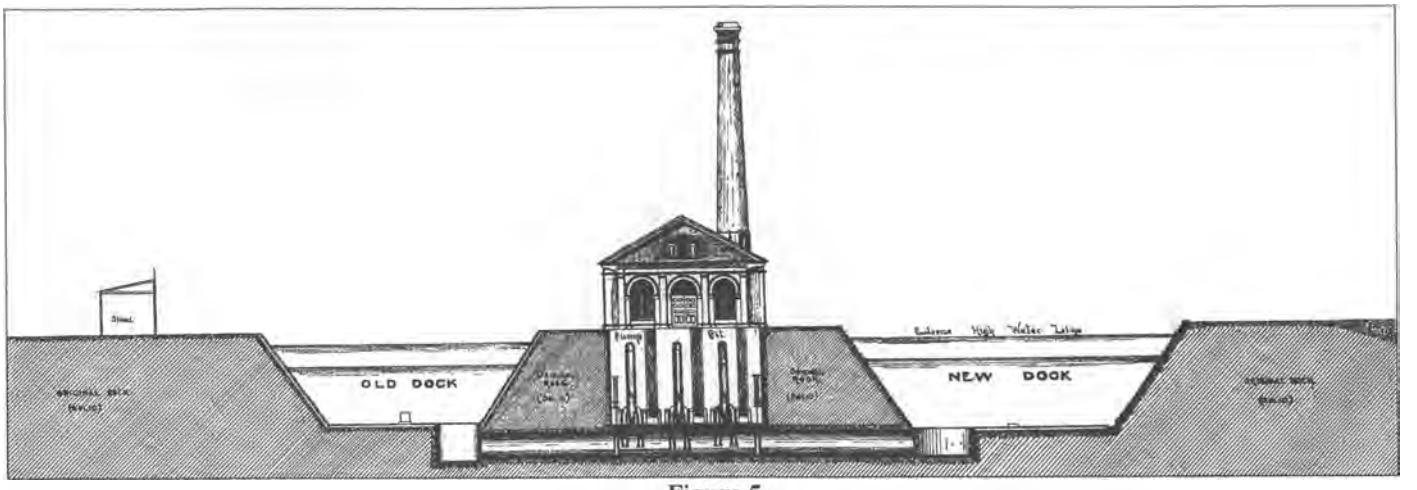


Figure 5

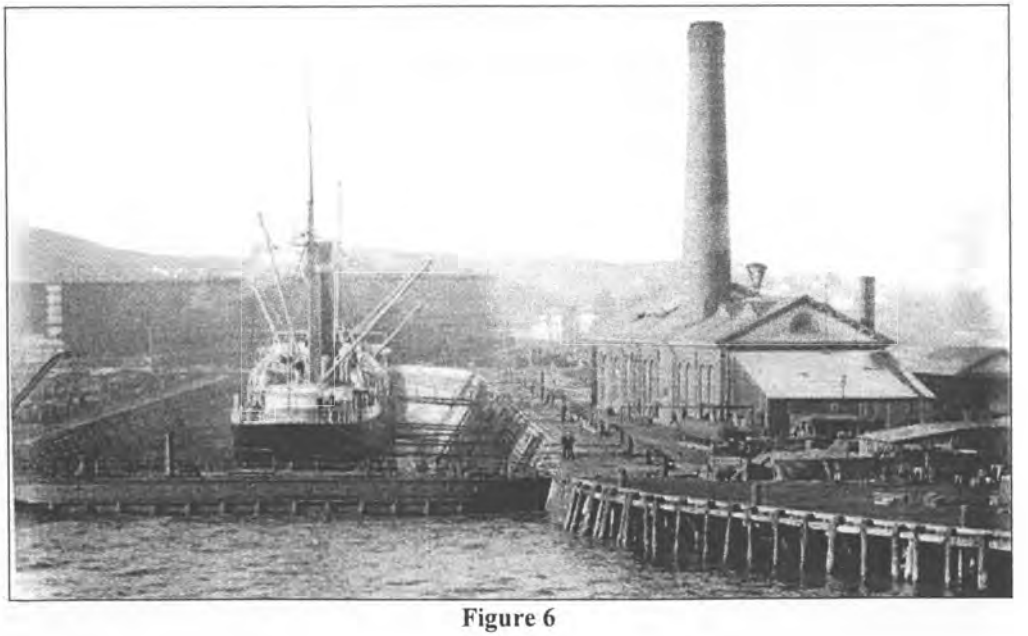


Figure 6

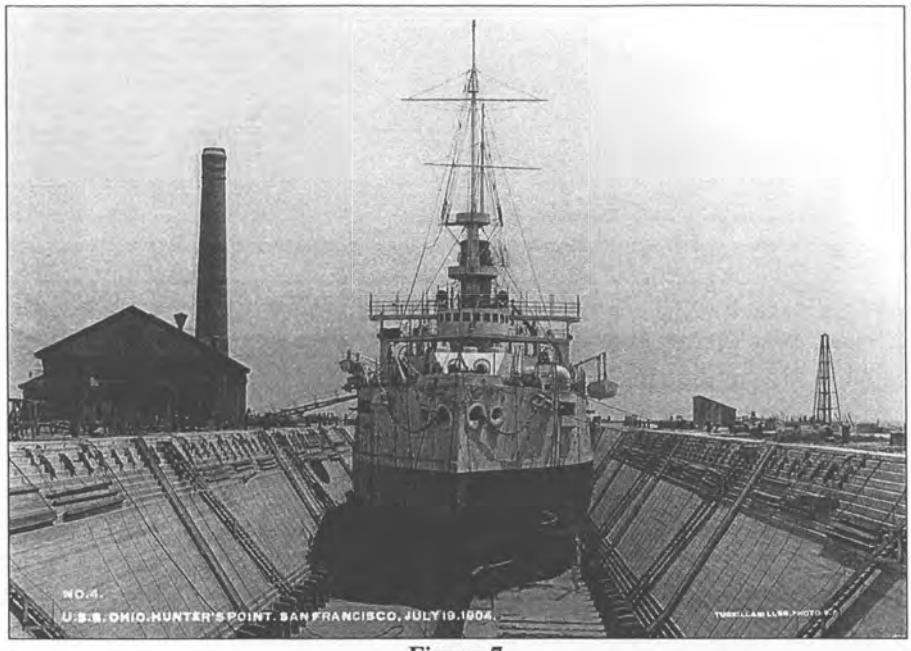


Figure 7

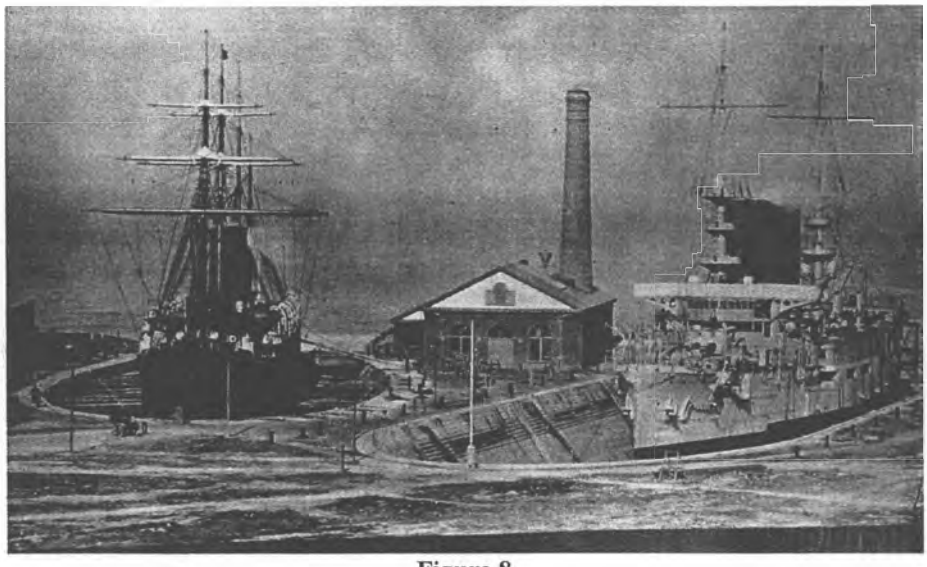


Figure 8

Figure 9

Figure 10

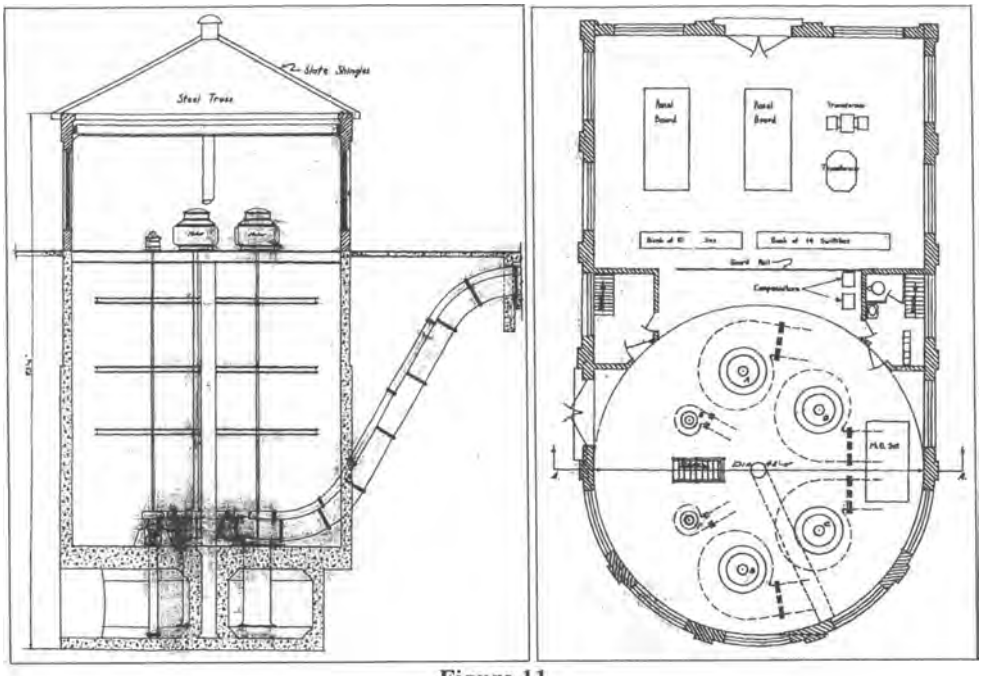


Figure 11

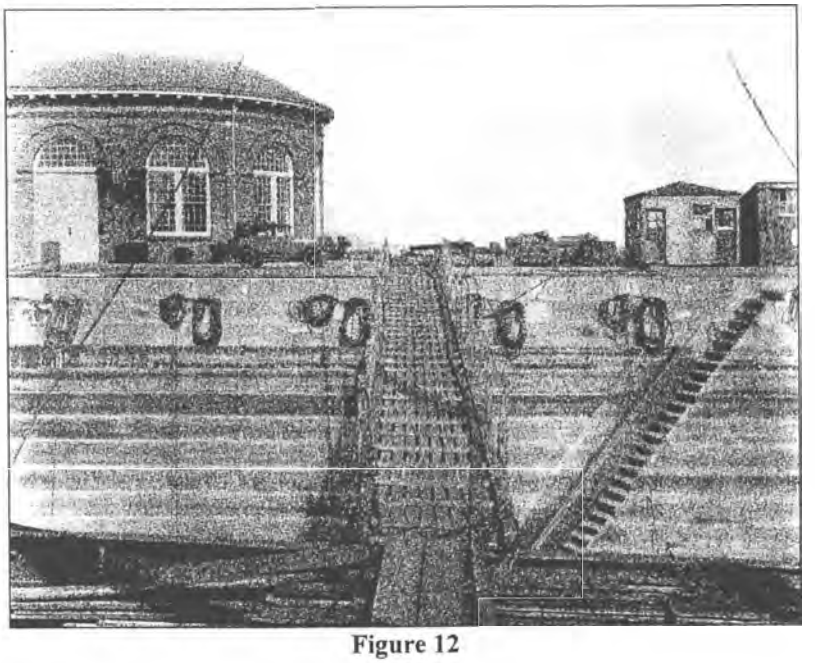


Figure 12

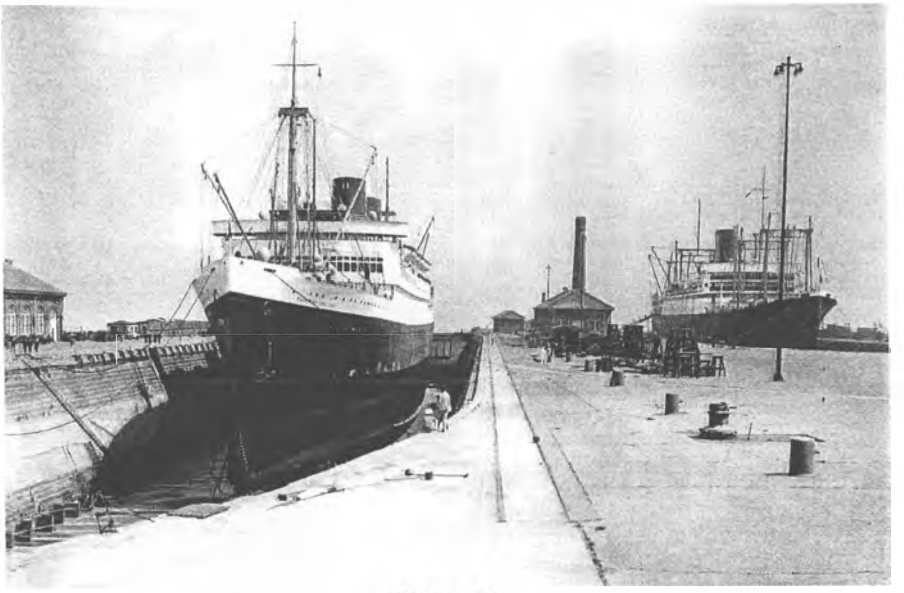


Figure 13

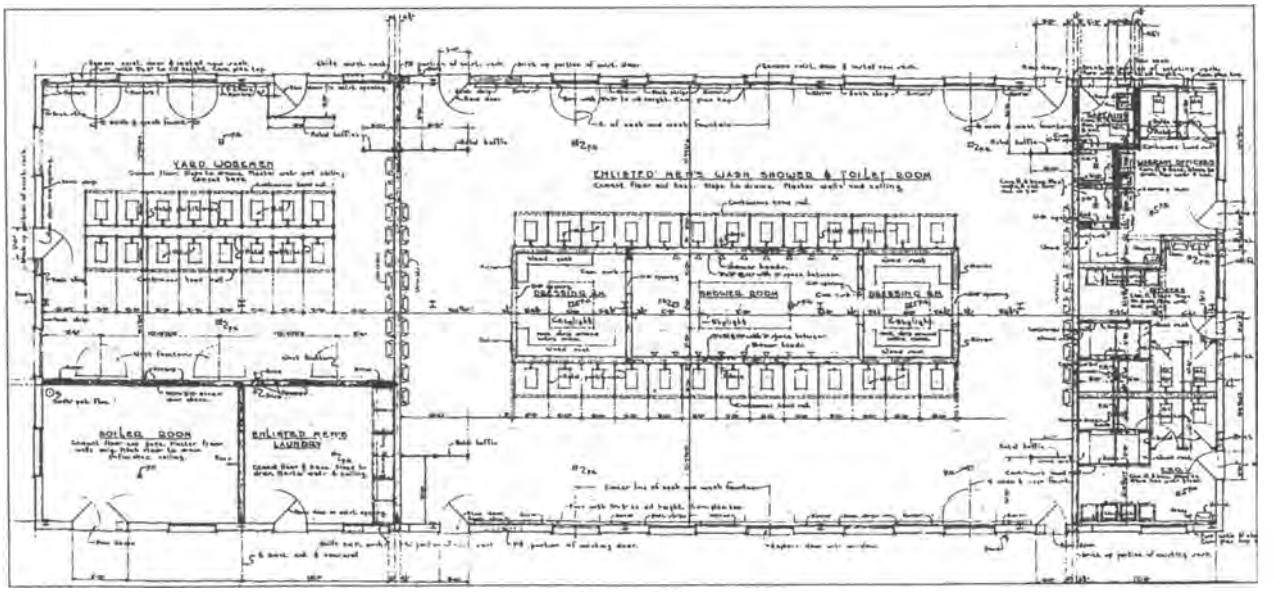


Figure 14

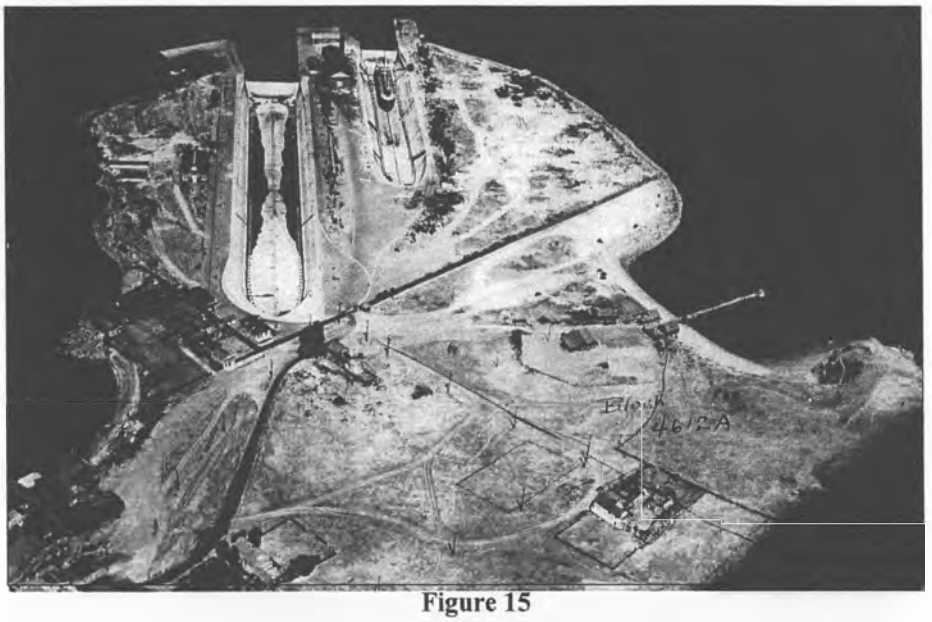


Figure 15

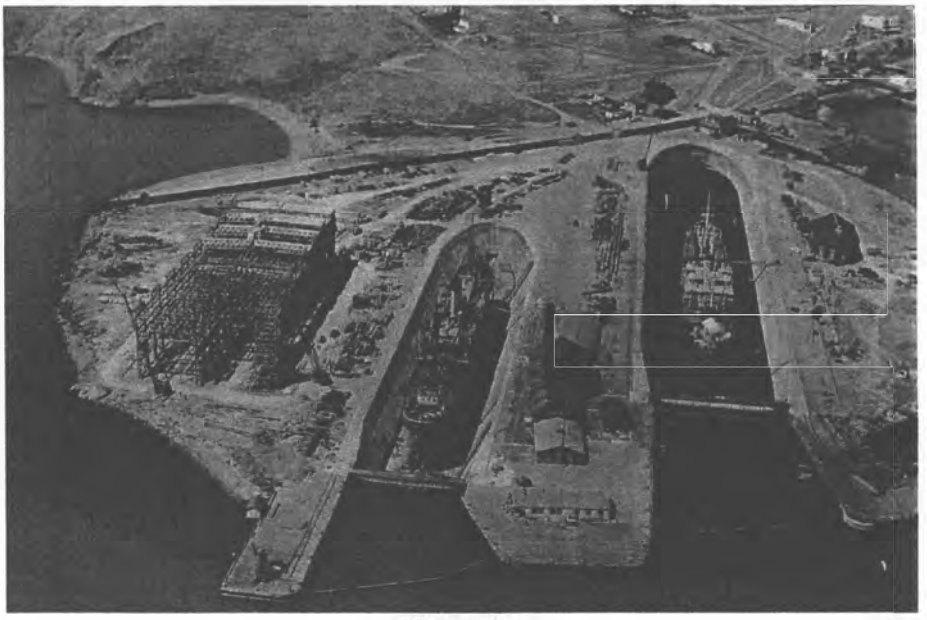


Figure 16

Figure 17

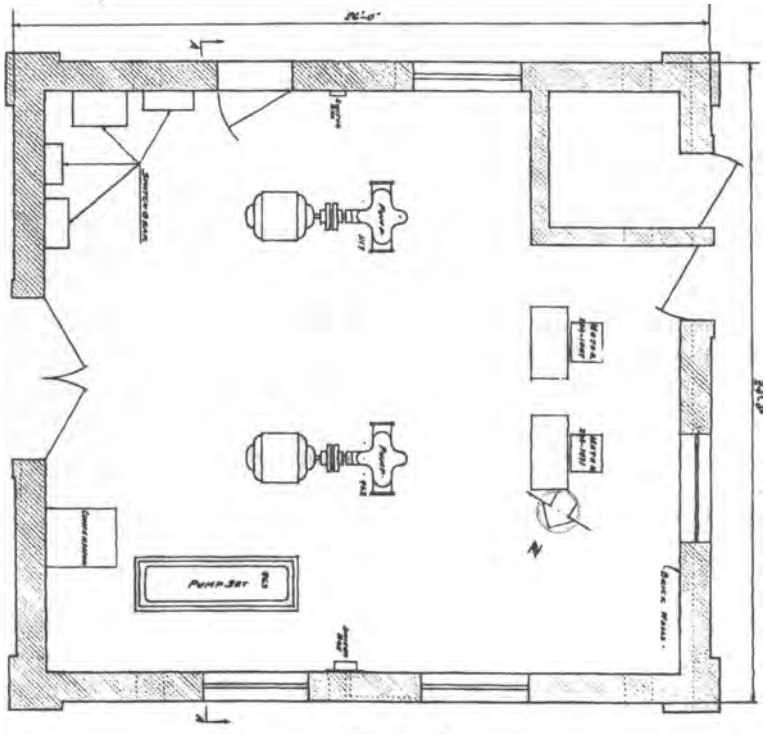


Figure 18

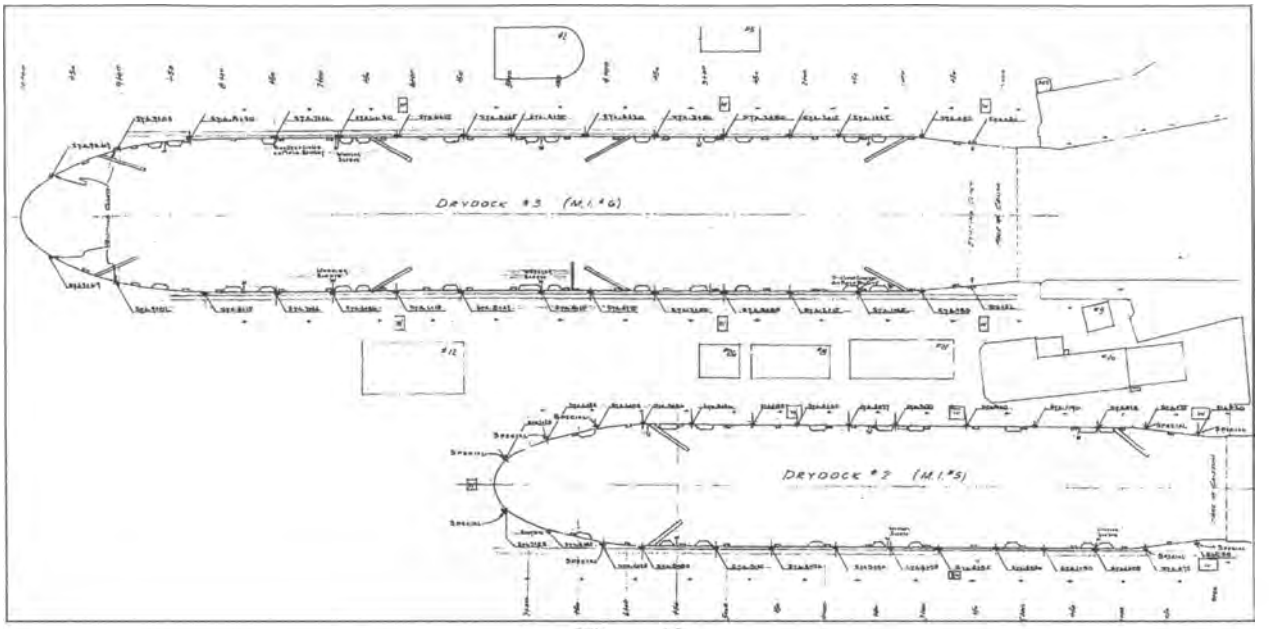
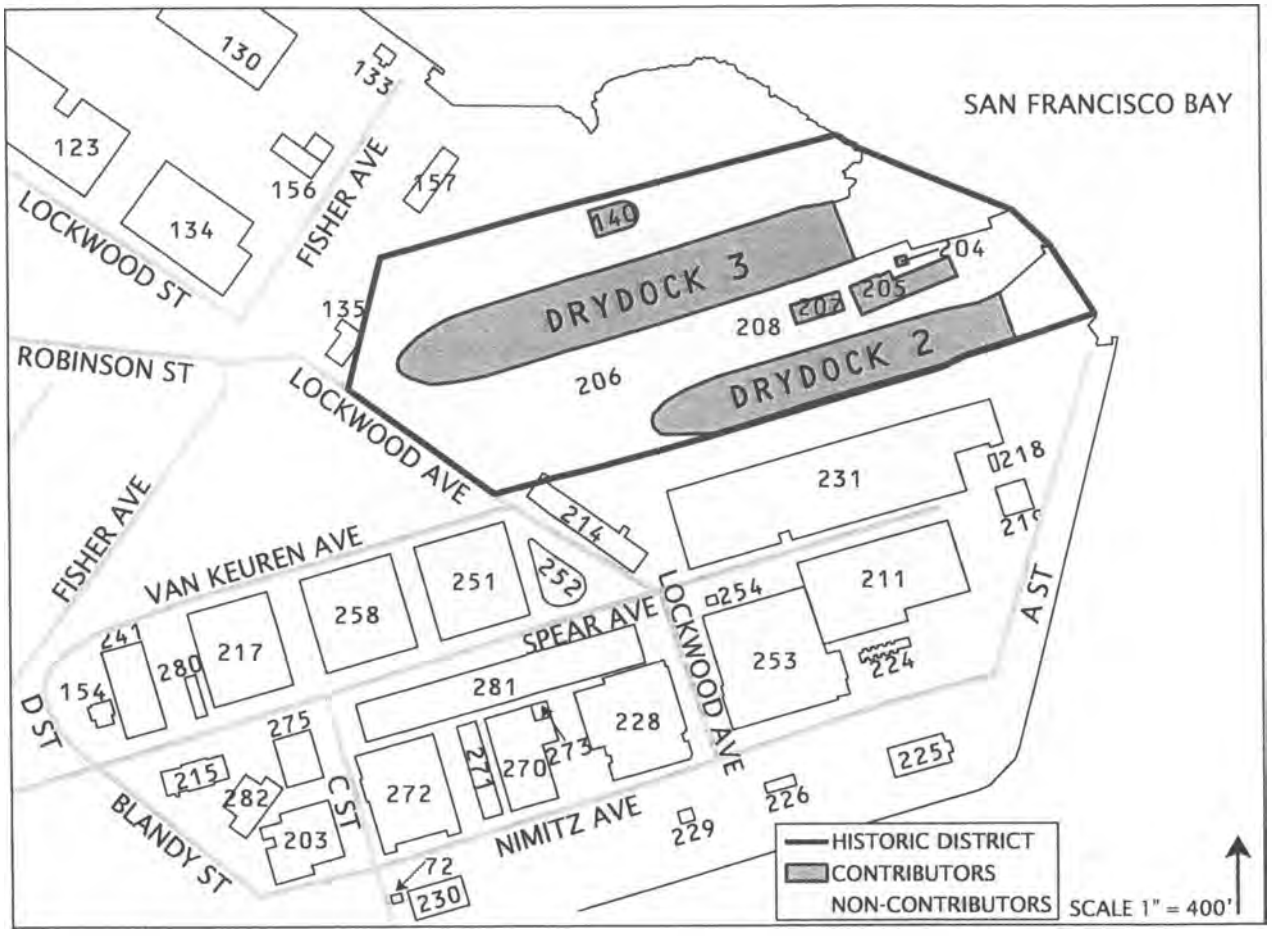
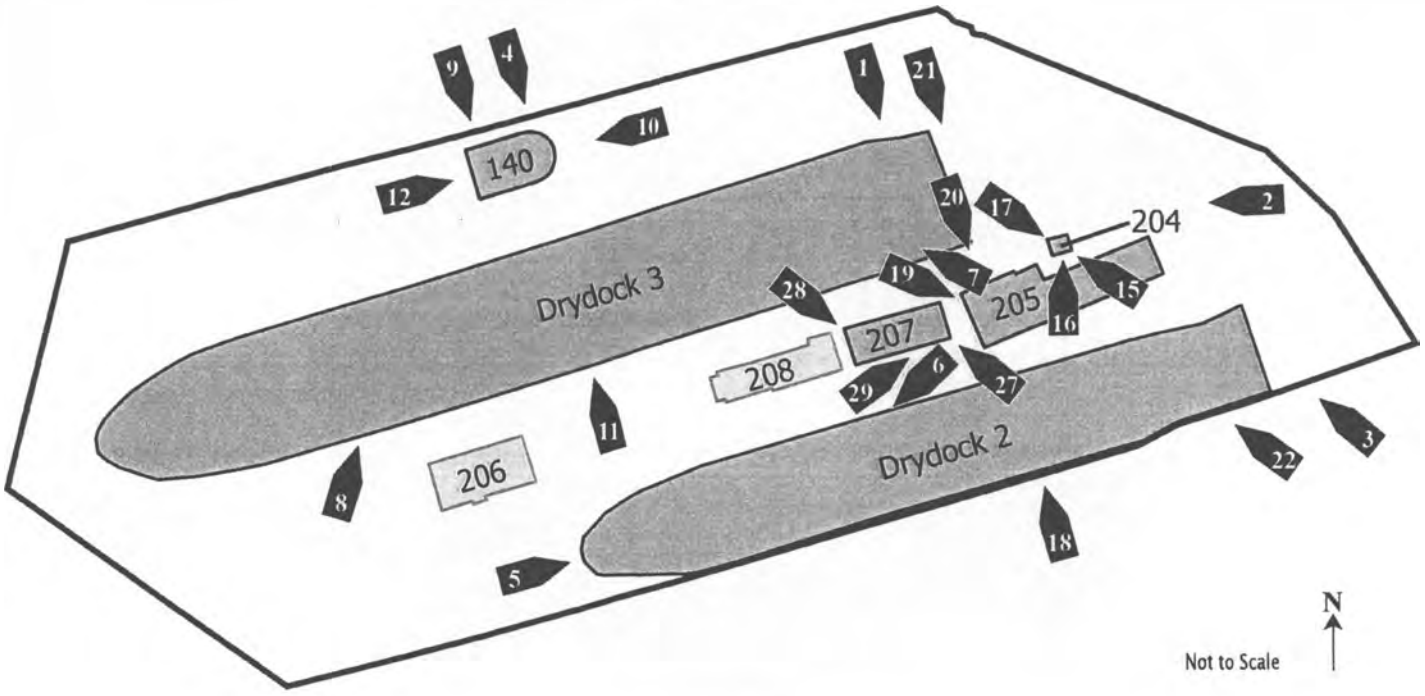


Figure 19

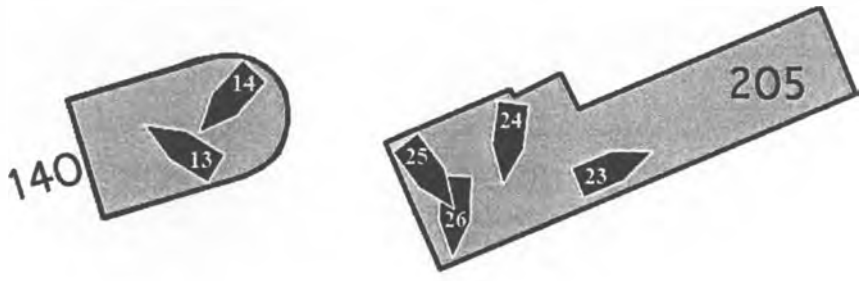
Sketch Map


SAN FRANCISCO BAY
DRYDOCK 3
DRYDOCK 2
140
130
133
123
134
156
151
135
204
205
207
208
206
218
231
214
211
254
253
224
251
252
258
217
241
280
154
281
228
275
215
282
272
271
270
273
203
225
226
229
230
72
LOCKWOOD ST
FISHER AVE
ROBINSON ST
LOCKWOOD AVE
VAN KEUREN AVE
SPEAR AVE
A ST
D ST
C ST
BLANDY ST
NIMITZ AVE
HISTORIC DISTRICT
CONTRIBUTORS
NON-CONTRIBUTORS
SCALE 1" = 400'

Photograph Index Maps



Exterior Views



Interior Views

Photograph Log

Name of Property:	Hunters Point Commercial Drydock Historic District, Hunters Point Naval Shipyard
City or Vicinity:	San Francisco
County:	San Francisco
State:	California
Name of Photographer:	William B. Dewey
Date of Photographs:	April 2009
Location of Original Digital Files:	N/A
Location of Original Negatives:	Library of Congress (HAER No. CA-2273 and CA-2273 A through F).

Photograph #1:
Contextual view of historic district with Buildings 205, 204, 207 (from left to right) behind Drydock 3, and electric capstan in foreground, camera facing south.

Photograph #2:
Contextual view of historic district with Buildings 205 (left) and 204 (right) and Drydock 3 and Building 140 in background at far right, camera facing west.

Photograph #3:
Contextual view of historic district with Drydock 2 (left), and Building 205 in foreground and Building 207 in background, camera facing northwest.

Photograph #4:
Contextual view of historic district with Building 140 in right foreground, and Buildings 205 and 207 (left to right) in background, camera facing south.

Photograph #5:
Oblique view of Drydock 2 with Buildings 207 and 205 in left background, camera facing east.

Photograph #6:
Oblique view of Drydock 2 and detail of electric capstan, camera facing southwest.

Photograph #7:
Oblique view of Drydock 3 with Building 140 in background, camera facing northwest.

Photograph #8:
Oblique view of Drydock 3 with Building 140 in background,camera facing northeast.

Photograph #9:
North side of Building 140, camera facing south.

Photograph #10:
East side of Building 140, camera facing west.

Photograph #11:
South side of Building 140 and detail of Drydock 3 service galleries in foreground, camera facing north.

Photograph #12:
West side of Building 140, camera facing east.

Photograph #13:
Building 140, interior view of engine room, camera facing northwest.

Photograph #14:
Building 140, interior view of engine room, detail of crane and crane track, camera facing southwest.

Photograph #15:
Oblique view of Building 204, east and south sides, camera facing northwest.

Photograph #16:
Oblique view of Building 204, west and south sides, camera facing north.

Photograph #17:
Oblique view of Building 204, north and west sides, camera facing southeast.

Photograph #18:
South side of Building 205, camera facing north.

Photograph #19:
Oblique view of Building 205, west side and northwest corner, camera facing southeast.

Photograph #20:
Oblique view of Building 205, north side and northwest corner, camera facing south.

Photograph #21:
North side of Building 205, and detail of Drydock 3 in foreground, camera facing south.

Photograph #22:
Oblique view of Building 205, south and east sides, camera facing northwest.

Photograph #23:
Building 205, interior view of boiler room, camera facing east.

Photograph #24:
Building 205, interior view of engine room, camera facing southwest.

Photograph #25:
Building 205, interior view of engine room, camera facing southeast.

Photograph #26:
Building 205, interior view of engine room, detail of window and door, camera facing southwest.

Photograph #27:
Oblique view of Building 207, east and south sides, camera facing northwest.

Photograph #28:
Oblique view of Building 207, north and west sides, camera facing southeast.

Photograph #29:
South side of Building 207 (left) and west side of Building 205 (right), camera facing east.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: Hunters Point Commercial Drydock Historic District

MULTIPLE NAME:

STATE & COUNTY: CALIFORNIA, San Francisco

DATE RECEIVED: 6/08/12 DATE OF PENDING LIST: 7/09/12
DATE OF 16TH DAY: 7/24/12 DATE OF 45TH DAY: 7/25/12
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 12000425

REASONS FOR REVIEW:

APPEAL:	N	DATA PROBLEM:	N	LANDSCAPE:	N	LESS THAN 50 YEARS:	N
OTHER:	N	PDIL:	N	PERIOD:	N	PROGRAM UNAPPROVED:	N
REQUEST:	N	SAMPLE:	N	SLR DRAFT:	N	NATIONAL:	N

COMMENT WAIVER: N

✓ ACCEPT ___ RETURN ___ REJECT 7.25.12 DATE

ABSTRACT/SUMMARY COMMENTS:

Entered in
The National Register
of
Historic Places

RECOM./CRITERIA_____

REVIEWER_____ DISCIPLINE_____

TELEPHONE_____ DATE_____

DOCUMENTATION see attached comments Y/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.


Kodak 320TXP


Kodak 320TXP


Kodak 320TXP


Kodak 320TXP


Kodak 320TXP


Kodak 320TXP


Kodak 320TXP


Kodak 320TXP


Kodak 320TXP


Kodak 320TXP


Kodak 320TXP


Kodak 320TXP

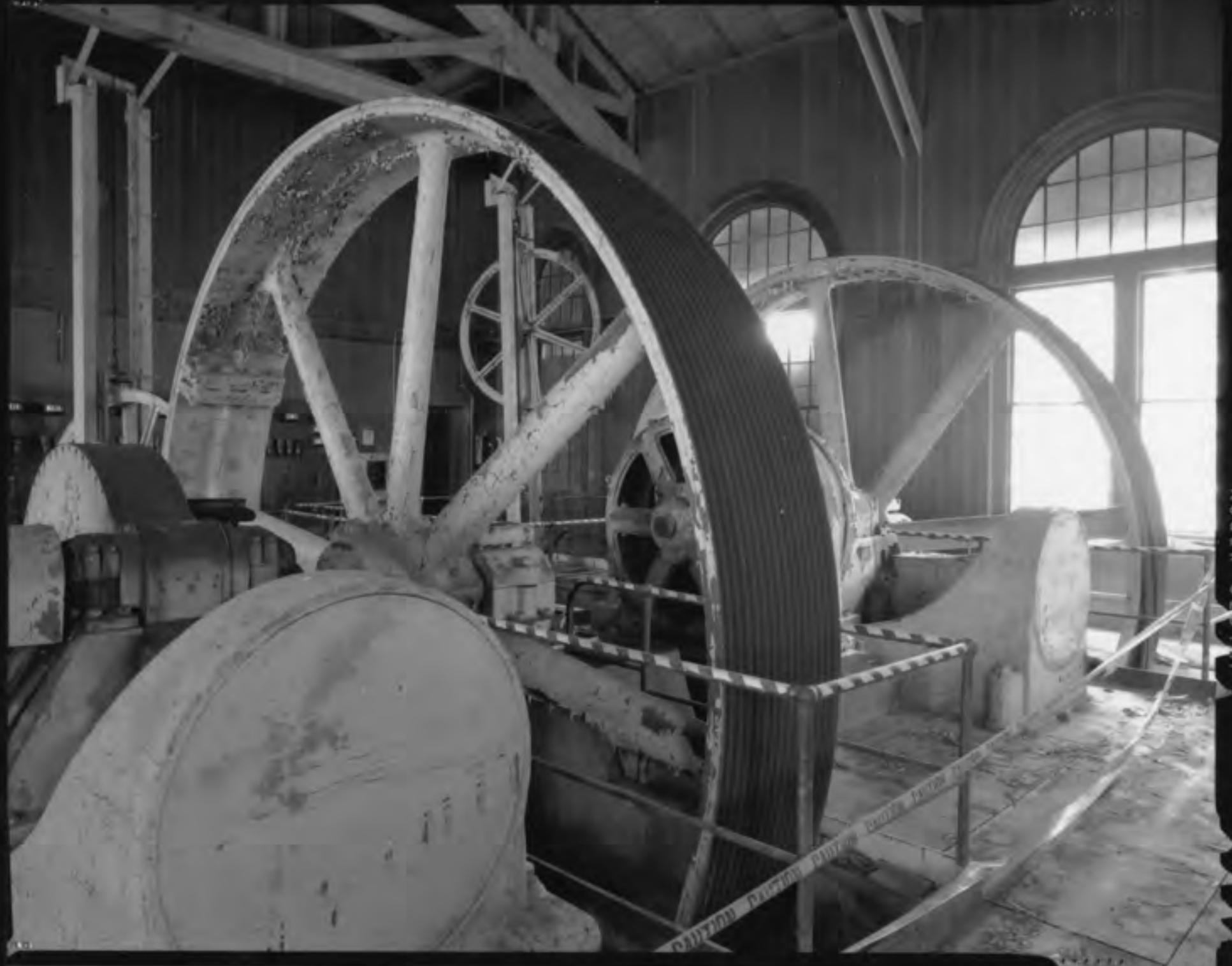

GATE AND PUMP HOUSE
Kodak 320TXP


Kodak 320TXP


SHOP
GATE AND PUMP HOUSE
Kodak 320TXP


Kodak 320TXP


Kodak 320TXP


Kodak 320 TXP


Kodak 320TXP


Kodak 320TXP


Kodak 320TXP


Kodak 320TXP

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HUNTERS POINT QUADRANGLE
CALIFORNIA
7.5-MINUTE SERIES (TOPOGRAPHIC)

Hunters Point Commercial Drydock Historic District

San Francisco, San Francisco County, CA

1. 10/556019/4175830
2. 10/556752/4175691
3. 10/556371/4175590
4. 10/556264/4175669
5. 10/556267/4175685

SAN FRANCISCO
ALAMEDA
Lash Lighter Basin
India Basin
Point Avisadero
BM 9
Beacon
Hunters Point
NAVAL RESERVATION
USNR
EXPROPIACION FORZOSA Y
PATRERO VIEJO
U.S.
Mud
BAY FARM ISLAND
Campground
24
25
ALAMEDA CO
SAN FRANCISCO CITY AND CO
ALAMEDA CORPORATE BOUNDARY
CANDLESTICK POINT
STATE RECREATION AREA
BRISBANE CORPORATE BOUNDARY
SAN FRANCISCO CITY AND CO
SAN MATEO CO
ALAMEDA CORPORATE BOUNDARY
OAKLAND CORPORATE BOUNDARY
S A N F R A N C I S C O
B A Y
OYSTER POINT CHANNEL
BRISBANE CORPORATE BOUNDARY
SOUTH SAN FRANCISCO CORPORATE BOUNDARY
CHANNEL
Communication Tower
SAN BRUNO CHANNEL
SAN MATEO CO
SAN FRANCISCO CITY AND CO
CHANNEL
SAN FRANCISCO INTERNATIONAL AIRPORT
SOUTH SAN FRANCISCO CORPORATE BOUNDARY
ALAMEDA CO
SAN MATEO CO

R 4 W
T 2 S
1 490 000 FEET
1 460 000 FEET
450 000 FEET
420 000 FEET
122°22′30″
122°15′
37°45′
37°37′30″
17′30″
20′
40′

Produced by the United States Geological Survey

Compiled from imagery dated 1946. Revised from imagery dated 1993. PLSS and survey control current as of 1947. Contours and elevations current as of 1946. Map edited 1996

North American Datum of 1927 (NAD 27). Projection and 1000-meter grid: Universal Transverse Mercator, zone 10
10 000-foot ticks: California Coordinate System (zone 3)

North American Datum of 1983 (NAD 83) is shown by dashed corner ticks. The values of the shift between NAD 27 and NAD 83 for 7.5-minute intersections are obtainable from National Geodetic Survey NADCON software

There may be private inholdings within the boundaries of the National or State reservations shown on this map

MN
GN
0°25′ 7 MILS
15½° 276 MILS
UTM GRID AND 1997 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000
1 .5 0 KILOMETERS 1 2
1000 0 METERS 1000 2000
1 .5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 25 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, P.O. BOX 25286, DENVER, COLORADO 80225
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

CA
QUADRANGLE LOCATION

1	2	3
4		5
6	7	8

1 San Francisco North
2 Oakland West
3 Oakland East
4 San Francisco South
5 San Leandro
6 Montara Mountain
7 San Mateo
8 Redwood Point

ADJOINING 7.5' QUADRANGLE NAMES

INTERIOR - GEOLOGICAL SURVEY, RESTON, VIRGINIA - 1997

ROAD CLASSIFICATION

Primary highway hard surface
Secondary highway hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U.S. Route
State Route

HUNTERS POINT, CA

1993

DMA 1559 III NE-SERIES V895

ISBN 0-607-85826-5
9 780607 858266

STATE OF CALIFORNIA - THE RESOURCES AGENCY EDMUND G. BROWN, JR., *Governor*

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov

October 14, 2011

Mr. Donald R. Schregardus
Federal Preservation Officer
Deputy Assistant Secretary of the Navy (Environment)
1000 Navy Pentagon
Room BF986
Washington, DC 20350-1000

Subject: **Hunters Point Commercial Drydock Historic District**
San Francisco County, California
Nomination to the National Register of Historic Places

Dear Mr. Schregardus:

Enclosed please find the **Hunters Point Commercial Drydock Historic District** nomination to the National Register of Historic Places. Mr. An Bui, of Base Realignment and Closure (BRAC), Program Management Office West, requested we return the materials to his office for BRAC's submission to you.

I concur that **Hunters Point Commercial Drydock Historic District** is eligible for listing at the state level of significance under Criterion A for its important association with the development of commercial shipping and ship repair in California and the San Francisco Bay area. The district is also eligible for listing at the state level under Criterion C, as a significant example of maritime engineering, as the work of master engineer Howard C. Holmes, and as a significant example of Neoclassical Revival architecture used for industrial buildings.

I have signed the signature page of the nomination as commenting official and will retain a copy of the nomination and set of photographs for our records.

If you have any questions regarding this nomination, please contact Amy Crain of my staff at 916-445-7009.

Sincerely,

congrats!

Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

Enclosure

Encl (4)

15 March 2012

Subject: National Register Nomination for Historic Properties

1. **Executive Issue:**
   - The nomination of historic properties at the former Hunters Point Naval Shipyard (HPNS) for the National Register of Historic Places (NRHP).

2. **Background:**
   - In 2000, the Navy executed a Section 106 Memorandum of Agreement (MOA) to resolve the Adverse Effects associated with the closure and transfer of the HPNS of Federal ownership, including several historic properties determined to be eligible for NRHP-listing.
   - In accordance with Stipulation 1.b of the 2000 MOA, the Base Realignment and Closure Program Management Office West (BRAC PMO West) has prepared two NRHP nomination forms for these historic properties.
   - After initial review by the DON Deputy Federal Preservation Officer, BRAC PMO West forwarded the nominations to the California State Historic Preservation Officer (SHPO) and the Chief Elected Local Official (Mayor of the City and County of San Francisco) for review and comment in November 2010, in accordance with 36 CFR 60.9(c).
   - The City and County of San Francisco did not have any comments on the nominations.
   - The SHPO provided comments for the two nominations on August 12, 2011. The comments were addressed and SHPO signed both nominations as Commenting Official on October 14, 2011.

3. **Discussion:**
   - The nominations have been prepared in support of operational closure and property disposal in the context of BRAC. Nominating the historic properties is not expected to be controversial because the Local Reuse Authority currently plans to preserve the historic properties.
   - Acceptance of the nominations by the Keeper will fulfill the Navy's obligations under Stipulation 1.b of the 2000 MOA.

4. **Recommendations:**
   - Recommend that the FPO sign as the "Certifying Official" on each NRHP nomination form (Box 3 of NPS Form 10-900) and submit the two nomination forms to the Keeper of the National Register.

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(ENERGY, INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

June 1, 2012

Ms. Carol Shull, Interim Keeper
National Park Service
National Register of Historic Places
1201 Eye Street, NW (2280)
Washington, DC 20005

Dear Ms. Shull:

SUBJECT: TRANSMITTAL OF NRHP NOMINATION FOR NAVY PROPERTIES

This package contains nomination forms for the Hunters Point Commercial Dry Dock Historic District and the Hunters Point Dry Dock 4, San Francisco, California. These forms are forwarded for final review by your office for listing in the National Register.

As Federal Preservation Officer for the Department of the Navy, I have reviewed and signed these nominations. The California State Historic Preservation Officer has also signed the nominations.

My point of contact for the nominations is William Manley, Deputy Federal Preservation Officer (acting). Mr. Manley may be reached at 202-685-9324 or william.manley@navy.mil.

Sincerely,

DONALD R. SCHREGARDUS
Deputy Assistant Secretary of the Navy
(Environment)